



UNION INTERNATIONALE DES TÉLÉCOMMUNICATIONS

UIT-T

SECTEUR DE LA NORMALISATION
DES TÉLÉCOMMUNICATIONS
DE L'UIT

Q.785.2

(03/99)

SÉRIE Q: COMMUTATION ET SIGNALISATION

Spécifications du système de signalisation n° 7 –
Spécification des tests

**Services complémentaires du sous-système
ISUP'97 – Structure et objectifs de la suite de
tests**

Recommandation UIT-T Q.785.2

(Antérieurement Recommandation du CCITT)

RECOMMANDATIONS UIT-T DE LA SÉRIE Q
COMMUTATION ET SIGNALISATION

SIGNALISATION DANS LE SERVICE MANUEL INTERNATIONAL	Q.1–Q.3
EXPLOITATION INTERNATIONALE AUTOMATIQUE ET SEMI-AUTOMATIQUE	Q.4–Q.59
FONCTIONS ET FLUX D'INFORMATION DES SERVICES DU RNIS	Q.60–Q.99
CLAUSES APPLICABLES AUX SYSTÈMES NORMALISÉS DE L'UIT-T	Q.100–Q.119
SPÉCIFICATIONS DES SYSTÈMES DE SIGNALISATION N° 4 ET N° 5	Q.120–Q.249
SPÉCIFICATIONS DU SYSTÈME DE SIGNALISATION N° 6	Q.250–Q.309
SPÉCIFICATIONS DU SYSTÈME DE SIGNALISATION R1	Q.310–Q.399
SPÉCIFICATIONS DU SYSTÈME DE SIGNALISATION R2	Q.400–Q.499
COMMUTATEURS NUMÉRIQUES	Q.500–Q.599
INTERFONCTIONNEMENT DES SYSTÈMES DE SIGNALISATION	Q.600–Q.699
SPÉCIFICATIONS DU SYSTÈME DE SIGNALISATION N° 7	Q.700–Q.849
Généralités	Q.700
Sous-système transport de messages	Q.701–Q.709
Sous-système commande des connexions sémaphores	Q.711–Q.719
Sous-système utilisateur de téléphonie	Q.720–Q.729
Services complémentaires du RNIS	Q.730–Q.739
Sous-système utilisateur de données	Q.740–Q.749
Gestion du système de signalisation n° 7	Q.750–Q.759
Sous-système utilisateur du RNIS	Q.760–Q.769
Sous-système application de gestion des transactions	Q.770–Q.779
Spécification des tests	Q.780–Q.799
Interface Q3	Q.800–Q.849
SYSTÈME DE SIGNALISATION D'ABONNÉ NUMÉRIQUE N° 1	Q.850–Q.999
RÉSEAUX MOBILES TERRESTRES PUBLICS	Q.1000–Q.1099
INTERFONCTIONNEMENT AVEC LES SYSTÈMES MOBILES À SATELLITES	Q.1100–Q.1199
RÉSEAU INTELLIGENT	Q.1200–Q.1699
PREScriptions ET PROTOCOLES DE SIGNALISATION POUR LE RÉSEAU IMT-2000	Q.1700–Q.1799
RNIS À LARGE BANDE	Q.2000–Q.2999

Pour plus de détails, voir la Liste des Recommandations de l'UIT-T.

RECOMMANDATION UIT-T Q.785.2

SERVICES COMPLEMENTAIRES DU SOUS-SYSTEME ISUP'97 – STRUCTURE ET OBJECTIFS DE LA SUITE DE TESTS

Résumé

La présente Recommandation spécifie les tests de conformité des services complémentaires du sous-système ISUP'97. Elle définit une suite de tests abstraite (ATS, *abstract test suite*) écrite en notation combinée arborescente et tabulaire (TTCN, *tree and tabular combined notation*). Le corps de la présente Recommandation expose les prescriptions relatives à la méthode de test choisie, les conventions utilisées dans la suite ATS, la structure de la suite de tests et les objectifs des tests. Les annexes contiennent les déclarations de conformité d'implémentation de protocole (PICS, *protocol implementation conformance statement*), des informations supplémentaires sur l'implémentation de protocole destinées au test (PIXIT, *protocol implementation extra information for testing*), le rapport des tests de conformité au protocole (PCTR, *protocol conformance test report*) et la suite ATS concernant les services complémentaires du sous-système ISUP'97, qui est disponible sur support électronique.

La présente Recommandation comporte, en format électronique, la suite ATS du sous-système ISUP pour les services complémentaires sous les deux formes graphique (GR, *graphical form*) et langage programme (MP, *machine processable*).

Source

La Recommandation UIT-T Q.785.2, élaborée par la Commission d'études 11 (1997-2000) de l'UIT-T, a été approuvée le 15 mars 1999 selon la procédure définie dans la Résolution n° 1 de la CMNT.

AVANT-PROPOS

L'UIT (Union internationale des télécommunications) est une institution spécialisée des Nations Unies dans le domaine des télécommunications. L'UIT-T (Secteur de la normalisation des télécommunications) est un organe permanent de l'UIT. Il est chargé de l'étude des questions techniques, d'exploitation et de tarification, et émet à ce sujet des Recommandations en vue de la normalisation des télécommunications à l'échelle mondiale.

La Conférence mondiale de normalisation des télécommunications (CMNT), qui se réunit tous les quatre ans, détermine les thèmes d'études à traiter par les Commissions d'études de l'UIT-T, lesquelles élaborent en retour des Recommandations sur ces thèmes.

L'approbation des Recommandations par les Membres de l'UIT-T s'effectue selon la procédure définie dans la Résolution n° 1 de la CMNT.

Dans certains secteurs des technologies de l'information qui correspondent à la sphère de compétence de l'UIT-T, les normes nécessaires se préparent en collaboration avec l'ISO et la CEI.

NOTE

Dans la présente Recommandation, le terme *exploitation reconnue (ER)* désigne tout particulier, toute entreprise, toute société ou tout organisme public qui exploite un service de correspondance publique. Les termes *Administration*, *ER* et *correspondance publique* sont définis dans la *Constitution de l'UIT (Genève, 1992)*.

DROITS DE PROPRIÉTÉ INTELLECTUELLE

L'UIT attire l'attention sur la possibilité que l'application ou la mise en œuvre de la présente Recommandation puisse donner lieu à l'utilisation d'un droit de propriété intellectuelle. L'UIT ne prend pas position en ce qui concerne l'existence, la validité ou l'applicabilité des droits de propriété intellectuelle, qu'ils soient revendiqués par un Membre de l'UIT ou par une tierce partie étrangère à la procédure d'élaboration des Recommandations.

A la date d'approbation de la présente Recommandation, l'UIT n'avait pas été avisée de l'existence d'une propriété intellectuelle protégée par des brevets à acquérir pour mettre en œuvre la présente Recommandation. Toutefois, comme il ne s'agit peut-être pas de renseignements les plus récents, il est vivement recommandé aux responsables de la mise en œuvre de consulter la base de données des brevets du TSB.

© UIT 2000

Droits de reproduction réservés. Aucune partie de cette publication ne peut être reproduite ni utilisée sous quelque forme que ce soit et par aucun procédé, électronique ou mécanique, y compris la photocopie et les microfilms, sans l'accord écrit de l'UIT, sauf mentions contraires explicites.

TABLE DES MATIÈRES

	Page
1 Domaine d'application	1
2 Références normatives	2
3 Définitions	4
4 Abréviations	5
5 Implémentation sous test et méthodes de test	8
5.1 Identification du système sous test et de l'implémentation sous test	8
5.2 Méthode ATM et configuration de test choisie pour le sous-système ISUP'97	10
5.2.1 Commutateurs intermédiaires	10
5.2.2 Commutateurs locaux	12
5.2.3 Structure d'asservissement de la configuration d'essai	15
6 Structure de la suite de tests (TSS, <i>test suite structure</i>)	16
7 Objectifs de test (TP, <i>test purposes</i>)	18
7.1 Introduction	18
7.1.1 Convention de désignation des objectifs de test	18
7.1.2 Origine de la définition des objectifs de test	18
7.1.3 Structure des objectifs de test	18
7.2 Objectifs de test pour les services complémentaires	19
7.2.1 Identification de la ligne appelante (CLIP, <i>calling line identification presentation</i>)	20
7.2.2 Restriction d'identification de la ligne appelante (CLIR, <i>calling line identification restriction</i>)	27
7.2.3 Identification de la ligne connectée (COLP, <i>connected line identification presentation</i>)	32
7.2.4 Restriction d'identification de la ligne connectée (COLR, <i>connected line identification restriction</i>)	46
7.2.5 Portabilité de terminal (TP, <i>terminal portability</i>)	56
7.2.6 Signalisation d'utilisateur à utilisateur (UUS, <i>user-to-user signalling</i>)	61
7.2.7 Groupe fermé d'utilisateurs (CUG, <i>closed user group</i>)	109
7.2.8 Sous-adressage (SUB, <i>sub-addressing</i>)	120
7.2.9 Identification des appels malveillants (MCID, <i>malicious call identification</i>)	122
7.2.10 Communication conférence, adjonction d'autres conférences (CONF, <i>conference call, add-on</i>)	129
7.2.11 Transfert explicite de communication (ECT, <i>explicit call transfer</i>)	145
7.2.12 Déviation d'appel (CFB, CFNR, CFU, CD, <i>call diversion</i>)	173
7.2.13 Mise en attente (HOLD, <i>call hold</i>)	208

	Page
7.2.14 Signal d'appel (CW, <i>call waiting</i>).....	214
7.2.15 Rappel automatique sur occupation (CCBS, <i>completion of calls to busy subscribers</i>)	218
7.2.16 Conférence à trois (3PTY, <i>three party service</i>)	246
7.2.17 Rappel automatique sur non-réponse (CCNR, <i>completion of calls on no reply</i>).....	255
8 Portée des essais.....	282
9 Conformité à la spécification du formulaire PICS.....	283
Annexe A – Formulaire de déclaration de conformité d'implémentation (PICS) pour les services complémentaires du sous-système ISUP'97	283
A.1 Instructions for completing the PICS proforma.....	283
A.1.1 Purposes and structure	283
A.1.2 Abbreviations and conventions	283
A.2 Identification of the implementation.....	285
A.2.1 Date of the statement	285
A.2.2 Implementation under test (IUT) identification.....	285
A.2.3 System under test (SUT) identification	285
A.2.4 Product supplier	285
A.2.5 Client	285
A.2.6 ICS contact person	285
A.3 Identification of the reference specification.....	286
A.4 PICS proforma tables.....	286
A.4.1 Global statement of conformance	286
A.4.2 Roles	286
A.4.3 Capabilities	286
Annexe B – Formulaire d'informations supplémentaires sur l'implémentation de protocole destinées au test (PIXIT) pour les services complémentaires du sous-système ISUP'97	297
B.1 Identification summary	297
B.2 Abstract test suite summary	297
B.3 Test laboratory	297
B.4 Client identification	297
B.5 System under test	298
B.6 Ancillary protocols.....	298
B.7 Protocol information for ISUP.....	298
B.7.1 Protocol identification	298
B.7.2 IUT information – PIXIT proforma tables.....	298

	Page
Annexe C – Formulaire de rapport de test de conformité au protocole (PCTR) pour les services complémentaires du sous-système ISUP'97	305
C.1 Identification summary	305
C.1.1 Protocol conformance test report.....	305
C.1.2 IUT identification	305
C.1.3 Testing environment.....	305
C.1.4 Limits and reservation	306
C.1.5 Comments.....	306
C.2 IUT Conformance status	306
C.3 Static conformance summary.....	306
C.4 Dynamic conformance summary	306
C.5 Static conformance review report	306
C.6 Test campaign report.....	307
C.7 Observations	324
Annexe D – Suite de tests abstraite pour les services complémentaires du sous-système ISUP'97	325

Logiciel

Suite ATS du sous-système ISUP pour les services complémentaires

- STMRE.pdf (forme graphique en format PDF)
- STMRE.MP (forme langage programme)

Recommandation Q.785.2

SERVICES COMPLÉMENTAIRES DU SOUS-SYSTÈME ISUP'97 – STRUCTURE ET OBJECTIFS DE LA SUITE DE TESTS¹

(Genève, 1999)

1 Domaine d'application

La présente Recommandation spécifie les tests de conformité des services complémentaires du sous-système ISUP'97 définis dans les documents de référence [1] à [20]. La présente Recommandation présente une suite de tests abstraite (ATS) pour les services complémentaires ISUP'97 écrite en notation combinée arborescente et tabulaire (TTCN), voir [29]. La présente Recommandation se rapporte uniquement aux commutateurs dans lesquels est implémentée la spécification de protocole ISUP'97. Elle s'applique aux essais de validation de tous les types de commutateurs définis dans la spécification de protocole du sous-système ISUP'97. Enfin, elle ne traite pas des tests de compatibilité.

Le corps de la présente Recommandation expose les prescriptions relatives à la méthode de test choisie, les conventions utilisées dans la suite ATS, la structure de la suite de tests et les objectifs des tests concernant les services complémentaires du sous-système ISUP'97.

Les annexes contiennent les déclarations de conformité d'implémentation de protocole (PICS), des informations supplémentaires sur l'implémentation de protocole destinées au test (PIXIT), le rapport des tests de conformité au protocole (PCTR) et la suite ATS concernant les services complémentaires du sous-système ISUP'97, qui est disponible sur support électronique.

L'Annexe A contient le formulaire de déclaration de conformité d'implémentation de protocole (PICS) pour les services complémentaires du sous-système ISUP'97 définis conformément aux prescriptions applicables et aux directives données dans l'ISO/CEI 9646-7 [31]. Cette déclaration, dont les capacités et les options d'une spécification des télécommunications ont été implémentées, est nécessaire pour évaluer la conformité d'une implémentation donnée.

Le fournisseur d'une implémentation réputée conforme à la spécification de référence des services complémentaires du sous-système ISUP'97 [1] à [20] doit remplir un exemplaire du formulaire PICS reproduit à l'Annexe A.

L'Annexe B contient le formulaire des informations supplémentaires sur l'implémentation de protocole destinées au test (PIXIT), qui est nécessaire dans la préparation des tests.

L'Annexe C contient le formulaire du rapport des tests de conformité au protocole (PCTR) utilisé pour l'évaluation des résultats de la campagne de tests.

L'Annexe D contient des explications sur la manière d'obtenir la suite de tests ATS, qui est fournie sous forme électronique seulement.

NOTE – Le texte en notation TTCN et la déclaration ICS (du sous-paragraphe 7.2.1 jusqu'à la fin du paragraphe 7) ainsi que les Annexes A et D sont publiés sous forme électronique.

¹ La présente Recommandation comporte, en format électronique, la suite ATS du sous-système ISUP pour les services complémentaires, en forme graphique (GR) et de langage programme (MP).

2 Références normatives

La présente Recommandation contient des références, datées ou non, à d'autres publications. Ces références normatives sont citées à divers endroits du texte et les publications correspondantes sont énumérées ci-après. Dans le cas des références datées, les amendements ou révisions ultérieures de ces publications ne s'appliquent à la suite ATS et à la partie correspondante du formulaire PIXIT que s'ils ont été incorporés à ces dernières par amendement ou révision. Dans le cas des références non datées, c'est l'édition la plus récente de la publication qui s'applique.

- [1] Recommandation UIT-T Q.730 (1997), *Services complémentaires du sous-système utilisateur du RNIS*.
- [2] Recommandation UIT-T Q.731.1 (1996), *Description d'étape 3 des services complémentaires d'identification de numéro utilisant le système de signalisation n° 7: sélection directe à l'arrivée*.
- [3] Recommandation UIT-T Q.731.3 (1993), *Description d'étape 3 des services complémentaires d'identification de numéro utilisant le système de signalisation n° 7: présentation d'identification de la ligne appelante*.
- [4] Recommandation UIT-T Q.731.4 (1993), *Description d'étape 3 des services complémentaires d'identification de numéro utilisant le système de signalisation n° 7: restriction d'identification de la ligne appelante*.
- [5] Recommandation UIT-T Q.731.5 (1993), *Description d'étape 3 des services complémentaires d'identification de numéro utilisant le système de signalisation n° 7: présentation d'identification de la ligne connectée*.
- [6] Recommandation UIT-T Q.731.6 (1993), *Description d'étape 3 des services complémentaires d'identification de numéro utilisant le système de signalisation n° 7: restriction d'identification de la ligne connectée*.
- [7] Recommandation UIT-T Q.731.7 (1997), *Description d'étape 3 des services complémentaires d'identification de numéro utilisant le système de signalisation n° 7: identification des appels malveillants*.
- [8] Recommandation CCITT Q.731.8 (1992), *Description d'étape 3 des services complémentaires d'identification de numéro utilisant le système de signalisation n° 7: sous-adressage (SUB)*.
- [9] Recommandation UIT-T Q.732.2 (1996), *Description d'étape 3 des services complémentaires de présentation d'appel utilisant le système de signalisation n° 7: Services de déviation d'appel: Renvoi d'appel sur occupation – Renvoi d'appel sur non-réponse – Renvoi d'appel inconditionnel – Transfert d'appel*.
- [10] Recommandation UIT-T Q.732.7 (1996), *Description d'étape 3 des services complémentaires de présentation d'appel utilisant le système de signalisation n° 7: transfert explicite de communication*.
- [11] Recommandation CCITT Q.733.1 (1992) *Description d'étape 3 des services complémentaires d'aboutissement des appels utilisant le système de signalisation n° 7: appel en instance*.
- [12] Recommandation UIT-T Q.733.2 (1993), *Description d'étape 3 des services complémentaires d'aboutissement des appels utilisant le système de signalisation n° 7: maintien d'appel*.
- [13] Recommandation UIT-T Q.733.3 (1997), *Description d'étape 3 des services complémentaires d'aboutissement des appels utilisant le système de signalisation n° 7: rappel automatique sur occupation*.

- [14] Recommandation UIT-T Q.733.4 (1993), *Description d'étape 3 des services complémentaires d'aboutissement des appels utilisant le système de signalisation n° 7: portabilité des terminaux.*
- [15] Recommandation UIT-T Q.734.1 (1993), *Description d'étape 3 des services complémentaires à plusieurs participants utilisant le système de signalisation n° 7: communication conférence.*
- [16] Recommandation UIT-T Q.734.2 (1996), *Description d'étape 3 des services complémentaires à plusieurs participants utilisant le système de signalisation n° 7: service de conférence à trois.*
- [17] Recommandation UIT-T Q.735.1 (1993), *Description d'étape 3 des services complémentaires de communauté d'intérêt utilisant le système de signalisation n° 7: groupe fermé d'usagers.*
- [18] Recommandation UIT-T Q.735.3 (1993), *Description d'étape 3 des services complémentaires de communauté d'intérêt utilisant le système de signalisation n° 7: présence et préemption à plusieurs niveaux.*
- [19] Recommandation UIT-T Q.735.6 (1996), *Description d'étape 3 des services complémentaires de communauté d'intérêt utilisant le système de signalisation n° 7: réseau virtuel mondial.*
- [20] Recommandation UIT-T Q.737.1 (1997), *Description d'étape 3 des services complémentaires de transfert d'informations additionnelles utilisant le système de signalisation n° 7: signalisation d'utilisateur à utilisateur.*
- [21] Recommandation UIT-T Q.761 (1997), *Système de signalisation n° 7 – Description fonctionnelle du sous-système utilisateur du RNIS.*
- [22] Recommandation UIT-T Q.762 (1997), *Système de signalisation n° 7 – Fonctions générales des messages et des signaux du sous-système utilisateur du RNIS.*
- [23] Recommandation UIT-T Q.763 (1997), *Système de signalisation n° 7 – Formats et codes du sous-système utilisateur du RNIS.*
- [24] Recommandation UIT-T Q.764 (1997), *Système de signalisation n° 7 – Procédures de signalisation du sous-système utilisateur du RNIS.*
- [25] Recommandation UIT-T Q.850 (1998), *Utilisation des indications de cause et de localisation dans le système de signalisation d'abonné numérique n° 1 et le sous-système utilisateur du RNIS du système de signalisation n° 7.*
- [26] Recommandation CCITT Q.767 (1991), *Application du sous-système utilisateur du RNIS du système de signalisation n° 7 du CCITT pour les interconnexions RNIS internationales.*
- [27] ISO/CEI 9646-1:1994, *Technologies de l'information – Interconnexion de systèmes ouverts (OSI) – Cadre général et méthodologie des tests de conformité – Partie 1: concepts généraux.*
- [28] ISO/CEI 9646-2:1994, *Technologies de l'information – Interconnexion de systèmes ouverts (OSI) – Cadre général et méthodologie des tests de conformité – Partie 2: spécification des suites de tests abstraites.*
- [29] ISO/CEI 9646-3:1998, *Technologies de l'information – Interconnexion de systèmes ouverts – Essais de conformité – Méthodologie générale et procédures – Partie 3: notation combinée arborescente et tabulaire (TTCN).*
- [30] ISO/CEI 9646-5:1994, *Technologies de l'information – Interconnexion de systèmes ouverts (OSI) – Cadre général et méthodologie des tests de conformité – Partie 5: spécifications pour laboratoires d'essai et clients pour le procédé d'évaluation de conformité.*

- [31] ISO/CEI 9646-7:1995, *Technologies de l'information – Interconnexion de systèmes ouverts (OSI) – Cadre général et méthodologie des tests de conformité – Partie 7: déclarations de conformité des mises en œuvre.*
- [32] Recommandation UIT-T Q.784.1 (1996), *Spécification des tests du sous-système utilisateur du RNIS pour les procédures d'appel de base: validation et comptabilité des protocoles ISUP'92 et Q.767.*
- [33] Recommandation UIT-T Q.788 (1997), *Spécification des tests de conformité entre interfaces utilisateur-réseau pour l'interfonctionnement d'accès RNIS, non RNIS et indéterminés pour le sous-système utilisateur du RNIS international.*
- [34] Recommandation UIT-T E.164 (1997), *Plan de numérotage des télécommunications publiques internationales.*

3 Définitions

La présente Recommandation définit les termes suivants:

- les termes définis dans le système utilisateur du RNIS (ISUP) des références du [1] au [24];
- les termes définis dans les ISO/CEI 9646-1 [27], ISO/CEI 9646-3 [29] et ISO/CEI 9646-7 [31].

Les définitions suivantes s'appliquent en particulier:

3.1 test abstrait élémentaire (ATC, *abstract test case*): spécification complète indépendante des opérations requises pour réaliser un essai spécifique, défini au niveau d'abstraction d'une méthode de test abstraite, engagées et menées à bien dans un état d'essai stable (voir 3.3.3 en [27]).

3.2 méthode de test abstraite (ATM, *abstract test method*): description des modalités d'essai d'une implémentation sous test (IUT), effectuée à un niveau d'abstraction permettant de la rendre indépendante de tout dispositif concret utilisé comme dispositif d'essai, mais suffisamment détaillée pour permettre de spécifier des essais abstraits élémentaires pour cette méthode (voir 3.3.5 en [27]).

3.3 suite de tests abstraite (ATS, *abstract test suite*): suite de tests composée d'essais abstraits élémentaires (voir 3.3.6 en [27]).

3.4 implémentation sous test (IUT, *implementation under test*): implémentation constituée d'un ou plusieurs protocoles ISO dans une relation d'usager/prestataire de couches adjacentes, appartenant à un même système ouvert qui doit être étudié au moyen des tests effectués (voir 3.3.43 en [27]).

3.5 numéro RNIS: numéro conforme aux spécifications de numérotage et de structure figurant dans la Recommandation CCITT E.164 [34].

3.6 moyens de tester (MOT, *means of testing*): combinaison de matériels et de procédures permettant d'effectuer le calcul, la sélection, la paramétrisation et l'exécution des essais élémentaires, conformément à une suite ATS d'essais abstraits de référence normalisée et susceptible de générer un compte rendu de conformité (voir 3.3.54 en [27]).

3.7 formulaire PICS: document, sous forme de questionnaire, qui constitue, une fois rempli, la déclaration PICS de conformité d'une implémentation de protocole.

3.8 formulaire PIXIT: une fois ce document sous forme de questionnaire rempli pour l'implémentation sous test, il devient la déclaration PIXIT (informations supplémentaires sur l'implémentation de protocole destinées au test).

3.9 point de contrôle et d'observation: point d'un environnement d'essai dans lequel les essais doivent être contrôlés et observés, conformément aux indications d'une méthode de test abstraite (voir 3.3.64 en [27]).

3.10 condition initiale: réglage ou état de l'implémentation sous test impossible à réaliser par un stimulus provenant de l'environnement d'essai.

3.11 déclaration de conformité d'une implémentation de protocole (PICS): déclaration du fournisseur d'un protocole affirmant sa conformité à une spécification donnée, et indiquant les capacités mises en service (voir 3.3.39 et 3.3.80 en [27]).

3.12 informations supplémentaires sur l'implémentation de protocole destinées au test (PIXIT): déclaration du fournisseur ou du réalisateur d'une implémentation sous test (protocole) qui contient ou référence toutes les informations liées à ladite implémentation et à son environnement d'essai qui permettra au laboratoire d'essai de soumettre l'implémentation sous test à une suite d'essais appropriée (voir 3.3.41 et 3.3.81 en [27]).

3.13 système sous test (SUT, system under test): système ouvert réel dans lequel se trouve l'implémentation sous test (voir 3.3.103 en [27]).

3.14 utilisateur: entité du protocole d'accès située côté utilisateur de l'interface utilisateur-réseau à laquelle un point de référence T est appliqué ou des points de référence coïncidents S et T sont appliqués.

4 Abréviations

La présente Recommandation utilise les abréviations suivantes:

3PTY	conférence à trois (<i>three party service</i>)
ASE	élément du service d'application (<i>application service element</i>)
ASP	primitive de service abstraite (<i>abstract service primitive</i>)
ATC	test élémentaire abstrait (<i>abstract test case</i>)
ATM	méthode de test abstraite (<i>abstract test method</i>)
ATS	suite de tests abstraite (<i>abstract test suite</i>)
CCBS	rappel automatique sur occupation (<i>completion of calls to busy subscriber</i>)
CD	transfert d'appel (<i>call deflection</i>)
CDIV	déviation d'appel (<i>call diversion</i>)
CFB	renvoi d'envoi sur occupation (<i>call forwarding busy</i>)
CFNR	renvoi d'appel sur non-réponse (<i>call forwarding no reply</i>)
CFU	renvoi d'appel inconditionnel (<i>call forwarding unconditional</i>)
CIC	code d'identification de circuit (<i>circuit identification code</i>)
CLI	identité de la ligne appelante (<i>calling line identity</i>)
CLIP	identification de la ligne appelante (<i>calling line identification presentation</i>)
CLIR	restriction d'identification de la ligne appelante (<i>calling line identification restriction</i>)
CntrlE	centre directeur (<i>controlling exchange</i>)
COL	identité de la ligne connectée (<i>connected line identity</i>)
COLP	identification de la ligne connectée (<i>connected line identification presentation</i>)
COLR	restriction d'identification de la ligne connectée (<i>connected line identification restriction</i>)
CONF	communication conférence, adjonction d'autres conférences (<i>conference call, add-on</i>)

CUG	groupe fermé d'utilisateurs (<i>closed user group</i>)
CW	signal d'appel (<i>call waiting</i>)
DLE	commutateur local de destination (<i>destination local exchange</i>)
DSS1	système de signalisation d'abonné numérique n° 1 (<i>digital subscriber signalling system No. 1</i>)
ECT	transfert explicite de communication (<i>explicit call transfer</i>)
HOLD	mise en attente (<i>call hold</i>)
ICS	déclaration de conformité d'implémentation (<i>implementation conformance statement</i>)
InatE	centre international (<i>international exchange</i>)
IncIE	centre international d'arrivée (<i>incoming international exchange</i>)
IntermE	centre intermédiaire (<i>intermediate exchange</i>)
ISC	centre de commutation international (<i>international switching centre</i>)
ISUP	sous-système utilisateur pour le RNIS (<i>ISDN user part</i>)
ITE	centre de transit international (<i>international transit exchange</i>)
IUT	implémentation sous test (<i>implementation under test</i>)
IWorkE	centre d'interfonctionnement (<i>interworking exchange</i>)
LAPD	procédure d'accès à la liaison sur canal D (<i>link access protocol for the D-channel</i>)
LT	testeur inférieur (<i>lower tester</i>)
MCID	identification des appels malveillants (<i>malicious call identification</i>)
MIC	modulation par impulsions et codage
MOT	moyens de tester (<i>means of testing</i>)
MSN	numéro d'abonné multiple (<i>multiple subscriber number</i>)
MTC	composante de test principale (<i>main test component</i>)
MTP	sous-système transport de messages (<i>message transfer part</i>)
NE	centre national (<i>national exchange</i>)
NNI	interface entre nœuds de réseau (<i>network-network interface</i>)
NTE	centre national de transit (<i>national transit exchange</i>)
OLE	commutateur local d'origine (<i>originating local exchange</i>)
OutIE	commutateur local de départ (<i>outgoing international exchange</i>)
PCO	point de contrôle et d'observation (<i>point of control and observation</i>)
PCTR	rapport de test de conformité au protocole (<i>protocol conformance test report</i>)
PDU	unité de données protocolaire (<i>protocol data unit</i>)
PICS	déclaration de conformité d'implémentation de protocole (<i>protocol implementation conformance statement</i>)
PIXIT	informations supplémentaires sur l'implémentation de protocole destinées au test (<i>protocol implementation extra information for testing</i>)
PTC	composante de test parallèle (<i>parallel test component</i>)
RNIS	réseau numérique à intégration de services

RTPC	réseau téléphonique public commuté
SCCP	sous-système commande des connexions sémaphores (<i>signalling connection control part</i>)
SCS	déclaration de conformité du système (<i>system conformance statement</i>)
SDA	sélection directe à l'arrivée
SP	point sémaphore (<i>signalling point</i>)
SUB	sous-adressage (<i>sub-addressing</i>)
SUT	système sous test (<i>system under test</i>)
TCAP	sous-système application pour la gestion des transactions (<i>transaction capabilities application part</i>)
TCP	procédures de coordination des tests (<i>test coordination procedures</i>)
TP	portabilité de terminal (<i>terminal portability</i>)
TP	objet d'un test (selon le contexte) [<i>test purpose (context dependent)</i>]
TSS	structure de suite de tests (<i>test suite structure</i>)
TSS et TP	structure de suite de tests et objectifs de tests (<i>test suite structure and test purposes</i>)
TTCN	notation combinée arborescente et tabulaire (<i>tree and tabular combined notation</i>)
UNI	interface utilisateur-réseau (<i>user-network interface</i>)
UT	testeur supérieur (<i>upper tester</i>)
UUS	signalisation d'utilisateur à utilisateur (<i>user-to-user signalling</i>)
UUS1	service 1 de signalisation d'utilisateur à utilisateur (<i>user-to-user signalling service 1</i>)
UUS2	service 2 de signalisation d'utilisateur à utilisateur (<i>user-to-user signalling service 2</i>)
UUS3	service 3 de signalisation d'utilisateur à utilisateur (<i>user-to-user signalling service 3</i>)

Les acronymes des messages ISUP figurent dans le Tableau 1/Q.762 [22].

Les abréviations suivantes s'appliquent aux paramètres et valeurs de paramètres de l'ISUP.

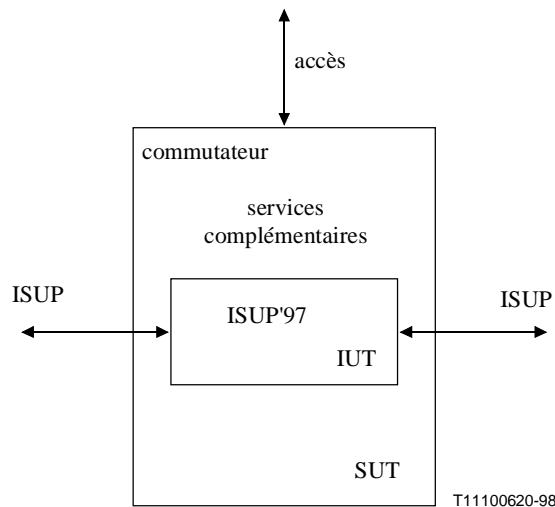
addCgPN	numéro de demandeur additionnel (<i>additional calling party number</i>)
addConNb	numéro connecté additionnel (<i>additional connected number</i>)
AdSg	signaux d'adresse (<i>address signals</i>)
APRI	indicateur de restriction de divulgation d'adresse (<i>address presentation restricted indicator</i>)
ATP	paramètre d'enveloppe d'informations d'accès (<i>access transport parameter</i>)
BCI	indicateur d'appel émis vers l'arrière (<i>backward call indicator</i>)
CC	indicatif de pays (<i>country code</i>)
CCBSpar	paramètre CCBS (<i>CCBS parameter</i>)
CDInf	informations sur la déviation d'appel (<i>call diversion information</i>)
CDmo	déviation d'appel possible (<i>call diversion may occur</i>)
CdPSI	indicateur d'état de la ligne appelée (<i>called party's status indicator</i>)
CgPN	numéro du demandeur (<i>calling party number</i>)
CHInf	informations sur la chronologie de l'appel (<i>call history information</i>)

ConNb	numéro connecté (<i>connected number</i>)
CTNb	numéro de transfert de communication (<i>call transfer number</i>)
CTRef	référence de transfert de communication (<i>call transfer reference</i>)
CUGIC	code de verrouillage CUG (<i>CUG interlock code</i>)
FCI	indicateurs d'appel vers l'avant (<i>forward call indicator</i>)
GenNb	numéro générique (<i>generic number</i>)
GenNot	notification générique (<i>generic notification</i>)
IA	accès entrant (<i>incoming access</i>)
ICB	interdiction d'appels entrants (<i>incoming calls barred</i>)
IPI	indicateur de préférence du sous-système (<i>ISUP preference indicator</i>)
LOPInd	indicateurs de prévention de boucle (<i>loop prevention indicators</i>)
NoInd	indication de refus (<i>no indication</i>)
NSO	option de souscription de notification (<i>notification subscription option</i>)
OA	accès sortant (<i>outgoing access</i>)
OBCI	indicateurs d'appel facultatifs émis vers l'arrière (<i>optional backward call indicators</i>)
OFCI	indicateurs d'appel facultatifs émis vers l'avant (<i>optional forward call indicators</i>)
OriCdNb	numéro demandé initial (<i>original called number</i>)
PDC	compteur de temps de propagation (<i>propagation delay counter</i>)
RgInd	indicateur de renvoi (<i>redirecting indicator</i>)
RgNb	numéro renvoyant l'appel (<i>redirecting number</i>)
RnCnt	compteur de renvois (<i>redirection counter</i>)
RnInf	information de renvoi (<i>redirection information</i>)
RnNb	numéro de renvoi (<i>redirection number</i>)
RnNbRes	restriction de numéro de renvoi (<i>redirection number restriction</i>)
RnReas	raison du renvoi (<i>redirection reason</i>)
ScrI	indicateur de contrôle (<i>screening indicator</i>)
ServAct	activation du service (<i>service activation</i>)
USI	service demandé par l'utilisateur (<i>user service information</i>)
USIp	service principal demandé par l'utilisateur (<i>user service information prime</i>)
UUInd	indicateurs de signalisation d'utilisateur à utilisateur (<i>user-to-user indicators</i>)
UUInf	informations d'utilisateur à utilisateur (<i>user-to-user information</i>)

5 Implémentation sous test et méthodes de test

5.1 Identification du système sous test et de l'implémentation sous test

Le système sous test (SUT, *system under test*) est un commutateur. L'implémentation sous test (IUT, *implementation under test*) est la version 97 de l'ISUP active dans ce commutateur, essentiellement la partie responsable des services complémentaires, comme indiqué dans la Figure 1.



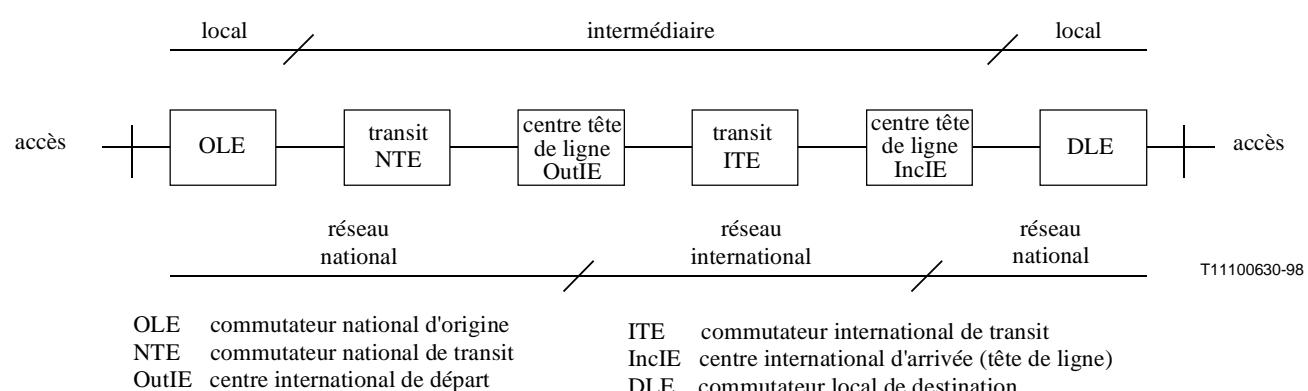
ISUP sous-système utilisateur pour le RNIS
 IUT implémentation sous test
 SUT système sous test

Figure 1/Q.785.2

Le protocole de signalisation de l'ISUP peut être observé sur la liaison du SS n° 7 à l'interface de nœud de réseau (NNI, *network-network interface*). Les effets des procédures de signalisation de l'ISUP peuvent être observés sur les circuits régis par l'ISUP à l'interface NNI.

L'implémentation de l'ISUP devra, dans certains commutateurs, interfonctionner avec le système de signalisation d'accès à l'interface utilisateur-réseau (UNI, *user-network interface*) et assurer le traitement des appels pour établir des connexions de bout en bout.

Comme indiqué à la Figure 2, plusieurs types de commutateurs (ou de rôles) peuvent être identifiés à partir de la version standard de l'ISUP.



OLE commutateur national d'origine
 NTE commutateur national de transit
 OutIE centre international de départ

ITE commutateur international de transit
 IncIE centre international d'arrivée (tête de ligne)
 DLE commutateur local de destination

Figure 2/Q.785.2 – Rôles des commutateurs

Les commutateurs peuvent être classés en deux catégories principales suivant leur fonction: les commutateurs locaux, d'où partent et auxquels aboutissent les appels, et les commutateurs intermédiaires, à fonction de transit. Les commutateurs locaux sont nationaux, c'est-à-dire qu'ils font partie du réseau national. Les commutateurs intermédiaires sont nationaux ou internationaux. Les commutateurs intermédiaires internationaux donnant l'accès au réseau international sont des centres têtes de ligne (de départ et d'arrivée) également appelés ISC (centres de commutation internationaux). L'une des particularités de certains services complémentaires, tels que les services

de déviation d'appel est que le commutateur local assure non seulement l'établissement et la terminaison de l'appel mais encore la médiation entre deux commutateurs locaux d'extrémité.

Les rôles des commutateurs sont résumés dans le Tableau 1.

Tableau 1/Q.785.2 – Rôles des commutateurs

	Commutateur local	Commutateur intermédiaire	
		National	International
Commutateur local d'origine	OLE		
Commutateur de transit		NTE	ITE
Centre tête de ligne d'arrivée			IncIE
Centre tête de ligne de départ			OutIE
Commutateur local de destination	DLE		

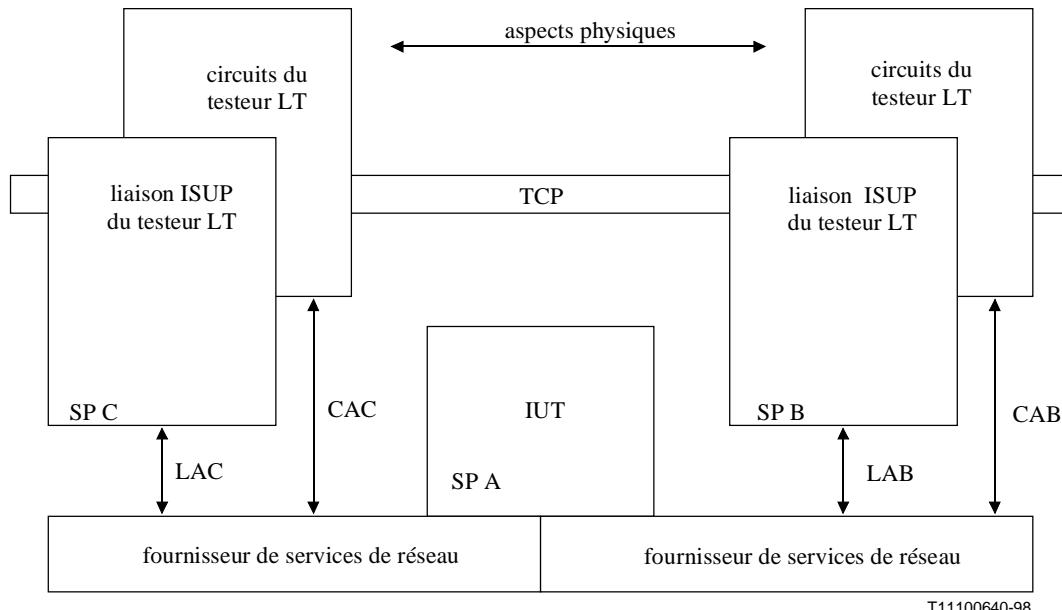
5.2 Méthode ATM et configuration de test choisie pour le sous-système ISUP'97

La méthode de test abstraite (ATM, *abstract test method*) choisie pour les essais de la version ISUP'97 est celle des tests multilatéraux répartis. La méthode ATM est définie à un niveau d'abstraction approprié, ce qui permet de spécifier les essais élémentaires sans appliquer des contraintes supplémentaires à l'implémentation sous test. Les architectures d'essai correspondantes sont décrites dans les sous-paragraphe ci-dessous.

La suite de tests abstraite est rédigée en notation combinée arborescente et tabulaire.

5.2.1 Commutateurs intermédiaires

La configuration proposée pour tester les commutateurs intermédiaires est représentée à la Figure 3. Pour tester le protocole et les fonctions des commutateurs de transit et des centres têtes de ligne, il faut prendre en considération l'aspect origine et l'aspect destination du système à l'essai.



IUT	implémentation sous test	LAB	point PCO relatif à la liaison sémaphore AB
LT	testeur inférieur	CAB	point PCO pour circuits AB
PCO	point de contrôle et d'observation	LAC	point PCO relatif à la liaison sémaphore AC
SP	point sémaphore	CAC	point PCO pour circuits AC
TCP	procédure de coordination des tests		

Figure 3/Q.785.2 – Méthode de test de l'ISUP applicable aux commutateurs intermédiaires

L'implémentation sous test est observée et contrôlée à partir de deux liaisons sémaphores et des circuits associés de l'ISUP. Les points de contrôle et d'observation (PCO, *points of control and observation*) sont étiquetés LAB et CAB d'un côté, LAC et CAC de l'autre.

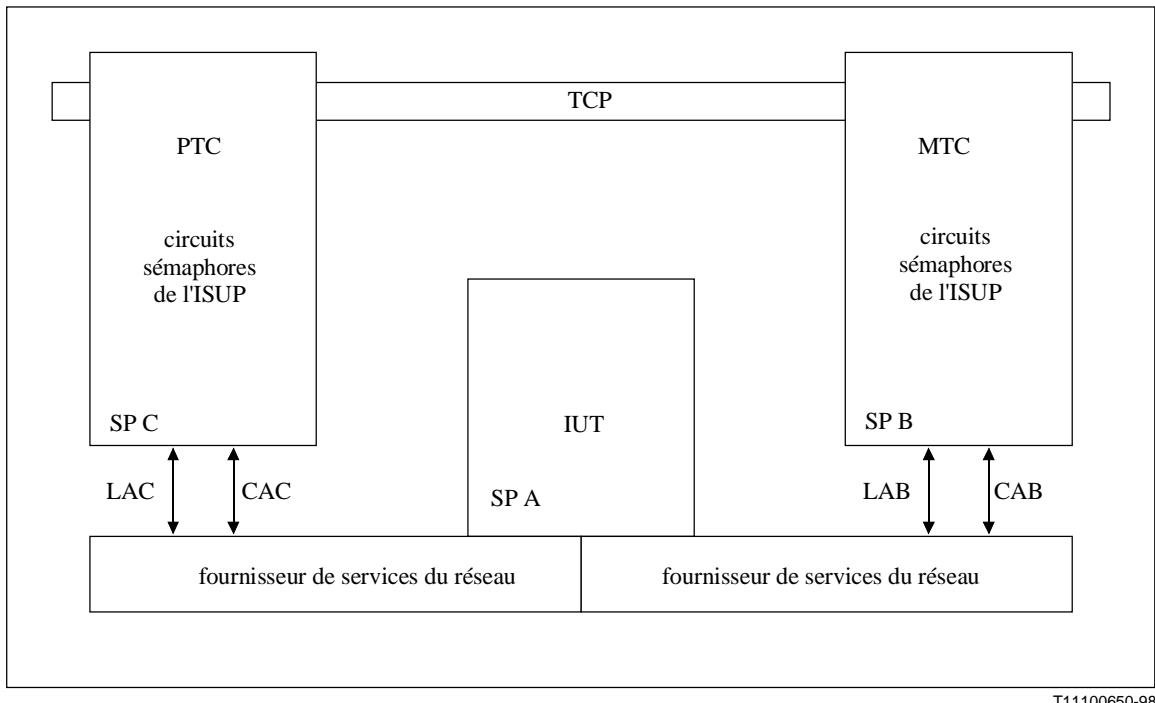
Les points PCO marqués LAB et LAC sont utilisés par les testeurs inférieurs (LT, *lower testers*) pour contrôler la liaison sémaphore de l'ISUP, tandis que les points PCO marqués CAB et CAC sont utilisés par les testeurs inférieurs LT pour observer des événements liés aux circuits, tels que la connexité, la vérification de réduction de l'écho, la tonalité d'avertissement, etc.

Les unités de données protocolaires (PDU, *protocol data unit*) de l'ISUP à envoyer et à observer du côté des points PCO marqués LAB permettent de spécifier et de coder jusqu'au niveau binaire les contraintes de PDU.

Le fournisseur de services de réseau est le protocole du sous-système de transport de messages (MTP, *message transfert part*) spécifié dans les Recommandations Q.701-707.

La Figure 4 représente la configuration effectivement utilisée pour les commutateurs intermédiaires avec une composante de test principale (MTC, *main testing component*) responsable de l'interface A-B et une composante de test parallèle (PTC, *parallel testing component*) asservie, correspondant à l'interface C-A.

Les procédures de coordination des tests (TCP, *test coordination procedures*) autorisent les communications entre les testeurs. La coordination entre les différentes composantes d'essai s'effectue essentiellement de manière implicite (asynchrone); les procédures de coordination des tests sont uniquement utilisées lorsqu'il faut obtenir la conclusion de la composante d'essai parallèle.



T11100650-98

IUT implémentation sous test
MTC composante d'essai principale
PCO point de contrôle et d'observation
PTC composante d'essai parallèle
SP point sémaphore

LAB point PCO relatif à la liaison sémaphore AB
CAB point PCO de circuit sur l'interface AB
LAC point PCO relatif à la liaison sémaphore AC
CAC point PCO de circuit sur l'interface AC
TCP procédures de coordination des tests

Figure 4/Q.785.2 – Configuration de test de l'ISUP pour commutateurs intermédiaires

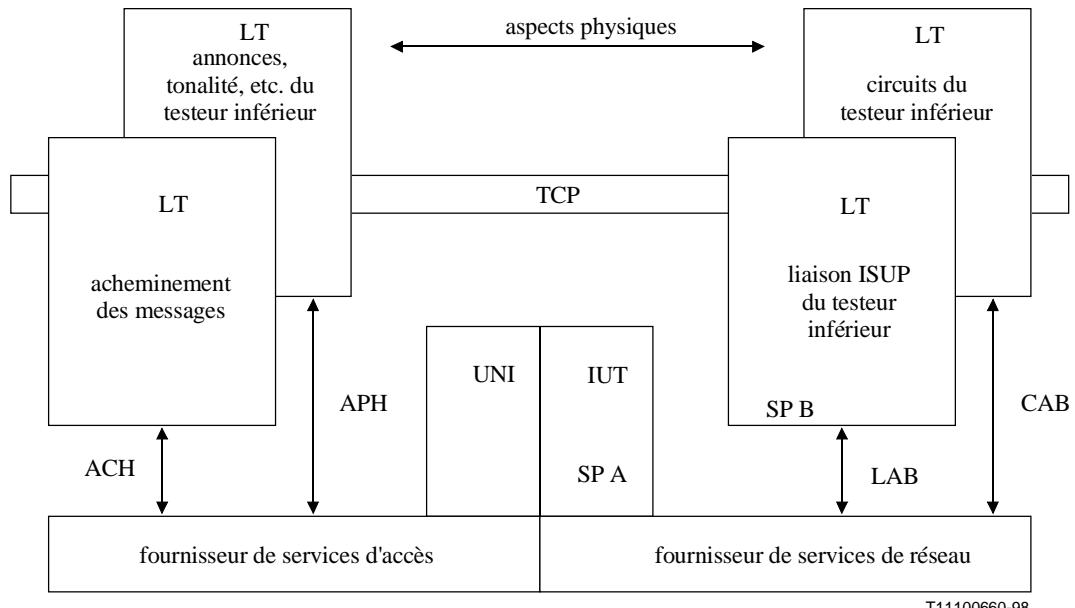
5.2.2 Commutateurs locaux

Lorsqu'un commutateur local est soumis aux essais prévus dans la norme de référence il est difficile, sinon impossible, d'observer uniquement les unités de données protocolaires si certaines caractéristiques fonctionnelles (connectivité, tonalités, annonces, etc.), associées à des événements de protocole doivent être prises en considération et servir à établir des conclusions. La norme de référence fait souvent état d'actions ou événements déclenchés par le demandeur (ou le demandé) et dont l'observation lui incombe.

Un point PCO de contrôle et d'observation à partir de l'ISUP (implémentation sous test) vers le côté accès s'avère indispensable, par exemple pour stimuler l'émission d'un appel par le commutateur local (envoi d'un message initial d'adresse). Un autre point PCO est indispensable pour vérifier la connectivité ou pour vérifier les tonalités émises par le commutateur local.

L'ISUP (implémentation sous test) ne présente aucune interface du côté accès. Pour les besoins des essais et à toutes fins pratiques, le choix porte naturellement sur l'interface d'accès. Il est par conséquent judicieux d'utiliser cette interface (par exemple protocole DSS1 d'interface d'accès de l'utilisateur) comme point PCO et de se servir des conventions de désignation existantes pour les primitives de service abstraites (ASP, *abstract service primitives*) à utiliser à ce point PCO.

La Figure 5 décrit une configuration de tests multilatéraux pour commutateurs locaux. Cette configuration comporte un point PCO par testeur. Le point PCO relatif à l'accès utilise le fournisseur de services correspondant (par exemple protocole LAPD, dans le cas du protocole DSS1) pour observer les événements d'accès et pour stimuler l'ISUP via l'accès. L'implémentation de l'ISUP (implémentation sous test) ne peut être testée sans intervention de l'interface utilisateur-réseau (UNI).



T11100660-98

IUT implémentation sous test
 LT testeur inférieur
 PCO point de contrôle et d'observation
 TCP procédures de coordination des tests
 SP point sémaforique

USI interface utilisateur-réseau
 LAB point PCO pour liaisons sémaforiques AB
 CAB circuit PCO pour circuits AB
 ACH PCO de circuit sémaforique d'accès (canal D)
 APH PCO de circuit physique d'accès (canal B)

Figure 5/Q.785.2 – Méthode d'essai de l'ISUP pour commutateurs d'origine/de destination

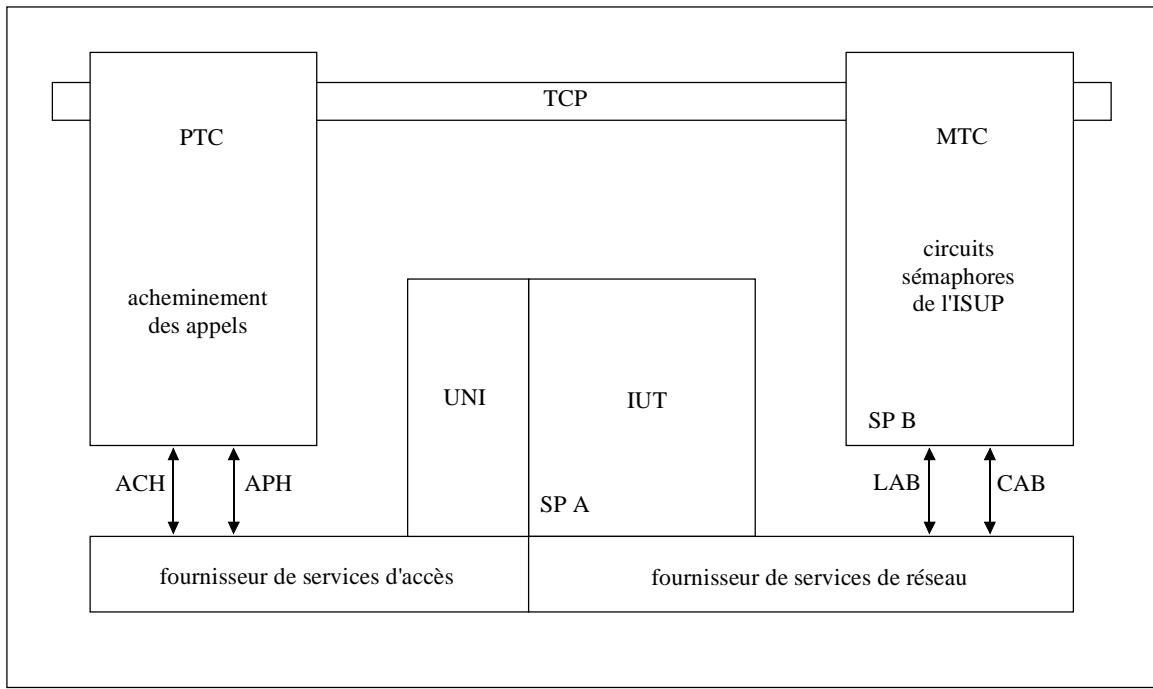
A droite la configuration comporte deux PCO, comme dans la configuration d'essai du sous-paragraphe précédent. Le PCO marqué LAB est utilisé par le testeur LT commandant la liaison sémaforique de l'ISUP, tandis que le PCO marqué CAB est utilisé par un autre testeur LT commandant les voies de trafic (observation des événements liés aux circuits – connexité, tonalités d'avertissement, etc.).

Les unités de données protocolaires (PDU) de l'ISUP à envoyer et à observer du côté des points PCO marqués LAB permettent de spécifier et de coder les contraintes de PDU jusqu'au niveau des positions binaires.

Le côté accès comporte deux points PCO et deux testeurs LT semblables à ceux qui se trouvent du côté réseau. Le point PCO ACH sert à observer et à contrôler les événements d'acheminement d'appels, tandis que le point APH sert à observer et à contrôler les événements physiques (par exemple les tonalités et annonces).

Les unités de données protocolaires d'accès à envoyer et à observer au niveau du point PCO marqué ACH sont choisies à un niveau d'abstraction approprié. En ce qui concerne les primitives ASP d'accès, des désignations de type DSS1 ont été utilisées, tandis que les contraintes d'unités de données protocolaires d'accès n'ont pas été codées jusqu'au niveau des positions binaires. Les questions d'accès ne peuvent être reléguées au niveau des commutateurs locaux, ce qui élargit à cet égard et dans une certaine mesure la portée des essais de l'ISUP.

La Figure 6 représente la configuration effectivement utilisée pour les commutateurs locaux, avec une composante de test principale (MTC, *master testing component*) correspondant à l'interface A-B, et une composante de test parallèle (PTC) asservie, correspondant à l'interface d'accès utilisateur-réseau. Le point PCO de maintenance est intégré dans la composante d'essai principale, à des fins de simplification.



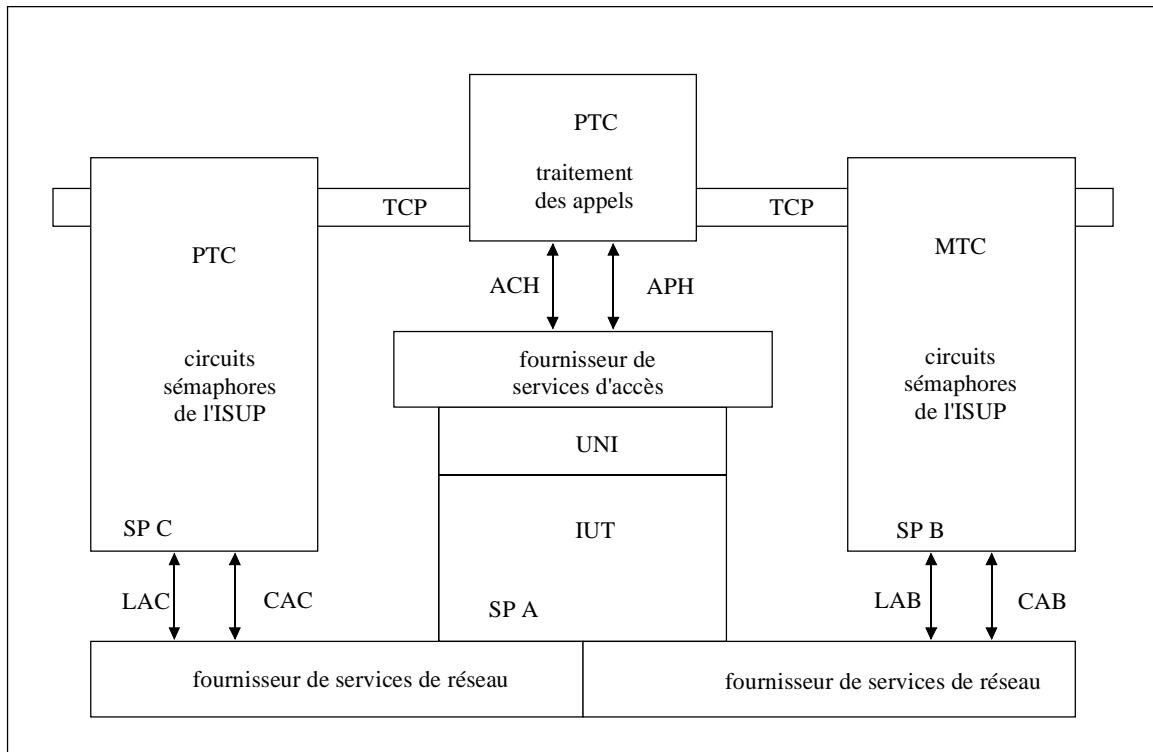
T11100670-98

IUT implémentation sous test
MTC composante de test principale
PCO point de contrôle et d'observation
PTC composante de test parallèle
SP point sémaphore
UNI interface utilisateur-réseau

LAB point PCO pour liaisons sémaphores AB
CAB circuit PCO sur l'interface AB
ACH PCO de circuit d'acheminement des appels d'accès (canal D)
APH PCO de circuit physique d'accès (canal B)
TCP procédures de coordination des tests

Figure 6/Q.785.2 – Configuration d'essai de l'ISUP pour commutateurs locaux

On utilise, pour tester les commutateurs locaux avec certains services complémentaires, une configuration mixte. Présentée dans la Figure 7, cette configuration peut être déduite des configurations des Figures 4 et 6.



T11100680-98

IUT	implémentation sous test
MTC	composante de test principale
PCO	point de contrôle et d'observation
PTC	composante de test parallèle
SP	point sémaforique
UNI	interface utilisateur-réseau

LAB	point PCO pour liaisons sémaforiques AB
CAB	circuit PCO sur l'interface AB
LAC	point PCO relatif à la liaison sémaforique AC
CAC	point PCO de circuit sur l'interface AC
ACH	PCO de circuit d'acheminement des appels d'accès (canal D)
APH	PCO de circuit physique d'accès (canal B)
TCP	procédures de coordination des tests

Figure 7/Q.785.2 – Configuration d'essai mixte de l'ISUP pour commutateurs locaux

Dans cette configuration, la composante de test principale MTC située du côté droit supervise les deux composantes de test parallèles PTC: la PTC ISUP et la PTC d'accès. Le commutateur local est, dans ce cas, le commutateur qui dessert l'utilisateur ayant activé le service complémentaire.

5.2.3 Structure d'asservissement de la configuration d'essai

Les Figures 4, 6 et 7 représentent les composantes de test logiques de la configuration d'essai adoptée. La composante de test principale se trouve du côté droit, tandis que les différentes composantes de test parallèles figurent à gauche: sous-système ISUP (Figure 4), accès (Figure 6), ou deux composantes ensemble (Figure 7).

La structuration de la suite de tests abstraite donne la configuration appropriée – selon *le rôle* du commutateur à tester.

La composante de test principale du côté droit peut être un ISUP international ou national; il est possible de la configurer de telle sorte que deux quelconques de ces éléments puissent fonctionner – sur la base des réponses obtenues aux demandes d'informations PIXIT.

La composante de test parallèle du côté gauche peut être d'un type quelconque: il peut s'agir d'un ISUP international ou national, d'un système sémaforique d'accès ou d'un sous-système utilisateur de type non ISUP. Lors de l'exécution du test, une et une seule de ces différentes configurations sera sélectionnée – en fonction des informations fournies dans la déclaration PICS et des informations PIXIT.

Dans le cas des centres têtes de ligne, on suppose que la communication est établie depuis la composante de test parallèle (PTC) côté gauche vers la composante de test principale (MTC) côté droit. Donc, pour le centre international de départ, le réseau national est situé du côté gauche et le réseau international du côté droit. Pour les centres internationaux d'arrivée, le réseau international est situé du côté gauche et le réseau national du côté droit.

Le flux de messages des tests élémentaires est conçu de manière à ce que la conclusion du test repose sur les données d'observation du comportement du côté droit. Le côté gauche servira essentiellement dans ce cas d'accepteur de stimulus asservi. Toutefois, pour certains tests élémentaires, il faut connaître le comportement prévu des deux côtés pour établir la conclusion.

6 Structure de la suite de tests (TSS, *test suite structure*)

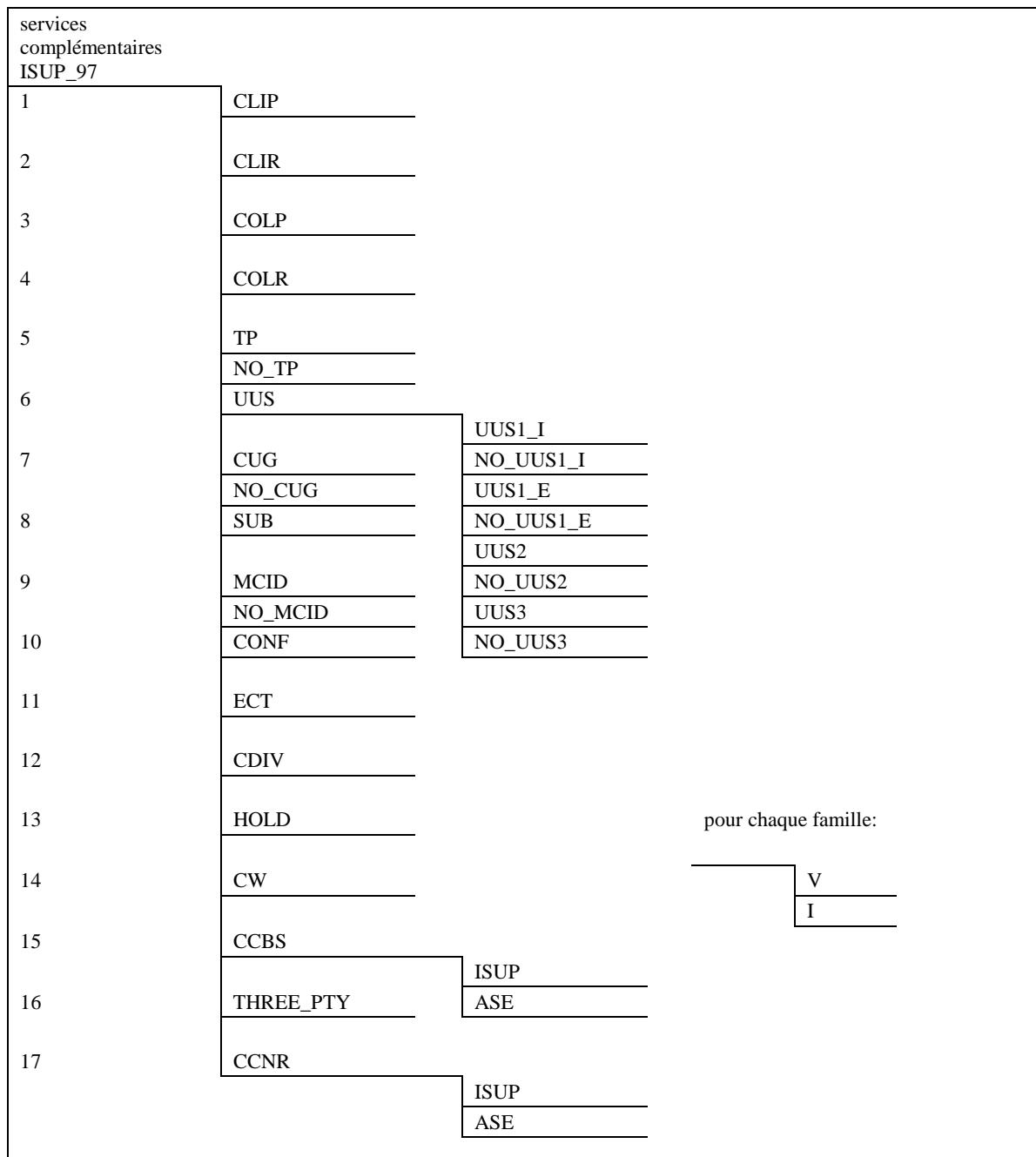


Figure 8/Q.785.2 – Structure de la suite de tests

Les conventions de désignation spécifiques de la structure de la suite de tests sont les suivantes:

CLIP	identification de la ligne appelante (<i>calling line identification presentation</i>)
CLIR	restriction d'identification de la ligne appelante (<i>calling line identification restriction</i>)
COLP	identification de la ligne connectée (<i>connected line identification presentation</i>)
COLR	restriction d'identification de la ligne connectée (<i>connected line identification restriction</i>)
TP	portabilité de terminal (<i>terminal portability</i>)
NO_TP	portabilité de terminal pas acceptée (<i>terminal portability not supported</i>)
UUS	signalisation d'utilisateur à utilisateur (<i>user-to-user signalling</i>)
UUS1_I	service 1 (implicite) de signalisation d'utilisateur à utilisateur (<i>user-to-user signalling service 1 implicit</i>)
NO_UUS1_I	service 1 (implicite) de signalisation d'utilisateur à utilisateur pas accepté (<i>user-to-user signalling service 1 implicit not supported</i>)
UUS1_E	service 1 (explicite) de signalisation d'utilisateur à utilisateur (<i>user-to-user signalling service 1 explicit</i>)
NO_UUS1_E	service 1 (explicite) de signalisation d'utilisateur à utilisateur pas accepté (<i>user-to-user signalling service 1 explicit not supported</i>)
UUS2	service 2 de signalisation d'utilisateur à utilisateur (<i>user-to-user signalling service 2</i>)
NO_UUS2	service 2 de signalisation d'utilisateur à utilisateur pas accepté (<i>user-to-user signalling service 2 not supported</i>)
UUS3	service 3 de signalisation d'utilisateur à utilisateur (<i>user-to-user signalling service 3</i>)
NO_UUS3	service 3 de signalisation d'utilisateur à utilisateur pas accepté (<i>user-to-user signalling service 3 not supported</i>)
CUG	groupe fermé d'utilisateurs (<i>closed user group</i>)
NO_CUG	groupe fermé d'utilisateurs pas accepté (<i>closed user group not supported</i>)
SUB	sous-adressage (<i>sub-addressing</i>)
MCID	identification des appels malveillants (<i>malicious call identification</i>)
NO_MCID	identification des appels malveillants pas acceptée (<i>malicious call identification not supported</i>)
CONF	communication conférence, adjonction d'autres conférences (<i>conference call, add-on</i>)
ECT	transfert explicite de communication (<i>explicit call transfer</i>)
CDIV	services de déviation d'appel (<i>call diversion services</i>)
CFB	renvoi d'appel sur occupation (<i>call forwarding busy</i>)
CFNR	renvoi d'appel sur non-réponse (<i>call forwarding no reply</i>)
CFU	renvoi d'appel inconditionnel (<i>call forwarding unconditional</i>)
CD	transfert d'appel (<i>call deflection</i>)

HOLD	mise en attente (<i>call hold</i>)
CW	signal d'appel (<i>call waiting</i>)
CCBS	rappel automatique sur occupation (<i>completion of calls to busy subscriber</i>)
CCBS_ISUP	CCBS – protocole ISUP (<i>CCBS – ISUP protocol</i>)
CCBS_ASE	CCBS – élément du service d'application (<i>CCBS – application service element</i>)
THREE_PTY	conférence à trois (<i>three party service</i>)
CCNR	rappel automatique sur non-réponse (<i>competition of calls no reply</i>)
CCNR_ISUP	CCNR – protocole ISUP (<i>CCNR – ISUP protocol</i>)
CCNR_ASE	CCNR – élément du service d'application (<i>CCNR – application service element</i>)
V	stimulus de comportement valide (<i>valid behaviour stimulus</i>)
I	stimulus inopportun (<i>inopportune stimulus</i>)

7 Objectifs de test (TP, *test purposes*)

7.1 Introduction

Chaque demande de test donne lieu à la définition d'un objectif de test.

7.1.1 Convention de désignation des objectifs de test

Les objectifs de test ont une numérotation ascendante à l'intérieur de chaque groupe. La structure des groupes est conforme à la structure de suite de tests (TSS, *test suite structure*) jusqu'à l'avant-dernier niveau. L'insertion des lettres V ou I dans la dénomination des tests élémentaires permet de classer ces derniers dans les groupes V/I. L'adjonction de qualificateurs supplémentaires (sous forme de lettres minuscules) sert à identifier les différentes variantes d'un test élémentaire générique particulier (voir Tableau 2 ci-dessous).

Tableau 2/Q.785.2 – Convention de désignation des identificateurs d'objectifs de test

Identificateur:	ISS_{<TC>}_{<group>}_{<N>}_{<n>}_{<n>}_{<a>}
ISS	= services complémentaires ISUP'97
{<TC>}	= désignation utilisée pour les tests ASE (exemple: service complémentaire CCBS): TC: gestionnaire de transactions
<group>	= groupe: champ d'un caractère correspondant à la référence du groupe suivant la structure de suite de tests: V: stimulus valide I: stimulus inopportun
<N>	= numéro de séquence de service complémentaire, selon la structure de la suite de tests
<n>	= numéro de séquence dans le groupe
{<n>}	= numéro additionnel (par exemple pour la signalisation UUS)
{<a>}	= minuscule facultative (distinction entre tests ayant le même numéro de référence)

7.1.2 Origine de la définition des objectifs de test

Les objectifs de test concernent les aspects de validation; ils ont été élaborés par l'ETSI.

7.1.3 Structure des objectifs de test

La structure des objectifs de test est conforme à la structure de suite de tests (TSS).

Les tests destinés à vérifier la normalité du comportement ont été classés dans le groupe **V**, dit de comportement valide.

Les tests destinés à vérifier le comportement de l'implémentation sous test dans des situations différentes du fonctionnement normal ont été classés dans le groupe **I**, dit de stimulus inopportun.

Les tests destinés à vérifier le comportement de l'entité de service d'application (ASE) définie pour certains services complémentaires (tels que le rappel CCBS) portent la désignation **TC** (gestionnaire de transactions).

7.2 Objectifs de test pour les services complémentaires

Tous les objectifs de test définis ci-dessous font partie du groupe principal ISUP_97_Suppl_Services. Chaque objectif de test est présenté dans un tableau séparé. La première ligne du tableau comporte les éléments suivants:

TSS	identificateur utilisé dans la structure de la suite de tests (identificateur de groupe/sous-groupe de tests).
TP	identificateur des objectifs de test.
ISUP'97 reference	référence aux prescriptions de la norme ISUP [1] à [24] qui ont donné les objectifs de test.
Selection expression	critères de sélection des objectifs de test tenant compte du rôle du commutateur et des réponses aux questions de la déclaration PICS. Si celles-ci concernent les caractéristiques des procédures de commandes de l'appel de base (voir [32]) elles sont précédées de l'identificateur "Bcall". Toutes les autres questions du formulaire concernent les caractéristiques particulières des services complémentaires (voir Annexe A). Lorsque "selection expression" n'est pas spécifiée, l'objectif de test est valable pour tous les rôles de commutateur.
Q.788 reference	lorsqu'un objectif de test défini dans la Recommandation Q.788 [34] traite du comportement attendu de l'objectif de test défini ci-dessous, la référence à ce test est donnée dans cette case. Etant donné que les objectifs de test définis dans la Recommandation Q.788 décrivent des tests de bout en bout entre interfaces UNI (utilisateur-réseau), il est possible qu'un même test Q.788 soit référencé par plusieurs objectifs de test de la présente spécification; par ailleurs, certains objectifs de test définis ne font aucune référence à la Recommandation Q.788 (dans ce cas, le mot "None" figure dans la case de la référence Q.788).

La ligne suivante définit l'objectif du test proprement dit, composé d'un *titre en italique* et d'un texte.

Les **messages ISUP** et les noms des **paramètres** sont en caractères **gras** (lecture plus facile).

Afin de vérifier le comportement spécifié pour certains objectifs de test, il y a lieu de remplir une condition préliminaire spéciale. Lorsqu'elle est requise, cette condition figure après l'objectif du test sous "Pre-test conditions".

La partie principale de la séquence de messages est présentée pour chacun des objectifs de tests. Lorsque l'objectif de test comporte plusieurs scénarios de séquences de message, des variantes permettent de faire la distinction entre les différents cas. Ces séquences de messages sont présentées dans une police de caractères non proportionnelle permettant d'aligner correctement les flèches du diagramme. Les séquences de messages sont accompagnées de commentaires explicatifs.

Des informations additionnelles présentant de l'intérêt pour l'exécution/l'implémentation des tests figurent sous un trait continu faisant suite à la séquence des messages.

7.2.1 Identification de la ligne appelante (CLIP, *calling line identification presentation*)

TSS CLIP/	TP ISS_V_1_1	ISUP'97 reference 3.5.2.1.1; Table 3.1/Q.731	Selection expression OLE	Q.788 reference 2.1.1
Test purpose				
<i>Calling party number (network provided)</i>				
To verify that the IUT can successfully originate a call having a calling party number with the screening indicator set to "network provided" and the presentation restricted indicator set to "presentation allowed".				
<pre>access SPA SPB -----setup----> -----IAM-----> :</pre> <hr/> <p>1. Set up a call from the access without calling party number or invalid calling party number (not accepted by the network).</p>				

TSS CLIP/	TP ISS_V_1_2	ISUP'97 reference 3.5.2.1.1; Table 3.1/Q.731	Selection expression OLE AND PICS A.3/8 (SUB)	Q.788 reference 2.1.2
Test purpose				
<i>Calling party number (network provided) with calling sub-address</i>				
To verify that the IUT can successfully originate a call having a calling party number with the screening indicator set to "network provided" and an access transport parameter containing the calling sub-address.				
Pre-test conditions				
Arrange the data in the IUT so that the calling party has subscribed to the sub-addressing supplementary service.				
<pre>access SPA SPB -----setup----> -----IAM-----> :</pre> <hr/> <p>1. Set up a call from the access without calling party number or wrong calling party number (not accepted by the network) and with a calling sub-address.</p>				

TSS CLIP/	TP ISS_V_1_3	ISUP'97 reference 3.5.2.1.1; Table 3.1/Q.731	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Calling party number (user provided, verified and passed)</i>				
To verify that the IUT can successfully originate a call having the calling party number with the screening indicator set to "user provided, verified and passed".				
access SPA SPB -----setup-----> -----IAM-----> :				
1. Set up a call from the access with a correct calling party number (within range).				

TSS CLIP/	TP ISS_V_1_4	ISUP'97 reference 3.5.2.1.1; Table 3.1/Q.731	Selection expression OLE AND PICS A.3/8 (SUB)	Q.788 reference 2.1.3
Test purpose				
<i>Calling party number (user provided, verified and passed) with calling sub-address</i>				
To verify that the IUT can successfully originate a call having a calling party number with the screening indicator set to "user provided, verified and passed" and an access transport parameter containing the calling sub-address.				
Pre-test conditions				
Arrange the data in the IUT so that the calling party has subscribed to the sub-addressing supplementary service.				
access SPA SPB -----setup-----> -----IAM-----> :				
1. Set up a call from the access with a correct calling party number (within range) and with a calling sub-address.				

TSS CLIP/	TP ISS_V_1_5	ISUP'97 reference 3.5.2.1.1; Table 3.1/Q.731	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Calling party number (user provided, not verified)</i>				
To verify that the IUT can successfully originate a call having a default calling party number with the screening indicator set to "network provided" and a generic number containing the additional calling party number with the screening indicator set to "user provided, not verified".				
Pre-test conditions				
Arrange the data in the IUT so that there is a special arrangement from the access signalling system regarding an additional calling party number.				
<pre>access SPA SPB -----setup----> -----IAM-----> :</pre>				
1. Set up a call from the access with a special calling party number.				

TSS CLIP/	TP ISS_V_1_6	ISUP'97 reference 3.5.2.1.1; Table 3.1/Q.731	Selection expression OLE AND PICS A.3/8 (SUB)	Q.788 reference 2.1.4
Test purpose				
<i>Calling party number (user provided, not verified) with calling sub-address</i>				
To verify that the IUT can successfully originate a call having a default calling party number with the screening indicator set to "network provided", a generic number containing the additional calling party number with the screening indicator set to "user provided, not verified" and an access transport parameter containing the calling sub-address.				
Pre-test conditions				
Arrange the data in IUT so that there is a special arrangement from the access signalling system regarding an additional calling party number and that the calling party has subscribed to the sub-addressing supplementary service.				
<pre>access SPA SPB -----setup----> -----IAM-----> :</pre>				
1. Set up a call from the access with a special calling party number and a calling sub-address.				

TSS CLIP/	TP ISS_V_1_7	ISUP'97 reference 3.4; 3.5.2.2.1/Q.731	Selection expression Transit	Q.788 reference None
Test purpose				
<i>Passing on the calling party number and the generic number</i>				
To verify that a calling party number and additional calling party number in the generic number can be successfully transferred to the succeeding exchange.				
Case a)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. CgPN only.				
Case b)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. CgPN and addCgPN in GenNb.				

TSS CLIP/	TP ISS_V_1_8	ISUP'97 reference 3.5.2.3.1/Q.731	Selection expression OutIE AND PICS A.4/1	Q.788 reference None
Test purpose				
<i>Discarding the calling party number in case of bilateral agreements</i>				
To verify that the calling party number is discarded in case of bilateral agreements, if the address presentation restricted indicator is set to "presentation allowed".				
NOTE – This bilateral agreement prohibits the transferral of the calling party number in any case. The test with the address presentation restricted indicator set to "presentation restricted" is a CLIR test.				
Pre-test conditions				
Arrange the data in IUT so that the calling party number is discarded.				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				

TSS CLIP/	TP ISS_V_1_9	ISUP'97 reference 3.5.2.3.1/Q.731	Selection expression OutIE AND PICS A.4/2	Q.788 reference None
<p>Test purpose</p> <p><i>Discarding the additional calling party number in case of bilateral agreements</i></p> <p>To verify that the additional calling party number in the generic number is discarded in case of bilateral agreements, if the address presentation restricted indicator is set to "presentation allowed".</p> <p>NOTE – This bilateral agreement prohibits the transferral of the calling party number in any case. The test with the address presentation restricted indicator set to "presentation restricted" is a CLIR test.</p> <p>Pre-test conditions</p> <p>Arrange the data in IUT so that the additional calling party number in the generic number is discarded.</p> <pre> SPC SPA SPB -----IAM-----> -----IAM-----> : </pre> <p>1. The PTC will initiate a call set up with the expected parameters.</p>				

TSS CLIP/	TP ISS_V_1_10	ISUP'97 reference 3.5.2.3.1/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose <i>Discarding the calling party number, if the address is marked not available</i>				

TSS CLIP/	TP ISS_V_1_11	ISUP'97 reference 3.5.2.3.1/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose <i>Discarding the additional calling party number, if no calling party number is received</i> To verify that if the calling party number is not sent, then an additional calling party number in a generic number will be omitted.				

TSS CLIP/	TP ISS_V_1_12	ISUP'97 reference 3.5.2.3.1/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose				
<i>Converting the calling party number to international format</i>				
To verify that the IUT can convert the calling party number into an international number, setting the nature of address indicator to "international number" and can pass on the address presentation restricted indicator and the screening indicator transparently.				
<pre> SPC SPA SPB -----IAM----> -----IAM----> :</pre>				
1. The PTC will initiate a call set up with the expected parameters.				

TSS CLIP/	TP ISS_V_1_13	ISUP'97 reference 3.5.2.3.1/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose				
<i>Converting the additional calling party number to international format</i>				
To verify that the IUT can convert the additional calling party number in the generic number into an international number, if the numbering plan indicator is "ISDN Telephony", setting the nature of address indicator to "international number" and can pass on the address presentation restricted indicator and the screening indicator transparently.				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> :</pre>				
1. The PTC will initiate a call set up with the expected parameters.				

TSS CLIP/	TP ISS_I_1_14	ISUP'97 reference 3.5.2.3.2/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose <i>Discarding an incomplete calling party number</i>				

To verify that the **calling party number** is discarded, if it is received with the calling party number incomplete indicator set to "incomplete".

```

SPC           SPA           SPB
-----IAM----> -----IAM---->
      :

```

1. The PTC will initiate a call set up with the expected parameters.

TSS CLIP/	TP ISS_V_1_15	ISUP'97 reference 3.5.2.4.1/Q.731	Selection expression IncIE	Q.788 reference None
Test purpose				
<i>Converting the calling party number to national format, if necessary</i>				
To verify that the country code in the address signals of the calling party number is removed if it is the network's own country code. The nature of address indicator shall be set to "national (significant) number". The address presentation restricted indicator shall be transferred transparently.				
SPC International SPA National SPB -----IAM-----> -----IAM-----> : <hr/> 1. The PTC will initiate a call set up with the expected parameters.				

TSS CLIP/	TP ISS_V_1_16	ISUP'97 reference 3.5.2.4.1/Q.731	Selection expression IncIE	Q.788 reference None
Test purpose				
<i>Converting the additional calling party number to national format, if necessary</i>				
To verify that the country code in the address signals of the generic number coded as an "additional calling party number", if the numbering plan indicator is "ISDN Telephony" is removed if it is the network's own country code. The nature of address indicator shall be set to "national (significant) number". The address presentation restricted indicator shall be transferred transparently.				
SPC SPA SPB -----IAM-----> -----IAM-----> : <hr/> 1. The PTC will initiate a call set up with the expected parameters.				

TSS CLIP/	TP ISS_I_1_17	ISUP'97 reference 3.5.2.4.1/Q.731	Selection expression IncIE AND PICS A.4/4	Q.788 reference None
Test purpose				
<i>Adding a prefix to an international calling party number</i>				
To verify that a prefix is added to the calling party number and the nature of address indicator is set to "unknown".				
NOTE – The coding "unknown" is a national option (@).				
SPC SPA SPB -----IAM-----> -----IAM-----> : <hr/> 1. The PTC will initiate a call set up with the expected parameters.				

TSS CLIP/	TP ISS_I_1_18	ISUP'97 reference 3.5.2.4.2/Q.731	Selection expression IncIE AND PICS A.4/5	Q.788 reference None
Test purpose				
<i>Handling of address presentation restricted indicator set to "address not available"</i>				
To verify that the screening indicator shall be set to "network provided" if the address presentation restricted indicator in calling party number is set to "address not available".				
NOTE – The coding "address not available" is a national option (@).				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				

TSS CLIP/	TP ISS_V_1_19	ISUP'97 reference 3.6.10.1/Q.731	Selection expression DLE AND (PICS A.3/12 OR PICS A.3/13 OR PICS A.3/14 OR PICS A.3/15)	Q.788 reference None
Test purpose				
<i>CLIP – interaction with call diversions</i>				
To verify that a call diverting exchange shall also forward the calling party number and the generic number containing the additional calling party number.				
Pre-test conditions				
Arrange the data in the IUT such that the called user has subscribed to CLIP and has activated a call diversion service (CFB, CFNR, CFU or CD).				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				

7.2.2 Restriction d'identification de la ligne appelante (CLIR, *calling line identification restriction*)

TSS CLIR/	TP ISS_V_2_1	ISUP'97 reference 4.5.2.1.1/Q.731	Selection expression OLE	Q.788 reference 2.1.5
Test purpose				
<i>Restricted calling party number (network provided)</i>				
To verify that the IUT can successfully originate a call having a calling party number with the screening indicator set to "network provided" and the address presentation restricted indicator set to "presentation restricted".				
Pre-test conditions				
Arrange the data in the IUT so that the calling party has subscribed CLIR.				
access	SPA	SPB		
-----setup----->	-----IAM----->			
:				
<hr/>				
1. Set up a call from the access without calling party number or wrong calling party number (not accepted by the network).				

TSS CLIR/	TP ISS_V_2_2	ISUP'97 reference 4.5.2.1.1/Q.731	Selection expression OLE AND PICS A.3/8 (SUB)	Q.788 reference 2.1.6
Test purpose				
<i>Restricted calling party number (network provided) with calling sub-address</i>				
To verify that the IUT can successfully originate a call having a calling party number with the screening indicator set to "network provided", the address presentation restricted indicator set to "presentation restricted" and an access transport parameter containing the calling sub-address.				
Pre-test conditions				
Arrange the data in the IUT so that the calling party has subscribed to CLIR and SUB.				
<pre>access SPA SPB -----setup----> -----IAM-----> :</pre>				
1. Set up a call from the access without calling party number or wrong calling party number (not accepted by the network) and with a calling sub-address.				

TSS CLIR/	TP ISS_V_2_3	ISUP'97 reference 4.5.2.1.1/Q.731	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Restricted calling party number (user provided, verified and passed)</i>				
To verify that the IUT can successfully originate a call having the calling party number with the screening indicator set to "user provided, verified and passed" and the address presentation restricted indicator set to "presentation restricted".				
Pre-test conditions				
Arrange the data in the IUT so that the calling party has subscribed CLIR.				
<pre>access SPA SPB -----setup----> -----IAM-----> :</pre>				
1. Set up a call from the access with a correct calling party number (within range).				

TSS CLIR/	TP ISS_V_2_4	ISUP'97 reference 4.5.2.1.1/Q.731	Selection expression OLE AND PICS A.3/8 (SUB)	Q.788 reference 2.1.7
Test purpose				
<i>Restricted calling party number (user provided, verified and passed) with calling sub-address</i>				
To verify that the IUT can successfully originate a call having a calling party number with the screening indicator set to "user provided, verified and passed", the address presentation restricted indicator set to "presentation restricted" and an access transport parameter containing the calling sub-address.				
Pre-test conditions				
Arrange the data in the IUT so that the calling party has subscribed to CLIR and SUB.				
<pre>access SPA SPB -----setup----> -----IAM-----> : </pre> <hr/> <p>1. Set up a call from the access with a correct calling party number (within range) and with a calling sub-address.</p>				

TSS CLIR/	TP ISS_V_2_5	ISUP'97 reference 4.5.2.1.1/Q.731	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Restricted calling party number (user provided, not verified)</i>				
To verify that the IUT can successfully originate a call having a default calling party number with the screening indicator set to "network provided" and a generic number containing the additional calling party number with the screening indicator set to "user provided, not verified", both having the address presentation restricted indicator set to "presentation restricted".				
Pre-test conditions				
Arrange the data in IUT so that there is a special arrangement from the access signalling system regarding an additional calling party number and that the calling party has subscribed to CLIR.				
<pre>access SPA SPB -----setup----> -----IAM-----> : </pre> <hr/> <p>1. Set up a call from the access with a special calling party number.</p>				

TSS CLIR/	TP ISS_V_2_6	ISUP'97 reference 4.5.2.1.1/Q.731	Selection expression OLE AND PICS A.3/8 (SUB)	Q.788 reference 2.1.8
Test purpose				
<i>Restricted calling party number (user provided, not verified) with calling sub-address</i>				
To verify that the IUT can successfully originate a call having a default calling party number with the screening indicator set to "network provided", a generic number containing the additional calling party number with the screening indicator set to "user provided, not verified", both having the address presentation restricted indicator set to "presentation restricted" and an access transport parameter containing the calling sub-address.				
Pre-test conditions				
Arrange the data in IUT so that there is a special arrangement from the access signalling system regarding an additional calling party number and that the calling party has subscribed to CLIR and SUB.				
<pre> access SPA SPB -----setup----> -----IAM-----> :</pre> <hr/> <p>1. Set up a call from the access with a special calling party number and a calling sub-address.</p>				

TSS CLIR/	TP ISS_V_2_7	ISUP'97 reference 4.5.2.2.1/Q.731	Selection expression Transit	Q.788 reference None
Test purpose				
<i>Conveying the information relating to CLIR</i>				
To verify that the address presentation restricted indicator in the calling party number and in the generic number are transferred successfully to the succeeding exchange.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> :</pre> <hr/> <p>1. The PTC will initiate a call set up with the expected parameters. 2. CgPN only.</p>				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> :</pre> <hr/> <p>1. The PTC will initiate a call set up with the expected parameters. 2. CgPN and addCgPN in GenNb.</p>				

TSS CLIR/	TP ISS_V_2_8	ISUP'97 reference 3.5.2.3.1; 4.5.2.3.2; 4.6.5/Q.731	Selection expression OutIE AND PICS A.5/1	Q.788 reference None
Test purpose				
<i>Discarding the calling party number if the presentation is restricted</i>				
To verify that the calling party number is discarded in case of bilateral agreements, if the address presentation restricted indicator is set to "presentation restricted".				
Pre-test conditions				
Arrange the data in IUT so that the calling party number is discarded.				
<pre>SPC SPA SPB -----IAM----> -----IAM----> :</pre>				
1. The PTC will initiate a call set up with the expected parameters.				
TSS CLIR/	TP ISS_V_2_9	ISUP'97 reference 3.5.2.3.1; 4.5.2.3.2; 4.6.5/Q.731	Selection expression OutIE AND PICS A.5/2	Q.788 reference None
Test purpose				
<i>Discarding the additional calling party number if the presentation is restricted</i>				
To verify that the additional calling party number in the generic number is discarded in case of bilateral agreements, if the address presentation restricted indicator is set to "presentation restricted".				
Pre-test conditions				
Arrange the data in IUT so that the additional calling party number is discarded.				
<pre>SPC SPA SPB -----IAM----> -----IAM----> :</pre>				
1. The PTC will initiate a call set up with the expected parameters.				
TSS CLIR/	TP ISS_V_2_10	ISUP'97 reference 4.6.20/Q.731	Selection expression DLE AND PICS A.3/9 (MCID)	Q.788 reference None
Test purpose				
<i>Presentation of the address – interaction with MCID</i>				
To verify that the information conveyed in an incoming call (especially the calling party number and the additional calling party number in the generic number) is registered in the network regardless of whether the calling user has activated the CLIR service or not, if the called user has MCID activated.				
Pre-test conditions				
Arrange the data in the IUT such that the called user has activated the MCID supplementary service on a permanent basis.				
<pre>access SPA SPB <----setup---- <----IAM----> :</pre>				
1. Set up a call to the access with CgPN and addCgPN in the GenNb.				

TSS CLIR/	TP ISS_V_2_11	ISUP'97 reference 4.2.1/Q.731	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Presentation of the address – called party has override category</i>				
To verify that the calling party number and the additional calling party number in the generic number are passed to the access regardless of whether the calling user has activated the CLIR service or not if the called user has the override category.				
Pre-test conditions				
Arrange the data in the IUT such that the called user has the override category.				
<pre>access SPA SPB -----setup---- <-----IAM-----> :</pre>				
1. Set up a call to the access with CgPN and addCgPN in the GenNb.				

7.2.3 Identification de la ligne connectée (COLP, *connected line identification presentation*)

TSS COLP/	TP ISS_V_3_1	ISUP'97 reference 5.5.2.1.1/Q.731	Selection expression OLE	Q.788 reference 2.3.1
Test purpose				
<i>Initiate COLP request</i>				
To verify that the exchange can initiate successfully a call requesting the COLP service in the optional forward call indicators .				
Pre-test conditions				
Arrange the data in the IUT such that the calling party subscribes to COLP.				
<pre>access SPA SPB -----setup----> -----IAM-----> :</pre>				
1. Set up a call from the access with a COLP request.				

TSS COLP/	TP ISS_V_3_2	ISUP'97 reference 5.5.2.2.1/Q.731	Selection expression Transit	Q.788 reference None
Test purpose				
<i>Passing on information relating to COLP</i>				
To verify that the IUT passes on transparently the information related to the COLP supplementary service in the optional forward call indicators (forward direction) and the connected number (backward direction).				
Case a)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM-----> : </pre>				
1. The PTC will initiate a call set up with the expected parameters.				
Case b)				
<pre> SPC SPA SPB <-----IAM----- <-----IAM-----> -----ACM-----> -----ACM-----> ... ringing tone ... -----ANM-----> -----ANM-----> : </pre>				
1. The PTC will assist a call set up with the expected parameters.				
Case c)				
<pre> SPC SPA SPB <-----IAM----- <-----IAM-----> -----CON-----> -----CON-----> : </pre>				
1. The PTC will assist a call set up with the expected parameters.				

TSS COLP/	TP ISS_V_3_3	ISUP'97 reference 5.5.2.3.1/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose				
<i>Converting the connected number to national format, if necessary</i>				
To verify that the country code in the address signals of the connected number is removed if it is the network's own country code. The nature of address indicator shall be set to "national (significant) number", the address presentation restricted indicator and the screening indicator shall be transferred transparently.				
Case a)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb to be passed on having AdSg: TSP_Nb_B with own country code.				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----CON----- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb to be passed on having AdSg: TSP_Nb_B with own country code.				

TSS COLP/	TP ISS_V_3_4	ISUP'97 reference 5.5.2.3.1/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose				
<i>Converting the additional connected number to national format, if necessary</i>				
To verify that the country code in the address signals of the generic number coded as an "additional connected number", if the numbering plan indicator is "ISDN Telephony" is removed if it is the network's own country code. The nature of address indicator shall be set to "national (significant) number", the address presentation restricted indicator and the screening indicator shall be transferred transparently.				
Case a)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb: TSP_Nb_B_default and addConNb in GenNb: TSP_GenNb_B to be passed on, both international numbers with the network's own country code.				
Case b)				
<pre> SPC National SPA International SPB -----IAM-----> -----IAM-----> <-----CON----- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb: TSP_Nb_B_default and addConNb in GenNb: TSP_GenNb_B to be passed on, both international numbers with the network's own country code.				

TSS COLP/	TP ISS_I_3_5	ISUP'97 reference 5.5.2.3.1/Q.731	Selection expression OutIE AND PICS A.6/1	Q.788 reference None
Test purpose				
<i>Adding a prefix to an international connected number</i>				
To verify that a prefix is added to the connected number and the nature of address indicator is set to "unknown".				
NOTE – The coding "unknown" is a national option (@).				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide an international ConNb with a different country code than the incoming network (foreign CC).				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----CON----- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide an international ConNb with a different country code than the incoming network (foreign CC).				

TSS COLP/	TP ISS_V_3_6	ISUP'97 reference 5.5.2.4.1/Q.731	Selection expression IncIE AND PICS A.6/2	Q.788 reference None
Test purpose				
<i>Discarding the connected number in case of bilateral agreements</i>				
To verify that the connected number is discarded in case of bilateral agreements, if the address presentation restricted indicator is set to "presentation allowed".				
NOTE – This bilateral agreement prohibits the transferral of the connected number in any case. The test with the address presentation restricted indicator set to "presentation restricted" is a COLR test.				
Pre-test conditions				
Arrange the data in the IUT so that the connected number is discarded.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM---- <-----ACM----- ... ringing tone ... <-----ANM---- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb to be discarded.				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----CON---- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb to be discarded.				

TSS COLP/	TP ISS_V_3_7	ISUP'97 reference 5.5.2.4.1/Q.731	Selection expression IncIE AND PICS A.6/3	Q.788 reference None
Test purpose				
<i>Discarding the additional connected number in case of bilateral agreements</i>				
To verify that the additional connected number in the generic number is discarded in case of bilateral agreements, if the address presentation restricted indicator is set to "presentation allowed".				
NOTE – This bilateral agreement prohibits the transferral of the additional connected number in the generic number in any case. The test with the address presentation restricted indicator set to "presentation restricted" is a COLR test.				
Pre-test conditions				
Arrange the data in the IUT so that the additional connected number in the generic number is discarded.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb and addConNb in the GenNb to be discarded.				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----CON----- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb and addConNb in the GenNb to be discarded.				

TSS COLP/	TP ISS_V_3_8	ISUP'97 reference 5.5.2.4.1/Q.731	Selection expression IncIE AND PICS A.6/4	Q.788 reference 2.3.9
Test purpose				
<i>Resetting the address signals of the connected number, if they are not to be sent</i>				
To verify that for a connected number which is not to be released to the originating network the setting of the address presentation restricted indicator can be changed from "presentation allowed" to "address not available", and that the address signals are reset.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb to be reset ("address not available").				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----CON----- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide ConNb to be reset ("address not available").				

TSS COLP/	TP ISS_V_3_9	ISUP'97 reference 5.5.2.4.1/Q.731	Selection expression IncIE	Q.788 reference None
Test purpose				
<i>Converting the connected number to international format</i>				
To verify that the exchange can convert the connected number into an international number, setting the nature of address indicator to "international number" and can pass on the address presentation restricted indicator and the screening indicator transparently.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide national (significant) ConNb.				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----CON----- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide national (significant) ConNb.				

TSS COLP/	TP ISS_I_3_10	ISUP'97 reference 5.5.2.5.1/Q.731	Selection expression	Q.788 reference 2.3.8
Test purpose				
<i>Handling unrequested COL</i>				
To verify that the call can be successfully set up if the IUT receives an unsolicited COL.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... -----connect----- <-----ANM-----> : </pre>				
<hr/> 1. Set up a call from the access without a COLP request. 2. No COL request is issued. 3. Verdict is "pass" if the call is correctly set up.				
Case b)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----connect----- <-----CON----- : </pre>				
<hr/> 1. Set up a call from the access without a COLP request. 2. No COL request is issued. 3. Verdict is "pass" if the call is correctly set up.				
Case c)				
<pre> SPC SPA SPB <-----IAM----- <-----IAM----- -----ACM-----> -----ACM-----> ... ringing tone ... -----ANM-----> -----ANM-----> : </pre>				
<hr/> 1. The PTC will assist a call set up with the expected parameters. 2. No COL request is sent. 3. Verdict is "pass" if the call set up continues.				
Case d)				
<pre> SPC SPA SPB <-----IAM----- <-----IAM----- -----CON-----> -----CON-----> : </pre>				
<hr/> 1. The PTC will assist a call set up with the expected parameters. 2. No COL request is sent. 3. Verdict is "pass" if the call set up continues.				

TSS COLP/	TP ISS_V_3_11	ISUP'97 reference 5.5.2.5.1 i)/Q.731	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Connected number (user provided, verified and passed)</i>				
To verify that the IUT can provide a connected number with the screening indicator set to "user provided, verified and passed", if the user provided COL is valid.				
Case a) access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> : 1. Set up a call to the access with a COLP request, access provides valid COL.				
Case b) access SPA SPB <-----setup----- <-----IAM----- -----connect----> -----CON-----> : 1. Set up a call to the access with a COLP request, access provides valid COL.				
TSS COLP/	TP ISS_V_3_12	ISUP'97 reference 5.5.2.5.1 i)/Q.731	Selection expression DLE AND PICS A.3/8 (SUB)	Q.788 reference 2.3.3
Test purpose				
<i>Connected number (user provided, verified and passed) with connected sub-address</i>				
To verify that the IUT can provide a connected number with the screening indicator set to "user provided, verified and passed", if the user provided COL is valid and an access transport parameter containing the connected sub-address.				
Pre-test conditions Arrange the data in the IUT so that the connected party has subscribed to SUB.				
Case a) access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> : 1. Set up a call to the access with a COLP request, access provides valid COL with sub-address.				
Case b) access SPA SPB <-----setup----- <-----IAM----- -----connect----> -----CON-----> : 1. Set up a call to the access with a COLP request, access provides valid COL with sub-address.				

TSS COLP/	TP ISS_V_3_13	ISUP'97 reference 5.5.2.5.1 ii)/Q.731	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Connected number (network provided)</i>				
To verify that the IUT can provide a default connected number with the screening indicator set to "network provided", if the user provided COL is not valid.				
Case a) access SPA SPB <----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> : 1. Set up a call to the access with a COLP request, access provides invalid COL. 2. ScrI set to "network provided" is implicit.				
Case b) access SPA SPB <----setup----- <-----IAM----- -----connect----> -----CON-----> : 1. Set up a call to the access with a COLP request, access provides invalid COL. 2. ScrI set to "network provided" is implicit.				

TSS COLP/	TP ISS_V_3_14	ISUP'97 reference 5.5.2.5.1 ii)/Q.731	Selection expression DLE AND PICS A.3/8 (SUB)	Q.788 reference 2.3.2
Test purpose				
<i>Connected number (network provided) with connected sub-address</i>				
To verify that the IUT can provide a default connected number with the screening indicator set to "network provided", if the user provided COL is not valid and an access transport parameter containing the connected sub-address.				
Pre-test conditions Arrange the data in the IUT so that the connected party has subscribed to SUB.				
Case a) access SPA SPB <----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> : 1. Set up a call to the access with a COLP request, access provides invalid COL with sub-address.				
Case b) access SPA SPB <----setup----- <-----IAM----- -----connect----> -----CON-----> : 1. Set up a call to the access with a COLP request, access provides valid COL with sub-address.				

TSS COLP/	TP ISS_V_3_15	ISUP'97 reference 5.5.2.5.1 iii)/Q.731	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Connected number (user provided, not verified)</i>				
To verify that the IUT can provide a default connected number with the screening indicator set to "network provided" and a generic number containing the additional connected number with the screening indicator set to "user provided, not verified".				
Pre-test conditions				
Arrange the data in the IUT so that there is a special arrangement from the access signalling system regarding an additional connected number.				
Case a)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> :</pre>				
<hr/> 1. Set up a call to the access with a COLP request, access provides special COL.				
Case b)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----connect----> -----CON-----> :</pre>				
<hr/> 1. Set up a call to the access with a COLP request, access provides special COL.				

TSS COLP/	TP ISS_V_3_16	ISUP'97 reference 5.5.2.5.1 iii)/Q.731	Selection expression DLE AND PICS A.3/8 (SUB)	Q.788 reference 2.3.4
Test purpose				
<i>Connected number (user provided, not verified) with connected sub-address</i>				
To verify that the IUT can provide a default connected number with the screening indicator set to "network provided", a generic number containing the additional connected number with the screening indicator set to "user provided, not verified" and an access transport parameter containing the connected sub-address.				
Pre-test conditions				
Arrange the data in the IUT so that there is a special arrangement from the access signalling system regarding an additional connected number and that the connected party has subscribed to the sub-addressing supplementary service.				
Case a)				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> :</pre>				
1. Set up a call to the access with a COLP request, access provides special COL with sub-address.				
Case b)				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----connect----> -----CON-----> :</pre>				
1. Set up a call to the access with a COLP request, access provides special COL with sub-address.				

TSS COLP/	TP ISS_V_3_17	ISUP'97 reference 5.5.2.5.1/Q.731	Selection expression DLE AND NOT PICS A.6/5	Q.788 reference None
Test purpose				
<i>COL cannot be transferred</i>				
To verify that the address presentation restricted indicator in the connected number in ANM or in CON is set to "presentation restricted" or "address not available" and that the screening indicator shall be set to "network provided" if the COL cannot be transferred.				
Pre-test conditions				
Arrange the data in the IUT so that no COL can be transferred.				
Case a)				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> :</pre>				
<hr/> 1. Set up a call to the access with a COLP request, access doesn't provide the COL. 2. "address not available" ConNb. 3. restricted ConNb.				
Case b)				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----connect----> -----CON-----> :</pre>				
<hr/> 1. Set up a call to the access with a COLP request, access doesn't provide the COL. 2. "address not available" ConNb. 3. restricted ConNb.				

TSS COLP/	TP ISS_V_3_18	ISUP'97 reference 5.6.14/Q.731	Selection expression DLE	Q.788 reference None
Test purpose				
<i>COLP – interaction with MSN</i>				
To verify that an exchange with MSN can provide the connected party multiple subscriber number or full ISDN number as the connected number on call answer.				
Pre-test conditions				
Arrange the data in the IUT such that the called user has activated the Multiple Subscriber Number (MSN) supplementary service.				
Case a)				
<pre> access SPA SPB -----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to the access with a COLP request. 2. ConNb - full ISDN number; ConNb.AdSg: TSP_Nb_A ConNb2 - multiple subscriber number; ConNb2.AdSg: TSP_Nb_A_MSN 				
Case b)				
<pre> access SPA SPB -----setup----- <-----IAM----- -----connect----> -----CON-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to the access with a COLP request. 2. ConNb - full ISDN number; ConNb.AdSg: TSP_Nb_A ConNb2 - multiple subscriber number; ConNb2.AdSg: TSP_Nb_A_MSN 				

7.2.4 Restriction d'identification de la ligne connectée (COLR, *connected line identification restriction*)

TSS COLR/	TP ISS_V_4_1	ISUP'97 reference 6.5.2.1.1/Q.731	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Presentation of restricted COL</i>				
To verify that a local exchange will not pass the information on to the access signalling system when a connected number is received in the ANM or CON and its address presentation restricted indicator is set to "presentation restricted", i.e. that presentation is denied on the user-network interface (UNI).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to COLP.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... <-----connect---- <-----ANM----- :</pre>				
<hr/> 1. Set up a call from the access with a COLP request. 2. The possible verdicts from observations on access are "failed" or "inconclusive".				
Case b)				
<pre> SPC SPA SPB -----setup-----> -----IAM-----> <-----connect---- <-----CON----- :</pre>				
<hr/> 1. Set up a call from the access with a COLP request. 2. The possible verdicts from observations on access are "failed" or "inconclusive".				

TSS COLR/	TP ISS_I_4_2	ISUP'97 reference 6.5.2.1.2/Q.731	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Presentation of restricted COL to "override category" calling user</i>				
To verify that the received connected number and optionally the additional connected number in the generic number can be conveyed successfully to an "override category" calling user, if the called user has activated the Connected Line Presentation Restriction (COLR) supplementary service.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user has an "override category".				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM-----</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from the access with a COLP request. 2. ConNb and addConNb in GenNb. 3. The possible verdicts from observations on access are "failed" or "inconclusive". 				
Case b)				
<pre> SPC SPA SPB -----setup-----> -----IAM-----> <-----connect----- <-----CON-----</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from the access with a COLP request. 2. The possible verdicts from observations on access are "failed" or "inconclusive". 				

TSS COLR/	TP ISS_V_4_3	ISUP'97 reference 6.5.2.2.1/Q.731	Selection expression Transit	Q.788 reference None
Test purpose				
<i>Passing on information relating to COLR</i>				
To verify that the IUT shall pass transparently all information related to the COLR supplementary service in the address presentation restricted indicator of the connected number and optionally the additional connect number in the generic number .				
Case a)				
<pre> SPC SPA SPB <-----IAM-----<-----IAM----- -----ACM-----> -----ACM-----> ... ringing tone ... -----ANM-----> -----ANM-----> : </pre>				
<hr/> 1. The PTC will assist a call set up with the expected parameters. 2. ConNb.				
Case b)				
<pre> SPC SPA SPB <-----IAM-----<-----IAM----- -----CON-----> -----CON-----> : </pre>				
<hr/> 1. The PTC will assist a call set up with the expected parameters. 2. ConNb.				
Case c)				
<pre> SPC SPA SPB <-----IAM-----<-----IAM----- -----ACM-----> -----ACM-----> ... ringing tone ... -----ANM-----> -----ANM-----> : </pre>				
<hr/> 1. The PTC will assist a call set up with the expected parameters. 2. ConNb and addConNb in GenNb.				
Case d)				
<pre> SPC SPA SPB <-----IAM-----<-----IAM----- -----CON-----> -----CON-----> : </pre>				
<hr/> 1. The PTC will assist a call set up with the expected parameters. 2. ConNb and addConNb in GenNb.				

TSS COLR/	TP ISS_V_4_4	ISUP'97 reference 6.5.2.4.1/Q.731	Selection expression IncIE AND PICS A.7/1	Q.788 reference None
Test purpose				
<i>Discarding the connected number if the presentation is restricted</i>				
To verify that the connected number is discarded in case of bilateral agreements, if the address presentation restricted indicator is set to "presentation restricted".				
Pre-test conditions				
Arrange the data in IUT so that the connected number is discarded.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM---- <-----ACM----- ... ringing tone ... <-----ANM---- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide restricted ConNb to be discarded.				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----CON---- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide restricted ConNb to be discarded.				

TSS COLR/	TP ISS_V_4_5	ISUP'97 reference 6.5.2.4.1/Q.731	Selection expression IncIE AND PICS A.7/2	Q.788 reference None
Test purpose				
<i>Discarding the additional connected number in the generic number if the presentation is restricted</i>				
To verify that the additional connected number in the generic number is discarded in case of bilateral agreements, if the address presentation restricted indicator is set to "presentation restricted".				
Pre-test conditions				
Arrange the data in IUT so that the additional connected number in the generic number is discarded.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide restricted ConNb and restricted addConNb in GenNb to be discarded.				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----CON----- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide restricted ConNb and restricted addConNb in GenNb to be discarded.				

TSS COLR/	TP ISS_I_4_6	ISUP'97 reference 6.5.2.4.1/Q.731	Selection expression IncIE AND PICS A.7/3	Q.788 reference None
Test purpose				
<i>Resetting the address signals of the connected number, whose release is forbidden</i>				
To verify that for a connected number which is not to be released to the originating network the setting of the address presentation restricted indicator can be changed from "presentation restricted" to "address not available" and that the address signals are reset.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide restricted ConNb to be reset.				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----CON----- <-----CON----- : </pre>				
<hr/> 1. The PTC will initiate a call set up with the expected parameters. 2. Provide restricted ConNb to be reset.				

TSS COLR/	TP ISS_V_4_7	ISUP'97 reference 6.5.2.5.1/Q.731	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Restricted connected number (user provided, verified and passed)</i>				
To verify that the IUT can provide a connected number with the screening indicator set to "user provided, verified and passed" and with the address presentation restricted indicator set to "presentation restricted", if the user provided COL is valid.				
Pre-test conditions				
Arrange the data in the IUT so that the connected party has subscribed to COLR.				
Case a)				
<pre> access SPA SPB -----setup----- <-----IAM----- -----alert-----> -----ACM----- ... ringing tone ... -----connect----> -----ANM----- : </pre>				
<hr/> 1. Set up a call to the access with a COLP request, access provides valid COL.				
Case b)				
<pre> access SPA SPB -----setup----- <-----IAM----- -----connect----> -----CON----- : </pre>				
<hr/> 1. Set up a call to the access with a COLP request, access provides valid COL.				

TSS COLR/	TP ISS_V_4_8	ISUP'97 reference 6.5.2.5.1/Q.731	Selection expression DLE AND PICS A.3/8 (SUB)	Q.788 reference 2.3.6
Test purpose				
<i>Restricted connected number (user provided, verified and passed) with connected sub-address</i>				
To verify that the IUT can provide a connected number with the screening indicator set to "user provided, verified and passed" and with the address presentation restricted indicator set to "presentation restricted", if the user provided COL is valid. Additionally, an access transport parameter containing the connected sub-address shall also be provided.				
Pre-test conditions				
Arrange the data in the IUT so that the connected party has subscribed to COLR and SUB.				
Case a)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> :</pre>				
1. Set up a call to the access with a COLP request, access provides valid COL with sub-address.				
Case b)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----connect----> -----CON-----> :</pre>				
1. Set up a call to the access with a COLP request, access provides valid COL with sub-address.				

TSS COLR/	TP ISS_V_4_9	ISUP'97 reference 6.5.2.5.1/Q.731	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Restricted connected number (network provided)</i>				
To verify that the IUT can provide a default connected number with the screening indicator set to "network provided" and with the address presentation restricted indicator set to "presentation restricted", if the user provided COL is not valid.				
Pre-test conditions				
Arrange the data in the IUT so that the connected party has subscribed to the COLR.				
Case a)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> :</pre>				
1. Set up a call to the access with a COLP request, access provides invalid COL.				
Case b)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----connect----> -----CON-----> :</pre>				
1. Set up a call to the access with a COLP request, access provides invalid COL.				

TSS COLR/	TP ISS_V_4_10	ISUP'97 reference 6.5.2.5.1/Q.731	Selection expression DLE AND PICS A.3/8 (SUB)	Q.788 reference 2.3.5
Test purpose				
<i>Restricted connected number (network provided) with connected sub-address</i>				
To verify that the IUT can provide a default connected number with the screening indicator set to "network provided" and with the address presentation restricted indicator set to "presentation restricted", if the user provided COL is not valid. Additionally, an access transport parameter containing the connected sub-address shall also be provided.				
Pre-test conditions				
Arrange the data in the IUT so that the connected party has subscribed COLR and SUB.				
Case a)				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> :</pre>				
<hr/> 1. Set up a call to the access with a COLP request, access provides invalid COL with sub-address. 2. ScRI "network provided" is implicit.				
Case b)				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----connect----> -----CON-----> :</pre>				
<hr/> 1. Set up a call to the access with a COLP request, access provides invalid COL with sub-address. 2. ScRI "network provided" is implicit.				

TSS COLR/	TP ISS_V_4_11	ISUP'97 reference 6.5.2.5.1/Q.731	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Restricted connected number (user provided, not verified)</i>				
To verify that the IUT can provide a default connected number with the screening indicator set to "network provided" and a generic number containing the additional connected number with the screening indicator set to "user provided, not verified" – both having the address presentation restricted indicator set to "presentation restricted".				
Pre-test conditions				
Arrange the data in IUT so that there is a special arrangement from the access signalling system regarding an additional connected number and that the connected party has subscribed to COLR.				
Case a)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> : </pre>				
1. Set up a call to the access with a COLP request, access provides special COL.				
Case b)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----connect----> -----CON-----> : </pre>				
1. Set up a call to the access with a COLP request, access provides special COL.				

TSS COLR/	TP ISS_V_4_12	ISUP'97 reference 6.5.2.5.1/Q.731	Selection expression DLE AND PICS A.3/8 (SUB)	Q.788 reference 2.3.5
Test purpose				
<i>Restricted connected number (user provided, not verified) with connected sub-address</i>				
To verify that the IUT can provide a default calling party number with the screening indicator set to "network provided", a generic number containing the additional connected number with the screening indicator set to "user provided, not verified" – both having the address presentation restricted indicator set to "presentation restricted" and additionally an access transport parameter containing the connected sub-address.				
Pre-test conditions				
Arrange the data in IUT so that there is a special arrangement from the access signalling system regarding an additional connected number and that the connected party has subscribed to COLR and SUB.				
Case a)				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> : </pre>				
1. Set up a call to the access with a COLP request, access provides special COL with sub-address.				
Case b)				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> -----connect----> -----CON-----> : </pre>				
1. Set up a call to the access with a COLP request, access provides special COL with sub-address.				

7.2.5 Portabilité de terminal (TP, *terminal portability*)

TSS TP/	TP ISS_V_5_1	ISUP'97 reference 4.5.2.1.1 a)/Q.733	Selection expression OLE	Q.788 reference 2.12.1
Test purpose				
<i>Terminal portability, requested by the calling party</i>				
To verify that the calling party can suspend and resume an outgoing call and that user initiated SUS and RES messages are sent to the succeeding exchange.				
Pre-test conditions				
Arrange the data in the IUT so that the calling party subscribes to the Terminal portability service.				
<pre> access SPA SPB -----setup-----> <-----IAM-----> -----alert-----> <-----ACM-----> ... ringing tone ... -----connect----> <-----ANM-----> ... check communication ... -----tp-suspend---> <-----SUS-----> -----tp-resume---> <-----RES-----> : </pre>				
1. Set up a call from SPA to SPB. 2. Suspend the call by the calling party (ISDN subscriber). 3. Resume the call by the calling party (ISDN subscriber).				

TSS TP/	TP ISS_V_5_2	ISUP'97 reference 4.5.2.1.1 b)/Q.733	Selection expression OLE	Q.788 reference 2.12.1
Test purpose				
<i>Terminal portability, requested by the called party</i>				
To verify that IUT informs the calling party that a suspend and a resume have been requested by the called party upon receipt of user initiated SUS and RES messages.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- ... check communication ... <-----tp-suspend--- <-----SUS----- <-----tp-resume--- <-----RES----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from SPA to SPB. 2. Suspend the call by the called party (ISDN subscriber). 3. Resume the call by the called party (ISDN subscriber). 				

TSS TP/	TP ISS_I_5_3	ISUP'97 reference 4.5.2.1.2/Q.733	Selection expression Local	Q.788 reference 2.12.2
Test purpose				
<i>Terminal portability, requested by local served user, no Resume after Suspend</i>				
To verify that the call is released with cause #102 (recovery on timer expiry) by the IUT if timer T2 expires because the local served user does not resume the call.				
Pre-test conditions				
Arrange the data in the IUT so that the local user subscribes to the Terminal portability service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- ... check communication ... -----tp-suspend---> -----SUS-----> T2 <-----disconnect---- -----REL-----> <-----RLC----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from SPA to SPB. 2. Suspend the call by the calling party (ISDN subscriber). 3. Check if the call is released with cause #102. 				

TSS TP/	TP ISS_V_5_4	ISUP'97 reference 4.5.2.1.1/Q.733	Selection expression Local	Q.788 reference None
Test purpose				
<i>Terminal portability, release suspended call</i>				
To verify that a suspended call can be released by the IUT, if the local user or the remote user releases the call.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- ... check communication ... -----tp-suspend---> -----SUS-----> -----disconnect---> -----REL-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from SPA to SPB. 2. Suspend the call by the calling party (ISDN subscriber). 3. Release the suspended call by the local user. 				
Case b)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- ... check communication ... -----tp-suspend---> -----SUS-----> <-----disconnect--- <-----REL-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from SPA to SPB. 2. Suspend the call by the calling party (ISDN subscriber). 3. Release the suspended call by the remote user. 				

TSS TP/	TP ISS_V_5_5	ISUP'97 reference 4.5.2.2.1 a); 4.5.2.3.1; 4.5.2.4.1/Q.733	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Terminal portability, requested by the calling party (transit call)</i>				
To verify that the SUS and RES messages are passed on transparently by the IUT, if the calling party requests the service.				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- ... check communication ... -----SUS-----> -----SUS-----> -----RES-----> -----RES-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from SPA to SPB. 2. Suspend the call by the calling party (ISDN subscriber). 3. Resume the call by the calling party (ISDN subscriber). 				

TSS TP/	TP ISS_V_5_6	ISUP'97 reference 4.5.2.2.1 b); 4.5.2.3.1; 4.5.2.4.1/Q.733	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Terminal portability, requested by the called party (transit call)</i>				
To verify that the SUS and RES messages are passed on transparently by the IUT, if the called party requests the service.				
<pre> SPC SPA SPB <-----IAM-----<-----IAM----- -----ACM-----> -----ACM-----> ... ringing tone ... -----ANM-----> -----ANM-----> ... check communication ... -----SUS-----> -----SUS-----> -----RES-----> -----RES-----> : </pre> <hr/> <p>1. Set up a call from the UNI at SPB. 2. The called party at UNI at SPC suspends the call (ISDN subscriber). 3. The called party at UNI at SPC resumes the call (ISDN subscriber).</p>				

TSS TP/	TP ISS_V_5_7	ISUP'97 reference 4.5.2.5.1 a)/Q.733	Selection expression DLE	Q.788 reference 2.12.1
Test purpose				
<i>Terminal portability, requested by the calling party</i>				
To verify that the IUT informs the called party that suspend and resume have been requested by the calling party upon receipt of user initiated SUS and RES messages.				
<pre> access SPA SPB <----setup-----<-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect---> -----ANM-----> ... check communication ... <---tp-suspend--- <-----SUS----- <---tp-resume--- <-----RES----- : </pre> <hr/> <p>1. Set up a call from the UNI at SPB. 2. The calling party at SPB suspends the call (ISDN subscriber). 3. The calling party at SPB resumes the call (ISDN subscriber).</p>				

TSS TP/	TP ISS_V_5_8	ISUP'97 reference 4.5.2.5.1 b)/Q.733	Selection expression DLE	Q.788 reference 2.12.1
Test purpose				
<i>Terminal portability, requested by the called party</i>				
To verify that the called party can suspend and resume an incoming call and that user initiated SUS and RES messages are sent to the preceding exchange.				
Pre-test conditions				
Arrange the data in the IUT so that the called party subscribes to the Terminal portability service.				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> -----alert-----> -----ACM-----> ... ringing tone ... -----connect-----> -----ANM-----> ... check communication ... ----tp-suspend--> -----SUS-----> ----tp-resume---> -----RES-----> : </pre>				
<hr/> 1. Set up a call from the UNI at SPB. 2. The called party at UNI at SPA suspends the call (ISDN subscriber). 3. The called party at UNI at SPA resumes the call (ISDN subscriber).				

TSS NO_TP/	TP ISS_I_5_9	ISUP'97 reference 4.5.2.3.2; 4.5.2.4.2/Q.733	Selection expression Gateway AND NOT PICS A.3/5 AND PICS A.8/1	Q.788 reference None
Test purpose				
<i>Terminal portability, national network does not support the service</i>				
To verify that the SUS and RES messages are discarded by the IUT without notification if the served user requests suspend and resume, but the national network does not support the Terminal portability service.				
<pre> SPC SPA SPB <-----IAM-----> <-----IAM-----> -----ACM-----> -----ACM-----> ... ringing tone ... -----ANM-----> -----ANM-----> ... check communication ... -----SUS-----> Nothing is observed -----RES-----> : </pre>				
<hr/> 1. Set up a call from the UNI at SPB.				

TSS TP/	TP ISS_V_5_10	ISUP'97 reference 4.6.13.3/Q.733	Selection expression Local AND PICS A.9/8	Q.788 reference None
Test purpose				
<i>Terminal portability, request for UUS3 while call is suspended</i>				
To verify that a request for User-to-user signalling service 3 is rejected by the IUT if the call is currently suspended and if the IUT is the suspend controlling exchange.				
Pre-test conditions				
Arrange the data in the IUT so that the local user subscribes both to the Terminal portability service and to the User-to-user signalling service 3.				
<pre> access SPA SPB <----setup-----> <----IAM-----> -----alert-----> -----ACM-----> ... ringing tone ... -----connect-----> -----ANM-----> ... check communication ... -----tp-suspend---> -----SUS-----> -----UUS3-req-----> reject - nothing happens in the network -----tp-resume----> -----RES-----> : </pre>				
<ol style="list-style-type: none"> 1. Set up a call from the UNI at SPB. 2. The called party suspends the call (ISDN subscriber). 3. The called party resumes the call (ISDN subscriber). 				

7.2.6 Signalisation d'utilisateur à utilisateur (UUS, *user-to-user signalling*)

7.2.6.1 Service 1 de signalisation d'utilisateur à utilisateur (UUS1, *user-to-user signalling service 1*)

TSS UUS/UUS1_I/	TP ISS_V_6_1_1	ISUP'97 reference 1.1.2.1/Q.737	Selection expression OLE AND PICS A.9/1	Q.788 reference None
Test purpose				
<i>32 octets user-to-user information</i>				
To verify that the IUT can successfully initiate a call having 32 octets of user-to-user information in the messages related to the set up or the release of the call.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
<pre> access SPA SPB -----setup(UUIInf)----> -----IAM(UUIInf)----> <----alert(UUIInf)-----> <----ACM(UUIInf)-----> ... ringing tone ... -----connect(UUIInf)----> -----ANM(UUIInf)----> ... check communication ... -----disc(UUIInf)----> -----REL(UUIInf)----> -----RLC-----> </pre>				
<ol style="list-style-type: none"> 1. Set up a call from UNI at SPA to SPB with 32 octets of user-to-user information. 				

TSS UUS/UUS1_I/	TP ISS_V_6_1_2	ISUP'97 reference 1.1.5.2.1.1; 1.1.5.2.1.3; 1.1.5.2.2- 4.1/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.15.1
Test purpose				
<i>UUS1 implicit - request</i>				
To verify that the IUT can successfully initiate/transit a call with an UUS 1 implicit request, having the user-to-user information parameter in the IAM , without the user-to-user indicators parameter.				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB ----setup(UUIInf)----> -----IAM(UUIInf)----> <---alert(UUIInf)---- <----ACM(UUIInf)----- ... ringing tone ... <--connect(UUIInf)--- <-----ANM(UUIInf)----- ... check communication ... <---disc(UUIInf)----- <-----REL(UUIInf)----- -----RLC-----></pre>				
1. Set up a call from UNI at SPA to SPB with user-to-user information.				
Case b)				
<pre> SPC SPA SPB -----IAM(UUIInf)----> -----IAM(UUIInf)----> <----ACM(UUIInf)---- <----ACM(UUIInf)----- ... ringing tone ... -----ANM(UUIInf)----- <-----ANM(UUIInf)----- ... check communication ... -----REL(UUIInf)----- <-----REL(UUIInf)----- -----RLC-----> -----RLC-----></pre>				
1. Set up a call from UNI at SPA to SPB with user-to-user information.				

TSS UUS/UUS1_I/	TP ISS_I_6_1_3	ISUP'97 reference 1.1.5.2.5.2.3; 1.1.5.2.2- 4.2/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.15.2
Test purpose				
<i>UUS1 implicit – discarded with indication received</i>				
To verify that the IUT can, after successfully initiating/transiting a call with an UUS1 implicit request, continue normal call set up if the first backward message is received with the user-to-user indicators set to "user-to-user information discarded by the network".				
NOTE – The user-to-user information is discarded because the following network does not support it.				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB -----setup(UUInf)----> -----IAM(UUInf)----> <-----alert-----<---ACM(UUInf disc)-- :</pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information. 2. First backward message with user-to-user indicators set to "UUInf discarded by the network".				
Case b)				
<pre> SPC SPA SPB -----IAM(UUInf)----> -----IAM(UUInf)----> <---ACM(UUInf disc)--<--ACM(UUInf disc)--- :</pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information. 2. First backward message with user-to-user indicators set to "UUInf discarded by the network".				

TSS UUS/UUS1_I/	TP ISS_I_6_1_4	ISUP'97 reference 1.1.5.2.5.2.3; 1.1.5.2.3- 5.2/Q.737	Selection expression OLE OR InterM	Q.788 reference None
Test purpose				
<i>UUS1 implicit – discarded but no indication received</i>				
To verify that the IUT can successfully initiate/transit a call with an UUS1 implicit request, and complete the call if no indication is provided in the backward direction.				
NOTE – The user-to-user information is discarded because:				
1) the remote network is unable to pass the service 1 in any message.				
2) the remote user may not be able to interpret incoming UUS information.				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB ----setup(UUInf)----> -----IAM(UUInf)-----> <----alert-----<-----ACM----- ... ringing tone ... <----connect-----<-----ANM----- ... check communication ... <----disc-----<-----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information. 2. No indication in the first backward message.				
Case b)				
<pre> SPC SPA SPB -----IAM(UUInf)-----> -----IAM(UUInf)-----> <--ACM(UUInf disc)--<-----ACM----- ... ringing tone ... <-----ANM-----<-----ANM----- ... check communication ... <-----REL-----<-----REL----- -----RLC-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information. 2. No indication regarding UUS1 in the first backward message.				

TSS UUS/UUS1_I/	TP ISS_V_6_1_5	ISUP'97 reference 1.1.5.2.1.1; 1.1.5.2.1.3; 1.1.5.2.3- 5.1/Q.737	Selection expression IntermE OR DLE	Q.788 reference 2.15.1
Test purpose				
<i>UUS1 implicit – acceptance</i>				
To verify that the IUT can successfully transit/accept a call with an UUS1 implicit request, and transfer/include the user-to-user information parameter in the ACM, CPG, ANM, CON, SGM or REL as implicit acceptance (no user-to-user indicators).				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
access SPA SPB				
<----setup(UUInf)--- <-----IAM(UUInf)-----				
----alert(UUInf)---> -----ACM(UUInf)---->				
... ringing tone ...				
---connect(UUInf)---> -----ANM(UUInf)---->				
... check communication ...				
<----disc(UUInf)---- <-----REL(UUInf)-----				
-----RLC----->				
1. Set up a call from UNI at SPB to SPA with user-to-user information.				
Case b)				
SPC SPA SPB				
<----IAM(UUInf)----- <-----IAM(UUInf)-----				
----ACM(UUInf)---> -----ACM(UUInf)--->				
... ringing tone ...				
----ANM(UUInf)---> -----ANM(UUInf)--->				
... check communication ...				
<----REL(UUInf)---- <-----REL(UUInf)-----				
-----RLC----->				
1. Set up a call from UNI at SPB to SPA with user-to-user information.				

TSS UUS/NO_UUS1_I/	TP ISS_I_6_1_6	ISUP'97 reference 1.1.5.2.5.2.3; 1.1.5.2.3- 5.2/Q.737	Selection expression IntermE OR DLE	Q.788 reference 2.15.2
Test purpose				
<i>UUS1 implicit – discard with indication generated</i>				
To verify that the IUT can successfully transit/accept a call with an UUS1 implicit request and set the user-to-user indicators to "user-to-user information discarded by the network" in the first backward message, if the network is unable to support it.				
NOTE – The user-to-user information is discarded because the network does not support it.				
Pre-test conditions				
Arrange the data in the IUT such that the network does not support the UUS1 service.				
Case a)				
access SPA SPB				
<-----setup----- <-----IAM(UUIInf)-----				
-----alert-----> -----ACM(UUIInf disc)-->				
:				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information. 2. Check "user-to-user information discarded by the network" in the first backward message (ACM).				
Case b)				
SPC SPA SPB				
<-----IAM----- <-----IAM(UUIInf)-----				
---ACM(UUIInf disc)--> ---ACM(UUIInf disc)-->				
:				
<hr/> 1. Set up a call from UNI at SPB to SPC with user-to-user information. 2. Check "user-to-user information discarded by the network" in the first backward message (ACM).				

TSS UUS/UUS1_E/	TP ISS_V_6_1_7	ISUP'97 reference 1.1.5.2.1.1.2; 1.1.5.2.2- 4.1/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.15.3
Test purpose				
<i>UUS1 explicit non-essential – request</i>				
To verify that the IUT can successfully initiate/transit a call with an UUS1 explicit non-essential request, by including/transferring the user-to-user information parameter and the user-to-user indicators in the IAM set to "request, not essential".				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB ----setup(UUIInf)----> -----IAM(UUIInf)-----> UUS1 explicit request <---alert(UUIInf)---- <---ACM(UUIInf)----- UUS1 explicit response ... ringing tone ... <--connect(UUIInf)---- <---ANM(UUIInf)-----> ... check communication ... <---disc(UUIInf)---- <---REL(UUIInf)-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information. 2. Check that the Service 1 field in the UUInd is set to "request, not essential".				
Case b)				
<pre> SPC SPA SPB -----IAM(UUIInf)----> -----IAM(UUIInf)-----> UUS1 explicit request <---ACM(UUIInf)---- <---ACM(UUIInf)----- UUS1 explicit response ... ringing tone ... -----CON(UUIInf)---- <---ANM(UUIInf)-----> ... check communication ... <---REL(UUIInf)---- <---REL(UUIInf)-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check that the Service 1 field in the UUInd is set to "request, not essential".				

TSS UUS/UUS1_E/	TP ISS_I_6_1_8	ISUP'97 reference 1.1.5.2.5.2.3; 1.1.5.2.2-4.2/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.15.5
Test purpose				
<i>UUS1 explicit non-essential – explicit rejection received</i>				
To verify that the IUT can successfully initiate/transit a call with an UUS1 explicit non-essential request, and continue normal call set up if the UUS1 service is explicitly rejected (the user-to-user indicators parameter is received as "service not provided" in the ACM or CPG or ANM or CON or REL).				
NOTE – The user-to-user information is discarded because:				
1) the network is unable to pass the explicit service 1 in any message.				
2) the remote user may not be able to interpret incoming UUS information.				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB ----setup(UUInd)----> -----IAM(UUInd)----> UUS1 explicit request <---alert(UUInd)---- <---ACM(UUInd)---- UUS1 explicit response ... ringing tone ... <-----connect----- <-----ANM----- ... check communication ... <-----disc----- <-----REL----- -----RLC-----> </pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check the Service 1 field in the UUInd is set to "request, not essential". 3. Send the response "Service not provided" in the ACM.				
Case b)				
<pre> SPC SPA SPB -----IAM(UUInd)----> -----IAM(UUInd)----> UUS1 explicit request <---ACM(UUInd)---- <---ACM(UUInd)---- UUS1 explicit response ... ringing tone ... <-----CON----- <-----ANM----- ... check communication ... <-----REL----- <-----REL----- -----RLC-----> </pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check the Service 1 field in the UUInd is set to "request, not essential". 3. Send the response "Service not provided" in the ACM.				

TSS UUS/UUS1_E/	TP ISS_I_6_1_9	ISUP'97 reference 1.1.5.2.5.2.3; 1.1.5.2.2-4.2/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.15.4
Test purpose				
<i>UUS1 explicit non-essential – implicit (no explicit) rejection received</i>				
To verify that the IUT can successfully initiate/transit a call with an UUS1 explicit non-essential request, and continue normal call set up if no indication is provided in the backward direction.				
NOTE – The user-to-user information is discarded because:				
1) the network is unable to pass the explicit service 1 in any message.				
2) the remote user may not be able to interpret incoming UUS information.				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB -----setup(UUIInf)----> -----IAM(UUIInf)----> UUS1 explicit request <---alert(UUIInd)---- <---ACM(UUIInd)---- UUS1 explicit response ... ringing tone ... -----connect----- <-----ANM----- ... check communication ... -----disc----- <-----REL----- -----RLC-----> </pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check the Service 1 field in the UUIInd is set to "request, not essential". 3. Send the response "no information" in the ACM.				
Case b)				
<pre> SPC SPA SPB -----IAM(UUIInf)----> -----IAM(UUIInf)----> UUS1 explicit request <---ACM(UUIInd)---- <---ACM(UUIInd)---- UUS1 explicit response ... ringing tone ... -----CON----- <-----ANM----- ... check communication ... -----REL----- <-----REL----- -----RLC-----> </pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check the Service 1 field in the UUIInd is set to "request, not essential". 3. Send the response "no information" in the ACM.				

TSS UUS/UUS1_E/	TP ISS_I_6_1_10	ISUP'97 reference 1.1.5.2.2; Table 1-1/Q.737	Selection expression Gateway AND PICS A.9/5	Q.788 reference 2.15.5
Test purpose				
<i>UUS1 explicit non-essential rejection in Gateway</i>				
To verify that the UUS1 explicit non-essential service can be rejected and the user-to-user indicators are in the ACM or CON set to "service 1 not provided".				
NOTE – The user-to-user service is rejected because:				
1) the gateway received a CFN from the succeeding network (Note 3 Table 1-1).				
2) the gateway has received user-to-user information in the SGM (Basic call PICS A.13/7) and the succeeding network does not support the segmentation procedure (Note 2 Table 1-1).				
<pre> SPC SPA SPB <----IAM(UUInf)----> <----IAM(UUInd)----> UUS1 explicit request -----CFN(UUInd)-----> -----ACM(UUInd)---> UUS1 explicit response ... ringing tone ... -----CON-----> -----ANM-----> ... check communication ... -----REL-----> -----REL-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1 field in the UUInd is set to "request, not essential". 3. Check the response "Service not provided" in the ACM.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_11	ISUP'97 reference 1.1.5.2.1.1.2; 1.1.5.2.3- 5.1/Q.737	Selection expression IntermE OR DLE	Q.788 reference 2.15.3
Test purpose				
<i>UUS1 explicit non-essential – acceptance</i>				
To verify that the IUT can successfully transit/accept a call with an UUS1 explicit non-essential request, by transferring/including the user-to-user indicators parameter in the ACM , CPG , ANM , CON or REL set to "service provided".				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB <----setup(UUInd)----> <----IAM(UUInd)----> UUS1 explicit request -----alert(UUInd)---> -----ACM(UUInd)----> UUS1 explicit response ... ringing tone ... -----connect(UUInd)---> -----ANM(UUInd)----> ... check communication ... -----disc(UUInd)----> <----REL(UUInd)----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1 field in the UUInd is set to "request, not essential". 3. Check the response "Service provided" in the ACM.				
Case b)				
<pre> SPC SPA SPB <----IAM(UUInd)----> <----IAM(UUInd)----> UUS1 explicit request -----ACM(UUInd)---> -----ACM(UUInd)----> UUS1 explicit response ... ringing tone ... -----CON(UUInd)---> -----ANM(UUInd)----> ... check communication ... -----REL(UUInd)----> <----REL(UUInd)----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1 field in the UUInd is set to "request, not essential". 3. Check the response "Service provided" in the ACM.				

TSS UUS/NO_UUS1_E/	TP ISS_I_6_1_12	ISUP'97 reference 1.1.5.2.5.2.2; 1.1.5.2.2- 5.2/Q.737	Selection expression IntermE OR DLE	Q.788 reference 2.15.4
Test purpose				
<i>UUS1 explicit non-essential – implicit (no explicit) rejection sent</i>				
To verify that the IUT can transfer/accept a call with an UUS1 explicit non-essential request, and reject the service by not providing any user-to-user indicators parameter in the ACM , CPG , ANM , CON or REL .				
NOTE – The network or the user cannot support UUS1.				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the network cannot support UUS1.				
Case a)				
<pre> access SPA SPB <----setup(UUIInf)----> <----IAM(UUIInf)----> UUS1 explicit request -----alert-----> -----ACM-----> ... ringing tone ... -----connect-----> -----ANM-----> ... check communication ... <----disc-----> <----REL-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1 field in the UUIInd is set to "request, not essential". 3. Check that there is no user-to-user indicators parameter in the ACM.				
Case b)				
<pre> SPC SPA SPB <----IAM(UUIInf)----> <----IAM(UUIInf)----> UUS1 explicit request -----ACM-----> -----ACM-----> ... ringing tone ... -----CON-----> -----ANM-----> ... check communication ... <----REL-----> <----REL-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1 field in the UUIInd is set to "request, not essential". 3. Check that there is no user-to-user indicators parameter in the ACM.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_13	ISUP'97 reference 1.1.5.2.1.1.2; 1.1.5.2.2- 5.1/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.15.3
Test purpose				
<i>UUS1 explicit essential – request</i>				
To verify that the IUT can successfully originate/transit a call having an UUS1 explicit essential request, by including/transferring in the IAM the user-to-user information parameter, the user-to-user indicators set to "request, essential" and the ISDN user part preference indicator in the forward call indicators set to "ISUP required all the way".				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB ----setup(UUIInf)----> -----IAM(UUIInf)-----> UUS1 explicit request <---alert(UUIInf)---- <----ACM(UUIInf)----- UUS1 explicit response ... ringing tone ... <---connect(UUIInf)--- <----ANM(UUIInf)----- ... check communication ... <---disc(UUIInf)----- <----REL(UUIInf)----- -----RLC-----> </pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check that the Service 1 field in UUIInd is set to "request, essential" and the ISDN user part preference indicator in FCI is set to "ISUP required all the way".				
Case b)				
<pre> SPC SPA SPB ----IAM(UUIInf)----> -----IAM(UUIInf)-----> UUS1 explicit request <---ACM(UUIInf)----- <----ACM(UUIInf)----- UUS1 explicit response ... ringing tone ... <---CON(UUIInf)----- <----ANM(UUIInf)----- ... check communication ... <---REL(UUIInf)----- <----REL(UUIInf)----- -----RLC-----> </pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check that the Service 1 field in UUIInd is set to "request, essential" and the ISDN user part preference indicator in FCI is set to "ISUP required all the way".				

TSS UUS/UUS1_E/	TP ISS_I_6_1_14	ISUP'97 reference 1.1.5.2.5.2.2; 1.1.5.2.2- 5.2/Q.737	Selection expression OLE OR Gateway	Q.788 reference None
Test purpose				
<i>UUS1 explicit essential – implicit rejection (no explicit acceptance received)</i>				
To verify that the service can be rejected if no indication (no user-to-user indicators parameter or the service 1 field in the user-to-user indicators set to "no information" or "not provided") is received in the first backward message (implicit rejection of service 1).				
NOTE – The network does not understand the service 1 request. In this case the call should be released.				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB ----setup(UUIInf)----> -----IAM(UUIInf)---> UUS1 explicit request <-----alert-----> <-----ACM-----> -----disc-----> -----REL-----> <-----RLC-----> </pre>				
<hr/> 1. Set up a call UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check that the Service 1 field in UUIInd is set to "request, essential" and the ISDN user part preference indicator in FCI is set to "ISUP required all the way". 3. The call should be released with cause #29 or #69, because the user-to-user indicators parameter in the ACM is received with "no information" about the service 1.				
Case b)				
<pre> SPC SPA SPB -----IAM(UUIInf)---> -----IAM(UUIInf)---> UUS1 explicit request <-----ACM-----> <-----ACM-----> -----REL-----> -----REL-----> -----RLC-----> <-----RLC-----> </pre>				
<hr/> 1. Set up a call UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check that the Service 1 field in UUIInd is set to "request, essential" and the ISDN user part preference indicator in FCI is set to "ISUP required all the way". 3. The call should be released with cause #29 or #69, because the user-to-user indicators parameter in the ACM is received with "no information" about the service 1.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_15	ISUP'97 reference 1.1.5.2.1.1.2; 1.1.5.2.2- 5.1/Q.737	Selection expression DLE OR InterM	Q.788 reference 2.15.3
Test purpose				
<i>UUS1 explicit essential – acceptance</i>				
To verify that the IUT can successfully complete a call with an UUS1 explicit essential request having the user-to-user indicators parameter in the ACM , CPG , ANM , CON or REL set to "service provided".				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS1 supplementary service.				
Case a)				
<pre> access SPA SPB <----setup(UUIInf)----> <----IAM(UUIInf)----> UUS1 explicit request -----alert(UUIInf)---> -----ACM(UUIInf)----> UUS1 explicit response ... ringing tone ... ---connect(UUIInf)---> -----ANM(UUIInf)----> ... check communication ... <---disc(UUIInf)-----> <----REL(UUIInf)-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1 field in the UUIInd is set to "request, essential". 3. Check the response "Service provided" in the ACM.				
Case b)				
<pre> SPC SPA SPB <----IAM(UUIInf)----> <----IAM(UUIInf)----> UUS1 explicit request -----ACM(UUIInd)---> -----ACM(UUIInd)----> UUS1 explicit response ... ringing tone ... -----CON(UUIInf)---> -----ANM(UUIInf)----> ... check communication ... <---REL(UUIInf)-----> <----REL(UUIInf)-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1 field in the UUIInd is set to "request, essential". 3. Check the response "Service provided" in the ACM.				

TSS UUS/NO_UUS1_E/	TP ISS_I_6_1_16	ISUP'97 reference 1.1.5.2.5.2.2; 1.1.5.2.2- 5.2/Q.737	Selection expression DLE OR InterM E	Q.788 reference 2.15.6; 2.15.7
Test purpose				
<i>UUS1 explicit essential – rejection</i>				
To verify that the service can be rejected with a REL having the Cause value 29 "facility rejected" or 69 "requested facility not implemented", either with diagnostics (specifying the name of the user-to-user indicator parameter).				
NOTE – The network or the called user cannot support the service				
Case a)				
<pre> access SPA SPB <----setup(UUIInf)---> <----IAM(UUIInf)-----> UUS1 explicit request ----disc-----> -----REL-----> <-----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The call should be released with cause #29 or #69.				
Case b)				
<pre> SPC SPA SPB <----IAM(UUIInf)-----> <----IAM(UUIInf)-----> UUS1 explicit request -----REL-----> -----REL-----> <-----RLC-----> <-----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The call should be released with cause #29.				
Case c)				
<pre> SPC SPA SPB <----IAM(UUIInf)-----> <----IAM(UUIInf)-----> UUS1 explicit request -----REL-----> -----REL-----> <-----RLC-----> <-----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The call should be released with cause #69.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_17	ISUP'97 reference 1.1.6.13.2; 1.1.6.13.3/Q.737	Selection expression Local AND (PICS A.9/6 OR PICS A.9/8)	Q.788 reference None
Test purpose				
<i>UUS1 interaction with UUS2 (or UUS3) – successful request</i>				
To verify that more than one UUS supplementary service may be requested at call set up.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and UUS2 (or UUS3) supplementary services.				
Case a)				
<pre> access SPA SPB ----setup(UUInd)---> -----IAM(UUInd)---> UUS1, 2 explicit request <---alert(UUInd)----> <----ACM(UUInd)----> UUS1, 2 explicit response ... ringing tone ... -----user info-----> -----USR-----> <-----user info-----<-----USR----- <---connect(UUInd)---> <----ANM(UUInd)----> ... check communication ... <---disc(UUInd)-----> <----REL(UUInd)----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check that the Service 1, 2 fields in UUInd are set each to "request, not essential". 3. Support of Service 2				
Case b)				
<pre> access SPA SPB <---setup(UUInd)----> <---IAM(UUInd)----> UUS1, 3 explicit request -----alert(UUInd)---> ---ACM(UUInd)---> UUS1 explicit response ... ringing tone ... -----conn(UUInd)----> ---ANM(UUInd)---> UUS3 explicit response ... check communication ... <-----user info-----<-----USR----- -----user info-----> -----USR-----> <---disc(UUInd)-----> <---REL(UUInd)----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1, 3 fields in UUInd are set each to "request, not essential" 3. Support of Service 3.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_18	ISUP'97 reference 1.1.6.13.2; 1.1.6.13.3/Q.737	Selection expression DLE AND (PICS A.9/6 OR PICS A.9/8)	Q.788 reference None
Test purpose				
<i>UUS1 interaction with UUS2 (or UUS3) – unsuccessful request</i>				
To verify that the services can be rejected with a REL having the Cause value #29 "facility rejected" or #69 "requested facility not implemented", either with diagnostics (user-to-user indicators name), if more services are requested, one of them is essential and it cannot be provided.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and UUS2 (or UUS3) supplementary services.				
<pre> access SPA SPB <--setup(UUInf)--- <-----IAM(UUInf)---- UUS1, 2, 3 explicit request -----disc-----> -----REL-----> <-----RLC-----></pre>				
<hr/> 1. Set up a call UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The call should be released with cause #29 or #69, because the service 2 cannot be provided.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_19	ISUP'97 reference 1.1.6.13.2; 1.1.6.13.3/Q.737	Selection expression Local AND (PICS A.9/6 OR PICS A.9/8)	Q.788 reference None
Test purpose				
<i>UUS1 interaction with UUS2 (or UUS3) – independent acceptance or rejection of the services</i>				
To verify that the IUT can successfully complete a call with an UUS1 explicit non-essential request, having the user-to-user indicators parameter in the ACM, CPG, ANM, CON or REL set to "service provided". At the same time the UUS2 (or UUS3) service can be rejected and the user-to-user indicators in the ACM, CPG, ANM, CON or REL are set to "service 2 (or 3) not provided".				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and UUS2 (or UUS3) supplementary services.				
Case a)				
<pre> access SPA SPB -----setup(UUInd)----> -----IAM(UUInd)----> UUS1, 2, 3 explicit request <---alert(UUInd)---- <---ACM(UUInd)----> UUS1, 2 explicit response ... ringing tone ... -----user info-----> -----USR----- <---user info----- <---USR----- -----connect(UUInd)--- <---ANM(UUInd)---> UUS 3 explicit response ... check communication ... -----disc(UUInd)----> -----REL(UUInd)----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check that the Service 1, 2, 3 fields in UUInd are set each to "request, not essential". 3. Support of Service 2.				
Case b)				
<pre> access SPA SPB -----setup(UUInd)----> -----IAM(UUInd)----> UUS1, 2, 3 explicit request -----alert(UUInd)---> -----ACM(UUInd)---> UUS1, 2 explicit response ... ringing tone ... -----user info-----> -----USR----- -----user info-----> -----USR----- -----connect(UUInd)---> -----ANM(UUInd)---> UUS 3 explicit response ... check communication ... -----disc(UUInd)----> -----REL(UUInd)----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. The Service 1, 2, 3 fields in UUInd are set each to "request, not essential". 3. Support of Service 2.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_20	ISUP'97 reference 1.1.6.13.3; 1.1.6.13.1/Q.737	Selection expression Local AND PICS A.9/8	Q.788 reference None
Test purpose				
<i>UUS1 interaction with UUS3 requested after call set up</i>				
To verify that the IUT can successfully originate/complete a call with UUS1, having requested UUS3 after call set up. The Service 1 field in the user-to-user indicators in the FAR , FAA or FRJ for UUS1 is then set to "no information".				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and UUS3 supplementary services.				
Case a)				
<pre> access SPA SPB ----setup(UUInfo)----> -----IAM(UUInfo)-----> UUS1 explicit request <---alert(UUInfo)---- <----ACM(UUInfo)-----> UUS1 explicit response ... ringing tone ... <--connect(UUInfo)--- <-----ANM(UUInfo)----- ... check communication ... ----facility-req----> -----FAR-----> UUS3 request <---facility-ind--- <-----FAA-----> UUS3 response -----user info-----> -----USR----- <---user info----- <-----USR----- <---disc(UUInfo)---- <-----REL(UUInfo)----- -----RLC-----> </pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service indicators. 2. Check that the Service 1 fields in UUIInd is set to "request, not essential". 3. Check request of service 3 in FAR.				
Case b)				
<pre> access SPA SPB <---setup(UUInfo)---- -----IAM(UUInfo)-----> UUS1 explicit request ----alert(UUInfo)----> -----ACM(UUInfo)-----> UUS1 explicit response ... ringing tone ... ---connect(UUInfo)--> -----ANM(UUInfo)----- ... check communication ... <---facility-req--- <-----FAR-----> UUS3 request ----facility-ind--- <-----FAA-----> UUS3 response <---user-info----- <-----USR----- -----user-info-----> -----USR----- <---disc(UUInfo)---- <-----REL(UUInfo)----- -----RLC-----> </pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service indicators. 2. Check that the Service 1 fields in UUIInd is set to "request, not essential". 3. The service 3 is requested in FAR. 4. The service 3 is provided in FAA. 5. Send/Receive user-to-user information.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_21	ISUP'97 reference 1.1.6.15/Q.737	Selection expression Local AND PICS A.3/16 (HOLD)	Q.788 reference None
Test purpose				
<i>UUS1 interaction with HOLD – to a held party</i>				
To verify that the IUT can successfully complete a call including an user-to-user information (service 1) to a held party during the clearing phase of a call.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and HOLD supplementary services.				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----hold-----> -----CPG-----> -----disc-----> -----REL-----> UUIinf present :</pre>				
<hr/> 1. IAM, ACM, CPG may contain UUIinf. 2. Check that UUIinf is received in the REL.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_22	ISUP'97 reference 1.1.6.15/Q.737	Selection expression Local AND PICS A.3/16 (HOLD)	Q.788 reference None
Test purpose				
<i>UUS1 interaction with HOLD – from a held party</i>				
To verify that the IUT can successfully complete a call including an user-to-user information (service 1) from a held party during the clearing phase of a call.				
Pre-test conditions				
Arrange the data in the IUT so that the remote user has subscribed to the UUS1 and HOLD supplementary services.				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----hold-----> -----CPG-----> <-----disc----- <-----REL-----> UUIinf present -----RLC-----></pre>				
<hr/> 1. IAM, ACM, CPG may contain UUIinf. 2. Send UUIinf in the REL.				

TSS UUS/UUS1_E/	TP ISS_V_6_1_23	ISUP'97 reference 3.6.13/Q.733.3	Selection expression OLE AND PICS A.3/18	Q.788 reference None
Test purpose				
<i>New UUS1 requested in CCBS recall</i>				
To verify that the IUT does not store any user-to-user information contained in the original call. The CCBS call (IAM) sent by the IUT should not contain any user-to-user information if no new user-to-user information is provided from the served user in response to the CCBS recall.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and CCBS supplementary services.				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUInf present <-----disconnect--- <-----REL-----> -----RLC-----> ... TCAP transaction ... -----CCBS recall---> -----IAM-----> No new UUInf is sent in the CCBS recall : <-----disc-----> <-----REL-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at SPB. The received IAM contains UUInf. 2. User at SPB is found busy. Check that the UUInf is received in the IAM. 3. Check that user at SPB becomes free by using the RemoteUserFree CCBS ASE operation. 4. Check Indication "CCBS call" in the IAM. Check that no UUInf is received in the IAM. 				

TSS UUS/UUS1_E/	TP ISS_V_6_1_24	ISUP'97 reference 3.6.13/Q.733.3	Selection expression OLE AND PICS A.3/18	Q.788 reference None
Test purpose				
<i>UUS1 interaction with CCBS</i>				
To verify that the IUT is able to include user-to-user information in the CCBS call (IAM) if the served user includes user-to-user information in response to the CCBS recall.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and CCBS supplementary services.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--- <----REL----- -----RLC-----> ... TCAP transaction ... -----CCBS recall---> -----IAM-----> UUInf is sent in the CCBS recall CCBS call <---alert(UUInf)--- <---ACM(UUInf)--- ... ringing tone ... <--connect(UUInf)-- <---ANM(UUInf)--- ... check communication ... <-----disc----- <-----REL----- :</pre> <hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at SPB. 2. User at SPB is found busy. 3. Check that user at SPB becomes free by using the RemoteUserFree CCBS ASE operation. 4. Check Indication "CCBS call" in the IAM. Check that UUInf is received in the IAM. 				

7.2.6.2 Service 2 de signalisation d'utilisateur à utilisateur (UUS2, *user-to-user signalling service 2*)

TSS UUS/UUS2/	TP ISS_V_6_2_1	ISUP'97 reference 1.2.2.1/Q.737	Selection expression OLE AND PICS A.9/1	Q.788 reference None
Test purpose				
<i>32 octets user-to-user information</i>				
To verify that the IUT can successfully initiate a call having 32 octets of user-to-user information in the USR messages during call set up.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS2 explicit request <-----alert-----<-----ACM-----> UUS2 response ... ringing tone ... -----user info---> -----USR-----> <-----user info---<-----USR----- <-----connect-----<-----ANM----- ... check communication ... <-----disc-----<-----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user service 2 request. 2. Check that the user-to-user information field in the USR contains 32 octets.				

TSS UUS/UUS2/	TP ISS_V_6_2_2	ISUP'97 reference 1.2.5.2.1.1.2; 1.2.5.2.2- 5.1/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.16.1
Test purpose				
<i>UUS2 explicit non-essential – request</i>				
To verify that the IUT can successfully originate/transit a call with an UUS2 explicit non-essential request, having the user-to-user indicators in the IAM set to "request, not essential".				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
Case a)				
<pre> access SPA SPB -----> -----IAM-----> UUS2 explicit request <-----alert----- <-----ACM----- UUS2 response ... ringing tone ... -----user info----> -----USR-----> <---user info----- <-----USR----- -----connect----- <-----ANM----- ... check communication ... -----disc----- <-----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user service 2 request. 2. The Service 2 field in the UUIInd is set to "request, not essential". 3. Receive user-to-user information. 4. Send user-to-user information.				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> UUS2 explicit request <-----ACM----- <-----ACM----- UUS2 response ... ringing tone ... -----USR-----> -----USR-----> <-----USR----- <-----USR----- -----ANM----- <-----ANM----- ... check communication ... -----REL-----> -----REL----- -----RLC-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPC to SPB with user-to-user service 2 request. 2. Check the Service 2 field in the UUIInd is set to "request, not essential". 3. Receive user-to-user information. 4. Send user-to-user information.				

TSS UUS/UUS2/	TP ISS_V_6_2_3	ISUP'97 reference 1.2.5.2.1.1.2; 1.2.5.2.2- 5.1/Q.737	Selection expression DLE OR InterM E	Q.788 reference 2.16.1
Test purpose				
<i>UUS2 explicit non-essential – acceptance</i>				
To verify that the IUT can successfully complete a call with an UUS2 explicit non-essential request, having the user-to-user indicators parameter in the ACM or CPG set to "service provided".				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> UUS2 explicit request -----alert-----> -----ACM-----> UUS2 explicit response (-----CPG-----> UUS2 explicit response) ... ringing tone ... <-----user info----> <-----USR-----> -----user info---> -----USR-----> -----connect----> -----ANM-----> ... check communication ... <-----disc-----> <-----REL-----> -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from UNI at SPB to SPA with user-to-user service 2 request. 2. The Service 2 field in the UUIInd is set to "request, not essential". 3. Check the response "Service provided" in the ACM or in CPG. 4. Send user-to-user information. 5. Receive user-to-user information. 				

TSS UUS/NO_UUS2/	TP ISS_I_6_2_4	ISUP'97 reference 1.2.5.2.5.2.2; 1.2.5.2.2- 5.2/Q.737	Selection expression DLE or InterM E	Q.788 reference 2.16.3
Test purpose				
<i>UUS2 explicit non-essential – explicit rejection (service not provided)</i>				
To verify that the UUS2 service can be rejected and the user-to-user indicators in the ACM or CPG are set to "service 2 not provided".				
NOTE – The network or the user cannot support UUS2.				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> UUS2 explicit request -----alert-----> -----ACM-----> UUS2 explicit response (-----CPG-----> UUS2 explicit response) ... ringing tone ... -----connect----> -----ANM-----> ... check communication ... <-----disc-----> <-----REL-----> -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from UNI at SPB to SPA with user-to-user service 2 request. 2. The Service 2 field in the UUIInd is set to "request, not essential". 3. Check the response "Service not provided" in the ACM or in CPG. 				

TSS UUS/NO_UUS2/	TP ISS_I_6_2_5	ISUP'97 reference 1.2.5.2.5.2.3; 1.2.5.2.2-5.2/Q.737	Selection expression DLE OR IntermE	Q.788 reference 2.16.2
Test purpose				
<i>UUS2 explicit non-essential – implicit rejection (no indication)</i>				
To verify that the IUT can successfully complete a call with an UUS2 explicit non-essential request, if no indication is provided in the backward direction.				
NOTE – The network or the user cannot support UUS2				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> UUS2 explicit request -----alert-----> -----ACM-----> UUS2 explicit response - no if ... ringing tone ... -----connect-----> -----ANM-----> ... check communication ... <-----disc-----> <-----REL-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user service 2 request. 2. The Service 2 field in the UUIInd is set to "request, not essential". 3. Check the response "No information" in the ACM or in CPG.				

TSS UUS/UUS2/	TP ISS_V_6_2_6	ISUP'97 reference 1.2.5.2.1.1.2; 1.2.5.2.2- 5.1/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.16.1
Test purpose				
<i>UUS2 explicit essential – request</i>				
To verify that the IUT can successfully originate/transit a call having an UUS2 explicit essential request, having the user-to-user indicators set to "request, essential" and the ISDN user part preference indicator of the forward call indicators in the IAM set to "ISUP required".				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS2 explicit request <-----alert----- <-----ACM----- UUS2 response ... ringing tone ... -----user info----> -----USR-----> <-----user info---- <-----USR----- <-----connect----- <-----ANM----- ... check communication ... <-----disc----- <-----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user service 2 request. 2. Check the Service 2 field in the UUIInd is set to "request, essential" in the IAM. 3. Receive user-to-user information. 4. Send user-to-user information.				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> UUS2 explicit request <-----ACM----- <-----ACM----- UUS2 response ... ringing tone ... -----USR-----> -----USR-----> <-----USR----- <-----USR----- <-----ANM----- <-----ANM----- ... check communication ... <-----REL----- <-----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPC to SPB with user-to-user service 2 request. 2. Check the Service 2 field in the UUIInd is set to "request, essential" in the IAM. 3. Receive user-to-user information. 4. Send user-to-user information.				

TSS UUS/UUS2/	TP ISS_V_6_2_7	ISUP'97 reference 1.2.5.2.1.1.2; 1.2.5.2.2- 5.1/Q.737	Selection expression DLE OR InterM E	Q.788 reference 2.16.1
Test purpose				
<i>UUS2 explicit essential – acceptance</i>				
To verify that the IUT can successfully complete a call having an UUS2 explicit essential request having the user-to-user indicators parameter in the ACM or CPG set to "service provided".				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> UUS2 explicit request -----alert-----> -----ACM-----> UUS2 explicit response (-----CPG-----> UUS2 explicit response) ... ringing tone ... <----user info----> <-----USR-----> -----user info---> -----USR-----> -----connect-----> -----ANM-----> ... check communication ... <----disc-----> <-----REL-----> -----RLC-----></pre>				
<ol style="list-style-type: none"> Set up a call from UNI at SPB to SPA with user-to-user service 2 request. The Service 2 field in the UUIInd is set to "request, essential". Check the response "Service provided" in the ACM or CPG. Send user-to-user information. Receive user-to-user information. 				

TSS UUS/NO_UUS2/	TP ISS_I_6_2_8	ISUP'97 reference 1.2.5.2.5.2.1; 1.2.5.2.2- 5.2/Q.737	Selection expression DLE OR InterM E	Q.788 reference 2.16.4; 2.16.5
Test purpose				
<i>UUS2 explicit essential – rejection</i>				
To verify that the service can be rejected with a REL with the Cause value 29 "facility rejected" or 69 "requested facility not implemented" or value 88 "incompatible destination", all with diagnostics (user-to-user indicators name).				
Case a)				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> UUS2 explicit request -----disc-----> -----REL-----> -----RLC-----></pre>				
<ol style="list-style-type: none"> Set up a call from UNI at SPB to SPA with user-to-user service 2 request. The call should be released with cause #26, #69 or #88. 				
Case b)				
<pre> SPC SPA SPB <-----IAM-----> <-----IAM-----> UUS2 explicit request -----CFN-----> -----REL-----> -----REL-----> -----RLC-----> <-----RLC-----></pre>				
<ol style="list-style-type: none"> Set up a call from UNI at SPB to SPC with user-to-user service 2 request. The call should be released with cause #26, #69 or #88. 				

TSS UUS/UUS2/	TP ISS_I_6_2_9	ISUP'97 reference 1.2 5.2.5.2.1; 1.2.5.2.2- 5.2/Q.737	Selection expression OLE or Interim	Q.788 reference None
Test purpose				
<i>UUS2 explicit essential – implicit rejection</i>				
To verify that the service can be rejected if no indication is received (no user-to-user indicators parameter) in the first backward message (implicit rejection of service 2).				
NOTE – The remote network does not understand the service 2 request or the remote user cannot support UUS2.				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
Case a)				
<pre> access SPA SPB -----setup----> -----IAM-----> UUS2 explicit request <-----ACM----- <-----disc----- -----REL-----> <-----RLC----- </pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user service 2 request. 2. Check the Service 2 field in the UUIInd is set to "request, essential" in the IAM. 3. Call released because there is no UUIInd in the ACM.				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> UUS2 explicit request <-----ACM----- <-----REL----- -----REL-----> -----RLC-----> <-----RLC----- </pre>				
<hr/> 1. Set up a call from SPC to SPA with user-to-user service 2 request. 2. Check the Service 2 field in the UUIInd is set to "request, essential" in the IAM. 3. Call released because there is no UUIInd in the ACM.				

TSS UUS/UUS2/	TP ISS_V_6_2_10	ISUP'97 reference 1.2.5.2.1.1.2/Q.737	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Discard the user-to-user information if more than two messages received during a call set up</i>				
To verify that the IUT discards the user-to-user service information in the additional message if more than two messages are received during the call set up (in each direction).				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS2 explicit request <-----alert----- <-----ACM----- UUS2 response ... ringing tone ... -----user info----> -----USR-----> <-----user info----> <-----USR-----> -----user info----> -----USR-----> <-----user info----> <-----USR-----> -----user info----> no USR <-----connect----- <-----ANM-----> ... check communication ... -----disc----- <-----REL-----> -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from UNI at SPA to SPB with user-to-user service 2 request. 2. Check the Service 2 field in the UUIInd is set to "request, not essential" in the IAM. 3. Check the receipt of two USR during call set up. 4. Send user-to-user information. <hr/>				

TSS UUS/UUS2/	TP ISS_I_6_2_11	ISUP'97 reference 1.2.5.2.1.1.2/Q.737	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Pass on one of the USR received just after ANM</i>				
To verify that the IUT can successfully pass on one of the USR messages received just after the answer state has been reached.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS2 explicit request <-----alert----- <-----ACM----- UUS2 response ... ringing tone ... -----user info---> -----USR-----> <-----user info--- <-----USR-----> <-----connect----> -----ANM-----> -----user info---> -----USR-----> ... check communication ... <-----disc----- <-----REL-----> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from UNI at SPA to SPB with user-to-user service 2 request. 2. Check the Service 2 field in the UUIInd is set to "request, not essential" in the IAM. 3. Check one user-to-user information during call set up. 4. Send user-to-user information. 5. Check one user-to-user information after ANM. <hr/>				

TSS UUS/NO_UUS2/	TP ISS_I_6_2_12	ISUP'97 reference 1.2.5.2.2 Table 1-2; 1.2.7/Q.737	Selection expression Gateway AND PICS A.9/5	Q.788 reference 2.16.3
Test purpose				
<i>Explicit rejection in Gateway</i>				
To verify that the UUS2 explicit non-essential service can be rejected and the user-to-user indicators in the ACM or CON are set to "service 2 not provided".				
NOTE – The user-to-user service is rejected because the IntermE received a CFN from the succeeding network (see Note 2 Table 1-2).				
<pre> SPC SPA SPB -----IAM----- <-----IAM----- UUS2 explicit request -----CFN-----> -----ACM-----> UUS2 explicit response ... ringing tone ... -----CON-----> -----ANM-----> ... check communication ... -----REL----- <-----REL-----> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from UNI at SPB to SPA with user-to-user service 2 request. 2. The Service 2 field in the UUIInd is set to "request, not essential". 3. Check the response "Service not provided" in the ACM or CON. <hr/>				

TSS UUS/UUS2/	TP ISS_I_6_2_13	ISUP'97 reference 1.2.2.1/Q.737	Selection expression DLE AND PICS A.9/7	Q.788 reference None
Test purpose				
<i>Deliver user-to-user information in USR after ANM</i>				
To verify that the IUT can successfully deliver the user-to-user information in the USR message to the called user after the answer state has been reached.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS2 supplementary service.				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> UUS2 explicit request -----alert-----> -----ACM-----> UUS2 explicit response ... ringing tone ... <-----user info----> <-----USR-----> -----user info---> -----USR-----> -----connect-----> -----ANM-----> <-----user info----> <-----USR-----> ... check communication ... <-----disc-----> <-----REL-----> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from UNI at SPB to SPA with user-to-user service 2 request. 2. The Service 2 field in the UUIInd is set to "request, not essential". 3. Check the response "Service provided" in the ACM. 4. Send user-to-user information. 5. Receive user-to-user information. 6. Send one user-to-user information after ANM. 				

TSS UUS/UUS2/	TP ISS_V_6_2_14	ISUP'97 reference 1.2.6.13.1; 1.2.6.13.3/Q.737	Selection expression Local AND (PICS A.9/4 OR PICS A.9/8)	Q.788 reference None
Test purpose				
<i>UUS2 interaction with UUS1 (or UUS3) – unsuccessful request</i>				
To verify that the services can be rejected with a REL with Cause value #29 "facility rejected" or #69 "requested facility not implemented", either with diagnostics (user-to-user indicators name), if more services are requested, one of them is essential and it cannot be provided.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and UUS2 (or UUS3) supplementary services.				
Case a)				
<pre> access SPA SPB -----setup(UUInf)--- <-----IAM(UUInf)----- UUS1, 2, 3 explicit request -----disc-----> -----REL-----> <-----RLC-----></pre>				
<hr/> 1. Set up a call UNI at SPB to SPA with user-to-user information and user-to-user service 2, 3 request. 2. The call should be released with cause #29 or #69, because the service 2 cannot be provided.				
Case b)				
<pre> access SPA SPB -----setup(UUInf)---> -----IAM(UUInf)-----> UUS1, 2, 3 explicit request -----disc-----> <-----REL-----> <-----RLC-----></pre>				
<hr/> 1. Set up a call UNI at SPA to SPB with user-to-user information and user-to-user service 2, 3 request. 2. The call should be released with cause #29 or #69, because the service 2 cannot be provided.				

TSS UUS/UUS2/	TP ISS_V_6_2_15	ISUP'97 reference 1.2.6.13.1; 1.2.6.13.3/Q.737	Selection expression Local AND (PICS A.9/4 OR PICS A.9/8)	Q.788 reference None
Test purpose				
<i>UUS2 interaction with UUS1 (or UUS3) – independent acceptance or rejection of the services</i>				
To verify that the IUT can successfully complete a call with an UUS2 explicit non-essential request, having the user-to-user indicators parameter set to "service provided" in the ACM or CPG . At the same time the UUS1 (or UUS3) service can be rejected and the user-to-user indicators in the ACM , CPG , ANM , CON or REL are set to "service 1 (or 3) not provided".				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS1 and UUS2 (or UUS3) supplementary services.				
Case a)				
<pre> access SPA SPB ----setup(UUIInf)----> ----IAM(UUIInf)---> UUS1, 2, 3 explicit request <---alert(UUIInf)----> <---ACM(UUIInf)---> UUS1, 2 explicit response ... ringing tone ... ----user info-----> -----USR----- <---user info-----> <---USR----- --connect(UUIInf)---> <---ANM(UUIInf)---> UUS 3 explicit response ... check communication ... <---disc(UUIInf)----> <---REL(UUIInf)---> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user information and user-to-user service 2, 3 request. 2. Check that the Service 1, 2, 3 fields in UUIInd are set each to "request, not essential". 3. Send/Receive user-to-user information (support of service 2).				
Case b)				
<pre> access SPA SPB <---setup(UUIInf)----> <---IAM(UUIInf)---> UUS1, 2, 3 explicit request ----alert(UUIInf)---> <---ACM(UUIInf)---> UUS1, 2 explicit response ... ringing tone ... <---user info-----> <---USR----- -----user info-----> <---USR-----> --connect(UUIInf)---> <---ANM(UUIInf)---> UUS 3 explicit response ... check communication ... <---disc(UUIInf)----> <---REL(UUIInf)---> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPA with user-to-user information and user-to-user service 2, 3 request. 2. The Service 1, 2, 3 fields in UUIInd are set each to "request, not essential". 3. Send/Receive user-to-user information (support of Service 2). Note: Repeat the test case by setting the response of service 1 or 3 requests in CPG, ANM, REL or CON.				

TSS UUS/UUS2/	TP ISS_V_6_2_16	ISUP'97 reference 1.2.6.13.3; 1.2.6.13.1/Q.737	Selection expression Local AND PICS A.9/8	Q.788 reference None
Test purpose				
<i>UUS2 interaction with UUS3 requested after call set up</i>				
To verify that the IUT can successfully originate/complete a call with UUS2 and UUS3 service requested after call set up. The Service 2 field of the user-to-user indicators in the FAR , FAA or FRJ is then set to "no information".				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS2 and UUS3 supplementary services.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS2 explicit request <-----alert----- <-----ACM-----> UUS2 explicit response ... ringing tone ... -----user info---> -----USR----- <-----user info--- <-----USR----- <-----connect----- <-----ANM----- ... check communication ... -----facility-req---> -----FAR-----> UUS3 request <---facility-ind--- <-----FAA-----> UUS3 response -----user info---> -----USR----- <-----user info--- <-----USR----- <-----disc----- <-----REL----- -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> Set up a call from UNI at SPA to SPB with user-to-user service 2 request. Check that the Service 2 fields in UUIInd is set to "request, not essential". Send/Receive user-to-user information (support of service 2) Check request of service 3 in FAR. Send/Receive user-to-user information (support of service 3) 				
Case b)				
<pre> access SPA SPB -----setup----- <-----IAM-----> UUS2 explicit request -----alert-----> -----ACM-----> UUS2 explicit response ... ringing tone ... <-----user info--- <-----USR----- -----user info---> -----USR-----> -----connect-----> -----ANM-----> ... check communication ... -----facility-req--- <-----FAR-----> UUS3 request -----facility-ind---> -----FAA-----> UUS3 response <-----user info---> -----USR----- -----user info---> -----USR-----> <-----disc----- <-----REL----- -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> Set up a call from UNI at SPB to SPA with user-to-user service 2 request. The Service 2 fields in UUIInd is set to "request, not essential". Send/Receive user-to-user information (support of service 2) The service 3 is requested in FAR. Check service 3 is provided in FAA. Send/Receive user-to-user information (support of service 3) 				

7.2.6.3 Service 3 de signalisation d'utilisateur à utilisateur (UUS3, *user-to-user signalling service 3*)

TSS UUS/UUS3/	TP ISS_V_6_3_1	ISUP'97 reference 1.3.2.1/Q.737	Selection expression OLE AND PICS A.9/1	Q.788 reference None
Test purpose				
<i>32 octets user-to-user information</i>				
To verify that the IUT can successfully initiate a call having 32 octets of user-to-user information in each message.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS3 supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS3 explicit request <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- UUS3 response ... check communication ... -----user info---> -----USR-----> <-----user info--- <-----USR----- <-----disc----- <-----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user service 3 request. 2. Check that the user-to-user information field in the USR contains 32 octets.				

TSS UUS/UUS3/	TP ISS_V_6_3_2	ISUP'97 reference 1.3.2.1/Q.737	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Rejection of UUS3 after call set up, if rejected at call set up</i>				
To verify that the IUT can reject an UUS3 request after call set up, if it has been rejected at the call set up.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS3 supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS3 explicit request <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- UUS3 response ... check communication ... -----facility-req---> -----FAR-----> <--facility-reject--- <-----FRJ----- ... check communication ... <-----disc----- <-----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user service 3 request.				

TSS UUS/UUS3/	TP ISS_V_6_3_3	ISUP'97 reference 1.3.5.2.1.1.2; 1.3.5.2.2- 5.1/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.17.1
Test purpose				
<i>UUS3 explicit non-essential – request</i>				
To verify that the IUT can successfully originate/transit a call with an UUS3 explicit non-essential request, having the user-to-user indicators in the IAM set to "request, not essential".				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS3 supplementary service.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS3 explicit request <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- UUS3 response ... check communication ... -----user info----> -----USR-----> <-----user info---- <-----USR----- <-----disc----- <-----REL----- -----RLC-----></pre>				
1. Set up a call from UNI at SPA to SPB with user-to-user service 3 request.				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> UUS3 explicit request <-----ACM----- <-----ACM----- ... ringing tone ... -----ANM----- <-----ANM----- UUS3 response ... check communication ... -----USR-----> -----USR-----> <-----USR----- <-----USR----- <-----REL----- <-----REL----- -----RLC-----> -----RLC-----></pre>				
1. Set up a call from UNI at SPC to SPB with user-to-user service 3 request.				

TSS UUS/UUS3/	TP ISS_V_6_3_4	ISUP'97 reference 1.3.5.2.1.1.2; 1.3.5.2.2- 5.1/Q.737	Selection expression DLE OR IntermE	Q.788 reference 2.17.1
Test purpose				
<i>UUS3 explicit non-essential – acceptance</i>				
To verify that the IUT can successfully complete a call with an UUS3 explicit non-essential request, having the Service 3 field in the user-to-user indicators parameter in the ANM or CON set to "service provided".				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS3 supplementary service.				
<pre> access SPA SPB <-----setup-----<-----IAM----- UUS3 explicit request -----alert-----> -----ACM-----> ... ringing tone ... -----connect-----> -----ANM-----> UUS3 response ... check communication ... <-----user info-----<-----USR-----> -----user info-----> -----USR-----> ... check communication ... <-----disc-----<-----REL-----> -----RLC-----> <-----setup-----<-----IAM----- UUS3 explicit request -----connect-----> -----CON-----> UUS3 response ... check communication ... <-----user info-----<-----USR-----> -----user info-----> -----USR-----> ... check communication ... <-----disc-----<-----REL-----> -----RLC-----></pre>				
1. Set up a call from UNI at SPB to SPA with user-to-user service 3 request.				

TSS UUS/NO_UUS3/	TP ISS_I_6_3_5	ISUP'97 reference 1.3.5.2.5.2.3; 1.3.5.2.2-5.2/Q.737	Selection expression DLE OR IntermE	Q.788 reference 2.17.2
Test purpose				
<i>UUS3 explicit non-essential – implicit rejection (no indication)</i>				
To verify that the IUT can successfully complete a call with an UUS3 explicit non-essential request, if no indication is provided in the backward direction.				
NOTE – The network or the user cannot support UUS3.				
Case a)				
<pre> access SPA SPB <-----setup-----<-----IAM----- UUS3 explicit request -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> UUS3 response (no indication) ... check communication ... <-----disc-----<-----REL-----> -----RLC-----> <-----setup-----<-----IAM----- UUS3 explicit request -----connect----> -----CON-----> UUS3 response (no indication) ... check communication <-----disc-----<-----REL-----> -----RLC-----></pre>				
1. Set up a call from UNI at SPB to SPA with user-to-user service 3 request.				
Case b)				
<pre> SPC SPA SPB -----IAM-----<-----IAM----- UUS3 explicit request -----ACM-----> -----ACM-----> ... ringing tone ... -----ANM-----> -----ANM-----> UUS3 response (no indication) ... check communication ... <-----REL-----<-----REL-----> -----RLC-----> -----RLC-----> -----IAM-----<-----IAM----- UUS3 explicit request -----CON-----> -----CON-----> UUS3 response (no indication) ... check communication ... <-----REL-----<-----REL-----> -----RLC-----> -----RLC-----></pre>				
1. Set up a call from UNI at SPB to SPA with user-to-user service 3 request.				

TSS UUS/NO_UUS3/	TP ISS_I_6_3_6	ISUP'97 reference 1.3.5.2.5.2.2; 1.3.5.2.2- 5.2/Q.737	Selection expression DLE OR IntermE	Q.788 reference 2.17.3
Test purpose				
<i>UUS3 explicit non-essential – explicit rejection (service not provided)</i>				
To verify that the UUS3 service can be rejected and the Service 3 field in the user-to-user indicators in the ANM or CON are set to "service 3 not provided".				
NOTE – The network or the called user cannot support UUS3.				
Case a)				
<pre> access SPA SPB <-----setup-----<-----IAM----- UUS3 explicit request -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> UUS3 response (serv. not provided) ... check communication ... <-----disc-----<-----REL-----> -----RLC-----> <-----setup-----<-----IAM----- UUS3 explicit request -----connect----> -----CON-----> UUS3 response (serv. not provided) ... check communication ... <-----disc-----<-----REL-----> -----RLC-----></pre>				
1. Set up a call from UNI at SPB to SPA with user-to-user service 3 request.				
Case b)				
<pre> SPC SPA SPB -----IAM-----<-----IAM----- UUS3 explicit request -----ACM-----> -----ACM-----> ... ringing tone ... -----ANM-----> -----ANM-----> UUS3 response (serv. not provided) ... check communication ... <-----REL-----<-----REL-----> -----RLC-----> -----RLC-----> -----IAM-----<-----IAM----- UUS3 explicit request -----CON-----> -----CON-----> UUS3 response (serv. not provided) ... check communication ... <-----REL-----<-----REL-----> -----RLC-----> -----RLC-----></pre>				
1. Set up a call from UNI at SPB to SPA with user-to-user service 3 request.				

TSS UUS/UUS3/	TP ISS_V_6_3_7	ISUP'97 reference 1.3.5.2.1.1.2; 1.3.5.2.2- 5.1/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.17.1
Test purpose				
<i>UUS3 explicit essential – request</i>				
To verify that the IUT can successfully originate/transit a call with an UUS3 explicit essential request, having in the IAM the user-to-user indicators set to "request, essential" and the ISDN user part preference indicator in the forward call indicators set to "ISUP required all the way".				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS3 supplementary service.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> UUS3 explicit request <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- UUS3 response ... check communication ... -----user info----> -----USR-----> <----user info---- <----USR----- <----disc----- <----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user service 3 request. 2. Send/Receive user-to-user information.				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> UUS3 explicit request <-----ACM----- <-----ACM----- UUS3 response ... ringing tone ... <-----ANM----- <-----ANM----- ... check communication ... -----USR-----> -----USR-----> <----USR----- <----USR----- <----REL----- <----REL----- -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPA to SPB with user-to-user service 3 request. 2. Send/Receive user-to-user information.				

TSS UUS/UUS3/	TP ISS_V_6_3_8	ISUP'97 reference 1.3.5.2.1.1.2; 1.3.5.2.2- 5.1/Q.737	Selection expression DLE OR IntermE	Q.788 reference 2.17.1
Test purpose				
<i>UUS3 explicit essential – acceptance</i>				
To verify that the IUT can successfully complete a call with an UUS3 explicit essential request having in the ANM or CON the Service 3 field of the user-to-user indicators parameter set to "service provided".				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS3 supplementary service.				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> UUS3 explicit request -----alert-----> -----ACM-----> ... ringing tone ... -----connect-----> -----ANM-----> UUS3 response ... check communication ... <-----user info-----> <-----USR-----> -----user info-----> -----USR-----> ... check communication ... <-----disc-----> <-----REL-----> -----RLC-----> <-----setup-----> <-----IAM-----> UUS3 explicit request -----connect-----> -----CON-----> UUS3 response ... check communication ... <-----user info-----> <-----USR-----> -----user info-----> -----USR-----> ... check communication ... <-----disc-----> <-----REL-----> -----RLC-----></pre>				
1. Set up a call from UNI at SPB to SPA with user-to-user service 3 request.				

TSS UUS/NO_UUS3/	TP ISS_I_6_3_9	ISUP'97 reference 1.3.5.2.5.2.2; 1.3.5.2.2- 5.2/Q.737	Selection expression DLE OR IntermE	Q.788 reference 2.17.4
Test purpose				
<i>UUS3 explicit essential – explicit rejection</i>				
To verify that the service can be rejected with a REL having the Cause value #29 "facility rejected", #69 "requested facility not implemented", either with diagnostics (user-to-user indicators name).				
NOTE – The network or the called user cannot support the service.				
Case a)				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> UUS3 explicit request -----disc-----> -----REL-----> <-----RLC-----></pre>				
<hr/> 1. Set up a call UNI at SPB to SPA with user-to-user service 3 request. 2. The call should be released with cause #29 or #69.				
Case b)				
<pre> SPC SPA SPB <-----IAM-----> <-----IAM-----> UUS3 explicit request -----CFN-----> <-----REL-----> -----REL-----> -----RLC-----> <-----RLC-----></pre>				
<hr/> 1. Set up a call UNI at SPB to SPC with user-to-user service 3 request. 2. The call should be released with cause #29 or #69.				

TSS UUS/UUS3/	TP ISS_V_6_3_10	ISUP'97 reference 1.3.5.2.1.1.2; 1.3.5.2.2- 5.1/Q.737	Selection expression OLE OR InterM	Q.788 reference 2.17.6
Test purpose				
<i>UUS3 explicit non-essential – request during the active phase of the call</i>				
To verify that the IUT can successfully generate/transit an UUS3 explicit non-essential request, with a FAR having the facility indicator parameter set to "user-to-user service" and the Service 3 field in the user-to-user indicators set to "request, not essential".				
Pre-test conditions (in case of OLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS3 supplementary service.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- ... check communication ... ---facility-req---> -----FAR-----> UUS3 explicit request <-facility-reject-- <-----FRJ----- UUS3 response ... check communication ... <-----disc----- <-----REL----- -----RLC-----></pre>				
1. Service 3 request during the active phase.				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- ... check communication ... -----FAR-----> -----FAR-----> UUS3 explicit request <-----FRJ----- <-----FRJ----- UUS3 response ... check communication ... <-----REL----- <-----REL----- -----RLC-----> -----RLC-----></pre>				
1. Service 3 request during the active phase.				

TSS UUS/UUS3/	TP ISS_V_6_3_11	ISUP'97 reference 1.3.5.2.1.1.2; 1.3.5.2.2- 5.1/Q.737	Selection expression DLE OR IntermE	Q.788 reference 2.17.5
Test purpose				
<i>UUS3 explicit non-essential – acceptance during call</i>				
To verify that the IUT can successfully reply to an UUS3 explicit non-essential request with a FAA having the facility indicator parameter set to "user-to-user service" and the Service 3 field in the user-to-user indicators parameter set to "service provided".				
Pre-test conditions (in case of DLE)				
Arrange the data in the IUT so that the user has subscribed to the UUS3 supplementary service.				
<pre> access SPA SPB <-----setup-----> -----IAM-----> -----alert-----> -----ACM-----> ... ringing tone ... -----connect-----> -----ANM-----> ... check communication ... <---facility-req---> -----FAR-----> UUS3 request ---facility-ind---> -----FAA-----> UUS3 response <---user info---> -----USR-----> -----user info-----> -----USR-----> <---disc-----> -----REL-----> -----RLC-----></pre>				
<hr/> 1. The service 3 is requested in FAR. 2. Check service 3 is provided in FAA. 3. Send/Receive user-to-user information (support of service 3)				

TSS UUS/UUS3/	TP ISS_I_6_3_12	ISUP'97 reference Table 1-3/Q.737	Selection expression Gateway AND PICS A.9/5	Q.788 reference 2.17.3
Test purpose				
<i>UUS3 explicit non-essential – explicit rejection in the Gateway</i>				
To verify that the UUS3 explicit non-essential service can be rejected and the Service 3 field in the user-to-user indicators in the ACM or CON are set to "service 3 not provided".				
NOTE – The user-to-user service is rejected because the Gateway received e.g. a CFN from the succeeding network (Note 2 Table 1-3).				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> UUS3 explicit request -----CFN-----> -----ACM-----> -----ACM-----> UUS3 explicit response (serv.not provided) ... ringing tone ... -----ANM-----> -----ANM-----> ... check communication ... -----REL-----> -----REL-----> -----RLC-----> -----RLC-----> -----IAM-----> -----IAM-----> UUS3 explicit request -----CFN-----> -----CON-----> -----CON-----> UUS3 explicit response (serv.not provided) ... check communication ... -----REL-----> -----REL-----> -----RLC-----> -----RLC-----></pre>				
<hr/> 1. Set up a call from UNI at SPB to SPC with user-to-user service 3 request. 2. The Service 3 field in the UUIInd is set to "request, not essential". 3. Check the response "Service not provided" in the ACM or CON.				

TSS UUS/UUS3/	TP ISS_I_6_3_13	ISUP'97 reference 1.3.5.2.5.2.2/Q.737	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>UUS3 explicit non-essential – implicit rejection during call (no indication – discard FAA or FRJ)</i>				
To verify that the IUT can successfully complete a call with an UUS3 request in the FAR , if the FAA or FRJ are discarded.				
NOTE – The FAA or FRJ are discarded e.g. because the FAR contains unrecognized or inconsistent information.				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- ... check communication ... <-----FAR----- <-----FAR----- UUS3 explicit request (no FAA or FRJ) ... check communication ... <-----REL----- <-----REL----- -----RLC-----> -----RLC-----> </pre>				
1. Service 3 request during the active phase.				

TSS UUS/UUS3/	TP ISS_I_6_3_14	ISUP'97 reference 1.3.5.2.5.2.2/Q.737	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>UUS3 explicit non-essential – explicit rejection during call (service not provided – in FRJ)</i>				
To verify that the UUS3 explicit non-essential service can be rejected during the active phase of the call and the Service 3 field in the user-to-user indicators in the FRJ are set to "service 3 not provided".				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- ... check communication ... <-----FAR----- <-----FAR----- UUS3 explicit request -----FRJ-----> -----FRJ-----> UUS3 response (serv. not provided) ... check communication ... <-----REL----- <-----REL----- -----RLC-----> -----RLC-----> </pre>				
1. Service 3 request during the active phase.				

TSS UUS/UUS3/	TP ISS_V_6_3_15	ISUP'97 reference 1.3.6.13.1; 1.3.6.13.2/Q.737	Selection expression Local AND (PICS A.9/4 OR PICS A.9/6)	Q.788 reference None
Test purpose				
<i>UUS3 interaction with UUS1 (or UUS2) – unsuccessful request</i>				
To verify that the services can be rejected with a REL having the Cause value #29 "facility rejected" or #69 "requested facility not implemented", either with diagnostics (user-to-user indicators name), if more services are requested one of them essential which cannot be provided.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS3 and UUS1 or (UUS2) supplementary services.				
See ISS_V_6_2_14				

TSS UUS/UUS3/	TP ISS_V_6_3_16	ISUP'97 reference 1.3.6.13.1; 1.3.6.13.2/Q.737	Selection expression Local AND (PICS A.9/4 OR PICS A.9/6)	Q.788 reference None
Test purpose				
<i>UUS3 interaction with UUS1 (or UUS2) – Independent acceptance or rejection of the services</i>				
To verify that the IUT can successfully complete a call with an UUS3 explicit non-essential request, having the Service 3 field in the user-to-user indicators parameter set to "service provided" in ANM or CON. At the same time the UUS1 (or UUS2) service can be rejected and the user-to-user indicators in the ACM, CPG, ANM, CON or REL are set to "service 1 (or 2) not provided".				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS3 and UUS1 (or UUS2) supplementary services.				
See test case ISS_V_6_2_15.				

TSS UUS/UUS3/	TP ISS_V_6_3_17	ISUP'97 reference 1.3.6.18/Q.737	Selection expression OLE	Q.788 reference None
Test purpose				
<i>UUS3 interaction with TP – FAR sent while call is suspended</i>				
To verify that if the FAR is received while a call is suspended, the IUT returns a FRJ with the Service 3 field in the user-to-user indicators set to "Service 3 not provided".				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to the UUS3 and TP supplementary services.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert-----> <-----ACM----- ... ringing tone ... <-----connect----- <-----ANM----- ... check communication ... <-----tp-suspend---- <-----SUS----- <-----FAR-----> UUS3 explicit request <-----FRJ-----> UUS3 response (serv. not provided) ... check communication ... <-----disc----- <-----REL----- -----RLC-----> </pre>				
1. Set up a call from UNI at SPA to SPB which has been suspended.				

7.2.7 Groupe fermé d'utilisateurs (CUG, *closed user group*)

TSS CUG/	TP ISS_V_7_1	ISUP'97 reference 1.5.2.1.1 i) a)/Q.735	Selection expression OLE	Q.788 reference 2.4.4; 2.4.5
Test purpose				
<i>CUG without outgoing access in IAM</i>				
To verify that the IUT can successfully establish a CUG call by including the CUG interlock code together with an indication of "CUG call, outgoing access not allowed" in the optional forward call indicators in the IAM . The ISUP preference indicator of the forward call indicators in the IAM should be set to "ISUP required all the way".				
Pre-test conditions				
Arrange the data in the IUT such that the calling party subscribes to the CUG without outgoing access supplementary service.				
<pre> access SPA SPB -----> -----IAM (CUG)-----> (-OA) - with outgoing access not allowed :</pre>				
<ol style="list-style-type: none"> 1. Set up a CUG call from the access specifying a CUG interlock code. The CUG call is with outgoing access not allowed. 2. CUG call indicator set to "CUG call, outgoing access not allowed" and IPI set to "ISUP required all the way". 				

TSS CUG/	TP ISS_V_7_2	ISUP'97 reference 1.5.2.2.1; 1.5.2.3.1; 1.5.2.4.1/Q.735	Selection expression IntermE	Q.788 reference 2.4.4; 2.4.5
Test purpose				
<i>Transfer of information related to CUG</i>				
To verify that the IUT can successfully transfer all information related to a CUG call, i.e. CUG interlock code together with an indication of "CUG call, outgoing access not allowed" in the optional forward call indicators in the IAM .				
<pre> SPC SPA SPB -----IAM (CUG)-----> -----IAM (CUG)-----> (-OA) :</pre>				
<ol style="list-style-type: none"> 1. Initiate a CUG call set up from SPC specifying a CUG interlock code. The CUG call is with outgoing access not allowed. 2. CUG call indicator set to "CUG call, outgoing access not allowed". 				

TSS CUG/	TP ISS_V_7_3	ISUP'97 reference 1.5.2.3.1; 1.5.2.4.1/Q.735	Selection expression Gateway AND PICS A.10/3	Q.788 reference None
Test purpose				
<i>Conversion of the interlock code</i>				
<p>To verify that the IUT can successfully convert a national into an international CUG interlock code (or vice versa) and that the indication "CUG call, outgoing access not allowed" in the optional forward call indicators in the IAM is passed on transparently.</p> <pre> SPC SPA SPB -----IAM (CUG)-----> -----IAM (CUG)-----> (-OA) : </pre> <p>1. Initiate a CUG call set up from SPC specifying a CUG interlock code. The CUG call is with outgoing access not allowed. 2. CUG call indicator set to "CUG call, outgoing access not allowed" and international CUGIC for OutIE. 3. CUG call indicator set to "CUG call, outgoing access not allowed" and national CUG interlock code for IncIE.</p>				

TSS NO_CUG/	TP ISS_I_7_4	ISUP'97 reference 1.5.2.4.2/Q.735, Table 1-1/Q.735	Selection expression IncIE AND NOT PICS A.3/7 AND PICS A.8/2	Q.788 reference 2.4.9
Test purpose				
<i>CUG call without outgoing access, action at the gateway with network without CUG capability</i>				
<p>To verify that the IUT rejects a CUG call if the contents of the CUG call indicator is set to "CUG call, outgoing access not allowed" in optional forward call indicators in IAM and the succeeding national network does not support CUG. The IUT should respond with a REL with cause #29 "Facility rejected" and include the parameter name in the diagnostics field.</p> <p>Pre-test conditions</p> <p>A route to a network without CUG capability must be available in the IUT.</p> <pre> SPA SPB -----IAM-----> (-OA) with outgoing access not allowed <-----REL----- -----RLC-----> </pre> <p>1. Initiate a CUG call set up from SPC specifying a CUG interlock code. The CUG call is with outgoing access not allowed. 2. Wait for some event, nothing should happen. 3. After timer expiry get the verdict.</p>				

TSS NO_CUG/	TP ISS_I_7_5	ISUP'97 reference 1.5.2.4.2/Q.735, Table 1-1/Q.735	Selection expression IncIE AND NOT PICS A.3/7 AND PICS A.8/2	Q.788 reference 2.4.3
Test purpose				
<i>CUG call with outgoing access, action at the gateway interworking with network without CUG capability</i>				
To verify that the IUT proceeds with normal call setup if the contents of the CUG call indicator is received as "CUG call, outgoing access allowed" in optional forward call indicators in IAM and the succeeding national network does not support CUG.				
Pre-test conditions				
A route to a network without CUG capability must be available in the IUT.				
<pre> SPC SPA SPB -----IAM (CUG)-----> -----IAM-----> (+OA) with outgoing access allowed : </pre>				
<hr/> 1. Initiate a CUG call set up from SPC specifying a CUG interlock code. The CUG call is with outgoing access allowed.				

TSS CUG/	TP ISS_V_7_6	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference 2.4.4
Test purpose				
<i>CUG call without outgoing access; class of called user: CUG without IA, no ICB activated</i>				
To verify that the IUT can successfully establish a CUG call.				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to CUG and no incoming calls are barred.				
<pre> access SPA SPB -----setup----- <----IAM (CUG)----- (-OA,-ICB) no incoming calls barred : </pre>				
<hr/> 1. Assist a CUG call set up to the access. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access not allowed".				

TSS CUG/	TP ISS_V_7_7	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference 2.4.1
Test purpose				
<i>CUG call with outgoing access; class of called user: CUG without IA, no ICB activated</i>				
To verify that the IUT can successfully establish a CUG call.				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to CUG and no incoming calls are barred.				
<pre> access SPA SPB <-----setup-----<----IAM (CUG)----- (+OA,-ICB) no incoming calls barred :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a CUG call set up to the access. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access allowed". 				

TSS CUG/	TP ISS_V_7_8	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference 2.4.8
Test purpose				
<i>CUG call without outgoing access; class of called user: CUG without IA, ICB activated</i>				
To verify that the IUT rejects the CUG call with cause #55 "Incoming calls barred within CUG" in the REL .				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to CUG and the incoming calls are barred (ICB).				
<pre> access SPA SPB <----IAM (CUG)----- (-OA,+ICB) incoming calls barred -----REL(#55)-----> <-----RLC-----</pre>				
<hr/> <ol style="list-style-type: none"> 1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access not allowed". 3. REL with cause #55 "Incoming calls barred within CUG". The location RLN - "public network serving the remote user" - can also be checked. 				

TSS CUG/	TP ISS_V_7_9	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CUG call with outgoing access; class of called user: CUG without IA, ICB activated</i>				
To verify that the IUT rejects the CUG call with cause #55 "Incoming calls barred within CUG" in the REL .				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to CUG and the incoming calls are barred (ICB).				
<pre> access SPA SPB <----IAM (CUG)----- (+OA,+ICB) incoming calls barred -----REL(#55)-----> <-----RLC-----> </pre>				
<hr/> 1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access allowed". 3. REL with cause #55 "Incoming calls barred within CUG". The location RLN - "public network serving the remote user" - can also be checked.				

TSS CUG/	TP ISS_V_7_10	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CUG call without outgoing access; class of called user: CUG with IA and no ICB activated</i>				
To verify that the IUT can successfully establish a CUG call.				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to the CUG with Incoming Access (IA) and no incoming calls are barred.				
<pre> access SPA SPB <----setup----- <----IAM (CUG)----- (-OA,+IA,-ICB) incoming access allowed, no incoming calls barred : </pre>				
<hr/> 1. Assist a CUG call set up to the access. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access not allowed".				

TSS CUG/	TP ISS_V_7_11	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CUG call with outgoing access; class of called user: CUG with IA and no ICB activated</i>				
To verify that the IUT can successfully establish a CUG call with outgoing access.				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to the CUG with Incoming Access (IA) and no incoming calls are barred.				
<pre> access SPA SPB <-----setup----- <----IAM (CUG)----- (+OA,+IA,-ICB) incoming access allowed, no incoming calls barred :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a CUG call set up to the access. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access allowed". 				

TSS CUG/	TP ISS_V_7_12	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CUG call without outgoing access; class of called user: CUG with IA and ICB activated</i>				
To verify that the IUT rejects the CUG call with cause #55 "Incoming calls barred within CUG" in the REL.				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to the CUG with Incoming access (IA) and the incoming calls are barred (ICB).				
<pre> access SPA SPB <----IAM (CUG)----- (-OA,+IA,+ICB) incoming access allowed, incoming calls barred -----REL(#55)-----> -----RLC-----</pre>				
<hr/> <ol style="list-style-type: none"> 1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access not allowed". 3. REL with cause #55 "Incoming calls barred within CUG". The location RLN - "public network serving the remote user" - can also be checked. 				

TSS CUG/	TP ISS_V_7_13	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CUG call with outgoing access; class of called user: CUG with IA and ICB activated</i>				
To verify that the IUT can successfully establish a non-CUG call.				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to the CUG with Incoming access (IA) and the incoming calls are barred (ICB).				
<pre> access SPA SPB <----IAM (CUG)----- (+OA,+IA,+ICB) incoming access allowed, incoming calls barred :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a CUG call set up to the access. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access allowed". 				

TSS CUG/	TP ISS_V_7_14	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference 2.4.5
Test purpose				
<i>CUG call without outgoing access; class of called user: non-CUG</i>				
To verify that the IUT rejects the CUG call with cause #87 "User not member of CUG" in the REL.				
Pre-test conditions				
Called user is not member of CUG.				
<pre> access SPA SPB <----IAM (CUG)----- (-OA) -----REL(#87)----- <-----RLC----- </pre>				
<hr/> <ol style="list-style-type: none"> 1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access not allowed". 3. REL with cause #87 "User not member of CUG". The location RLN - "public network serving the remote user" - can also be checked. 				

TSS CUG/	TP ISS_V_7_15	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference 2.4.2
Test purpose				
<i>CUG call with outgoing access; class of called user: non-CUG</i>				
To verify that the IUT can successfully establish a non-CUG call				
Pre-test conditions				
Called user is not member of CUG.				
<pre> access SPA SPB <----IAM (CUG)----> (+OA) :</pre> <hr/> <ol style="list-style-type: none"> 1. Assist a CUG call set up to the access. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access allowed". 				

TSS CUG/	TP ISS_V_7_16	ISUP'97 reference 1.5.2.5.1; Table 1-2 /Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Non-CUG call; class of called user: CUG without IA</i>				
To verify that the IUT rejects the CUG call with cause # 87 " User not member of CUG " in the REL .				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to CUG.				
<pre> access SPA SPB <-----IAM----- (non-CUG,-IA) incoming access not allowed -----REL(#87)----- <-----RLC-----</pre> <hr/> <ol style="list-style-type: none"> 1. No call set up should be observed on the access side. 2. Send an IAM for a non-CUG call with ISUP preference indicator in the FCI set to "ISUP required all the way". 3. REL with cause #87 "User not member of CUG". The location RLN - "public network serving the remote user" - can also be checked. 				

TSS CUG/	TP ISS_V_7_17	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Non-CUG call; class of called user: CUG with IA</i>				
To verify that the IUT can successfully establish a non-CUG call.				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to CUG with Incoming Access (IA).				
<pre> access SPA SPB <-----IAM----- (non_CUG,+IA) incoming access allowed :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a Non-CUG call set up to the access. 2. Send an IAM for a non-CUG call with ISUP preference indicator in the FCI set to "ISUP required all the way". 				

TSS CUG/	TP ISS_V_7_18	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CUG call without outgoing access; class of called user: other CUG without IA</i>				
To verify that the IUT rejects the CUG call with cause #87 "User not member of CUG" in the REL .				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to another CUG than that of calling user.				
<pre> access SPA SPB <-----IAM (CUG)----- (-OA,-IA) other CUG, incoming access not allowed -----REL(#87)-----> <-----RLC-----</pre>				
<hr/> <ol style="list-style-type: none"> 1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access not allowed". 3. REL with cause #87 "User not member of CUG". The location RLN - "public network serving the remote user" - can also be checked. 				

TSS CUG/	TP ISS_V_7_19	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference 2.4.6
Test purpose				
<i>CUG call with outgoing access; class of called user: other CUG without IA</i>				
To verify that the IUT rejects the CUG call with cause #87 "User not member of CUG" in the REL .				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to another CUG than that of calling user.				
<pre> access SPA SPB <----IAM (CUG)----- (+OA,-IA) other CUG, incoming access not allowed -----REL(#87)-----> <-----RLC-----> </pre>				
1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access allowed". 3. REL with cause #87 "User not member of CUG". The location RLN - "public network serving the remote user" - can also be checked.				

TSS CUG/	TP ISS_V_7_20	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CUG call without outgoing access; class of called user: other CUG with IA</i>				
To verify that the IUT rejects the CUG call with cause #87 "User not member of CUG" in the REL .				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to another CUG than that of calling user, and that incoming access (IA) is allowed.				
<pre> access SPA SPB <----IAM (CUG)----- (-OA,+IA) other CUG, incoming access allowed -----REL(#87)-----> <-----RLC-----> </pre>				
1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access not allowed". 3. REL with cause #87 "User not member of CUG". The location RLN - "public network serving the remote user" - can also be checked.				

TSS CUG/	TP ISS_V_7_21	ISUP'97 reference 1.5.2.5.1; Table 1-2/Q.735	Selection expression DLE	Q.788 reference 2.4.7
Test purpose				
<i>CUG call with outgoing access; class of called user: other CUG with IA</i>				
To verify that the IUT can successfully establish a non-CUG call				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to another CUG than that of calling user, and that incoming access (IA) is allowed.				
<pre> access SPA SPB <---- IAM (CUG) ----> (+OA,+IA) other CUG, incoming access allowed :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a Non-CUG call set up to the access. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access allowed". 				

TSS CUG/	TP ISS_I_7_22	ISUP'97 reference 1.5.2.5.2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Non-CUG call with CUG interlock code in IAM</i>				
To verify that the IUT rejects the call with cause #111 "Protocol error, unspecified" in the REL, if a non-CUG call has a CUG interlock code in the IAM.				
<pre> access SPA SPB <---- IAM (CUGIC) ----> (non-CUG,+IA) incoming access allowed -----REL(#111)-----> <-----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. No call set up should be observed on the access side. 2. Send an IAM for a non-CUG call with ISUP preference indicator in the FCI set to "ISUP required all the way" and a CUG interlock code. There is no OFCI parameter in the IAM. 3. REL with cause #111 "Protocol error, unspecified". 				

TSS CUG/	TP ISS_I_7_23	ISUP'97 reference 1.5.2.5.2/Q.735	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CUG call without interlock code in IAM</i>				
To verify that the IUT rejects the CUG call with cause #111 "Protocol error, unspecified" in the REL , if there is no CUG interlock code in the IAM .				
<pre> access SPA SPB <---IAM (CUGIC)--- (+OA,+IA,-ICB) incoming access allowed, no incoming calls barred -----REL(#111)----> <-----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access allowed". There is no CUGIC parameter in the IAM. 3. REL with cause #111 "Protocol error, unspecified". 				

7.2.8 Sous-adressage (SUB, sub-addressing)

TSS SUB/	TP ISS_V_8_1	ISUP'97 reference 8.5.2.1.1/Q.731	Selection expression OLE	Q.788 reference 2.2.1
Test purpose				
<i>Sending the called sub-address in the access transport parameter</i>				
To verify that the IUT can include the called sub-address in the access transport parameter in the IAM.				
<pre> access SPA SPB -----setup-----> -----IAM-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call from the access with a called sub-address. 				

TSS SUB/	TP ISS_V_8_2	ISUP'97 reference 8.5.2.2.1; 8.5.2.3.1; 8.5.2.4.1/Q.731	Selection expression IntermE	Q.788 reference 2.2.1
Test purpose				
<i>Transit support of access transport parameter</i>				
To verify that the contents of the access transport parameter is passed on transparently in the IAM.				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The PTC will initiate a call set up with the expected parameters. 				

TSS SUB/	TP ISS_V_8_3	ISUP'97 reference 8.5.2.5.1/Q.731	Selection expression DLE	Q.788 reference 2.2.1
Test purpose				
<i>Receiving the called sub-address in the access transport parameter</i>				
To verify that a call may be successfully established if the IAM contains the sub-address in the access transport parameter and that the called sub-address is passed on to the user network interface.				
Pre-test conditions				
Arrange the data in the IUT such that the called party subscribes to the SUB supplementary service.				
<pre> access SPA SPB <-----setup----- <-----IAM----- :</pre>				
1. Set up a call to the access with the ATP parameter containing the called sub-address.				

TSS SUB/	TP ISS_I_8_4	ISUP'97 reference 8.5.2.5.2/Q.731; 2.1.1.6/Q.764	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Receiving the called sub-address if it is not supported at the destination</i>				
To verify that a call may be successfully established if the IAM contains the sub-address in the access transport parameter and the destination address does not subscribe to the SUB supplementary service.				
Pre-test conditions				
Arrange the data in the IUT such that the called party does not subscribe to the SUB supplementary service.				
<pre> access SPA SPB <-----setup----- <-----IAM----- :</pre>				
1. Set up a call to the access with the ATP parameter containing the called sub-address.				

TSS SUB/	TP ISS_V_8_5	ISUP'97 reference 8.7/Q.731	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Interaction with other networks; no notification is sent back to the OLE</i>				
To verify that the IUT can successfully establish a call by discarding the sub-address if the succeeding network does not support the sub-address or the supplied length is not supported.				
<pre> NON-ISUP SPA SPB <-----setup----- <-----IAM----- :</pre>				
1. Set up a call to a network which does not support the Sub-addressing supplementary service or which cannot support the sub-address length supplied.				

7.2.9 Identification des appels malveillants (MCID, *malicious call identification*)

TSS MCID/	TP ISS_V_9_1	ISUP'97 reference 7.5.2.1.1/Q.731.7	Selection expression OLE	Q.788 reference 2.5.1
Test purpose				
<i>Successful MCID request</i>				
To verify that the IUT can successfully reply to an IDR having the MCID request indicator set to "MCID request" by sending an IRS with MCID response indicator set to "MCID included" and the calling party number included.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----IDR----- -----IRS-----> :</pre> <hr/> <p>1. Set up a call from the access with or without a calling party number. 2. IAM may or may not contain calling party number. 3. IDR may be requested even if the initial IAM contained calling party number.</p>				

TSS MCID/	TP ISS_V_9_2	ISUP'97 reference 7.5.2.1.1/Q.731.7	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Successful MCID request – after ACM</i>				
To verify that the IUT will accept and reply correctly to an MCID request after ACM has been received. The IUT should reply to an IDR having the MCID request indicator set to "MCID request" by sending an IRS with MCID response indicator set to "MCID included" and the calling party number included.				
NOTE – This situation may occur e.g. if the call has been forwarded before reaching the destination.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert-----<-----ACM----- ... ringing tone ... <-----IDR----- -----IRS-----> :</pre> <hr/> <p>1. Set up a call from the access. 2. IRS containing the number of calling party number.</p>				

TSS MCID/	TP ISS_V_9_3	ISUP'97 reference 7.5.2.1.1/Q.731.7	Selection expression OLE AND PICS A.12/1	Q.788 reference 2.5.1
Test purpose				
<i>Successful MCID request with calling sub-address</i>				
To verify that the IUT can successfully reply to an IDR having the MCID request indicator set to "MCID request" by sending an IRS with MCID response indicator set to "MCID included", the calling party number and a calling sub-address in the access transport parameter.				
<pre> access SPA SPB -----setup----> -----IAM-----> <-----IDR----- -----IRS-----> :</pre> <hr/> <ol style="list-style-type: none"> 1. Set up a call from the access with a calling party sub-address. 2. Calling party sub-address in ATP. 				

TSS NO_MCID/	TP ISS_I_9_4	ISUP'97 reference 7.5.2.1.2/Q.731.7	Selection expression OLE AND NOT PICS A.3/9	Q.788 reference 2.5.2
Test purpose				
<i>MCID request – MCID not supported by the OLE</i>				
To verify that the IUT rejects a MCID request by sending a IRS with the MCID response indicator set to "MCID not included".				
<pre> access SPA SPB -----setup----> -----IAM-----> <-----IDR----- -----IRS-----> :</pre> <hr/> <ol style="list-style-type: none"> 1. Set up a call from the access. 				

TSS MCID/	TP ISS_V_9_5	ISUP'97 reference 7.5.2.2.1/Q.731.7	Selection expression Transit	Q.788 reference None
Test purpose				
<i>MCID information passed transparently</i>				
To verify that a received IDR is transferred transparently to the preceding exchange and the subsequent IRS is transferred transparently to the succeeding exchange.				
Case a)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----IDR----- <-----IDR-----> -----IRS-----> -----IRS-----> :</pre>				
1. The PTC will initiate a call set up.				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM-----> <-----IDR----- <-----IDR-----> -----IRS-----> -----IRS-----> :</pre>				
1. The PTC will initiate a call set up.				

TSS MCID/	TP ISS_V_9_6	ISUP'97 reference 7.5.2.3.1/Q.731.7	Selection expression OutIE AND NOT PICS A.12/4	Q.788 reference None
Test purpose				
<i>MCID information passed and set correctly – outgoing</i>				
To verify that a received IDR is transferred transparently into the national network (NOT PICS A.4/1), the subsequent IRS being transferred into the international network so that the country code in the address signals of the calling party number is added and the nature of address indicator is set to "international number".				
<pre> SPC national SPA international SPB -----IAM-----> -----IAM-----> <-----IDR----- <-----IDR-----> -----IRS-----> -----IRS-----> :</pre>				
1. The PTC will initiate a call set up with the expected parameters. 2. The IDR request is transferred into the national network. 3. The IRS is received from the national network having the calling party number coded as an "international number".				

TSS NO_MCID/	TP ISS_I_9_7	ISUP'97 reference 7.5.2.3.2/Q.731.7	Selection expression OutIE AND NOT PICS A.3/9 AND PICS A.8/3	Q.788 reference 2.5.2
Test purpose				
<i>MCID request – MCID not supported by the calling party's national network</i>				
To verify that the outgoing international exchange rejects a MCID request by sending an IRS with the MCID response indicator set to "MCID not included".				
NOTE – This test case checks the behaviour of the IUT if the national network does not support MCID.				
<pre> SPC national SPA international SPB -----IAM-----> -----IAM-----> <-----IDR----- -----IRS-----> :</pre>				
1. PTC provides stimulus for normal call setup (calling party number not included).				
Note: The MCID request is in this case assumed to stop at gateway and not have any impact on the signalling in the national network.				

TSS MCID/	TP ISS_V_9_8	ISUP'97 reference 7.5.2.4.1/Q.731.7	Selection expression IncIE	Q.788 reference None
Test purpose				
<i>MCID information passed and set correctly – incoming</i>				
To verify that a received IDR is transferred transparently into the international network and the subsequent IRS is transferred into the national network so that the country code in the address signals of the calling party number is removed if it is the network's own country code and the nature of address indicator is set in this case to "national (significant) number".				
<pre> SPC international SPA national SPB -----IAM-----> -----IAM-----> <-----IDR----- <-----IDR----- -----IRS-----> -----IRS-----> :</pre>				
1. The PTC will initiate a call set up with the expected parameters.				
2. The country code is expected to be stripped off and the number format converted to national (significant) number.				

TSS MCID/	TP ISS_I_9_9	ISUP'97 reference 7.5.2.4.2/Q.731.7	Selection expression IncIE AND PICS A.12/5	Q.788 reference None
Test purpose				
<i>MCID request – MCID not supported by the calling party's national network – adding information</i>				
To verify that the international incoming gateway can modify the MCID response indicator set to "MCID not included" into "MCID included" and can include the available information in the calling party number .				
NOTE – The known part of the calling party number is sent with the address incomplete indicator set to "incomplete".				
<pre> SPC international SPA national SPB -----IAM-----> -----IAM-----> <-----IDR----- <-----IDR----- -----IRS-----> -----IRS-----> :</pre>				
1. The PTC will initiate a call set up with the expected parameters.				

TSS MCID/	TP ISS_V_9_10	ISUP'97 reference 7.5.2.5.1 a)/Q.731.7	Selection expression DLE	Q.788 reference 2.5.1
Test purpose				
<i>DLE records call details</i>				
To verify that the DLE can successfully record the calling party number and optionally the calling sub-address if received in the IAM or in the IRS .				
Pre-test conditions				
Arrange the data in the IUT so that the called user has subscribed to MCID service.				
Case a)				
<pre> access SPA SPB <-----setup-----<-----IAM----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist setup to the access. 2. CgPN & sub-address in ATP. 3. MCID recordings should be kept while in active phase of call. 				
Case b)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----IDR-----> <-----IRS----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist setup to the access. 2. No number information in IAM. 3. Number information in IRS (CgPN and Sub in ATP). 4. MCID recordings should be kept while in active phase of call. 				

TSS MCID/	TP ISS_V_9_11	ISUP'97 reference 7.5.2.5.1 b)/Q.731.7	Selection expression DLE	Q.788 reference 2.5.1
Test purpose				
<i>DLE requests call details</i>				
To verify that the DLE can successfully request the calling party number and optionally the calling sub-address by sending an IDR , if there is no calling party number included in the IAM .				
Pre-test conditions				
Arrange the data in the IUT so that the called user has subscribed to MCID service.				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----IDR-----> <-----IRS----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up to the access containing no number information. 2. Number information is provided. 				

TSS MCID/	TP ISS_I_9_12	ISUP'97 reference 7.5.2.5.2/Q.731.7	Selection expression DLE	Q.788 reference 2.5.2
Test purpose				
<i>No MCID information after MCID request</i>				
To verify that the call setup is continued (user is alerted) if an IRS is received without the expected MCID information within timer T39 expiry, after having sent the IDR with MCID request indicator set to "MCID requested".				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to MCID service.				
Case a)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----IDR-----> <-----IRS-----> :</pre>				
<hr/> 1. Set up to the access containing no number information. 2. Number information not provided (MCID response indicators = 0, no CgPN given).				
Case b)				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----IDR-----> <-----IRS-----> :</pre>				
<hr/> 1. Set up to the access containing no number information. 2. Number information not provided (MCID response indicators = 1, No CgPN given).				

TSS MCID/	TP ISS_I_9_13	ISUP'97 reference 7.5.2.5.2/Q.731.7	Selection expression DLE	Q.788 reference 2.5.3
Test purpose				
<i>MCID timer (T39) expiry</i>				
To verify that call setup is continued (user is alerted) if no IRS is received within timer T39 expiry, after having sent the IDR with MCID request indicator set to "MCID requested".				
Pre-test conditions				
Arrange the data in the IUT so that the called user has subscribed to MCID service.				
<pre> access SPA SPB <-----setup-----<-----IAM----- -----IDR-----> T39 -----ACM-----> :</pre>				
<hr/> 1. Set up to the access containing no number information.				

TSS MCID/	TP ISS_V_9_14	ISUP'97 reference 7.7/Q.731.7	Selection expression OLE AND PICS A.2/4	Q.788 reference 2.5.1
Test purpose				
<i>Successful MCID request with additional calling party number</i>				
To verify that the OLE can successfully reply to an IDR having the MCID request indicator set to "MCID request" by sending an IRS with MCID response indicator set to "MCID included", the calling party number and an additional calling party number in the generic number parameter.				
NOTE – This implies that a special arrangement exists with the calling user.				
Pre-test conditions				
Arrange the data in the IUT so that the additional calling party number information is available				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----IDR-----> -----IRS-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Set up a call from the access. 2. CgPN & addCgPN in GenNb. 				

TSS MCID/	TP ISS_V_9_15	ISUP'97 reference 7.6.9/Q.731.7	Selection expression DLE	Q.788 reference None
Test purpose				
<i>MCID interaction with DDI</i>				
To verify that the calling party number , the called party number with DDI are registered if provided.				
Pre-test conditions				
Arrange the data in the IUT so that the called user has subscribed to the MCID and DDI services				
<p>Case a)</p> <pre> access SPA SPB <-----setup-----<-----IAM-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Assist setup to the access. 2. Check the MCID recordings for the called party (with DDI). 				
<p>Case b)</p> <pre> access SPA SPB <-----setup-----<-----IAM-----> -----IDR-----> <-----IRS-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Assist setup to the access. 2. No number information in IAM. 3. Number information in IRS (with DDI). 4. Check the MCID recordings for the calling party. 				

TSS MCID/	TP ISS_V_9_16	ISUP'97 reference 7.6.10/Q.731.7	Selection expression DLE AND PICS A.12/3	Q.788 reference None
Test purpose				
<i>MCID interaction with diversion services</i>				
To verify that besides the calling party number , the original called number and the redirecting number are registered if provided.				
NOTE – A call diversion service has been activated for this call.				
Pre-test conditions				
Arrange the data in the IUT so that the user has subscribed to MCID				
<pre>access SPA SPB -----setup----- <-----IAM-----> :</pre> <hr/> <ol style="list-style-type: none"> 1. Assist setup to the access. 2. MCID recordings should be kept while in active phase of call. 				

7.2.10 Communication conférence, adjonction d'autres conférences (CONF, *conference call, add-on*)

TSS CONF/	TP ISS_V_10_1	ISUP'97 reference 1.5.2.1.1.1/Q.734	Selection expression Local AND BCall PICS A.13/13	Q.788 reference None
Test purpose				
<i>Requirement related to echo control</i>				
To verify that the IUT is able to initiate echo control procedures for the necessary legs when a new call is added to the conference.				
NOTE – The used PICS is defined for the basic call (BCall).				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
For further study.				

TSS CONF/	TP ISS_V_10_2	ISUP'97 reference 1.5.2.1.1.2/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference 2.13.1
Test purpose				
<i>Establishing a conference from an active call</i>				
To verify that the IUT can successfully begin the conference from an active call and notify the implied parties correctly.				
NOTE – The generic notification indicator set to "conference established" should be sent by the IUT in the CPG . The event indicator should be set to "progress".				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM-----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)--> -CPG(conf est)--> <----REL----- <----disc---- -----disc----> -----REL-----> -----RLC-----> <----RLC----- </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Begin the conference and check that notification "conference established" is received in the CPG. 3. Release the call at the end terminal and check that all network resources are released. 				

TSS CONF/	TP ISS_V_10_3	ISUP'97 reference 1.5.2.1.1.2/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference 2.13.1
Test purpose				
<i>Adding calls (conferees) to an established conference</i>				
To verify that the IUT is able to add a conferee to a conference and notify the implied parties correctly.				
NOTE – The generic notification indicator set to "conference established" should be sent by the IUT to the new affected conferee and the generic notification indicator set to "other party added" to the non-affected conferees. The event indicator in the CPG should be set to "progress".				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
Case a)				
<pre> SPC SPA UNI at A SPA SPB -----IAM----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)--> -CPG(conf est)--> -<CPG(conf est)-- <--fac(addC)- ---disc---> -----REL----- -----disc----> -----REL----> -----RLC----- <-----RLC-----</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add a new conferee to the established conference and notify subscriber at SPB by sending him/her "other_party_added" in the CPG. 4. The conference is released by call clearing by the served user at SPA. 				
Case b)				
<pre> SPC SPA UNI at A SPA SPB -----IAM----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----> --setup(CR1)--> -----IAM----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)--> -CPG(conf est)--> -<CPG(conf est)-- <--fac(addC)- ---disc---> -----IAM(cic2)---> --setup(CR3)--> -----ACM----- <--alerting--- -----ANM----- <--connect--- -<CPG(conf est)-- <--fac(addC)- ---disc---> <CPG(oth pty add)- (cic1) -----REL(cic1)--- -----disc----> -----REL----> -----RLC----- <-----RLC-----</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. The conference is released by call clearing by the served user at SPA. 				

TSS CONF/	TP ISS_V_10_4	ISUP'97 reference 1.5.2.1.1.2/Q.734	Selection expression Local AND PICS A.13/2	Q.788 reference None
Test purpose				
<i>Joining the maximum number of conferees in a conference</i>				
To verify that the IUT is able to join the maximum allowed number of conferees to a conference and notify the implied parties correctly.				
NOTE – The generic notification indicator set to "conference established" should be sent by the IUT to the new affected conferee and the generic notification indicator set to "other party added" to the non-affected conferees. The event indicator in the CPG should be set to "progress".				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)-> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)-> -----IAM-----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)-> --CPG(conf est)-> <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> ***** At this point there are 3 conferees in conference ***** REPEAT for each new conferee ---IAM(cicx)---> -----setup---> x=2,3..n; n=maximum number of conferees-2 <----ACM----- <--alerting--- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> ---disc---> <CPG(oth pty add)- (cicz) z=1,2..n-1 Release conference: <---REL(cicy)--- y=1,2..n-1 -----disc---> -----REL-----> -----RLC-----> <----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. The conference is released by call clearing by the served user at SPA. 				

TSS CONF/	TP ISS_V_10_5	ISUP'97 reference 1.5.2.1.1.3/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference 2.13.2
Test purpose				
<i>Isolation of party</i>				
To verify that the IUT can successfully isolate a conferee from the conference and notify the implied parties correctly.				
NOTE – The generic notification indicator set to "isolated" within call progress should be sent by the IUT to the affected conferee and the generic notification indicator set to "other party isolated" should be sent to the non-affected conferees. The event indicator in the CPG should be set to "progress". The isolated conferee should not be able to communicate with the rest of the conference.				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)-> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)-> -----IAM-----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)-> --CPG(conf est)-> <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> ---IAM(cic2)---> --setup(CR3)-> <----ACM----- <--alerting--- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----disc---> <CPG(oth pty add)- (cic1) <CPG(oth pty iso)- (cic1) ---fac(isoC)--> --CPG(isolated)-> <CPG(oth pty iso)- (cic2) <CPG(oth pty rea)- (cic1) ---fac(reaC)--> --CPG(reattach)-> <CPG(oth pty rea)- (cic2) -----REL(cic1)--- -----disc---> -----REL-----> -----RLC-----> <-----RLC----- <---REL(cic2)---> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. Isolate a conferee and check that the notification "isolated" is received in the CPG. 5. Reattach the conferee. 6. The conference is released by call clearing by the served user at SPA. 				

TSS CONF/	TP ISS_V_10_6	ISUP'97 reference 1.5.2.1.1.4/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference 2.13.2
Test purpose				
<i>Reattachment of party</i>				
To verify that the IUT can successfully reattach the isolated conferee to the conference and notify the implied parties correctly.				
NOTE – The generic notification indicator set to "reattached" should be sent by the IUT to the affected conferee and the generic notification indicator set to "other party reattached" should be sent to non-affected conferees. The event indicator in the CPG should be set to "progress".				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM----> --setup(CR2)-> <----ACM----- <---alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----> --setup(CR1)-> -----IAM----> <---alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)-> --CPG(conf est)-> --CPG(oth pty add)> <-CPG(conf est)- <--fac(addC)--> ---IAM(cic2)---> --setup(CR3)-> <----ACM----- <---alerting--- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----disc----> <CPG(oth pty add)- (cic1) <CPG(oth pty iso)- (cic1) ---fac(isoC)-> --CPG(isolated)--> <CPG(oth pty iso)- (cic2) <CPG(oth pty rea)- (cic1) ---fac(reaC)-> --CPG(reattach)--> <CPG(oth pty rea)- (cic2) <---REL(cic1)--- -----disc----> -----REL-----> -----RLC-----> <-----RLC-----> <---REL(cic2)---> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. Isolate a conferee and check that the notification "isolated" is received in the CPG. 5. Reattach the conferee. 6. The conference is released by call clearing by the served user at SPA. 				

TSS CONF/	TP ISS_V_10_7	ISUP'97 reference 1.5.2.1.1.5/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference 2.13.2
Test purpose				
<i>Splitting of a party</i>				
To verify that the IUT can create a private communication between the served user and one of the conferees and notify the implied parties correctly.				
NOTE – The generic notification indicator set to "conference disconnected" should be sent by the IUT to the affected conferee and the generic notification indicator set to "other party split" should be sent to the non-affected conferees. The event indicator in the CPG should be set to "progress". The non-affected conferees should not be able to participate in the communication of the private communication.				
NOTE – See also Figure 1-5/Q.734.				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM-----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)--> --CPG(conf est)--> <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> ---IAM(cic2)---> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----disc----> <CPG(oth pty add)- (cic1) --setup(CR2)--> <---connect--- <CPG(oth pty split)- (cic1) --CPG(conf disc)--> <CPG(oth pty split)- (cic2) -----disc(CR1)-- --disc(CR2)--> -----REL-----> -----RLC-----> <-----RLC----- <--REL(cic1)--- <--disc(CR1)--> -----RLC-----> </pre> <hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. Split the conferee at SPB and check that the notification "conference disconnected" is received in the CPG. 5. The private communication between subscriber at SPA and subscriber at SPB is checked. 6. The conference is released by call clearing by the served user at SPA (CR1) and the private communication by normal call clearing (CR2). 				

TSS CONF/	TP ISS_V_10_8	ISUP'97 reference 1.5.2.1.1.6/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference 2.13.3
Test purpose				
<i>Disconnection of conferee</i>				
To verify that IUT can successfully disconnect a conferee from the conference, if requested by the served user, and notify the implied parties correctly.				
NOTE – The IUT should release the leg towards the conferee according to normal call release procedures, i.e. send a REL to a conferee connected to the conference. The generic notification indicator set to "other party disconnected" should be sent to the non-affected conferees. The event indicator in the CPG should be set to "progress".				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)-> <----ACM----- <---alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)-> -----IAM-----> <---alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)-> --CPG(conf est)-> <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> ---IAM(cic2)---> --setup(CR3)-> <----ACM----- <---alerting--- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----disc---> <CPG(oth pty add)- (cic1) <CPG(oth pty disc)- (cic1) ---fac(dropC)-> -----REL-----> <CPG(oth pty disc)- (cic2) <----RLC----- <--REL(cic1)--- <----disc---> -----RLC-----> <--REL(cic2)---> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. Release the dropped party at SPB. 5. The conference is released by call clearing by the served user at SPA. 				

TSS CONF/	TP ISS_V_10_9	ISUP'97 reference 1.5.2.1.1.7/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference 2.13.3
Test purpose				
<i>Disconnection by a conferee</i>				
To verify that IUT can successfully disconnect a conferee from the conference, if requested by the conferee, and notify the implied parties correctly.				
NOTE – The IUT should release the leg towards the conferee according to normal call release procedures, i.e. send a RLC in response to the REL to a conferee connected to the conference through ISUP. The generic notification indicator set to "other party disconnected" should be sent to the non-affected conferees. The event indicator in the CPG should be set to "progress".				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)--> <----ACM----- <---alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM-----> <--alerting--- <----ACM----- <--connect--- <----ANM----- ... check communication ... ---fac(begC)--> --CPG(conf est)--> <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> ---IAM(cic2)---> --setup(CR3)--> <----ACM----- <---alerting--- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----disc---> <CPG(oth pty add)- (cic1) <CPG(oth pty disc)- (cic1) <-fac(pty disc)- <----REL----- <CPG(oth pty disc)- (cic2) -----RLC-----> <--REL(cic1)---- <----disc----- -----RLC-----> <--REL(cic2)----> -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. Release request by the conferee at SPB. 5. The conference is released by call clearing by the served user at SPA. 				

TSS CONF/	TP ISS_V_10_10	ISUP'97 reference 1.5.2.1.1.8/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference 2.13.2
Test purpose				
<i>Termination of conference</i>				
To verify that IUT can successfully disconnect all conferees from the conference, if requested by the served user, and initiate the normal call release procedure towards each conferee.				
NOTE – The IUT should send REL to all conferees connected to the conference.				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM-----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)--> --CPG(conf est)--> <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> ---IAM(cic2)---> --setup(CR3)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----disc----> <CPG(oth pty add)- (cic1) <--REL(cic1)----> --fac(endC)--> -----REL-----> -----RLC-----> <----disc----> <----RLC----- <--REL(cic2)----> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. Release the dropped party at SPB. 5. The conference is released by call clearing by the served user at SPA. 				

TSS CONF/	TP ISS_I_10_11	ISUP'97 reference 1.5.2.1.2/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference None
Test purpose				
<i>Adding of conferees fails (unsuccessful)</i>				
To verify that if the procedure of adding conferees fails the concerned call remains in the previous state and notifications never be sent to the affected nor to the non-affected remote parties.				
NOTE – The procedure of adding fails, e.g. because the maximum conference participants is exceeded.				
Pre-test conditions				
Arrange the data in the IUT such that the served user has subscribed to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM-----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)--> --CPG(conf est)--> <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----At this point there are 3 conferees in conference.----- REPEAT for each new conferee: ---IAM(cicx)---> ----setup---> x=2,3...n; n=maximum number of conferees-2 <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----disc---> <CPG(oth pty add)- (cicz) z=1,2...n-1 Try to add another conferee (maximum number of conferees exceeded): ---IAM(cicx)---> ----setup---> x=n+1 <----ACM----- <--alerting--- <----ANM----- <---connect--- <--fac(addC)--> -----REL-----> -----disc---> <----RLC-----> Release conference: <---REL(cicy)---> y=1,2...n-1 -----disc---> -----REL-----> -----RLC-----> <----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. The conference is released by call clearing by the served user at SPA. 				

TSS CONF/	TP ISS_I_10_12	ISUP'97 reference 1.5.2.1.2/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference None
Test purpose				
<i>Isolation, reattachment, splitting, disconnection of a party, conference termination (unsuccessful)</i>				
To verify that if the procedures to isolate a party, reattach a party, split a party, disconnect a party, terminate conference fail, then the concerned call remains in the previous state and notifications are not sent to the affected nor to the non-affected remote parties.				
NOTE – The procedure of reattachment fails, e.g. because the party was not formerly isolated.				
Pre-test conditions				
Arrange the data in the IUT such that the served user has subscribed to CONF supplementary service.				
<pre> SPC SPA UNI at A SPA SPB -----IAM----> --setup(CR2)-> <----ACM----- <---alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)-> -----IAM----> <---alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)-> --CPG(conf est)-> <-CPG(conf est)- <--fac(addC)-- --CPG(oth pty add)> ---IAM(cic2)---> --setup(CR3)-> <----ACM----- <---alerting- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)-- --CPG(oth pty add)> -----disc---> <CPG(oth pty add)- (cic1) Try to reattach a party who hasn't been isolated: --fac(reattach)-> <---REL(cic1)--- -----disc---> -----REL----> -----RLC----> <-----RLC----- <---REL(cic2)--- -----disc---> -----REL----> -----RLC----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. The conference is released by call clearing by the served user at SPA. 5. No CPG message with "reattached" should be received. 				

TSS CONF/	TP ISS_V_10_13	ISUP'97 reference 1.5.2.2.1, 1.5.2.3.1, 1.5.2.4.1/Q.734	Selection expression (IntermE OR DLE) AND PICS A.13/1	Q.788 reference None
Test purpose				
<i>Notification procedure supported</i>				
To verify that the IUT can successfully transfer/deliver the required notifications in/from the CPG message.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <----ACM----- <----ACM----- ... ringing tone ... <----ANM----- <----ANM----- check communication -----CPG----> -----CPG----> -----CPG----> -----CPG----> ... check conference communication ... -----CPG----> -----CPG----> -----CPG----> -----CPG----> ... check conference communication ... <----REL----- <----REL----- -----RLC----> -----RLC----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up from SPC to SPB. 2. Check that the notification "conference established" is received in the CPG from conferee at SPC. 3. Check the notification "other party added" in the CPG. 4. Check the notification "isolated" in the CPG. 5. Check the notification "reattached" in the CPG. 6. Check the notification "other party disconnected" in the CPG. 7. Release the conference. 				
Case b)				
<pre> access SPA SPB -----setup----- <----IAM----- -----alerting---> -----ACM----> ... ringing tone ... -----connect----> -----ANM----> check communication -----notify----> -----CPG----- -----notify----> -----CPG----- ... check conference communication ... -----notify----> -----CPG----- -----notify----> -----CPG----- -----notify----> -----CPG----- ... check conference communication ... -----disc----- <----REL----- -----RLC----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up from SPC to SPB. 2. Send the notification "conference established" is received in the CPG from conferee at SPC. 3. Send the notification "other party added" in the CPG. 4. Send the notification "isolated" in the CPG. 5. Send the notification "reattached" in the CPG. 6. Send the notification "other party disconnected" in the CPG. 7. Release the conference. 				

TSS CONF/	TP ISS_V_10_14	ISUP'97 reference 1.6.15/Q.734	Selection expression Local AND PICS A.13/1	Q.788 reference None
Test purpose				
<i>Interaction with HOLD – held user added to conference</i>				
To verify that no retrieve notification is sent to a user put on hold and subsequently added to a conference call, but that the IUT sends the "conference established" notification to the held user.				
NOTE – The IUT should send the CPG with the generic notification indicator set to "conference established" to the held user.				
Pre-test conditions				
Arrange the data in the IUT such that the served user has subscribed to CONF and HOLD supplementary services.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM-----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)--> --CPG(conf est)--> <-CPG(conf est)- <--fac(addC)-- --CPG(oth pty add)> no "retrieve" ! -----disc----> <-----REL----- -----disc----> -----REL-----> -----RLC-----> <-----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add a new conferee to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. The conference is released by call clearing by the served user at SPA. 5. Check if "conference established notification" was received by user at SPC. 				

TSS CONF/	TP ISS_V_10_15	ISUP'97 reference 1.6.15/Q.734	Selection expression Local	Q.788 reference None
Test purpose				
<i>Interaction with HOLD – conference put on hold by conference controller</i>				
To verify that no hold and no retrieve notification is sent to the conferees when the conference controller puts the conference on hold.				
Pre-test conditions				
Arrange the data in the IUT such that the served user has subscribed to CONF and HOLD supplementary services.				
<pre> SPC SPA UNI at A SPA SPB -----IAM-----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM-----> <--alerting--- <-----ACM-----> <---connect--- <-----ANM-----> ... check communication ... ---fac(begC)--> --CPG(conf est)--> <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> ---IAM(cic2)---> --setup(CR3)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <-CPG(conf est)- <--fac(addC)--> --CPG(oth pty add)> -----disc----> <CPG(oth pty add)- (cic1) --info(hold)--> --info(retr)--> No CPGs should be sent in the network <---REL(cic1)----> -----disc----> -----REL-----> -----RLC-----> <-----RLC-----> <---REL(cic2)----> -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. No CPGs should be received by the conferee at SPB. 5. The conference is released by call clearing by the served user at SPA. 6. No CPGs should be received by the conferees at SPC. 				

TSS CONF/	TP ISS_V_10_16	ISUP'97 reference 1.6.15/Q.734	Selection expression Local	Q.788 reference None
Test purpose				
<i>Interaction with HOLD – conference put on hold by conferee</i>				
To verify that when the IUT receives notification from a conferee that a call has been put on hold and subsequently retrieved, the IUT passes on this notification to the served user, but does not send any information to the other non-affected conferees.				
Pre-test conditions				
Arrange the data in the IUT such that the served user has subscribed to CONF and HOLD supplementary services.				
<pre> SPC SPA UNI at A SPA SPB -----IAM----> --setup(CR2)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <--CPG(hold)--- <----info----- --setup(CR1)--> -----IAM----> <--alerting--- <----ACM----- <---connect--- <----ANM----- ... check communication ... ---fac(begC)--> --CPG(conf est)--> <-CPG(conf est)-<--fac(addC)--> --CPG(oth pty add)> ---IAM(cic2)---> --setup(CR3)--> <----ACM----- <--alerting--- <----ANM----- <---connect--- <-CPG(conf est)--<--fac(addC)--> --CPG(oth pty add)> -----disc----> <CPG(oth pty add)-(cic1) <--info(hold)--> <---CPG(hold)--- <--info(retr)--> <-CPG(retrieve)-- No CPGs should be sent in the network -----REL(cic1)--> -----disc----> -----REL----> -----RLC-----> <-----RLC----- <----REL(cic2)---> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up to UNI at SPB. 2. Establish a conference from SPA to SPB. 3. Add two new conferees to the established conference and notify subscriber at SPB by sending him/her "other party added" in the CPG. 4. Call hold is activated by the conferee at SPB, "remote hold" is sent in the CPG (no notification to the non-affected party, e.g. the served user at SPA). 5. Call is retrieved by user at SPB, "remote retrieval" is sent in the CPG (no notification to the non-affected users at SPC). 6. No CPGs should be received by the conferee at SPB. 7. The conference is released by call clearing by the served user at SPA. 8. No CPGs should be received by the conferees at SPC. 				

7.2.11 Transfert explicite de communication (ECT, explicit call transfer)

TSS ECT/	TP ISS_V_11_1	ISUP'97 reference 7.5.2.1.1.1 a)/Q.732.7	Selection expression Local AND PICS A.14/1	Q.788 reference None
Test purpose				
<i>Capability of storing and sending the additional calling party number in the call transfer number.</i>				
To verify that the IUT is able to store the additional calling party number in the generic number when the calling party number and the generic number have been received from the remote user. This information is sent by the IUT to the other remote user in the call transfer number in either the FAC or CPG when the call transfer is activated.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD, CW and ECT.				
Case a)				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----ANM----- <-----FAC----- -----FAC-----> remote addCgPN in CTNb : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist call set up for the 1st call and then initiate the 2nd call at the UNI A (IUT). 2. Initiate the 1st call from SPC to the IUT (SPA) using the number TSP_Nb_A on the 1st B-channel. 3. Assist the 2nd call set up from UNI A to the IUT on the 2nd B-channel. 4. FAC with GenNot: "call transfer, active", ServAct: "call transfer" and CTNb - TSP_GenNb_C. 				
Case b)				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----FAC----- -----CPG-----> remote addCgPN in CTNb <-----FAC----- <-----ANM----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist call set up for the 1st call and then initiate the 2nd call at the UNI A (IUT). 2. Initiate the 1st call from SPC to the IUT (SPA) using the number TSP_Nb_A on the 1st B-channel. 3. Assist the 2nd call set up from UNI A to the IUT on the 2nd B-channel. 4. CPG (progress) with GenNot: "call transfer, active", ServAct: "call transfer" and CTNb - TSP_GenNb_C. 				

TSS ECT/	TP ISS_V_11_2	ISUP'97 reference 7.5.2.1.1.1 a)/Q.732.7	Selection expression Local AND PICS A.14/1	Q.788 reference None
Test purpose				
<i>Capability of storing and sending the calling party number in the call transfer number.</i>				
To verify that the IUT is able to store the calling party number when only this CLI has been received from the remote user. This information is sent by the IUT to the other remote user in the call transfer number in either the FAC or CPG when the call transfer is activated.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD, CW and ECT.				
Case a)				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----ANM----- <-----FAC----- -----FAC-----> remote CgPN in CTNb : </pre>				
<hr/> 1. Assist call set up for the 1 st call and then initiate the 2 nd call at the UNI A (IUT).				
2. Initiate the 1 st call from SPC to the IUT (SPA) using the number TSP_Nb_A on the 1 st B-channel.				
3. Assist the 2 nd call set up from UNI A to the IUT on the 2 nd B-channel.				
4. FAC with GenNot: "call transfer, active", ServAct: "call transfer" and CTNb - TSP_Nb_C.				
Case b)				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----FAC----- -----CPG-----> remote CgPN in CTNb <-----FAC----- <-----ANM----- : </pre>				
<hr/> 1. Assist call set up for the 1 st call and then initiate the 2 nd call at the UNI A (IUT).				
2. Initiate the 1 st call from SPC to the IUT (SPA) using the number TSP_Nb_A on the 1 st B-channel.				
3. Assist the 2 nd call set up from UNI A to the IUT on the 2 nd B-channel.				
4. CPG (progress) with GenNot: "call transfer, active", ServAct: "call transfer" and CTNb - TSP_Nb_C.				

TSS ECT/	TP ISS_V_11_3	ISUP'97 reference 7.5.2.1.1 b)/Q.732.7	Selection expression Local AND PICS A.14/1	Q.788 reference None
Test purpose				
<i>Capability of storing and sending the additional connected number in the call transfer number.</i>				
To verify that the IUT is able to store the additional connected number in the generic number when the connected number and the generic number have been received from the remote user. This information is sent by the IUT to the other remote user in the call transfer number in either the FAC or CPG when the call transfer is activated.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
Case a)				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG-----> hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----FAC-----> -----FAC-----> remote addConNb in CTNb from UNI at SPC : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. FAC with GenNot:" call transfer, active", ServAct: "call transfer" and CTNb - TSP_GenNb_C. 				
Case b)				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG-----> hold 1st call -----IAM-----> -----ACM-----> <-----FAC-----> -----CPG-----> remote addConNb in CTNb from UNI at SPC <-----FAC-----> <-----ANM-----> : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot:" call transfer, active", ServAct: "call transfer" and CTNb - TSP_GenNb_C. 				

TSS ECT/	TP ISS_V_11_4	ISUP'97 reference 7.5.2.1.1 b)/Q.732.7	Selection expression Local AND PICS A.14/1	Q.788 reference None
Test purpose				
<i>Capability of storing and sending the connected number in call transfer number.</i>				
To verify that the IUT is able to store connected number when only this COL has been received from the remote user. This information is sent by the IUT to the other remote user in the call transfer number in either the FAC or CPG when the call transfer is activated.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
Case a)				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----FAC-----> -----FAC-----> remote ConNb in CTNb from UNI at SPC : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. FAC with GenNot: "call transfer, active", ServAct: "call transfer" and CTNb - TSP_Nb_C. 				
Case b)				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> <-----FAC-----> -----CPG-----> remote ConNb in CTNb from UNI at SPC <-----FAC-----> <-----ANM-----> : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active", ServAct: "call transfer" and CTNb - TSP_Nb_C. 				

TSS ECT/	TP ISS_V_11_5	ISUP'97 reference 7.5.2.1.1.2.1/Q.732.7	Selection expression Local AND PICS A.14/2	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – initiation</i>				
To verify that the local exchange controlling the ECT can successfully initiate the loop prevention procedure by sending LOP with loop prevention indicator set to "request" and with call transfer reference for both calls.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG-----> hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP-----> -----LOP-----> -----LOP-----> <-----LOP-----> <-----FAC-----> -----FAC-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. Send back the received CTRef with "no loop exists" indication. 5. FAC activating the ECT service. 				

TSS ECT/	TP ISS_V_11_6	ISUP'97 reference 7.5.2.1.1.2.1/Q.732.7	Selection expression Local AND PICS A.14/2	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – successful response</i>				
To verify that the local exchange controlling the ECT can successfully perform a call transfer if a LOP with loop prevention indicator set to "response" is received and "no loop exists", and the call identity matches the one used by the IUT.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP-----> -----LOP-----> -----LOP-----> <-----LOP-----> <-----FAC-----> -----FAC-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. Send back the received CTRef with "no loop exists" indication. 5. FAC activating the ECT service (GenNot: "call transfer, active"). 				

TSS ECT/	TP ISS_I_11_7	ISUP'97 reference 7.5.2.1.2.1/Q.732.7	Selection expression Local AND PICS A.14/2	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – wrong call transfer identity ignored</i>				
To verify that the local exchange controlling the ECT disregards the LOP with loop prevention indicator set to "response" and "no loop exists", if the call transfer identity does not match the one used by the IUT.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP-----> -----LOP-----> -----LOP-----> (to be disregarded) -----LOP-----> <-----LOP-----> -----FAC-----> -----FAC-----> :</pre> <hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. Send back an altered (incremented) CTRef with "no loop exists" indication, to be disregarded. 5. Send back the received CTRef with "no loop exists" indication. 6. FAC activating the ECT service. 				

TSS ECT/	TP ISS_I_11_8	ISUP'97 reference 7.5.2.1.1.2.1/Q.732.7	Selection expression Local AND PICS A.14/2	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – unsuccessful (loop exists)</i>				
To verify that the local exchange controlling the ECT rejects the call transfer if the LOP is received with loop prevention indicator set to "request" and the call transfer reference matches the one used by the IUT.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP-----> -----LOP-----> -----LOP-----> <-----LOP-----> (received messages are returned) -----REL-----> -----REL-----> -----RLC-----> <-----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. Send back the received CTRef with LOPInd "request" (identical to the one received). 5. Call is rejected. 				

TSS ECT/	TP ISS_V_11_9	ISUP'97 reference 7.5.2.1.2.1; 7.6.2/Q.732.7	Selection expression Local AND PICS A.14/2	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – unsuccessful (interaction with ECT)</i>				
To verify that the local exchange controlling the ECT rejects the call transfer if the LOP is received with loop prevention indicator set to "response" and "simultaneous transfer" in case of interaction with ECT.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP-----> -----LOP-----> -----LOP-----> <-----LOP-----> ("simultaneous transfer") <-----REL-----> -----REL-----> -----RLC-----> <-----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. Send back the received CTRef with LOPInd "response" set to "simultaneous transfer". 5. The call is rejected. 				

TSS ECT/	TP ISS_V_11_10	ISUP'97 reference 7.5.2.1.1.2.1/Q.732.7	Selection expression Local AND PICS A.14/2 AND PICS A.14/8	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – unsuccessful (interworking situation)</i>				
To verify that the local exchange controlling the ECT rejects the call transfer if the LOP is received with loop prevention indicator set to "response" and "insufficient information" from e.g. interworking situations.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP-----> -----LOP-----> -----LOP-----> <-----LOP-----> ("insufficient information") -----REL-----> -----REL-----> -----RLC-----> <-----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. Send back the received CTRef with LOPInd "response" set to "insufficient information". 5. Call is rejected. 				

TSS ECT/	TP ISS_V_11_11	ISUP'97 reference 7.5.2.1.1.2.1/Q.732.7	Selection expression Local AND PICS A.14/2 AND PICS A.14/9	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – successful (interworking situation)</i>				
To verify that the local exchange controlling the ECT completes the call transfer if the LOP is received with loop prevention indicator set to "response" and "insufficient information" from e.g. interworking situations.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP-----> -----LOP-----> -----LOP-----> <-----LOP-----> ("insufficient information") -----FAC-----> -----FAC-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. Send back the received CTRef with LOPInd "response" set to "insufficient information". 5. FAC activating the ECT service. 				

TSS ECT/	TP ISS_V_11_12	ISUP'97 reference 7.5.2.1.1.2.1/Q.732.7	Selection expression Local AND PICS A.14/2 AND PICS A.14/4	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – unsuccessful on timer expiry</i>				
To verify that the local exchange controlling the ECT rejects the call transfer if no LOP is received within T_{ECT} expiry				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP----- -----LOP-----> No LOP response is sent, TECT expires <-----REL----- -----REL-----> -----RLC-----> <-----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. Call is rejected. 				

TSS ECT/	TP ISS_V_11_13	ISUP'97 reference 7.5.2.1.1.2.1/Q.732.7	Selection expression Local AND PICS A.14/2 AND PICS A.14/5	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – successful on timer expiry</i>				
To verify that the local exchange controlling the ECT completes the call transfer if no LOP is received within T_{ECT} expiry				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> -----ACM-----> -----ANM-----> <-----LOP----- -----LOP-----> No LOP response is sent, TECT expires <-----FAC----- -----FAC-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. TECT expired, release the call. 5. FAC activating the ECT service. 6. The call should not be released. 				

TSS ECT/	TP ISS_V_11_14	ISUP'97 reference 7.5.2.1.1.2.2 a)/Q.732.7	Selection expression Local	Q.788 reference None
Test purpose				
<i>Facility message with generic notification sent to the remote user</i>				
To verify that the local exchange controlling the ECT can successfully initiate a call transfer by sending FAC with the generic notification set to "call transfer, active" or "call transfer, alerting" and the service activation parameter set to "call transfer".				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
Case a)				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----ANM----- <-----FAC----- -----FAC-----> > call transfer, active < > call transfer, active < :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist call setup for the 1st call and then initiate the 2nd call at the UNI A (IUT). 2. Initiate the 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. FAC with GenNot: "call transfer, active" and ServAct: "call transfer". 				
Case b)				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----FAC----- -----CPG-----> > call transfer, alerting < call transfer, active <-----FAC----- <-----ANM----- call transfer, active :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist call setup for the 1st call and then initiate the 2nd call at the UNI A (IUT). 2. Initiate the 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active". 				

TSS ECT/	TP ISS_V_11_15	ISUP'97 reference 7.5.2.1.1.2.2 a)/Q.732.7	Selection expression Local	Q.788 reference None
Test purpose				
<i>Call progress message with generic notification sent to the remote user</i>				
To verify that the local exchange (controlling the ECT) can successfully initiate a call transfer by sending CPG with the generic notification set to "call transfer, active" and the service activation parameter set to "call transfer".				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----FAC----- -----CPG-----> call transfer, alerting > call transfer, active < <-----FAC----- <-----ANM----- call transfer, active : </pre> <hr/> <p>1. Assist call setup for the 1st call and then initiate the 2nd call at the UNI A (IUT). 2. Initiate the 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active" and ServAct: "call transfer".</p>				

TSS ECT/	TP ISS_V_11_16	ISUP'97 reference 7.5.2.1.1.2.2 b)/Q.732.7	Selection expression Local	Q.788 reference None
Test purpose				
<i>Facility message send upon receipt of the ANM when the ECT is invoked while one call is alerting</i>				
To verify that, in case the ECT is invoked while one call is alerting, as soon as the local exchange (controlling the ECT) receives the ANM , it can successfully send to the other remote user the FAC with service activation set to "call transfer" and the generic notification set to "call transfer, active".				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----FAC----- -----CPG-----> call transfer, alerting call transfer, active <-----FAC----- <-----ANM----- > call transfer, active < : </pre> <hr/> <p>1. Assist call setup for the 1st call and then initiate the 2nd call at the UNI A (IUT). 2. Initiate the 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active".</p>				

TSS ECT/	TP ISS_V_11_17	ISUP'97 reference 7.5.2.1.1.2.2 b)/Q.732.7	Selection expression Local AND PICS A.14/1	Q.788 reference None
Test purpose				
<i>Capability of sending the additional connected number in the call transfer number parameter when the ECT is invoked while one call is alerting</i>				
To verify that, in case the ECT is invoked while one call is alerting, the FAC sent to the other remote user upon receipt of the ANM conveys the call transfer number parameter with the information received in the generic number parameter if both the connected number and an additional connected number in the generic number are received in the ANM .				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG-----> hold 1st call -----IAM-----> <-----ACM-----> <-----FAC-----> -----CPG-----> <-----FAC-----> <-----ANM-----> remote addConNb in CTNb from UNI at SPB :</pre> <hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active". 				

TSS ECT/	TP ISS_V_11_18	ISUP'97 reference 7.5.2.1.1.2.2 b)/Q.732.7	Selection expression Local AND PICS A.14/1	Q.788 reference None
Test purpose				
<i>Capability of sending the connected number in the call transfer number parameter when the ECT is invoked while one call is alerting</i>				
To verify that, in case the ECT is invoked while one call is alerting, the FAC sent to the other remote user upon receipt of the ANM conveys the call transfer number parameter with the information received in the connected number parameter if only the connected number is received in the ANM .				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to HOLD and ECT.				
<pre> SPC SPA SPB 1st call 2nd call <-----IAM-----> -----ACM-----> -----ANM-----> <-----CPG----- hold 1st call -----IAM-----> <-----ACM-----> <-----FAC-----> -----CPG-----> <-----FAC-----> <-----ANM-----> remote ConNb in CTNb from UNI at SPB :</pre> <hr/> <ol style="list-style-type: none"> 1. Initiate 2 calls from the UNI A (IUT). 2. Assist 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active". 				

TSS ECT/	TP ISS_V_11_19	ISUP'97 reference 7.4; 7.5.2.2.1; 7.5.2.3.1; 7.5.2.4.1/Q.732.7	Selection expression IntermE AND PICS A14/2	Q.788 reference None
Test purpose				
<i>Transparent transfer of information of the loop prevention procedure message</i>				
To verify that the exchange can successfully pass on the loop prevention indicator and the call transfer reference in the LOP related to the call transfer service.				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM-----> <-----ACM-----> -----ANM-----> <-----ANM-----> -----LOP-----> -----LOP-----> <-----LOP-----> <-----LOP-----> -----FAC-----> -----FAC-----> :</pre> <hr/> <ol style="list-style-type: none"> 1. Initiate a call from the UNI at SPC. 2. Send back the received CTRef with "no loop exists" indication. 3. FAC activating the ECT service. 				

TSS ECT/	TP ISS_V_11_20	ISUP'97 reference 7.4; 7.5.2.2.1; 7.5.2.3.1; 7.5.2.4.1/Q.732.7	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Transparent transfer of information in the FAC or CPG</i>				
To verify that the exchange can successfully pass on the access transport and the generic notification indicator in the FAC or CPG related to the call transfer service.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM---- <-----ACM----- <-----ANM---- <-----ANM----- -----FAC----> -----FAC----> call transfer, active -----FAC----> -----FAC----> sub-address in ATP from UNI at E <-----FAC---- <-----FAC----- sub-address in ATP from UNI at B :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate a call from the UNI at SPC. UNI at SPC will initiate call transfer. 2. FAC with GenNot: "call transfer, active". 3. Receive sub-address from UNI at SPE, beyond SPC. 4. Send sub-address of UNI at SPB. 				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM---- <-----ACM----- -----CPG----> -----CPG----> call transfer, active <-----ANM---- <-----ANM----- -----FAC----> -----FAC----> sub-address in ATP from UNI at E <-----FAC---- <-----FAC----- sub-address in ATP from UNI at B :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate a call from the UNI at SPC. UNI at SPC will initiate call transfer. 2. CPG with GenNot: "call transfer, active". 3. Receive sub-address from UNI at SPE, beyond SPC. 4. Send sub-address of UNI at SPB. 				

TSS ECT/	TP ISS_V_11_21	ISUP'97 reference 7.3; 7.5.2.3.1; 7.5.2.4.1/Q.732.7	Selection expression Gateway AND PICS A.14/6	Q.788 reference None
Test purpose				
<i>Call transfer number – removal of number</i>				
To verify that the exchange removes the call transfer number in the FAC or CPG before sending it to the next exchange, if its indicator is set to "presentation restricted" and there is no bilateral agreement.				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- <-----ANM----- <-----ANM----- -----FAC-----> -----FAC-----> CTNb removal :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate a call from the UNI at SPC. UNI at SPC will initiate call transfer. 2. FAC with GenNot: "call transfer, active" and CTNb removed. 				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- -----CPG-----> -----CPG-----> CTNb removal <-----ANM----- <-----ANM----- :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate a call from the UNI at SPC. UNI at SPC will initiate call transfer. 2. CPG (progress) with GenNot: "call transfer, active" and no CTNb. 				

TSS ECT/	TP ISS_V_11_22	ISUP'97 reference 7.3; 7.5.2.3.1/Q.732.7	Selection expression OutIE	Q.788 reference None
Test purpose				
<i>Call transfer number – conversion to international number</i>				
To verify that the IUT converts the call transfer number to international format. The nature of address indicator shall be set to "international number".				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- <-----ANM----- <-----ANM----- -----FAC-----> -----FAC-----> CTNb converted to international format :</pre>				
<hr/> 1. Initiate a call from the UNI at SPC. UNI at SPC will initiate call transfer. 2. FAC with GenNot: "call transfer, active" and international CTNb.				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- -----CPG-----> -----CPG-----> CTNb converted to international format <-----ANM----- <-----ANM----- :</pre>				
<hr/> 1. Initiate a call from the UNI at SPC. UNI at SPC will initiate call transfer. 2. CPG with GenNot: "call transfer, active" and international CTNb.				

TSS ECT/	TP ISS_V_11_23	ISUP'97 reference 7.3; 7.5.2.4.1/Q.732.7	Selection expression IncIE	Q.788 reference None
Test purpose				
<i>Call transfer number – removal of own country code</i>				
To verify that the IUT removes the country code in the address signals of the call transfer number if it is the network's own country code. The nature of address indicator shall be set to "national (significant) number".				
Case a)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- <-----ANM----- <-----ANM----- -----FAC-----> -----FAC-----> CTNb converted to national format :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate a call from the UNI at SPC. UNI at SPC will initiate call transfer. 2. FAC with GenNot: "call transfer, active" and national (significant) CTNb. 				
Case b)				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <-----ACM----- <-----ACM----- -----CPG-----> -----CPG-----> CTNb converted to national format <-----ANM----- <-----ANM----- :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Initiate a call from the UNI at SPC. UNI at SPC will initiate call transfer. 2. CPG with GenNot: "call transfer, active" and national (significant) CTNb. 				

TSS ECT/	TP ISS_V_11_24	ISUP'97 reference 7.5.2.1.3 a)/Q.732.7	Selection expression Local AND BCall PICS A.13/11 AND BCall PICS A.13/13	Q.788 reference None
Test purpose				
<i>ECT – interaction with echo control</i>				
To verify that the local exchange (controlling the ECT) can successfully initiate echo control procedures, when the total propagation delay for the two legs of the call to be transferred requires usage of echo control devices. The information to be summed is received in the propagation delay counter of the IAM for incoming calls and in the call history information of the ANM/CON for outgoing calls.				
NOTE – The used PICS are defined for the basic call (BCall).				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to ECT.				
<pre> SPC SPA SPB 1st call 2nd call -----IAM(PDC=50)--> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <--ANM(CHInf=50)--- <-----FAC----- -----FAC-----> : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist call setup for the 1st call and then initiate the 2nd call at the UNI A (IUT). 2. Initiate the 1st call from SPC to the IUT (SPA) using the number TSP_Nb_A on the 1st B-channel. The stimulus IAM contains an initial propagation delay value of e.g. 50 ms. The actual value is stored in PIXIT table 3. Assist the 2nd call set up from UNI A to the IUT on the 2nd B-channel. 4. Send an ANM with Call history information of e.g. 50 ms. 5. FAC with GenNot: "call transfer, active". The sum (in this case 100 ms) of the propagation delays on the two routes would require echo controlling devices. Are echo control devices enabled for the connection (both incoming/outgoing at the local exchange) or is some better placement searched? For further study, (see also CONF test case ISS_10_1). 				

TSS ECT/	TP ISS_V_11_25	ISUP'97 reference 7.7/Q.732.7	Selection expression IWorkE AND PICS A.14/7	Q.788 reference None
Test purpose				
<i>Loop prevention procedure – Interworking with protocols not supporting loop prevention</i>				
To verify that the IUT is able to support call control interworking between ISUP'97 and protocols not supporting the loop prevention procedure, and return a LOP (response) message with the indication "insufficient information" in response to a LOP (request) message.				
<pre> SPC SPA SPB <-----IAI-----> <-----IAM-----> -----ACM-----> -----ACM-----> -----ANC-----> -----ANM-----> <-----LOP-----> -----LOP-----> <-----FAC-----> (PICS A.14/9 = YES) : OR <-----CCL-----> <-----REL-----> (PICS A.14/9 = NO) :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist a call set up from the UNI at SPB on a non-ISUP route. 2. Send LOP request. 3. Receive LOP response with the same CTRef and "insufficient information" 4. Complete call (YES to PICS question A.14/9) and send FAC with GenNot: "call transfer, active". 5. Reject call (YES to PICS question A.14/8). <p>See also ECT test cases ISS_V_11_10 and ISS_V_11_11.</p>				

TSS ECT/	TP ISS_V_11_26	ISUP'97 reference 7.7/Q.732.7	Selection expression IWorkE	Q.788 reference None
Test purpose				
<i>Notification – Interworking with protocols not supporting the notification mechanism or the simple service activation procedure</i>				
To verify that the exchange discards the FAC (always) and the CPG (if received during alerting) and successfully completes the call transfer.				
Case a)				
<pre>SPC non-ISUP SPA SPB <-----IAI-----> <-----IAM-----> -----ACM-----> -----ACM-----> -----ANC-----> -----ANM-----> <-----FAC-----> call transfer, active :</pre>				
<hr/> 1. Assist a call set up from the UNI at SPB on a non-ISUP route. 2. Send FAC with GenNot: "call transfer, active". 3. The call should complete.				
Case b)				
<pre>SPC non-ISUP SPA SPB <-----IAI-----> <-----IAM-----> -----ACM-----> -----ACM-----> <-----CPG-----> call transfer, active -----ANC-----> -----ANM-----> :</pre>				
<hr/> 1. Assist a call set up from the UNI at SPB on a non-ISUP route. 2. Send CPG with GenNot: "call transfer, active" 3. The call should complete.				

TSS ECT/	TP ISS_V_11_27	ISUP'97 reference 7.6.13.1/Q.732.7	Selection expression Local	Q.788 reference None
Test purpose				
<i>ECT – Interaction with UUS1</i>				
To verify that if the ECT is invoked while a remote user is alerted, the originating exchange discards the user-to-user information received in the ANM or in the REL from that remote user.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to ECT and UUS1.				
Case a)				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <----ACM----- <----ANM----- <----CPG----- hold 1st call -----IAM (UUInf)---> <---ACM (UUInf)--- <----FAC----- -----CPG-----> call transfer, alerting call transfer, active <----FAC----- <---ANM (UUInf)--- call transfer, active :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist call setup for the 1st call and then initiate the 2nd call (with UUInf) at the UNI A (IUT). 2. Initiate the 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active". 5. The 2nd call is answered with UUInf in the ANM, which is to be discarded. 6. Get the verdict from the access side, "pass" if UUInf discarded. 				
Case b)				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <----ACM----- <----ANM----- <----CPG----- hold 1st call -----IAM (UUInf)---> <---ACM (UUInf)--- <----FAC----- -----CPG-----> call transfer, alerting call transfer, active <----REL----- <---REL (UUInf)--- -----RLC-----> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Assist call setup for the 1st call and then initiate the 2nd call (with UUInf) at the UNI A (IUT). 2. Initiate the 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active". 5. The 2nd call is released with UUInf in the REL, which is to be discarded. 6. Get the verdict from the access side, "pass" if UUInf discarded. 				

TSS ECT/	TP ISS_V_11_28	ISUP'97 reference 7.6.13.2/Q.732.7	Selection expression Local	Q.788 reference None
Test purpose				
<i>ECT – Interaction with UUS2</i>				
To verify that if the ECT is invoked while a remote user is alerted, the exchange discards the USR messages received after the call transfer invocation until the ANM from that remote user is received.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to ECT and UUS2.				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----USR----- <-----FAC----- -----CPG-----> call transfer, alerting call transfer, active <-----USR----- <-----FAC----- <-----ANM----- call transfer, active : </pre> <hr/> <ol style="list-style-type: none"> 1. Assist call setup for the 1st call and then initiate the 2nd call (with UUIInf) at the UNI A (IUT). 2. Initiate the 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB) and check the UUS2 request. 4. Accept the requested UUS2 service. 5. Send the 1st USR message. The UUIInf should be received on the access side. 6. CPG (progress) with GenNot: "call transfer, active". 7. Send the 2nd USR message. The UUIInf should not be received on the access side. 8. Get the verdict from the access side, "pass" if UUIInf discarded. 				

TSS ECT/	TP ISS_V_11_29	ISUP'97 reference 7.6.13.3/Q.732.7	Selection expression Local	Q.788 reference None
Test purpose				
<i>ECT – Interaction with UUS3</i>				
To verify that the exchange discards the USR messages if received after the call transfer invocation until the call transfer is completed, i.e. either FAC is sent to the remote users when both calls are already answered or ANM is received from a remote user when one of the calls is alerting.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to ECT and UUS3.				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- -----USR-----> <-----FAC----- -----CPG-----> call transfer, alerting call transfer, active -----USR-----> <-----FAC----- <-----ANM----- call transfer, active : </pre> <hr/> <p>1. Assist call setup for the 1st call and then initiate the 2nd call (with UUInf) at the UNI A (IUT). 2. Initiate the 1st call set up on the left side (SPC). 3. Assist 2nd call set up on the right side (SPB). 4. CPG (progress) with GenNot: "call transfer, active". 5. Get the verdict from the access side, "pass" if UUInf discarded. Note: The first part of the purpose has not been implemented because the time window between call transfer invocation and completion when both calls are answered is too small to permit sending of USR exactly within this interval.</p>				

TSS ECT/	TP ISS_V_11_30	ISUP'97 reference Figure 7-7/Q.732.7	Selection expression Local AND PICS A.2/7	Q.788 reference None
Test purpose				
<i>ECT – Interaction with SUB</i>				
To verify that if the IUT is able to receive and re-send the sub-address in the access transport parameter in the FAC message in either direction after activating the call transfer service. These are the calling sub-address for incoming calls and the connected sub-address for outgoing calls.				
Pre-test conditions				
Arrange the data in the IUT so that the served user subscribes to ECT.				
<pre> SPC SPA SPB 1st call 2nd call -----IAM-----> <-----ACM----- <-----ANM----- <-----CPG----- hold 1st call -----IAM-----> <-----ACM----- <-----ANM----- <-----FAC----- -----FAC-----> call transfer activation <-----FAC----- -----FAC-----> sub-address in ATP sub-address in ATP from UNI at B from UNI at C : </pre>				
<ol style="list-style-type: none"> 1. Assist call setup for the 1st call and then initiate the 2nd call at the UNI A (IUT). 2. Initiate the 1st call from SPC to the IUT (SPA) using the number TSP_Nb_A on the 1st B-channel. 3. Assist the 2nd call set up from UNI A to the IUT on the 2nd B-channel. 4. Answer the call by specifying a connected number and a connected sub-address. 5. FAC with GenNot: "call transfer, active", ServAct: "call transfer". 6. Receive sub-address from UNI at SPC. 				

7.2.12 Déviation d'appel (CFB, CFNR, CFU, CD, *call diversion*)

CFNR	Call forwarding on no reply	
CFNR(A)	CFNR – option A – late release	
CFNR(B)	CFNR – option B – immediate release	
CD(a)	CD during alerting	call diversion may occur
CD(a,A)	CD during alerting – option A – late release	
CD(a,B)	CD during alerting – option B – immediate release	
CFB(u,e)	CFB user determined with early ACM	
CD(i,e)	CD immediate response with early ACM	
CFU	Call forwarding unconditional	
CFB(n)	CFB network determined	call is diverting
CFB(u,l)	CFB user determined with late ACM	
CD(i,l)	CD immediate response with late ACM	
CD(i)	CD immediate response	

TSS CDIV/	TP ISS_V_12_1	ISUP'97 reference 2.5.2.1.1/Q.732	Selection expression OLE	Q.788 reference 2.6.1
Test purpose				
<i>"Call is diverting" indication received in ACM</i>				
To verify that a call can be successfully established, if diversion occurs. The ACM contains the generic notification indicator set to "call is diverting", the call diversion information and the redirection number .				
Applicable redirection reason in the call diversion information :				
"busy" CFB(n); CFB(u,l) "unconditional" CFU "deflection immediate response" CD(i,l)				
Case a)				
access SPA SPB SPD -----setup-----> -----IAM-----> (-----IAM----->) <-----ACM----- <----alerting ---- <-----CPG----- (<-----ACM-----) ... ringing tone ... <----answer----- <-----ANM----- (<-----ANM-----) :				
<hr/> 1. The stimulus access will initiate a call set up. 2. Redirection reason is "busy". 3. CPG (alerting) coded as if it has been mapped from ACM including BCI.				
Case b)				
access SPA SPB SPD -----setup-----> -----IAM-----> (-----IAM----->) <-----ACM----- <----alerting ---- <-----CPG----- (<-----ACM-----) ... ringing tone ... <----answer----- <-----ANM----- (<-----ANM-----) :				
<hr/> 1. The stimulus access will initiate a call set up. 2. Redirection reason is "unconditional". 3. CPG (alerting) coded as if it has been mapped from ACM including BCI.				
Case c)				
access SPA SPB SPD -----setup-----> -----IAM-----> (-----IAM----->) <-----ACM----- <----alerting ---- <-----CPG----- (<-----ACM-----) ... ringing tone ... <----answer----- <-----ANM----- (<-----ANM-----) :				
<hr/> 1. The stimulus access will initiate a call set up. 2. Redirection reason is "deflection immediate response". 3. CPG (alerting) coded as if it has been mapped from ACM.				

TSS CDIV/	TP ISS_V_12_2	ISUP'97 reference 2.5.2.1.1/Q.732	Selection expression OLE	Q.788 reference 2.6.3; 2.7.1
Test purpose				
<i>"Call diversion may occur" received in ACM</i>				
To verify that a call can be successfully established, if diversion may occur. The ACM indicates that "call diversion may occur" in the optional backward call indicators . The following CPG contains the generic notification indicator set to "call is diverting", the call diversion information and the redirection number , if diversion occurs.				
Applicable redirection reason in the call diversion information :				
<pre>"busy" CFB(u,e) "no reply" CFNR "deflection during alerting" CD(a) "deflection immediate response" CD(i,e) Case a) access SPA SPB SPD -----setup----> -----IAM-----> <-----ACM----- (no indication) <-----CPG----- (-----IAM----->) <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The stimulus access will initiate a call set up. 2. "Call diversion may occur" in Event indicator. 3. "Call forwarded on busy" in Event indicator and also Call diversion information. 4. CPG (alerting) coded as if it has been mapped from ACM, with RnNbRes parameter. 				
Case b) access SPA SPB SPD -----setup----> -----IAM-----> <-----ACM----- (progress) <-----CPG----- (-----IAM----->) <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :				
<hr/> <ol style="list-style-type: none"> 1. The stimulus access will initiate a call set up. 2. "Subscriber free" in CdPSI & "Call diversion may occur" in OBCI. 3. CPG (Progress) in Event indicator and also Call diversion information ("CFNR"), Generic notification, and redirection Number. 4. CPG (alerting) coded as if it has been mapped from ACM, with RnNbRes parameter, and including BCI. 				
Case c) access SPA SPB SPD -----setup----> -----IAM-----> <-----ACM----- (no indication) <-----CPG----- (-----IAM----->) <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :				
<hr/> <ol style="list-style-type: none"> 1. The stimulus access will initiate a call set up. 2. "Subscriber free" in CdPSI & "Call diversion may occur" in Event indicator. 3. CPG(Progress) in Event indicator and also Call diversion information, generic notification, and redirection number. 4. CPG(alerting) coded as if it has been mapped from ACM, with RnNbRes parameter, and including BCI. 				
Case d) access SPA SPB SPD -----setup----> -----IAM-----> <-----ACM----- (no indication) <-----CPG----- (-----IAM----->) <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :				
<hr/> <ol style="list-style-type: none"> 1. The stimulus access will initiate a call set up. 2. "Subscriber free" in CdPSI & "Call diversion may occur" in Event indicator. 3. "Deflection immediate response" in Event indicator and also Call diversion information. 4. CPG (alerting) coded as if it has been mapped from ACM, with RnNbRes parameter. 				

TSS CDIV/	TP ISS_V_12_3	ISUP'97 reference 2.4.2; Table 2-1/Q.732	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Redirection number – presentation allowed – according to the notification subscription option</i>				
To verify that the originating exchange makes the redirection number available to the calling access signalling system, if the notification subscription option of the call diversion information is coded "010 presentation allowed with redirection number".				
The redirection number restriction parameter is set to "00 presentation allowed".				
<pre> access SPA SPB SPD -----setup----> -----IAM-----> (-----IAM----->) <-----ACM----- <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) : </pre>				
<hr/> <p>1. The stimulus access will initiate a call set up. The verdict will be set to pass if the Redirection number is presented on the access.</p> <p>2. NSO is "presentation allowed with redirection number" (implicit) and RnReas = CFU.</p> <p>NOTE: CFU is used as redirection reason, but other reasons are also applicable.</p> <p>3. Redirection number restriction parameter "presentation allowed" (implicit).</p>				

TSS CDIV/	TP ISS_V_12_4	ISUP'97 reference 2.4.2; Table 2-1/Q.732	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Redirection number – presentation restricted – according to the notification subscription option</i>				
To verify that the originating exchange does not make the redirection number available to the calling access signalling system, if the notification subscription option of the call diversion information is coded "001 presentation not allowed", "011 presentation allowed without redirection number" or "000 unknown".				
The redirection number restriction parameter is set to "00 presentation allowed".				
Case a)				
<pre> access SPA SPB SPD -----setup----> -----IAM-----> (-----IAM----->) <-----ACM----- <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :</pre>				
<hr/> 1. The stimulus access will initiate a call set up. The verdict will be set to pass if no Redirection number is presented on the access. 2. NSO is "presentation allowed with redirection number" (implicit) and RnReas = CFU. NOTE: CFU is used as redirection reason, but other reasons are also applicable. 3. Redirection number restriction parameter "presentation allowed" (implicit/default).				
Case b)				
<pre> access SPA SPB SPD -----setup----> -----IAM-----> (-----IAM----->) <-----ACM----- <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :</pre>				
<hr/> 1. The stimulus access will initiate a call set up. The verdict will be set to pass if no Redirection number is presented on the access. 2. NSO is "presentation allowed without redirection number" and RnReas = CFU. NOTE: CFU is used as redirection reason, but other reasons are also applicable. 3. Redirection number restriction parameter "presentation allowed" (implicit).				
Case c)				
<pre> access SPA SPB SPD -----setup----> -----IAM-----> (-----IAM----->) <-----ACM----- <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :</pre>				
<hr/> 1. The stimulus access will initiate a call set up. The verdict will be set to pass if no Redirection number is presented on the access. 2. NSO is "unknown" and RnReas = CFU. NOTE: CFU is used as redirection reason, but other reasons are also applicable. 3. Redirection number restriction parameter "presentation allowed" (implicit/default).				

TSS CDIV/	TP ISS_V_12_5	ISUP'97 reference 2.4.2; Table 2-1/Q.732	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Redirection number – presentation restricted – according to redirection number restriction parameter</i>				
To verify that the originating exchange does not make the redirection number available to the calling access signalling system, if the redirection number restriction parameter indicates "01 Presentation restricted".				
The notification subscription option of the call diversion information is coded "010 Presentation allowed with redirection number".				
<pre> access SPA SPB SPD -----setup----> -----IAM-----> (-----IAM----->) <-----ACM----- <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :</pre>				
<hr/> <p>1. The stimulus access will initiate a call set up. The verdict will be set to pass if no Redirection number is presented on the access.</p> <p>2. NSO is "presentation allowed with redirection number" (implicit) and RnReas = CFU.</p> <p>NOTE: CFU is used as redirection reason, but other reasons are also applicable.</p> <p>3. The Redirection number restriction parameter is set to "presentation restricted".</p>				

TSS CDIV/	TP ISS_I_12_6	ISUP'97 reference 2.4.2; Table 2-1/Q.732	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Redirection number – presentation restricted – no redirection number restriction parameter received</i>				
To verify that the originating exchange does not make the redirection number available to the calling access signalling system, if no redirection number restriction parameter is received.				
The notification subscription option of the call diversion information is coded "010 Presentation allowed with redirection number".				
<pre> access SPA SPB SPD -----setup----> -----IAM-----> (-----IAM----->) <-----ACM----- <---alerting --- <-----CPG----- (<-----ACM-----) ... ringing tone ... <---answer----- <-----ANM----- (<-----ANM-----) :</pre>				
<hr/> <p>1. The stimulus access will initiate a call set up. The verdict will be set to pass if no Redirection number is presented on the access.</p> <p>2. NSO is "presentation allowed with redirection number" (implicit) and RnReas = CFU.</p> <p>3. CPG (alerting) without the redirection number restriction parameter is sent to the IUT.</p>				

TSS CDIV/	TP ISS_I_12_7	ISUP'97 reference 2.4.2/Q.732	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Multiple diversions – redirection number not send by the last diversion</i>				
To verify that the originating exchange does not make any redirection number available to the calling access signalling system, if the last diverting exchange does not send one.				
NOTE – The first diverting exchange sends the redirection number and allows for its presentation. The second (last) diversion allows for the presentation of the redirection number , but does not send it, i.e. only call diversion information is present in the message and the redirection number is missing. The redirection number restriction parameter is also received as "presentation allowed".				
<pre> access SPA SPB SPD -----setup----> -----IAM-----> (-----IAM---->) (no indication) <-----ACM----- 1st diversion (no indication) <-----CPG----- (<-----ACM-----) 2nd diversion <-----alerting ---- <-----CPG----- (<-----CPG-----) (alerting) : </pre>				
<ol style="list-style-type: none"> 1. The stimulus access will initiate a call set up. The verdict will be set to pass if no Redirection number is presented on the access. 2. ACM no indication with NSO: "Presentation allowed with number", RnReas = CFU and 1st Redirection number. 3. CPG progress with NSO: "Presentation allowed with number", RnReas = CFU and NO 2nd Redirection number. 4. CPG alerting with RnNbRes parameter for the 2nd Redirection number. 				

TSS CDIV/	TP ISS_I_12_8	ISUP'97 reference 2.4.2/Q.732	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Multiple diversions – redirection number – presentation according to the most restrictive notification subscription option</i>				
To verify that the originating exchange handles the presentation of the redirection number according to the contents of the most restrictive notification subscription option of the call diversion information , if the forwarded-to user allows presentation of the number ("presentation allowed" in the redirection number restriction parameter).				
NOTE – Several messages each containing the call diversion information are received, as if multiple forwardings have occurred (from option B – immediate release – diverting exchanges, so no collecting of information takes place).				
<pre> access SPA SPB SPD -----setup----> -----IAM-----> (-----IAM---->) (no indication) <-----ACM----- 1st diversion (no indication) <-----CPG----- (<-----ACM-----) 2nd diversion (no indication) <-----CPG----- (<-----CPG-----) 3rd diversion (no indication) <-----CPG----- (<-----CPG-----) 4th diversion <-----alerting ---- <-----CPG----- (<-----CPG-----) (alerting) ... ringing tone ... <-----answer----> <-----ANM----- (<-----ANM-----) : </pre>				
<ol style="list-style-type: none"> 1. The stimulus access will initiate a call set up. The verdict will be set to pass if no Redirection number is presented on the access. 2. NOTE: CFU is used as redirection reason, but other reasons are also applicable. 3. Redirection number restriction parameter "presentation allowed" (implicit/default). 				

TSS CDIV/	TP ISS_V_12_9	ISUP'97 reference 2.5.2.2.1; 2.5.2.5.1.2 d)/Q.732	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Notification procedures for a diverting call – before the diverting exchange</i>				
To verify that the IUT can successfully pass on in the backward direction (on the leg before the diversion) all the diversion information from the diverting exchange.				
It has to be checked that the following signalling information is passed on:				
optional backward call indicators with setting "call diversion may occur" for CFNR, CD(a), CFB(u,e) and CD(i,e) generic notification indicator call diversion information redirection number (NOTE – Altered in gateways) redirection number restriction parameter				
NOTE – The following messages can be tested for CFNR, CD(a), CFB(u,e) and CD(i,e):				
ACM with optional backward call indicators with "call diversion may occur" CPG with generic notification indicator, call diversion information and redirection number CPG alerting (or ANM or CON) with redirection number restriction parameter.				
The following messages can be tested for CFU, CFB(n), CFB(u,l), CD(i,l):				
ACM with generic notification indicator, call diversion information and redirection number CPG alerting (or ANM or CON) with redirection number restriction parameter.				
Case a)				
access SPA SPB SPD -----setup-----> -----IAM-----> (-----IAM----->) <-----ACM----- <-----ACM----- RnReas, number <-----CPG----- <-----CPG----- (<-----ACM-----) RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- (<-----ANM-----) :				
<hr/> 1. The PTC will provide the necessary stimulus, the test is for RnReas = CFU. 2. ACM (no indication) with CDInf, GenNot = "call is diverting" and the RnNb. 3. CPG (alerting) with RnNbRes - coded as if it has been mapped from ACM; including BCI.				
Case b)				
access SPA SPB SPD -----setup-----> -----IAM-----> <-----ACM----- <-----ACM----- CDmo, RnReas, number <-----CPG----- <-----CPG----- (-----IAM----->) <-----CPG----- <-----CPG----- (<-----ACM-----) RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- (<-----ANM-----) :				
<hr/> 1. The PTC will provide the necessary stimulus, the test is for RnReas = CFNR. 2. ACM with optional backward call indicator "call diversion may occur" 3. CPG (progress) with CDInf, GenNot = "call is diverting" and the RnNb. 4. CPG (alerting) with RnNbRes - coded as if it has been mapped from ACM; including BCI.				

TSS CDIV/	TP ISS_V_12_10	ISUP'97 reference 2.5.2.2.1/Q.732	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Notification procedures for a diverting call – after the diverting exchange</i>				
To verify that the IUT can successfully pass on in both directions (on the leg after the diversion) all the diversion information from the diverting exchange.				
It has to be checked that the following signalling information is passed on in the forward direction:				
redirecting number (NOTE – Altered in Gateways) original called number (NOTE – Altered in Gateways) redirection information				
It has to be checked that the following signalling information is passed on in the backward direction:				
redirection number restriction parameter (in ACM /CPG /ANM /CON)				
SPC	SPA	SPB	SPD	
<-----IAM----->	<-----IAM----->	with RnInf, OriCdNb, RgNb		
<-----ACM-----	<-----ACM-----	RnNbRes		
... ringing tone ...				
<-----answer-----	<-----ANM-----			
:				
<hr/> 1. The stimulus ISUP will initiate a call set up with the expected signalling information. 2. On the forwarding leg the RnNbRes from user with the number TSP_Nb_B is returned. The Redirection number restriction parameter is set to "presentation allowed" by default.				

TSS CDIV/	TP ISS_I_12_11	ISUP'97 reference 2.5.2.3/Q.732; 3.5.2.3/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose				
<i>Original called number in the outgoing international gateway</i>				
To verify that the outgoing international gateway checks and manipulates the original called number according to the procedures as defined for CLIP.				
Applicable tests:				
Discarding the original called number if case of bilateral agreements (PICS A.15/11)				
Discarding the original called number , if the address is marked not available				
Converting the original called number to international format with transparent transferral of screening indicator and address presentation restricted indicator				
Discarding an incomplete original called number				
Case a)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with OriCdNb.				
Case b)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with an "address not available" OriCdNb.				
Case c)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with a national (significant) OriCdNb.				

TSS CDIV/	TP ISS_V_12_12	ISUP'97 reference 2.5.2.3/Q.732; 3.5.2.3/Q.731	Selection expression OutIE	Q.788 reference None
Test purpose				
<i>Redirecting number in the outgoing international gateway</i>				
To verify that the outgoing international gateway checks and manipulates the redirecting number according to the procedures as defined for CLIP.				
Applicable tests:				
Discarding the redirecting number if case of bilateral agreements (PICS A.15/12)				
Discarding the redirecting number , if the address is marked not available				
Converting the redirecting number to international format with transparent transferral of screening indicator and address presentation restricted indicator				
Discarding an incomplete redirecting number				
Case a)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with RgNb.				
Case b)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with an "address not available" RgNb.				
Case c)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with a national significant RgNb.				

TSS CDIV/	TP ISS_V_12_13	ISUP'97 reference 2.5.2.3/Q.732	Selection expression OutIE	Q.788 reference None
Test purpose				
<i>Redirection number in the outgoing international gateway.</i>				
To verify that the outgoing international gateway checks and manipulates the redirection number according to the procedures defined for COLP.				
Tests applicable:				
Converting the redirection number to national format, if necessary (own country code)				
Adding a prefix to an international redirection number (PICS A.15/14 – national option @)				
Case a)				
<pre> SPC SPA SPB SPD -----IAM----> -----IAM----> (-----IAM---->) <-----ACM----- <-----ACM----- RnReas, number <-----CPG----- <-----CPG----- (<-----ACM-----) RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- (<-----ANM-----) : </pre>				
<hr/> 1. The PTC will provide the necessary stimulus. 2. ACM with CDInf, GenNot = "call is diverting" and an international RnNb: TSP_Nb_D with own CC. 3. CPG (alerting) with RnNbRes - coded as if it has been mapped from ACM including BCI.				
Case b)				
<pre> SPC SPA SPB SPD -----IAM----> -----IAM----> (-----IAM---->) <-----ACM----- <-----ACM----- RnReas, number <-----CPG----- <-----CPG----- (<-----ACM-----) RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- (<-----ANM-----) : </pre>				
<hr/> 1. The PTC will provide the necessary stimulus. 2. ACM with CDInf, GenNot = "call is diverting" and an international RnNb: TSP_Nb_D with foreign country code. 3. CPG (alerting) with RnNbRes - coded as if it has been mapped from ACM including BCI.				

TSS CDIV/	TP ISS_V_12_14	ISUP'97 reference 2.5.2.4/Q.732; 3.5.2.4/Q.731	Selection expression IncIE	Q.788 reference None
Test purpose				
<i>Original called number in the incoming international gateway</i>				
To verify that the incoming international gateway checks and manipulates the original called number according to the procedures as defined for CLIP.				
Applicable tests:				
<p>Converting the original called number to national format, if necessary (own country code)</p> <p>Adding a prefix to an international original called number (PICS A.15/15 – national option @)</p>				
Case a)				
<pre>SPC International SPA National SPB -----IAM-----> -----IAM-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The stimulus ISUP will initiate a call set up with the expected signalling information. 2. The received IAM should contain an OriCdNb coded as a national (significant) number. 				
Case b)				
<pre>SPC International SPA National SPB -----IAM-----> -----IAM-----> :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The stimulus ISUP will initiate a call set up with the expected signalling information. 2. The received IAM should contain an OriCdNb with prefix. 				

TSS CDIV/	TP ISS_V_12_15	ISUP'97 reference 2.5.2.4/Q.732; 3.5.2.4/Q.731	Selection expression IncIE	Q.788 reference None
Test purpose				
<i>Redirecting number in the incoming international gateway.</i>				
To verify that the incoming international gateway checks and manipulates the redirecting number according to the procedures as defined for CLIP.				
Applicable tests:				
Converting the redirecting number to national format, if necessary (own country code)				
Adding a prefix to an international redirecting number (PICS A.15/16 – national option @)				
Case a)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with RgNb.				
Case b)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with foreign CC RgNb.				
Case c)				
SPC	SPA	SPB		
-----IAM----->	-----IAM----->			
:				
1. The PTC will send an IAM with RgNb.				

TSS CDIV/	TP ISS_V_12_16	ISUP'97 reference 2.5.2.4/Q.732	Selection expression IncIE	Q.788 reference None
Test purpose				
Redirection number in the incoming international gateway.				
To verify that the incoming international gateway checks and manipulates the redirection number according to the procedures defined for COLP.				
Tests applicable:				
Discarding the redirection number in case of bilateral agreements (PICS A.15/13)				
Converting the redirection number to international format				
Case a)				
<pre> SPC SPA SPB SPD -----IAM----> -----IAM----> (-----IAM---->) <-----ACM----- <-----ACM----- RnReas, number <-----CPG----- <-----CPG----- (<-----ACM-----) RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- (<-----ANM-----) : </pre>				
<hr/> 1. The PTC will provide the necessary stimulus. 2. ACM with CDInf, GenNot = "call is diverting" and an national RnNb 3. CPG (alerting) with RnNbRes - coded as if it has been mapped from ACM including BCI.				
Case b)				
<pre> SPC SPA SPB SPD -----IAM----> -----IAM----> (-----IAM---->) <-----ACM----- <-----ACM----- RnReas, number <-----CPG----- <-----CPG----- (<-----ACM-----) RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- (<-----ANM-----) : </pre>				
<hr/> 1. The PTC will provide the necessary stimulus. 2. ACM with CDInf, GenNot = "call is diverting" and a national RnNb. 3. CPG (alerting) with RnNbRes - coded as if it has been mapped from ACM including BCI.				

TSS CDIV/	TP ISS_V_12_17	ISUP'97 reference 2.5.2.4/Q.732 3.5.2.4/Q.731	Selection expression IncIE AND PICS A.15/13	Q.788 reference None
Test purpose				
<i>Redirection number restriction parameter in the incoming international gateway.</i>				
To verify that the incoming international gateway removes the redirection number restriction parameter if the redirection number has been previously discarded in case of bilateral agreements.				
<pre> SPC SPA SPB SPD -----IAM-----> -----IAM-----> (-----IAM----->) <-----ACM----- <-----ACM----- RnReas, number <-----CPG----- <-----CPG----- (<-----ACM-----) RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- (<-----ANM-----) : </pre> <hr/> <ol style="list-style-type: none"> 1. The PTC will provide the necessary stimulus. 2. ACM with CDInf, GenNot = "call is diverting" and a national RnNb. 3. CPG (alerting) with RnNbRes - coded as if it has been mapped from ACM including BCI. 				

TSS CDIV/	TP ISS_V_12_18	ISUP'97 reference 2.5.2.5.1.1/Q.732	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Completion of diverted call by the diverted-to exchange</i>				
To verify that the IUT accepts and can successfully establish a diverted call.				
<pre> SPC SPA SPB SPD <-----setup----- <-----IAM----- (<-----IAM-----) RnReas, number (-----ACM----->) -----alerting----> -----ACM-----> (-----CPG----->) RnNbRes : </pre> <hr/> <ol style="list-style-type: none"> 1. The PTC will provide the necessary stimulus. 2. 2 diversions simulated in redirection counter; Numbers sent: are OriCdNb and RgNb. 3. ACM with CDInf, GenNot = "call is diverting" and a national RnNb. 4. CPG (alerting) with RnNbRes - coded as if it has been mapped from ACM including BCI. 				

TSS CDIV/	TP ISS_V_12_19	ISUP'97 reference 2.5.2.5.1.1/Q.732	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Setting of redirection number restriction parameter at the diverted-to exchange (pres. allowed)</i>				
To verify that the IUT includes the redirection number restriction indicator in the ACM , CPG , ANM or CON set to "presentation allowed" (COLR not activated).				
<pre> SPC SPA SPB <----- setup -----> <----- IAM -----> (Diverted call) ----- alerting -----> ----- ACM -----> RnNbRes (1) : or ----- alerting -----> ----- ACM -----> ----- connect -----> ----- CPG -----> RnNbRes (2) or ----- alerting -----> ----- ACM -----> ----- connect -----> ----- ANM -----> RnNbRes (3) : or ----- connect -----> ----- CON -----> RnNbRes (4) :</pre>				
1.-4. Pass when the redirection number restriction parameter with the coding "00 - Presentation allowed" is received in one of the allowed messages.				
5. Check the ringing tone from SPA to SPB.				

TSS CDIV/	TP ISS_V_12_20	ISUP'97 reference 2.5.2.5.1.1/Q.732	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Setting the redirection number restriction indicator at the diverted-to exchange (pres. restricted)</i>				
To verify that the IUT includes the redirection number restriction indicator in the ACM , CPG , ANM or CON set to "presentation restricted" (COLR activated).				
Pre-test conditions				
Arrange the data in the IUT so that the diverted-to user subscribes to the COLR supplementary service.				
<pre> access SPA SPB <----- setup -----> <----- IAM -----> (Diverted call) ----- alerting -----> ----- ACM -----> RnNbRes (2.) : or ----- alerting -----> ----- ACM -----> ----- CPG -----> RnNbRes (3.) or ----- alerting -----> ----- ACM -----> ----- connect -----> ----- ANM -----> RnNbRes (4.) : or ----- connect -----> ----- CON -----> RnNbRes (5.)</pre>				
1. The left access PTC will assist the call set-up with the expected parameters.				
2.-5. Pass when the redirection number restriction parameter with the coding "01 - Presentation restricted" is received in one of the allowed messages.				
6. Check the ringing tone from SPA to SPB.				

TSS CDIV/	TP ISS_V_12_21	ISUP'97 reference 2.5.2.5.1.2 b) 1)/Q.732	Selection expression DLE AND PICS A.15/2	Q.788 reference None
Test purpose				
<i>Setting the redirection counter in the diverting exchange – first diversion</i>				
To verify that the IUT can successfully divert a call which has not been diverted before and set the redirection counter to the correct value.				
The call is diverted directly to another exchange; the redirection counter should be set to 1.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
<pre> SPC SPA (IUT) SPB (No diversions) (One diversion) -----IAM-----> -----IAM-----> : </pre>				
1. The PTC will send an IAM with a national (significant) OriCdNb.				

TSS CDIV/	TP ISS_V_12_22	ISUP'97 reference 2.5.2.5.1.2 b) 1)/Q.732	Selection expression DLE AND PICS A.15/2	Q.788 reference None
Test purpose				
<i>Setting of redirection counter in the diverting exchange – multiple local diversions</i>				
To verify that the IUT can successfully divert a call which has not been diverted before and set the redirection counter to the correct value.				
The call is diverted N<=5 times; the redirection counter should be set to N. (e.g. for the pre-test condition the call is diverted twice: once to the same exchange and then to an external exchange, N=2)				
<pre> SPC SPA (IUT) SPB (No diversions) (one local diversion) (Two diversions) -----IAM-----> -----IAM-----> : </pre>				
1. The PTC will send an IAM with a national (significant) OriCdNb.				
2. RnCnt = 2 = "010"B expected.				

TSS CDIV/	TP ISS_V_12_23	ISUP'97 reference 2.5.2.5.1.2 b) 1)/Q.732	Selection expression DLE AND PICS A.15/2	Q.788 reference None
Test purpose				
<i>Updating of redirection counter in the diverting exchange</i>				
To verify that the IUT can successfully divert a call which has already been diverted and increment the redirection counter.				
NOTE – The call has been diverted 1 – 4 times.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				

TSS CDIV/	TP ISS_V_12_24	ISUP'97 reference 2.5.2.5.1.2 b) 2)/Q.732	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Original called number generated by the diverting exchange</i>				
Verify that the IUT sets the address presentation restricted indicator of the original called number according to the "served user releases his/her number to the diverted-to user" option.				
The redirecting indicator in the redirection information shall be set to "011 Call diverted".				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
SPC	SPA (IUT)	SPB (Subscription option release information)		
-----IAM----->	-----IAM----->	RnInf.RgInd="011" & OriCdNb.APRI="00"		
:				
1. The PTC will send an IAM with a national (significant) OriCdNb.				

TSS CDIV/	TP ISS_V_12_25	ISUP'97 reference 2.5.2.5.1.2 b) 4)/Q.732	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Redirecting number generated by the diverting exchange</i>				
Verify that the IUT sets the address presentation restricted indicator of the redirecting number according to the "served user releases his/her number to the diverted-to user" option.				
The redirecting indicator in the redirection information shall be set to "011 Call diverted".				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
SPC	SPA (IUT)	SPB (Subscription option = Do not release information)		
-----IAM----->	-----IAM----->	RnInf.RgInd="100" & RgNb.APRI = "00"		
:				
1. The PTC will send an IAM with a national (significant) OriCdNb.				

TSS CDIV/	TP ISS_V_12_26	ISUP'97 reference 2.5.2.5.1.2 b) 5)/Q.732	Selection expression DLE	Q.788 reference None
Test purpose				
<i>ISDN user part preference indicator in the diverting exchange</i>				
To verify that the IUT can successfully divert a call and that ISDN user part preference indicator received in the forward call indicators with the value "ISDN user part ...				
... not required all the way" shall be changed to "ISDN user part preferred all the way"				
... preferred all the way" shall be left unchanged				
... required all the way" shall be left unchanged.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion.				
Case a)				
SPC SPA (IUT) SPB				
ISUP not required ISUP preferred				
-----IAM-----> -----IAM----->				
:				
<hr/> 1. The PTC will send a call with the expected stimulus to the diverting exchange.				
2. The ISUP preference indicator is checked.				
Case b)				
SPC SPA (IUT) SPB				
ISUP preferred ISUP preferred				
-----IAM-----> -----IAM----->				
:				
<hr/> 1. The PTC will send a call with the expected stimulus to the diverting exchange.				
2. The ISUP preference indicator is checked.				
Case c)				
SPC SPA (IUT) SPB				
ISUP required ISUP required				
-----IAM-----> -----IAM----->				
:				
<hr/> 1. The PTC will send a call with the expected stimulus to the diverting exchange.				
2. The ISUP preference indicator is checked.				

TSS CDIV/	TP ISS_V_12_27	ISUP'97 reference 2.5.2.5.1.2 c) ii); iii)/Q.732	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Call diversion may occur in the diverting exchange</i>				
To verify that the IUT includes an optional backward call indicator with the indication "call diversion may occur" in the ACM in case of CFNR, CD(a), CFB(u,e) and CD(i,e).				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated the appropriate diversion service to an external exchange.				
<pre> SPC SPA SPB -----IAM-----> <-----ACM----- CDmo <-----CPG----- -----IAM-----> <-----CPG----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- : </pre> <hr/> <p>1. The stimulus ISUP will initiate a call set up to diverting user at IUT and expect to receive the indication "call diversion may occur". 2. Verdict is set by checking status on left PTC.</p>				

TSS CDIV/	TP ISS_V_12_28	ISUP'97 reference 2.5.2.5.1.2 c) ii); Table 2-2/Q.732	Selection expression DLE AND PICS A.16/5	Q.788 reference None
Test purpose				
<i>Served user answers the call before T_{CFNR} expiry</i>				
To verify that a call may be answered by the served user and that no signalling occurs on the diverted-to user leg if the call is answered before timeout of Timer T _{CFNR} , in case of CFNR				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated the CFNR service.				
Case a)				
SPC	SPA	SPB		
-----IAM----->				
<-----ACM-----	CDmo			
<-----ANM-----				
:				
1. The stimulus ISUP will initiate a call set up to diverting user at IUT and expect to receive the indication "call diversion may occur".				
2. Pass if no signalling is observed on the AB link.				
Case b)				
SPC	SPA	SPB		
-----IAM----->				
<-----ACM-----	CDmo			
	TCFNR expiry			
<-----CPG-----	-----IAM----->			
<-----CPG-----	<-----ACM-----			
	... ringing tone ...			
<-----answer-----	<-----ANM-----			
:				
1. The stimulus ISUP will initiate a call set up to diverting user at IUT and expect to receive the indication "call diversion may occur".				
2. Window for receiving the forwarding call is created.				
3. Pass if IAM is received inside window.				

TSS CDIV/	TP ISS_V_12_29	ISUP'97 reference 2.5.2.5.1.2 c) i); ii); iii)/Q.732	Selection expression DLE AND NOT PICS A.16/1	Q.788 reference None
Test purpose				
<i>Immediate through-connection in the diverting exchange</i>				
To verify that the IUT can successfully divert a call and that the incoming circuit is connected to the chosen outgoing circuit immediately, in case of CFU, CFB, CD(i), CFNR(B) and CD(a,B).				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated the appropriate diversion service to an external exchange.				
<pre> SPC SPA SPB -----IAM----> <-ACM{CDmo/NoInd}- -----IAM----> (with RnInf, OriCdNb, RgNb) ... Check both way communication ... <-----CPG----- <-----ACM----- RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- : </pre> <hr/> <p>1. The stimulus ISUP will initiate a call set up with the expected signalling information. 2. The incoming circuit should be connected to outgoing circuit in both directions immediately.</p>				

TSS CDIV/	TP ISS_V_12_30	ISUP'97 reference 2.5.2.5.1.2 c) ii)/Q.732	Selection expression DLE AND PICS A.16/1 (option A)	Q.788 reference None
Test purpose				
<i>Through-connection backwards upon alerting and forwards upon answer in the diverting exchange</i>				
To verify that the IUT through-connects in the backward direction (incoming circuit) after receiving the alerting indication and in the forward direction (outgoing circuit) after receiving the answer (connect) indication, in case of CFNR(A) and CD(a,A).				
NOTE – The IUT can through-connect in both directions after receiving the alerting indication.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated the appropriate diversion service to an external exchange.				
<pre> SPC SPA SPB -----IAM----> <-ACM {CDmo/NoInd}-- -----IAM----> Check that there is no through-connection <-----CPG----- <-----ACM----- (RnNbRes) Check that there is through-connection backward direction (e.g. ... ringing tone ...) <-----ANM----- <-----ANM----- Check that there is through-connection in both directions : </pre> <hr/> <p>1. The stimulus ISUP will initiate a call set up with the expected signalling information. 2. Will disrupt the call handling and cause failure if received unexpectedly at left PTC. 3. Steps checks backward through-connection in backward direction before ANM and two-way communication after ANM.</p>				

TSS CDIV/	TP ISS_V_12_31	ISUP'97 reference 2.5.2.5.1.2 c) ii)/Q.732	Selection expression DLE AND PICS A.16/1 (option A)	Q.788 reference None
Test purpose				
<i>Served user answers before receipt of alerting indication from diverted-to exchange</i>				
To verify that the IUT allows the served user to answer the call after the IAM has been sent to the diverted-to exchange, in case of CFNR(A) and CD(a,A). The served user shall be allowed to answer the call after ACM (no indication) has been received and the connection towards the diverted-to exchange shall be released.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated CFNR(A) or CD(a,A) to an external exchange.				
<pre> SPC SPA SPB -----IAM----> <-----ACM----- CDmo TCFNR expiry -----IAM----> <---ACM (NoInd)--- Served user answers <-----ANM----- -----REL-----> : <----- RLC----- </pre>				
<ol style="list-style-type: none"> 1. The stimulus ISUP will initiate a call set up to diverting user at IUT. 2. The stimulus access will assist the call set up at the served user side. 3. ACM with no indication as if another diversion may occur in order to give time to the user at UNI at SPA to answer the call. 4. Call on forwarding leg is released. 5. Successful call set up carried out by the PTC. 				

TSS CDIV/	TP ISS_V_12_32	ISUP'97 reference 2.5.2.5.1.2 c) ii)/Q.732	Selection expression DLE AND PICS A.16/1 (option A)	Q.788 reference 2.7.4; 2.9.7
Test purpose				
<i>Unsuccessful call setup to the diverted-to user, ringing tone applied by the diverting exchange</i>				
To verify that, if the IUT receives a release indication with cause "user busy" from the diverted-to exchange, it continues to provide ringing tone to the calling user until he releases the connection (or timer T9 in the controlling exchange expires), in case of CFNR(A) and CD(a,A).				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated CFNR(A) or CD(a,A) to an external exchange.				
<pre> SPC SPA SPB -----IAM----> <-----ACM----- CDmo TCFNR expiry -----IAM----> <-----REL----- busy -----RLC-----> ...ringing tone... T9 -----REL-----> <-----RLC----- </pre>				
<ol style="list-style-type: none"> 1. The stimulus ISUP will initiate a call set up to the diverting user at IUT and check ringing tone. 2. The stimulus access is mainly responsible for generating the ringing tone. 3. Release with cause #17. 				

TSS CDIV/	TP ISS_V_12_33	ISUP'97 reference 2.5.2.5.2.1 c) iii)/Q.732	Selection expression DLE AND NOT PICS A.16/1	Q.788 reference 2.6.4 2.7.5 2.8.3 2.9.5 2.9.6
--------------	-------------------	--	--	---

Test purpose

Unsuccessful call setup to the diverted-to user, call released by the diverting exchange

To verify that, if the IUT receives a release indication with cause "user busy" from the diverted-to exchange, it releases the call (incoming circuit) and the resources, in case of CFU, CFB, CD(i), CFNR(B) and CD(a,B).

Pre-test conditions

Arrange the data in the IUT so that called user has activated CFU, CFB, CD(i), CFNR(B) or CD(a,B) to an external exchange.

```

SPC           SPA           SPB
-----IAM----->
<-----ACM----- Diverting
-----IAM----->
(<-----CPG-----) for CFB(u,e), CD(i,e)
-----IAM----->
<-----REL----- <-----REL ----- busy
-----RLC-----> ----- RLC----->

```

1. The stimulus ISUP will initiate a call set up to the diverting user at IUT and check the release of resources.
2. Release the call with cause #17, location "user".

TSS CDIV/	TP ISS_V_12_34	ISUP'97 reference 2.5.2.5.1.2 e) i-iv) 2)/Q.732	Selection expression DLE AND PICS A.16/1 (option A)	Q.788 reference 2.7.1 2.9.4
--------------	-------------------	---	---	--------------------------------------

Test purpose

Notification procedures in the diverting exchange-collecting information for the backward direction

To verify that the IUT can successfully divert a call and store the diversion information parameters in the backward direction until an alerting indication is received from the diverted-to exchanges, in case of CFNR(A) and CD(a,A). The IUT receives several CPG messages with **call diversion information** and shall retain the most recent redirection reason and the most severe notification subscription option.

Pre-test conditions

Arrange the data in the IUT so that called user has activated CFNR(A) or CD(a,A) to an external exchange.

```

SPC           SPA           SPB           SPD
CFNR (NSO = 010)   CFU (NSO = 011)   COLR activated
-----IAM----->
<-----ACM----- -----IAM----->
          CDmo <-----ACM----- ( -----IAM-----> )
          NoInd, RnReas = CFU, Nb_D
          -----CPG-----
                               progress, RnNbRes = 00
<-----CPG----- <-----CPG----- ( <-----ACM----- )
                               RnNbRes = 01, alerting RnNbRes = 01,
subscriber free
          ... ringing tone ...
<-----ANM----- <-----ANM----- ( <-----ANM----- )
          :

```

1. The PTC will provide the necessary stimulus.
2. ACM with CDInf, GenNot = "call is diverting" and RnNb = TSP_Nb_D.
3. CPG (progress) with RnNbRes=00 from user at UNI SPB (no COLR activated).
4. CPG (alerting) with RnNbRes=01 from user at UNI SPD (COLR activated) - coded as if it has been mapped from ACM including BCI.

TSS CDIV/	TP ISS_V_12_35	ISUP'97 reference 2.5.2.5.1.2 e) i-iv) 1)/Q.732	Selection expression DLE AND NOT PICS A.16/1	Q.788 reference None
Test purpose				
<i>Notification procedures in the diverting exchange – passing on information in the backward direction</i>				
To verify that the IUT can successfully divert a call and pass on in the backward direction the diversion information parameters received from the diverted-to exchanges, in case of CFU, CFB, CD(i), CFNR(B) and CD(a,B).				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated CFU, CFB, CD(i), CFNR(B) or CD(a,B) to an external exchange.				
<pre> SPC SPA SPB SPD CDIV (NSO=010) CFU (NSO=011) COLR activated -----IAM-----> <-----ACM----- -----IAM-----> (<-----CPG-----) CFB(u,e), CD(i,e) <-----CPG----- <-----ACM----- (-----IAM----->) NoInd, RnReas=CFU, TSP_Nb_D <-----CPG----- <-----CPG----- progress, RnNbRes=00 <-----CPG----- <-----CPG----- (-----ACM-----) RnNbRes = 01, alerting RnNbRes = 01, subscriber free ... ringing tone ... <-----ANM----- <-----ANM----- (-----ANM-----) : </pre>				
<hr/> <ol style="list-style-type: none"> 1. The PTC will provide the necessary stimulus. 2. ACM with CDInf, GenNot = "call is diverting" and RnNb = TSP_Nb_D. 3. CPG (progress) with RnNbRes = 00 from user at UNI SPB (no COLR activated). 4. CPG (alerting) with RnNbRes = 01 from user at UNI SPD (COLR activated) – coded as if it has been mapped from ACM including BCI. 				

TSS CDIV/	TP ISS_V_12_36	ISUP'97 reference 2.5.2.5.1.2 e) i-iv)/Q.732	Selection expression DLE AND PICS A.16/1 (option A)	Q.788 reference 2.7.1 case C 2.9.4 case C
Test purpose				
<i>Mapping of CON to ANM in the diverting exchange – option A</i>				
To verify that the IUT can successfully divert a call and map a received CON from the forwarding leg to a CPG (alerting), followed by an ANM on the preceding leg in case of CFNR(A) or CD(a,A).				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated CFNR(A) or CD(a,A). to an external exchange.				
<pre> SPC SPA SPB -----IAM-----> <-----ACM {CDmo} -- <--CPG {diverting}-- -----IAM-----> In case of CFNR(A), CD(a,A) <--CPG {alerting}-- <-----CON----- RnNbRes <-----ANM----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. The stimulus ISUP will initiate a call set up with the expected signalling information. 2. The incoming circuit should be connected to outgoing circuit in both directions immediately. 				

TSS CDIV/	TP ISS_V_12_37	ISUP'97 reference 2.5.2.5.1.2 e) i-iv)/ Q.732	Selection expression DLE AND NOT PICS A.16/1	Q.788 reference 2.6.1 case C 2.8.1 case C 2.9.1 case C
--------------	-------------------	---	--	--

Test purpose

Mapping of CON to ANM in the diverting exchange – option B

To verify that the IUT can successfully divert a call and map a received **CON** from the forwarding leg to an **ANM** on the preceding leg, in case of CFU, CFB, CD(i), CFNR(B) or CD(a,B).

Pre-test conditions

Arrange the data in the IUT so that called user has activated CFU, CFB, CD(i), CFNR(B) or CD(a,B) to an external exchange.

```

SPC           SPA           SPB
-----IAM----->
<---CPG{diverting}--- -----IAM----->
                                         In case of CFB(n), CFB(u,1), CFU, CD(i,1)
or
<----ACM {CDmo}---->
<---CPG {diverting}--- -----IAM----->
                                         In case of CFB(u,e), CFNR(B), CD(a,B), CD(i,e)

-----ANM----- <-----CON----- RnNbRes
  :
```

-
1. The stimulus ISUP will initiate a call set up with the expected signalling information.
 2. The incoming circuit should be connected to outgoing circuit in both directions immediately.

TSS CDIV/	TP ISS_V_12_38	ISUP'97 reference 2.1.1.1 e); Table A1/Q.764	Selection expression DLE	Q.788 reference None
--------------	-------------------	--	-----------------------------	----------------------------

Test purpose

Timer T7 expiry in the diverting exchange

To verify that the IUT can divert a call and release the resources upon T7 timer expiry, if no **ACM** is received from the forwarded-to exchange.

Pre-test conditions

Arrange the data in the IUT so that called user has activated diversion to an external exchange.

```

SPC           SPA           SPB
-----IAM----->
<----ACM----- CDmo
<----CPG----- -----IAM----->
                                         |
                                         | T7
-----REL----- -----REL----->
-----RLC-----> <-----RLC-----
```

-
1. The stimulus ISUP will initiate a call set up to diverting user at IUT and expect to receive the indication "call diversion may occur".
 2. Verdict is set by checking status on left PTC together with the receipt of the REL message.

TSS CDIV/	TP ISS_V_12_39	ISUP'97 reference 2.1.4.6 b); Table A1/Q.764	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Timer T9 expiry in the diverting exchange</i>				
To verify that the IUT can divert a call and release the resources upon T9 timer expiry, if no ANM is received from the forwarded-to exchange.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
<pre> SPC SPA SPB -----IAM-----> <-----ACM----- CDmo <-----CPG----- -----IAM-----> <-----CPG----- <-----ACM-----> T9 <-----REL----- -----REL-----> -----RLC-----> <-----RLC-----> </pre>				
<hr/> 1. The stimulus ISUP will initiate a call set up to diverting user at IUT and expect to receive the indication "call diversion may occur". 2. ACM subscriber free. 3. Verdict is set by checking status on left PTC together with the receipt of the REL message.				

TSS CDIV/	TP ISS_V_12_40	ISUP'97 reference 2.5.2.5.2.2/Q.732	Selection expression DLE AND PICS A.15/2 AND NOT PICS A.16/1	Q.788 reference None
Test purpose				
<i>Call clearing in the diverting exchange – redirection counter set to maximum value</i>				
To verify that the IUT will refuse any further external diversions and clear the call, if it is received with the redirection counter in the redirection information set to the maximum value, in case of CFU, CFB, CD(i), CFNR(B) and CD(a,B).				
The cause values shall be in case of:				
CFU "call rejected" (21)				
CFB "user busy" (17)				
CFNR(B) "no answer from user (user alerted)" (19)				
CD(i), CD(a,B)"no user responding" (18)				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
Case a)				
<pre> SPA SPB <-----IAM----- -----REL-----> <-----RLC----- </pre>				
1. IAM with Redirection counter set to 5 (or TSP_max_div if not equal 5).				
2. Call rejected - Cause #21 for CFU.				
Case b)				
<pre> SPA SPB <-----IAM----- -----REL-----> <-----RLC----- </pre>				
1. IAM with Redirection counter set to 5 (or TSP_max_div if not equal 5).				
2. User busy - Cause #17 for CFB.				
Case c)				
<pre> SPA SPB <-----IAM----- -----REL-----> <-----RLC----- </pre>				
1. IAM with Redirection counter set to 5 (or TSP_max_div if not equal 5).				
2. No user responding - Cause #18 for CD(i).				
Case d)				
<pre> SPA SPB <-----IAM----- -----ACM-----> -----REL-----> <-----RLC----- </pre>				
1. IAM with Redirection counter set to 5 (or TSP_max_div if not equal 5).				
2. No user responding - Cause #18 for CD(a,B).				
Case e)				
<pre> SPA SPB <-----IAM----- -----ACM-----> -----REL-----> <-----RLC----- </pre>				
1. IAM with Redirection counter set to 5 (or TSP_max_div if not equal 5).				
2. No answer from user (user alerted) - Cause #19 for CFNR(B).				

TSS CDIV/	TP ISS_V_12_41	ISUP'97 reference 2.5.2.5.2.2/Q.732	Selection expression DLE AND PICS A.15/2 AND PICS A.16/1	Q.788 reference None
Test purpose				
<i>Continue providing ringing tone in the diverting exchange – redirection counter set to maximum value</i>				
To verify that the IUT will refuse any further (external or internal) diversions and continue providing ringing tone until the calling user clears the call (or timer T9 in OLE expires), if it is received with the redirection counter in the redirection information set to the maximum value, in case of CFNR(A) and CD(a,A).				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an exchange.				
Case a)				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----ACM-----> ... ringing tone ... T9 <-----REL----- -----RLC-----></pre>				
<hr/> 1. IAM with Redirection counter set to 5 (or TSP_max_div if not equal 5). 2. This timer simulates T9 at the controlling exchange. 3. Release the call with cause 16 – Normal call clearing (default).				
Case b)				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----ACM-----> ... ringing tone ... T9 <-----REL----- -----RLC-----></pre>				
<hr/> 1. IAM with Redirection counter set to 5 (or TSP_max_div if not equal 5). 2. Release the call with cause 16 – Normal call clearing (default).				

TSS CDIV/	TP ISS_V_12_42	ISUP'97 reference 2.5.2.5.1.2 c)/Q.732; 2.6/Q.764	Selection expression DLE AND BCall PICS A.13/11	Q.788 reference None
Test purpose				
<i>Interactions with the propagation delay determination procedure</i>				
To verify that the IUT can successfully divert a call and set the required propagation delay value on the outgoing circuit correctly. The value should be set to the received value plus the propagation delay for the outgoing route, as if the IUT was an intermediate exchange.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
<pre> SPC SPA SPB -----IAM(PDC=X)-----> <-ACM {CDmo/NoInd}- -----IAM(PDC=X+D)--> (with RnInf, OriCdNb, RgNb) -----CPG----- <-----ACM----- RnNbRes ... ringing tone ... -----ANM----- <--ANM(CHInf=X+D)-- : :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The stimulus IAM contains an initial propagation delay value of X ms. 2. The received IAM should contain a propagation delay value increased by D ms. 3. Send an ANM with Call history information. 				

TSS CDIV/	TP ISS_V_12_43	ISUP'97 reference 2.6.3/Q.732	Selection expression DLE AND PICS A.3/3	Q.788 reference None
Test purpose				
<i>Call diversion – interaction with COLP</i>				
To verify that the connected number and the additional connected number in the generic number received in an ANM or CON message are passed on unmodified at a diverting exchange.				
NOTE – The CON will be mapped to an ANM.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
<p>Case a)</p> <pre> SPC SPA SPB -----IAM-----> <-ACM{CDmo/NoInd}- -----IAM-----> (with RnInf, OriCdNb, RgNb) -----CPG----- <-----ACM----- RnNbRes ... ringing tone ... -----ANM----- <-----ANM----- ConNb, addConNb in GenNb : :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The stimulus ISUP will initiate a call set up with the expected signalling information. 2. Send the ConNb and addConNb in GenNb from user at SPB. 				
<p>Case b)</p> <pre> SPC SPA SPB -----IAM-----> <-ACM{CDmo/NoInd}- -----IAM-----> (with RnInf, OriCdNb, RgNb) -----ANM----- <-----CON----- RnNbRes, ConNb, addConNb in GenNb : :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The stimulus ISUP will initiate a call set up with the expected signalling information. 2. Send the ConNb and addConNb in GenNb from user at SPB. 				

TSS CDIV/	TP ISS_V_12_44	ISUP'97 reference 2.6.5/Q.732	Selection expression DLE AND PICS A.3/1	Q.788 reference None
Test purpose				
<i>Call diversion – interaction with CLIP</i>				
To verify that the diverting exchange diverts the calling party number and the additional calling number in the generic number .				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
<pre> SPC SPA SPB -----IAM-----> <-ACM{CDmo/NoInd}-- -----IAM-----> (with RnInf, OriCdNb, RgNb) <-----CPG----- <-----ACM----- RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- : </pre>				
<hr/> 1. The stimulus ISUP will initiate a call set up with CgPN and addCgPN in GenNb. Note for the selection: Called party has to subscribe to CLIP, although diverted-to user beneficiaries of the information.				

TSS CDIV/	TP ISS_V_12_45	ISUP'97 reference 2.6.7/Q.732	Selection expression DLE AND PICS A.3/7	Q.788 reference None
Test purpose				
<i>Call diversion – interaction with CUG – CUG call not diverted</i>				
To verify that a CUG call with outgoing access not allowed to a non-CUG user who has activated diversion is not forwarded.				
<pre> access SPA SPB -----IAM (CUG)---- (-OA) -----REL(#87)----> <-----RLC----- </pre>				
<hr/> 1. No call set up should be observed on the access side. 2. Send an IAM with ISUP preference indicator in the FCI set to "ISUP required all the way" and CUG call indicator in the OFCI set to "CUG call, outgoing access not allowed". 3. REL with cause #87 "User not member of CUG". See also CUG test case ISS_V_7_14.				

TSS CDIV/	TP ISS_V_12_46	ISUP'97 reference 2.6.7/Q.732	Selection expression DLE AND PICS A.3/7	Q.788 reference None
Test purpose				
<i>Call diversion – interaction with CUG – CUG call diverted</i>				
To verify that a CUG call with outgoing access not allowed to a CUG member who has activated diversion is successful and that the CUG restrictions are forwarded.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange and has subscribed to CUG.				
<pre> SPC SPA SPB -----IAM (CUG)-----> -----IAM (CUG)-----> (-OA) : </pre>				
1. Initiate a CUG call set up from SPC specifying a CUG interlock code. The CUG call is with outgoing access not allowed. 2. CUG call indicator set to "CUG call, outgoing access not allowed".				

TSS CDIV/	TP ISS_V_12_47	ISUP'97 reference 2.6.17/Q.732	Selection expression DLE AND PICS A.3/8	Q.788 reference None
Test purpose				
<i>Call diversion – interaction with SUB – old called party sub-address not diverted</i>				
To verify that the IUT does not divert the called party sub-address.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange.				
<pre> SPC SPA SPB -----IAM-----> <-ACM{CDmo/NoInd}- -----IAM----->with RnInf, OriCdNb, RgNb -----CPG----- <-----ACM----- RnNbRes ... ringing tone ... -----ANM----- <-----ANM----- : </pre>				
1. The stimulus ISUP will initiate a call set up with a called party sub-address. 2. If IUT diverts the called party sub-address it's a "fail". 3. If the IUT does not divert a sub-address in the ATP it's a "pass". 4. IF the IUT changed the called party sub-address from TSP_Sub_A to TSP_Sub_B it's a "pass".				

TSS CDIV/	TP ISS_V_12_48	ISUP'97 reference 2.6.17/Q.732	Selection expression DLE AND PICS A.3/8	Q.788 reference None
Test purpose				
<i>Call diversion – interaction with SUB – new called party sub-address included</i>				
To verify that a new called party sub-address corresponding to the diverted-to user shall be provided by the served user at call diversion activation and shall be included in the access transport parameter in the IAM sent on the diverted leg.				
Pre-test conditions				
Arrange the data in the IUT so that called user has activated diversion to an external exchange and has subscribed to SUB.				
<pre> SPC SPA SPB -----IAM----> <-ACM{CDmo/NoInd}- -----IAM----->with RnInf, OriCdNb, RgNb <-----CPG----- <-----ACM----- RnNbRes ... ringing tone ... <-----ANM----- <-----ANM----- : </pre> <hr/> <p>1. The stimulus ISUP will initiate a call set up with a called party sub-address. 2. The IUT changed the called party sub-address from TSP_Sub_A to TSP_Sub_B.</p>				

TSS CDIV/	TP ISS_V_12_49	ISUP'97 reference 2.7/Q.732; 2.1.1/Q.764	Selection expression DLE AND IWorkE	Q.788 reference None
Test purpose				
<i>Call diversion – interworking with other networks</i>				
To verify that the IUT is able to handle the call to other signalling systems according to the basic call procedures. If the ISDN user part preference indicator in the forward call indicators is set to "ISDN user part ...:				
... not required all the way" (01) then the call should be diverted				
... preferred all the way" (00) then the call should be diverted				
... required all the way" (10) then the call should be rejected/released.				
Pre-test conditions				
Arrange the data in the IUT so that the called user has activated diversion with a diverted-to number which is to be routed to another signalling system.				
Case a)				
<pre> SPC non-ISUP SPA SPB <-----IAI-----> <-----IAM-----> -----ACM-----> -----ACM-----> -----ANC-----> -----ANM-----> : </pre>				
<hr/> 1. Assist a call set up from the UNI at SPB on a non-ISUP route. 2. Initiate a call set up specifying "ISDN user part not required all the way" in the FCI of the IAM. 3. The call should complete. For the non-ISUP side TUP messages have been chosen as an example.				
Case b)				
<pre> SPC non-ISUP SPA SPB <-----IAI-----> <-----IAM-----> -----ACM-----> -----ACM-----> -----ANC-----> -----ANM-----> : </pre>				
<hr/> 1. Assist a call set up from the UNI at SPB on a non-ISUP route. 2. Initiate a call set up specifying "ISDN user part preferred all the way" in the FCI of the IAM. 3. The call should complete.				
Case c)				
<pre> SPC non-ISUP SPA SPB <-----IAM-----> -----REL-----> <-----RLC-----> : </pre>				
<hr/> 1. Assist a call set up from the UNI at SPB on a non-ISUP route. 2. Initiate a call set up specifying "ISDN user part required all the way" in the FCI of the IAM. 3. The call should be released.				

7.2.13 Mise en attente (HOLD, *call hold*)

TSS HOLD/	TP ISS_V_13_1	ISUP'97 reference 2.5.2.1.1.1; 2.5.2.1.1.2/Q.733	Selection expression Local	Q.788 reference 2.11.3
Test purpose				
<i>Call hold after answer, requested by the local user</i>				
To verify that a call can be placed on hold and can be retrieved again by the local user and that notifications are sent with CPG messages having the event indicator set to "progress".				
Pre-test conditions				
Arrange the data in the IUT so that the local user subscribes to the Call hold service.				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> ... check communication ... -----hold-----> -----CPG-----> -----retrieve---> -----CPG-----> ... check communication ... : </pre>				
<hr/> <ol style="list-style-type: none"> 1. The call is put on HOLD by the called party. 2. The call is retrieved by the called party. 				

TSS HOLD/	TP ISS_V_13_2	ISUP'97 reference 2.5.2.1.1.1; 2.5.2.1.1.2/Q.733	Selection expression Local	Q.788 reference 2.11.3
Test purpose				
<i>Call hold after answer, requested by the remote user</i>				
To verify that a call can be placed on hold and can be retrieved again by the remote user and that notifications are sent with CPG messages.				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> ... check communication ... -----hold-----> -----CPG-----> -----retrieve---> -----CPG-----> ... check communication ... : </pre>				
<hr/> <ol style="list-style-type: none"> 1. The call is put on HOLD by the remote user. 2. The call is retrieved by the remote user. 				

TSS HOLD/	TP ISS_V_13_3	ISUP'97 reference 2.2.1; 2.5.2.1.1.1; 2.5.2.1.1.2/Q.733	Selection expression OLE AND PICS A.17/2	Q.788 reference 2.11.1
<p>Test purpose <i>Call hold after alerting, requested by the local user</i></p> <p>To verify that an outgoing call can be placed on HOLD after alerting has commenced and can be retrieved afterwards by the local user and that notifications are sent with CPG messages.</p> <p>Pre-test conditions</p> <p>Arrange the data in the IUT so that the local user subscribes to the Call hold service.</p> <pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... -----hold-----> -----CPG-----> <-----answer----- <-----ANM----- -----retrieve----> -----CPG-----> ... check communication ... :</pre>				

TSS HOLD/	TP ISS_V_13_4	ISUP'97 reference 2.2.1; 2.9/Q.733	Selection expression OLE AND PICS A.17/2	Q.788 reference None
<p>Test purpose <i>Call hold after alerting, expiry of T9 while the call is on hold</i></p> <p>To verify that a held call is released if it is not answered before expiry of T9 (waiting for ANM).</p> <p>Pre-test conditions</p> <p>Arrange the data in the IUT so that the local user subscribes to the Call hold service.</p> <pre> access SPA SPB -----setup-----> -----IAM-----> <-----alert----- <-----ACM----- ... ringing tone ... -----hold-----> -----CPG-----> <-----disc----- <-----REL-----> <-----RLC----- :</pre> <p>1. Call HOLD received. 2. Cause #19: No answer from user (user alerted).</p>				

TSS HOLD/	TP ISS_V_13_5	ISUP'97 reference 2.2.1; 2.5.2.1.1.1; 2.5.2.1.1.2/Q.733	Selection expression OLE AND PICS A.17/1	Q.788 reference 2.11.1
Test purpose				
<i>Call hold after IAM, local user requests HOLD for outgoing call</i>				
To verify that an outgoing call can be placed on hold and can be retrieved afterwards by the local user and that notifications are sent with CPG messages.				
Pre-test conditions				
Arrange the data in the IUT so that the local user subscribes to the Call hold service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> -----hold-----> -----CPG-----> . -----retrieve----> -----CPG-----> ... check communication ... <-----alert----- <-----ACM----- ... ringing tone ... <-----connect---- <-----ANM----- ... check communication ... : </pre>				

TSS HOLD/	TP ISS_V_13_6	ISUP'97 reference 2.5.2.2.1; 2.5.2.3.1; 2.5.2.4.1/Q.733	Selection expression IntermE	Q.788 reference 2.11.3
Test purpose				
<i>Call hold after answer (transit call)</i>				
To verify that a transit call can be placed on hold and can be retrieved again by the served user (called or calling party) and that the indications are passed on transparently.				
Case a)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- ... check communication ... -----CPG-----> -----CPG-----> hold -----CPG-----> -----CPG-----> retrieve ... check communication ... :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The call is put on HOLD by the calling user. 2. The call is retrieved by the calling user. 				
Case b)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- ... ringing tone ... <-----ANM----- <-----ANM----- ... check communication ... -----CPG-----<-----CPG----- hold -----CPG-----<-----CPG----- retrieve ... check communication ... :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The call is put on HOLD by the called party. 2. The call is retrieved by the called party. 				

TSS HOLD/	TP ISS_V_13_7	ISUP'97 reference 2.2.2; 2.5.2.2.1; 2.5.2.3.1; 2.5.2.4.1/Q.733	Selection expression IntermE	Q.788 reference 2.11.1
--------------	------------------	--	---------------------------------	------------------------------

Test purpose

Call hold after alerting (transit call)

To verify that a transit call can be placed on hold after alerting has commenced at the called party and can be retrieved afterwards and that the indications are passed on transparently by the IUT.

Case a)

```

SPC           SPA           SPB
-----IAM-----> -----IAM----->
<-----ACM----- <-----ACM-----
      ... ringing tone ...
-----CPG-----> -----CPG----->   hold
<-----ANM----- <-----ANM-----
      ... check communication ...
-----CPG-----> -----CPG----->   retrieve
      ... check communication ...
:
```

-
1. The call is put on HOLD by the calling party.
 2. The call is retrieved by the calling party.

Case b)

```

SPC           SPA           SPB
-----IAM-----> -----IAM----->
<-----ACM----- <-----ACM-----
      ... ringing tone ...
-----CPG-----<-----CPG----- hold
<-----ANM----- <-----ANM-----
      ... check communication ...
-----CPG-----<-----CPG----- retrieve
      ... check communication ...
:
```

-
1. The call is put on HOLD by the called party.
 2. The call is retrieved by the called party.

TSS HOLD/	TP ISS_V_13_8	ISUP'97 reference 2.7/Q.733	Selection expression IWorkE and PICS A.17/3	Q.788 reference None
--------------	------------------	--------------------------------	---	----------------------------

Test purpose

Call hold after answer, interworking with PSTN

To verify that an in-band indication is sent to the PSTN subscriber if a call is placed on hold by the ISDN subscriber.

```

PSTN           SPA           SPB
-----> -----IAM----->
<----- <-----ACM-----
      ... ringing tone ...
----- <-----ANM-----
      ... check communication ...
<--in-band indic-- <-----CPG-----
:
```

-
1. Continue if an indication of in-band information is received.

TSS HOLD/	TP ISS_V_13_9	ISUP'97 reference 2.3/Q.764	Selection expression Local	Q.788 reference 2.11.4
Test purpose				
<i>Call hold after answer, release of the call by the local served user</i>				
To verify that a call in the held state can be released by the user who activated the Call hold service.				
Pre-test conditions				
Arrange the data in the IUT so that the local user subscribes to the Call hold service.				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> ... check communication ... -----hold-----> -----CPG-----> ... check no through-connection ... -----disc-----> -----REL-----></pre>				
1. The call is put on HOLD by the called party.				

TSS HOLD/	TP ISS_V_13_10	ISUP'97 reference 2.3/Q.764	Selection expression Local	Q.788 reference 2.11.5
Test purpose				
<i>Call hold after answer, release of the call by the non-served user</i>				
To verify that a call in the held state can be released by the user who did not activate the Call hold service.				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----connect----> -----ANM-----> ... check communication ... <-----hold----- <-----CPG----- -----disc-----> -----REL-----></pre>				
1. The call is put on HOLD by the called party.				

TSS HOLD/	TP ISS_V_13_11	ISUP'97 reference 2.3/Q.764	Selection expression Local	Q.788 reference 2.11.2
Test purpose				
<i>Call hold after alerting, release of the call by the local served user</i>				
To verify that a held call can be released by the user who activated the Call hold service without retrieving the call.				
Pre-test conditions				
Arrange the data in the IUT so that the local user subscribes to the Call hold service.				
<pre> access SPA SPB <-----setup----- <-----IAM----- -----alert-----> -----ACM-----> ... ringing tone ... -----hold-----> -----CPG-----> -----disc-----> -----REL-----></pre>				

TSS HOLD/	TP ISS_V_13_12	ISUP'97 reference 2.2.1; 2.5.2.5.1/Q.733	Selection expression DLE	Q.788 reference 2.11.1
Test purpose				
<i>Call hold after alerting, requested by the remote user</i>				
To verify that an incoming call can be placed on hold and can be retrieved afterwards by the remote user.				
<pre> access SPA SPB -----setup-----> -----IAM-----> -----alert-----> -----ACM-----> ... ringing tone ... -----hold-----> -----CPG-----> -----retrieve----> -----RES-----> </pre>				

7.2.14 Signal d'appel (CW, *call waiting*)

TSS CW/	TP ISS_V_14_1	ISUP'97 reference 1.5.2.1.1/Q.733	Selection expression OLE	Q.788 reference 2.10.1
Test purpose				
<i>Call waiting indication in ACM</i>				
To verify that a call can be successfully established if the ACM indicates that it is a waiting call.				
<pre> access SPA SPB -----setup-----> -----IAM-----> -----alert-----> -----ACM-----> ... call waiting ... : </pre>				

TSS CW/	TP ISS_V_14_2	ISUP'97 reference 1.5.2.1.1/Q.733	Selection expression OLE	Q.788 reference 2.10.1
Test purpose				
<i>Call waiting indication in CPG</i>				
To verify that a call can be successfully established if the CPG indicates that it is a waiting call.				
<pre> access SPA SPB -----setup-----> -----IAM-----> -----alert-----> -----ACM-----> -----CPG-----> ... call waiting ... : </pre>				

TSS CW/	TP ISS_V_14_3	ISUP'97 reference 1.5.2.2.1; 1.5.2.3.1; 1.5.2.4.1/Q.733	Selection expression IntermE	Q.788 reference 2.10.1
Test purpose				
<i>Call waiting indication in ACM (transit)</i>				
To verify that a call can be successfully established if the ACM indicates that it is a waiting call.				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <----ACM----- <----ACM----- ... call waiting ... :</pre>				
1. Call waiting indication is sent in ACM.				

TSS CW/	TP ISS_V_14_4	ISUP'97 reference 1.5.2.2.1; 1.5.2.3.1; 1.5.2.4.1/Q.733	Selection expression IntermE	Q.788 reference 2.10.1
Test purpose				
<i>Call Waiting indication in CPG (transit)</i>				
To verify that a call can be successfully established if the CPG indicates that it is a waiting call.				
<pre> SPC SPA SPB -----IAM----> -----IAM----> <----ACM----- <----ACM----- (NoInd) <----CPG----- <----CPG----- (Call waiting) :</pre>				
1. Call waiting indication is sent in CPG.				

TSS CW/	TP ISS_V_14_5	ISUP'97 reference 1.5.2.5.1/Q.733	Selection expression DLE	Q.788 reference 2.10.1
Test purpose				
<i>Call waiting indication in ACM or CPG</i>				
To verify that a call can be successfully established if the user has subscribed to the call waiting service (with notification) and if he is currently busy, but answers the waiting call. The indication shall be sent either in an ACM or a CPG .				
Pre-test conditions				
Arrange the data in the IUT so that the called user subscribes to the call waiting service with the notification option.				
<pre> access SPA SPB <-----setup-----<-----IAM-----] -----alert-----> -----ACM-----] repeat in order to -----connect----> -----ANM-----] keep all B-channels busy ... check communication ... <-----setup-----<-----IAM----- (no channel) -----alert-----> -----ACM----- ... call waiting ... (-----CPG-----> ... call waiting ...) -----connect----> -----ANM-----> ... check communication ... <-----disc-----<-----REL----- -----RLC-----> :</pre> <hr/> <ol style="list-style-type: none"> 1. Set up calls on every B-channel busy. 2. Call waiting indication in ACM. 3. Call waiting indication in CPG. 4. Release the calls in order to get an idle state. 				

TSS CW/	TP ISS_V_14_6	ISUP'97 reference 1.5.2.5.1/Q.733	Selection expression DLE	Q.788 reference 2.10.1
Test purpose				
<i>Call waiting without notification</i>				
To verify that a call can be successfully established if the user has subscribed to the call waiting service (without notification) and if he is currently busy, but answers the waiting call. No indication shall be sent to the calling user.				
Pre-test conditions				
Arrange the data in the IUT so that the called user subscribes to the call waiting service without the notification option.				
<pre> access SPA SPB <-----setup-----<-----IAM-----] -----alert-----> -----ACM----->] repeat in order to -----connect----> -----ANM----->] keep all B-channels busy ... check communication ... <-----setup-----<-----IAM-----] (no channel) -----alert-----> -----ACM-----> -----conn-----> -----ANM-----> ... check communication ... <-----disc-----<-----REL-----] -----RLC-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Set up calls on every B-channel busy. 2. No call waiting indication in ACM. 3. Release the calls in order to get an idle state. 				

TSS CW/	TP ISS_V_14_7	ISUP'97 reference 1.5.2.5.2/Q.733	Selection expression DLE	Q.788 reference 2.10.2
Test purpose				
<i>Call waiting rejected</i>				
To verify that the IUT sends a REL with cause #21 (call rejected) if a busy user rejects the waiting call.				
Pre-test conditions				
Arrange the data in the IUT so that the called user subscribes to the call waiting service with the notification option.				
<pre> access SPA SPB <-----setup-----<-----IAM-----] -----alert-----> -----ACM----->] repeat in order to -----connect----> -----ANM----->] keep all B-channels busy ... check communication ... <-----setup-----<-----IAM-----] (no channel) -----alert-----> -----ACM-----> ... call waiting ... (-----CPG-----> ... call waiting ...) -----disc-----> -----REL-----> <-----release----<-----RLC-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Set up calls on all B-channels. 2. Call waiting indication in ACM. 3. Call waiting indication in CPG. 4. Release the calls in order to get an idle state. 				

TSS CW/	TP ISS_V_14_8	ISUP'97 reference 1.5.2.5.2/Q.733	Selection expression DLE	Q.788 reference 2.10.3
Test purpose				
<i>Call waiting ignored (expiry of call waiting supervision timer)</i>				
To verify that the IUT sends a REL with cause #19 (no answer from user, user alerted) if a busy user does not answer the waiting call.				
Pre-test conditions				
Arrange the data in the IUT so that the called user subscribes to the call waiting service with the notification option.				
<pre> access SPA SPB <-----setup-----> <-----IAM-----> -----alert-----> -----ACM----->] repeat in order to -----connect----> -----ANM----->] keep all B-channels busy ... check communication ... <-----setup-----> <-----IAM-----> -----ACM-----> call waiting (-----CPG-----> call waiting) T9 <---disconnect---> -----REL-----> : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Call waiting indication in ACM. 2. Call waiting indication in CPG. 				

7.2.15 Rappel automatique sur occupation (CCBS, *completion of calls to busy subscribers*)

7.2.15.1 CCBS_ISUP

TSS CCBS_ISUP/	TP ISS_V_15_1	ISUP'97 reference 3.4.2.1.1; 3.5.3.1.1/ Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>ISUP Preference Indicator in the CCBS call</i>				
To verify that for the CCBS call, the IUT sets the ISUP preference indicator in the forward call indicator parameter in the IAM to "ISDN User Part required all the way".				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> -----disconnect---> <-----REL-----> -----RLC-----> ... TCAP transaction ... -----recall-----> --setup CCBS call--> -----IAM-----> ISUP required all the way : -----disconnect---> -----REL-----> : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at SPB. 2. User at SPB is found busy. 3. Check that user at SPB becomes free by using the RemoteUserFree CCBS ASE operation. 4. CCBS call with "ISDN User Part required all the way" in the FCI of the IAM. 				

TSS CCBS_ISUP/	TP ISS_V_15_2	ISUP'97 reference 3.4.2.1.3/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>CCBS parameter in the CCBS call</i>				
To verify that for the CCBS call, the IUT includes in the IAM the CCBS call indicator in the CCBS parameter coded as "CCBS call".				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <---disconnect--- <-----REL----- -----RLC-----> ... TCAP transaction ... -----CCBS recall---> -----IAM-----> : CCBS call <---disconnect--- <-----REL----- :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at SPB. 2. User at SPB is found busy. 3. Check that user at SPB becomes free by using the RemoteUserFree CCBS ASE operation. 4. Check Indication "CCBS call" in the IAM. 				

TSS CCBS_ISUP/	TP ISS_V_15_3	ISUP'97 reference 3.5.1.1.1.1/Q.733.3	Selection expression OLE	Q.788 reference None
<p>Test purpose <i>CCBS call with retained basic call information</i></p> <p>To verify that for the CCBS call, the IUT includes the retained call information in the IAM:</p> <p>User service information; User service information prime; Access transport (e.g. called party sub-address); Called party number.</p> <p>Pre-test conditions</p> <p>Arrange the data in the IUT such that the calling user subscribes to the CCBS and such that the relevant call information that is to be tested may be provided by the calling user.</p> <pre> access SPA SPB -----setup-----> -----IAM-----> <---disconnect--- <-----REL----- -----RLC-----> ... TCAP transaction ... <----recall----- --setup CCBS call-> -----IAM-----> ISUP required all the way : <---disconnect--- <-----REL----- :</pre> <hr/> <p>1. Set up a call with USI, USIp, ATP and/or CdPN, which encounters user at SPB busy, activates TCAP and terminates the call. 2. User at SPB is found busy. 3. Check that user at SPB becomes free by using the RemoteUserFree CCBS ASE operation. 4. CCBS call with "ISDN User Part required all the way" in the FCI of the IAM. The retained call information about ATP, USI, USIp and CdPN shall be checked too.</p>				

TSS CCBS_ISUP/	TP ISS_V_15_4	ISUP'97 reference 3.5.1.1.1; 3.6.13/ Q.733.3	Selection expression OLE AND PICS A.18/3	Q.788 reference None
Test purpose				
<i>CCBS call with retained call information & interactions with other supplementary services</i>				
To verify that for the CCBS call, the IUT includes the retained call information in the IAM:				
Calling party number (if supported); Access transport (e.g. calling party sub-address if supported); UUS1,2,3 (retained request if supported); UUS1 (information given by user in response to CCBS recall, if supported); Optional forward call indicator (with COLP request).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS and such that the relevant call information for the applicable supplementary services may be provided by the calling user (e.g. SUB, COLP).				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--- <----REL----- -----RLC-----> ... TCAP transaction ... <-----recall----- --setup CCBS call--> -----IAM-----> ISUP required all the way : <-----disconnect--- <----REL----- : </pre>				
1. Set up a call with Calling party number (if supported) ATP (e.g. calling party sub-address if supported); UUS1, 2, 3 (retained request if supported) UUS1 (information given by user in response to CCBS recall, if supported) OFCI (with COLP request) which encounters user at SPB busy, activates TCAP and terminate the call. 2. User at SPB is found busy. 3. Check that user at SPB becomes free by using the RemoteUserFree CCBS ASE operation. 4. CCBS call with "ISDN User Part required all the way" in the FCI of the IAM. The retained call information about ATP, UUS1,2,3 request, UUI in CCBS recall and CdPN shall be checked too.				

TSS CCBS_ISUP/	TP ISS_V_15_5	ISUP'97 reference 3.5.3.2.1; 3.5.3.3.1; 3.5.3.4.1/Q.733.3	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Transit support of diagnostics field in REL</i>				
To verify that the IUT is able to pass the diagnostics field including the CCBS indicator transparently to the preceding exchange.				
<pre> SPC SPA SPB -----IAM----- <-----IAM----- -----REL-----> -----REL-----> <-----RLC----- <-----RLC----- </pre>				
1. Check diagnostics field in the REL.				

TSS CCBS_ISUP/	TP ISS_V_15_6	ISUP'97 reference 3.5.3.2.1; 3.5.3.3.1; 3.5.3.4.1/Q.733.3	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Transit support of CCBS parameter in IAM</i>				
To verify that the IUT is able to pass CCBS parameter transparently to the succeeding exchange.				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> CCBS parameter : </pre> <hr/> <p>1. Set up a CCBS call to user at SPB. 2. Check that CCBSpars is received.</p>				

TSS CCBS_ISUP/	TP ISS_V_15_7	ISUP'97 reference 3.4.2.1.2/Q.733.3	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CCBS possible to destination B</i>				
To verify that the IUT is able to generate in a REL message with cause #17 "User busy" or #34 "No circuit available" the diagnostics field containing a CCBS indicator with a "CCBS possible" indication.				
<pre> access SPA SPB set the destination B busy user busy <-----IAM----- -----REL-----> <-----RLC----- <---disconnect---> <-----REL----- -----RLC-----> : </pre> <hr/> <p>1. UNI at SPA becomes busy. 2. Check that "CCBS possible" is received in the release message with cause value #17 or #34. 3. Release the busy call.</p>				

TSS CCBS_ISUP/	TP ISS_V_15_8	ISUP'97 reference 3.4.2.1.3/Q.733.3	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CCBS parameter in the CCBS call</i>				
To verify that the IUT is able to terminate the CCBS call, with the CCBS call indicator in the CCBS parameter in the IAM coded as "CCBS call".				
<pre> access SPA SPB set the destination B busy <-----IAM-----> normal call -----REL-----> CCBS possible <-----RLC-----> ... TCAP transaction ... user frees resources RemoteUserFree to CCBS call (& reserve resource) resource(s) still available <-----setup-----> <-----IAM-----> CCBS call -----alert-----> -----ACM-----> -----connect-----> -----ANM-----> <-----disc-----> <-----REL-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. UNI at SPA becomes busy. 2. Check that remote user is free by using the RemoteUserFree CCBS ASE operation. 3. Process a CCBS call specified in the IAM. 4. Check that the call is terminated (ANM, CON, ...). 				

TSS CCBS_ISUP/	TP ISS_V_15_9	ISUP'97 reference 3.5/Q.733.3	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CCBS not possible to destination B</i>				
To verify that the IUT is able to generate in a REL message with cause #17 "User busy" or cause #34 "No circuit available" the diagnostics field containing a CCBS indicator with a "CCBS not possible" indication.				
NOTE – CCBS is not possible because e.g. the queue is set to zero or filled up or due to maintenance reasons.				
Pre-test conditions				
Arrange the data in the IUT such that CCBS for destination B is not possible.				
<pre> access SPA SPB set the destination B busy user busy <-----IAM-----> -----REL-----> <-----RLC-----> <-----disconnect---> <-----REL-----> -----RLC-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at SPA. 2. Check that "CCBS not possible" is received in the release message with cause value #17 or #34. 3. Release the busy call. 				

TSS CCBS_ISUP/	TP ISS_V_15_10	ISUP'97 reference 3.6.10.2.2 c); 3.5.3.5.2 c)/Q.733.3	Selection expression DLE and PICS A.18/1	Q.788 reference None
Test purpose				
<i>Destination busy upon arrival of CCBS call -Interaction with CFB and retention option supported</i>				
To verify that the IUT sends a REL with cause #17 or #34 and diagnostics "CCBS possible".				
The DLE should retain the original request in the queue.				
<pre> access SPA set the destination B busy user busy <-----IAM----- -----REL-----> <-----RLC----- <-----disconnect--> <-----REL----- -----RLC-----> : </pre> <hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at access. 2. Check that "CCBS possible" is received in the release message with cause value #17 or #34. 3. Release the busy call. 				

TSS CCBS_ISUP/	TP ISS_V_15_11	ISUP'97 reference 3.6.10.2.2 c); 3.5.3.5.2 c)/Q.733.3	Selection expression DLE AND NOT PICS A.18/1	Q.788 reference None
Test purpose				
<i>Destination busy upon arrival of CCBS call – Interaction with CFB and no retention option supported</i>				
To verify that the IUT sends a REL with cause #17 or #34 with diagnostics "CCBS possible" when the terminals are compatible.				
The DLE releases all its resources for the original request and waits for new CCBS request.				
<pre> access SPA set the destination B busy user busy <-----IAM----- -----REL-----> CCBS possible <-----RLC----- ... TCAP transaction ... RemoteUserFree user busy again <-----IAM----- CCBS call -----REL-----> CCBS possible <-----RLC----- <--disconnect---> <-----REL----- -----RLC-----> </pre> <hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at access. 2. CCBS call. 3. Check that "CCBS possible" is received in the release message with cause value #17 or #34. 				

TSS CCBS_ISUP/	TP ISS_V_15_12	ISUP'97 reference 3.7.10.2.2 c)/Q.733.3	Selection expression DLE AND PICS A.18/9	Q.788 reference None
Test purpose				
<i>CCBS call as a normal call – Interaction with CFB</i>				
To verify that the IUT deletes the CCBS parameter in the IAM if the CCBS call is forwarded by the initially busy user.				
Pre-test conditions				
User at destination B must subscribe to and activate CFB to an external user while the recall timer is running (CCBS-T9).				
<pre> SPC SPA SPB -----IAM-----> (busy) <----REL----- -----RLC-----> (user at SPA activates CDIV while CCBS-T9 runs) -----IAM-----> -----IAM----> CFB with CCBSpars no CCBSpars : </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at SPA. 2. Check that no CCBSpars is received in the IAM. 				

TSS CCBS_ISUP/	TP ISS_V_15_13	ISUP'97 reference 3.5.3.5.1/Q.733.3	Selection expression DLE AND PICS A.18/6	Q.788 reference None
Test purpose				
<i>Maximum number of CCBS request queue entries of destination B</i>				
To verify that the IUT supports the maximum number of up to 5 queue entries.				
<pre> access SPA SPB set the destination B busy user busy <----IAM----- -----REL----- -----RLC----- ...TCAP transaction ... Repeat more than 5 set up to busy user at SPA : <----disconnect--- <----REL----- -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at access. 2. Send maximum number of CCBS requests and check that user at SPA becomes free by using the RemoteUserFree CCBS ASE operation. 3. One more IAM after the maximum number of calls is reached at SPA. 4. Check that "not CCBS possible" is received in the REL with cause value #17 or #34. 5. Release the busy call. 6. Set up calls (maximum 5 different) from SPB to SPA which encounters user at SPA busy. Activate CCBS for the different calls. 7. User at SPB requests maximum allowed CCBS request. 8. Received REL with cause value #17 or #34. 				

TSS CCBS_ISUP/	TP ISS_V_15_14	ISUP'97 reference 3.5.3.5.1/Q.733.3	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Incoming non-CCBS call with identical service requirements released</i>				
To verify that the IUT, having an entry in the CCBS queue, releases a second incoming call if the service requirements of the second call are identical to the entry being processed and resources are available.				
NOTE – The original request remains in the queue.				
Pre-test conditions				
Arrange the data in the IUT so that there are free resources in addition to the resource reserved for the first CCBS request.				
<pre> access SPA SPB set the destination B busy user busy <-----IAM----- 1st call -----REL-----> CCBS possible <-----RLC----- ... TCAP transaction ... user frees resources RemoteUserFree to 1st call (& reserve resource resource(s) still available for potential 2nd call <-----IAM----- 2nd. independent call -----REL-----> released because identical requirements <-----RLC----- ... check TCAP transaction ... <-----IAM----- 1st. CCBS call (empty queue) ...continue CCBS call 1st call. :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a 1st call to busy user at access. 2. Check release message with cause value #17 or #34 (1st call). 3. Check that remote user is free by using the RemoteUserFree CCBS ASE operation. 4. Process a second identical (with the same requirement to the one being processed) set up to the same remote user. 5. Check that the call is released with cause #17 or #34 (2nd call). 6. Continue the 1st CCBS call in order to get an idle state. 7. Continue the 2nd CCBS call in order to get an idle state. 				

TSS CCBS_ISUP/	TP ISS_V_15_15	ISUP'97 reference 3.5.3.5.1/Q.733.3	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Incoming non-CCBS call with not identical service requirements accepted</i>				
To verify that the IUT, having a queue entry in the CCBS queue, accepts a second incoming call if the service requirements of the second call are not identical to the entry being processed and resources are available.				
NOTE – The original request remains in the queue.				
Pre-test conditions				
Arrange the data in the IUT so that there are free resources in addition to the resource reserved for the first CCBS request.				
<pre> access SPA SPB set the destination B busy user busy <-----IAM----- 1st call -----REL-----> CCBS possible <-----RLC----- ... TCAP transaction .. user frees resources RemoteUserFree to 1st call (& reserve resource) resource(s) still available for potential 2nd call <-----setup----- <-----IAM----- 2nd. independent call -----alert-----> -----ACM-----> -----connect-----> -----ANM-----> <-----disc----- <-----REL----- ...continue with the 1st CCBS call... :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to busy user at access. 2. Check release message with cause value #17 or # 34 (1st call). 3. Check that remote user is free by using the RemoteUserFree CCBS ASE operation. 4. Process a second non-identical (without the same requirement to the one being processed) set up. 5. Check that the call is accepted (ANM, CON, ...). 6. End the TCAP dialogue for the 1st call. 				

7.2.15.2 CCBS-ASE (Elément du service d'application) (ASE, *CCBS-application service element*)

TSS CCBS ASE/	TP ISS_TC_V_15_1	ISUP'97 reference 3.5.1.1.1/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Ability to perform a CCBS REQUEST class 1 operation – successful</i>				
To verify that the IUT can successfully perform a CCBS REQUEST operation if required by the calling user:				
NOTE 1 – Send a CcbsRequest invoke to the DLE by using the TCAP primitive TC-BEGIN request (TC-INVOKE request).				
NOTE 2 – Receive a CcbsRequest return result from the DLE in a TC-CONTINUE indication (TC-INVOKE indication).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <---disconnect--- <-----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQ--> stop CCBS-T2 <--TC_CONTINUE_INDx start CCBS-T3 : -----CCBS recall---> -----IAM-----> CCBS call : <---disconnect--- <-----REL----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS. 2. The CcbsRequest invocation is received. 3. The user at SPB is now free for a CCBS call. 4. CCBS call set up with "ISDN User Part required all the way" in the FCI of the IAM. 				

TSS CCBS_ASE/	TP ISS_TC_I_15_2	ISUP'97 reference 3.5.1.1.1.2/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Ability to perform a CCBS REQUEST class 1 operation – unsuccessful</i>				
To verify that if a failure occurs (short or long term denial) while invoking a CCBS REQUEST operation, the IUT is able to indicate the result to the calling user.				
NOTE 1 – Send a CcbsRequest invoke to the DLE by using the TCAP primitive TC-BEGIN request (TC-INVOKE request).				
NOTE 2 – Receive a CcbsRequest return error from the DLE in a TC-END indication (TC-U-ERROR indication).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--- <----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxxTC_BEGIN_REQxxxx-> stop CCBS-T2 <---TC_END_INDxxxxxxxxx </pre>				
<hr/> 1. The access side activates CCBS. 2. The CcbsRequest invocation is received.				

TSS CCBS_ASE/	TP ISS_TC_V_15_3	ISUP'97 reference 3.5.1.2.1.1/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Ability to perform a CCBS CANCEL class 4 operation</i>				
To verify that the IUT can successfully perform a deactivation request if required by the calling user:				
NOTE – Send a CcbsCancel invoke without cancelCause to the DLE by using the TCAP primitive TC-END request (TC-INVOKE request).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--- <----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <-CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQxx-> stop CCBS-T2 <-TC_CONTINUE_INDxx start CCBS-T3 <-CCBS Deact request- --CCBS Deact response-> xxTC_END REQxxxx---> stop CCBS-T3 </pre>				
<hr/> 1. The access side activates and deactivates CCBS. 2. Check that the CcbsRequest invocation is received.				

TSS CCBS_ASE/	TP ISS_TC_V_15_4	ISUP'97 reference 3.5.3.1.1/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Ability to indicate a CCBS recall to the calling user</i>				
To verify that the IUT can successfully initiate a CCBS recall to the calling user:				
NOTE – Receive a RemoteUserFree invoke from the DLE in a TC-CONTINUE indication (TC-INVOKE indication).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect---<-----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQxxxx--> stop CCBS-T2 <--TC_CONTINUE_INDxxxx start CCBS-T3 : <--CCBS recall act--- -----CCBS recall-----> -----IAM-----> CCBS call : <----disconnect-----<-----REL----- : </pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS request and CCBS recall. 2. Check that the CcbsRequest invocation is received. 3. The user at SPB is now free for a CCBS call. 4. Check that CCBS call with "ISDN User Part required all the way" in the FCI of the IAM. 				

TSS CCBS_ASE/	TP ISS_TC_I_15_5	ISUP'97 reference 3.5.3.1.1/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Calling user busy when destination B becomes free</i>				
To verify that the IUT can act correctly after receipt of the indication that destination B is free but calling user A is still busy:				
NOTE 1 – Receive a RemoteUserFree invoke from the DLE in a TC-CONTINUE indication (TC-INVOKE indication).				
NOTE 2 – Notify the calling user A.				
NOTE 3 – Send CcbsSuspend invoke in a TC-CONTINUE request (TC-INVOKE request) to the DLE.				
NOTE 4 – Eventually send CcbsResume invoke in TC-CONTINUE request (TC-INVOKE request) to the DLE if the calling user becomes free.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect---<-----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQxxxx-> stop CCBS-T2 <--TC_CONTINUE_INDxxxx CcbsRequest return result start CCBS-T3 <--TC_CONTINUE_INDxxxx RemoteUserFree stop CCBS-T3 arrange user to be found busy xxxxTC_CONTINUE_REQ--> CcbsSuspend or CCBS busy --Receive notification that the user at SPB is now free, --Send no response for that --User A is now free xxxxTC_CONTINUE_REQ--> CcbsResume </pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS. 2. Check that the CcbsRequest invocation is received. 3. The user at SPB is now free for a CCBS call. 4. End the TCAP dialogue in order to get an initial state. 				

TSS CCBS_ASE/	TP ISS_TC_V_15_6	ISUP'97 reference 3.1.3 m)/Q.733.3	Selection expression Local AND PICS A.18/1	Q.788 reference None
Test purpose				
<i>Support of the retain option</i>				
To verify that the IUT performs the retain option by setting the retainSupported parameter to TRUE or FALSE in the CcbsRequest or in the CcbsRequest return result .				
Pre-test conditions for OLE				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--- <----REL-----> -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQxxxx-> retainSupported=TRUE stop CCBS-T2 <--TC_CONTINUE_INDxxxx retainSupported=TRUE start CCBS-T3 </pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS. 2. Check that the CcbsRequest invocation is received with "RetainSupported =TRUE". 3. End the TCAP dialogue in order to get an initial state. 				
Case b)				
<pre> access SPA SPB set the destination B busy -----IAM----- user busy -----REL-----> -----RLC-----> ... TCAP transaction ... <--TC_BEGIN_REQxxxx retainSupported=TRUE xxxxTC_CONTINUE_IND-> retainSupported=TRUE -----REL-----> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. UNI at SPA becomes busy. 2. Check that the CcbsRequest invocation is received with "RetainSupported =TRUE". 3. Free destination B. 				

TSS CCBS_ASE/	TP ISS_TC_V_15_7	ISUP'97 reference 3.5.1.1.1.1/Q.733.3	Selection expression OLE AND PICS A.18/2	Q.788 reference None
Test purpose				
<i>Maximum number of outstanding CCBS requests of a user</i>				
To verify that the IUT does not send any CcbsRequest to the DLE if the maximum number of outstanding requests is reached.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--<----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQxxxx--> stop CCBS-T2 <--TC_CONTINUE_INDxxxx CcbsRequest return result start CCBS-T3 repeat activate CCBS request until the maximum number of CCBS request supported by SPA check that no CCBS request is send after the specified number of entries </pre> <hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS. 2. Check that no TC_BEGIN_REQ is sent after the maximum number of CCBS request is reached at SPA. 3. The test case fails if the maximum number of outstanding requests is reached and CcbsRequest is received. 4. End the TCAP dialogue in order to get an initial state. 				

TSS CCBS_ASE/	TP ISS_TC_I_15_8	ISUP'97 reference 3.5.1.1.2.2; 3.5.3.5.1; 3.5.5.4/Q.733.3	Selection expression DLE AND PICS A.18/6	Q.788 reference None
Test purpose				
<i>Maximum number of queue entries CCBS requests</i>				
To verify that the IUT sends a CcbsRequest return error to the OLE if the maximum number of queue entries is reached.				
NOTE – Send CcbsRequest return error in TC-END request (TC-INVOKE request).				
<pre> access SPA SPB set the destination B busy <-----IAM----- User busy -----REL-----> <-----RLC----- ... TCAP transaction ... <---xxTC_BEGIN_REQx xxTC_CONTINUE_IND--> CcbsRequest return result ... repeat activate CCBS request until the maximum number of CCBS request supported by the IUT is reached (fill up the queue) <-----IAM----- User busy -----REL-----> <-----RLC----- <---xxTC_BEGIN_REQx xxxxTC_END_IND----> CcbsRequest return error (short or long term denial) User free <-----REL----- -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. UNI at SPA becomes busy. 2. Call to get the destination B busy. 3. Check that "CCBS possible" is received in the release message with cause value #17 or #34. 4. Check that CcbsRequest return error is received in TC-END_IND. 5. Free destination B 				

TSS CCBS_ASE/	TP ISS_TC_V_15_9	ISUP'97 reference 3.5.5.4/Q.733.3	Selection expression Local	Q.788 reference None
Test purpose				
<i>Ability to end a dialogue</i>				
To verify that the IUT can end a TCAP dialogue after a successful CCBS call.				
NOTE – Send a TC-END request without component primitive upon sending of the ACM , CPG or CON .				
Pre-test conditions for OLE				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA set the destination B busy User A busy : <-----IAM----- -----REL-----> <-----RLC----- ... TCAP transaction ... <---xxTC_BEGIN_REQx xxTC_CONTINUE_IND--> CcbsRequest return result : xxTC_CONTINUE_IND--> RemoteUserFree : <----set up----- <-----IAM----- CCBS call -----ACM-----> xxxxTC_END_IND-----> : <----disconnect--- <-----REL-----</pre>				
<hr/> 1. UNI at SPA becomes busy. 2. Check that a TC_END_IND primitive without component is received in order to end the CCBS operation.				

TSS CCBS_ASE/	TP ISS_TC_V_15_10	ISUP'97 reference 3.7.1/Q.733.3	Selection expression OLE AND PICS A.18/7	Q.788 reference None
Test purpose				
<i>Initiate the CCBS supplementary service even if no diagnostics is received in the release message</i>				
To verify that the IUT sends a CcbsRequest invoke if the calling user activates the CCBS.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--- <-----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQxxxx--> stop CCBS-T2 <--TC_CONTINUE_INDxxxx start CCBS-T3 : -----CCBS recall---> -----IAM-----> CCBS call : <----disconnect--- <-----REL----- :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS. 2. Send a REL without diagnostics "CCBS is possible". 3. Check that the CcbsRequest invocation is received. 4. The user at SPB is now free for a CCBS call. 5. CCBS call set up with "ISDN User Part required all the way" in the FCI of the IAM. 				

TSS CCBS_ASE/	TP ISS_TC_V_15_11	ISUP'97 reference 3.9.1/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Support of the retention timer CCBS-T1</i>				
To verify that the retention timer CCBS-T1 can be started after receive of a release message with cause value #17 or #34 from the DLE and stopped normally after activation of the CCBS supplementary service by the calling user.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--- <-----REL----- -----RLC-----> (normal call, user at SPB busy) SPB starts CCBS-T1 and receives nothing until the timer expires -----facility----- Act CCBS start CCBS-T1 send nothing until it expires :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS after CCBS-T1 runs out. 2. Check that no CCBS request is stored in the queue. 				

TSS CCBS_ASE/	TP ISS_TC_V_15_12	ISUP'97 reference 3.5.5.4.1 c); 3.9.1/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Support of the CCBS request operation timer CCBS-T2</i>				
To verify that the timer CCBS-T2 can be started after sending of a CcbsRequest to the DLE and stopped normally after receipt of CcbsRequest return result from the DLE.				
NOTE – If the timer expires a TC-END with TC-L-CANCEL indication primitive is received from the DLE and the service request is rejected.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA -----setup-----> -----IAM-----> <----disconnect--- <-----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T2 xxxxTC-BEGIN_REQ--> SPB starts CCBS-T2 and sends <--TC_ENDXXXXXXXXXX TC_END_IND if the timer expires </pre>				
1. The access side activates CCBS. 2. End the TCAP dialogue in order to get an initial state.				
TSS CCBS_ASE/	TP ISS_TC_I_15_13	ISUP'97 reference 3.5.1.2.1.2/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Support of the CCBS service duration timer CCBS-T3</i>				
To verify that the IUT can successfully deactivate a CCBS request if the CCBS service duration timer CCBS-T3 expires.				
NOTE – Send a CcbsCancel invoke with cancelCause to the DLE by using the TCAP primitive TC-END request (TC-INVOKE request) with cancelCause "CCBS-T3 Timeout".				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA -----setup-----> -----IAM-----> <----disconnect--- <-----REL----- -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T2 xxxxTC-BEGIN_REQ--> CcbsRequest invoke stop CCBS-T2 <---TC_CONT_INDxxxxx CcbsRequest return result start CCBS-T3 starts CCBS-T3 and sends TC_CONTINUE_IND with RemoteUserFree if it expires <---TC_CONT_INDXXXXXX RemoteUserFree xxxxTC-END_REQ---> TC-END_IND with CancelCause "timeout CCBS-T3" </pre>				
1. The access side activates CCBS. 2. After CCBS-T3 timer expiry the IUT shall send the CancelCause "CCBS-T3 timeout" in a TC-END.				

TSS CCBS_ASE/	TP ISS_TC_I_15_14	ISUP'97 reference 3.5.1.2.1.2 ii); 3.9.1/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Support of the CCBS recall timer CCBS-T4</i>				
To verify that the timer CCBS-T4 can be stopped after receiving an indication from the user for a CCBS recall.				
NOTE – CCBS-T4 contains the maximum time the network will wait for the calling user A to respond to a CCBS recall. The OLE sends a CcbsCancel invoke in TC-END request to the DLE in case of CCBS-T4 expiry.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--> <----REL-----> -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T2 xxxxTC_BEGIN_REQ--> CcbsRequest invoke start CCBS-T3 <---TC_CONT_INDxxxxx CcbsRequest return result : <---TC_CONT_INDxxxxx RemoteUserFree </pre> <p>SPB starts CCBS-T4 and receives TC_END_IND with CancelCause if it expires xxxxxTC_END_REQ----> TC_END_IND with CancelCause "timeout CCBS-T3"</p>				
<ol style="list-style-type: none"> 1. The access side activates CCBS and does not accept the CCBS recall within CCBS-T4. 2. Check that the CancelCause "CCBS-T4 timeout" is received in a TC-END. 				

TSS CCBS_ASE/	TP ISS_TC_I_15_15	ISUP'97 reference 3.5.3.1.2 b) i)/Q.733.3	Selection expression OLE AND PICS A.18/5	Q.788 reference None
Test purpose				
<i>Reject a second identical activation of CCBS</i>				
To verify that the IUT does not send any CcbsRequest to the DLE if a second identical activation of CCBS is done.				
Pre-test conditions				
Arrange the data in the IUT so that the calling user subscribes to CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----disconnect--- <-----REL----- -----RLC-----> (1st normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQ--> stop CCBS-T2 <--TC_CONTINUE_INDx start CCBS-T3 : -----setup-----> -----IAM-----> <----disconnect--- <-----REL----- -----RLC-----> (2nd normal call, user at SPB busy) :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS. 2. First call to busy user at SPB. 3. Check that the CcbsRequest invocation is received. 4. Second identical call from the IUT to the same SPB. 5. End the TCAP dialogue. 				

TSS CCBS_ASE/	TP ISS_TC_I_15_16	ISUP'97 reference 3.5.3.1.2 b) ii)/Q.733.3	Selection expression OLE AND PICS A.18/4	Q.788 reference None
Test purpose				
<i>Treat a second identical activation of CCBS as a new request</i>				
To verify that the IUT treats a second identical activation of CCBS as a new request.				
Pre-test conditions				
Arrange the data in the IUT so that the calling user subscribes to CCBS supplementary service.				
<pre> access SPA -----setup-----> -----IAM-----> <----disconnect--- <----REL----- -----RLC-----> (1st normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQ--> stop CCBS-T2 <--TC_CONTINUE_INDx start CCBS-T3 : -----setup-----> -----IAM-----> <----disconnect--- <----REL----- -----RLC-----> (2nd normal call, user at SPB busy) ... TCAP transaction ... start CCBS-T1 -- <--CCBS Act request--- --CCBS Act response--> stop CCBS-T1 start CCBS-T2 xxxxTC_BEGIN_REQ--> stop CCBS-T2 <--TC_CONTINUE_INDx start CCBS-T3 :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCBS. 2. First call to busy user at SPB. 3. Check that the CcbsRequest invocation is received. 4. Second identical call from the IUT to the same SPB. 5. Second identical activation of the CCBS request. 6. End the TCAP dialogue. 				

TSS CCBS_ASE/	TP ISS_TC_I_15_17	ISUP'97 reference 3.5.1.2.2.2/Q.733.3	Selection expression DLE	Q.788 reference None
<p>Test purpose <i>Support of the CCBS service supervision timer CCBS-T7</i></p> <p>To verify that the IUT deactivates the CCBS-request if CCBS-T7 expires.</p> <p>NOTE 1 – CCBS-T7 is started after sending a CcbsRequest return result to the OLE.</p> <p>NOTE 2 – CCBS-T7 is stopped after the destination B becomes not busy, before sending RemoteUserFree to the OLE.</p> <p>NOTE 3 – Send a CcbsCancel invoke in a TC-END request(TC-INVOKE request) with cancelCause "CCBS-T7 Timeout".</p> <pre> access SPA SPB set the destination B busy <---- IAM ----- -----REL-----> <---- RLC ----- ... TCAP transaction ... <---xxTC_BEGIN_REQx xxTC_CONTINUE_IND--> CcbsRequest return result SPB starts CCBS-T7 and receives TC_END_IND with CancelCause "CCBS-T7 Timeout" if it expires xxxxxTC_END_IND---> user free <---- REL ----- -----RLC-----> </pre> <hr/>				

TSS CCBS_ASE/	TP ISS_TC_I_15_18	ISUP'97 reference 3.5.3.1.5 a); 3.9.1/Q.733.3	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Support of the destination B idle guard timer CCBS-T8</i>				
To verify that no resources are available at the destination B side until timer CCBS-T8 expires.				
<pre> access SPA set the destination B busy <-----IAM----- user busy -----REL-----> <-----RLC----- ... TCAP transaction ... <---xxTC_BEGIN_REQx CcbsRequest xxTC_CONTINUE_IND--> CcbsRequest return result : User is now free SPB starts timers CCBS-T8 SPB checks every second that no resources are available by using T_LOCAL timer <-----IAM----- -----REL-----> <-----RLC----- : <-----setup-----<-----IAM----- CCBS-T8 expires -----alert----->-----ACM-----> -----connect----->-----ANM-----> :</pre>				
<hr/> <p>1. Check that no resources are available within CCBS-T8, e.g. send an IAM and receiving a REL. 2. Check that resources are now available by sending an IAM and receiving an ACM, etc.</p>				

TSS CCBS_ASE/	TP ISS_TC_V_15_19	ISUP'97 reference 3.5.3.5.2 d); 3.9.1/Q.733.3	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Support of the DLE recall timer CCBS-T9</i>				
To verify that the timer CCBS-T9 can be started after sending of a TC-CONTINUE with RemoteUserFree from the DLE and stopped after CCBS call is received from the OLE.				
NOTE – Send a CcbsCancel invoke in a TC-END request(TC-INVOKE request) with cancelCause "CCBS-T9 Timeout".				
<pre> access SPA set the destination B busy SPB <-----IAM----- user busy -----REL----- <-----RLC----- ... TCAP transaction ... <--xxTC_BEGIN_REQx xxTC_CONTINUE_IND--> CcbsRequest return result : xxTC_CONTINUE_IND--> RemoteUserFree SPB starts CCBS-T9 and receives TC_END_IND with CancelCause "CCBS-T9 Timeout" if it expires xxxxxTC_END_IND---> user free <-----REL----- -----RLC----- </pre>				
<hr/> 1. Check that the CancelCause "CCBS-T9 timeout" is received in a TC_END. 2. Free destination B.				

TSS CCBS_ASE/	TP ISS_TC_I_15_20	ISUP'97 reference 3.7.7.3.3.1; 3.7.7.3.3.2; 3.9.3/Q.733.3	Selection expression Local AND PICS A.18/19	Q.788 reference None
Test purpose				
<i>Support of the interworking supervision timer T_{SUP}</i>				
To verify that the timer T _{SUP} is used correctly in case of interworking with a private network.				
NOTE 1 – The DLE sends a CcbsCancel invoke in TC-END request to the OLE without cancelCause in case of T _{SUP} timer expiry.				
NOTE 2 – The OLE sends a CcbsCancel invoke in TC-END request to the DLE without cancelCause in case of T _{SUP} timer expiry.				
Pre-test conditions for OLE				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> SPC SPA SPB (private network) -----IAM-----> -----IAM-----> <-----REL-----<-----REL----- -----RLC-----> -----RLC-----> (normal call, user at SPB busy) ... TCAP transaction ... xxxTC-BEGIN_REQ--> xxTC-BEGIN_REQ--> SPB starts T_SUP and sends no CcbsRequest return result within T_SUP xxxTC-END_REQ---> TC-END_IND without CancelCause </pre>				
1. Check that a TC-END without CancelCause is received.				

TSS CCBS_ASE/	TP ISS_TC_I_15_21	ISUP'97 reference 3.5.1.1.1.1/Q.733.3	Selection expression OLE	Q.788 reference None
Test purpose				
<i>CCBS REQUEST not invoked</i>				
To verify that if a call is released with a cause other than #17 or #34, then no CCBS REQUEST shall be sent from the OLE to the DLE				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCBS supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----disconnect--- <-----REL----- -----RLC-----> </pre>				
1. The access side shouldn't activate CCBS.				
2. Release call with a cause other than #17 or #34.				

7.2.16 Conférence à trois (3PTY, *three party service*)

TSS THREE_PTY/	TP ISS_V_16_1	ISUP'97 reference 2.4; 2.2.1/Q.734.2	Selection expression Local	Q.788 reference 2.14.1
Test purpose				
<i>Served user initiates 3PTY</i>				
To verify that the IUT, where the served user with two active calls is located, can successfully join these calls to form a three-way conversation, and notify the implied remote parties accordingly.				
The IUT should send CPG messages with the generic notification indicator set to "conference established" to both implied parties. The event indicator in the CPG should be set to "progress".				
The notification should be independent of the call set up direction of the two calls; i.e. it should apply to all of the following scenarios:				
A -->B ; A<-- B ; A -->B ; A<-- B				
A -->C ; A -->C ; A<--C ; A<-- C				
Pre-test conditions				
Arrange the data in the IUT such that the served user subscribes to the 3PTY and HOLD supplementary services.				
<pre> SPC SPA SPB -----IAM-----> <-----ACM----- <-----ANM----- -----CPG-----> check held state <-----IAM----- -----ACM-----> -----ANM-----> <-----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... <-----CPG-----<-----REL----- conf disc -----RLC-----> <-----REL----- -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication through the three-party bridge between users from UNI at SPB and SPC. 5. Release the call from UNI at SPB. 				

TSS THREE_PTY/	TP ISS_V_16_2	ISUP'97 reference 2.5.2.1.1.3 a)/Q.734.2	Selection expression Local	Q.788 reference 2.14.1
<p>Test purpose <i>Served user creates a private communication with a remote user</i></p> <p>To verify that the IUT (controlling the conference) on a 3PTY call can successfully create private communication with one of the remote users. The appropriate notification (depending on A-B active-held or A-C active-idle connection) is sent in CPG messages to the two users.</p> <p>Pre-test conditions Arrange the data in the IUT such that the served user subscribes to the 3PTY and HOLD supplementary services.</p> <p>Case a)</p> <pre> SPC SPA SPB -----IAM-----> <-----ACM----- ... ringing tone ... <-----ANM----- check communication -----CPG-----> check held state <-----IAM----- -----ACM-> -----ANM-> <-----CPG-----> -----CPG----- conf est conf est ... 3PTY communication ... <-----CPG-----> -----CPG----- conf disc conf disc -----CPG-----> check remote hold <-----REL----- -----RLC-----> <-----REL----- -----RLC-----></pre> <hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. Disconnect the 3PTY call. 6. Check the held state at SPB. 7. Release the held call. <p>Case b)</p> <pre> SPC SPA SPB -----IAM-----> <-----ACM----- ... ringing tone ... <-----ANM----- check communication -----CPG-----> check held state <-----IAM----- -----ACM-> -----ANM-> <-----CPG-----> -----CPG----- conf est conf est ... 3PTY communication ... <-----CPG-----> -----CPG----- conf disc remote hold <-----CPG-----> -----CPG----- remote hold conf disc <-----REL----- -----RLC-----> <-----REL----- -----RLC-----></pre> <hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. Check "Remote hold" at SPB with which private communication is required. 6. Check "conference disconnected" after retrieving the held call. 7. Release the retrieved call. 				

TSS THREE_PTY/	TP ISS_V_16_3	ISUP'97 reference 2.5.2.1.3 b)/Q.734.2	Selection expression Local	Q.788 reference 2.14.2
Test purpose				
<i>Served user disconnects one remote user and retains the other</i>				
To verify that the IUT (controlling the conference) on a 3PTY call can successfully disconnect one remote user and retain and notify the other user appropriately using CPG messages.				
The IUT should send to the appropriate remote users CPG messages with a generic notification indicator (depending on A-B active-held or A-C active-idle connection). The event indicator in the CPG should be set to "progress".				
NOTE – The "remote hold" notification should be sent in a CPG to the remaining remote user, followed by the "conference disconnected" notification in a separate CPG .				
Pre-test conditions				
Arrange the data in the IUT such that the served user has activated 3PTY and HOLD supplementary services.				
Case a)				
<pre> SPC SPA SPB -----IAM-----> <----ACM----- <----ANM----- -----CPG-----> check held state <----IAM----- -----ACM-----> -----ANM-----> <----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... <----REL-----> -----CPG-----> -----RLC-----> remote hold -----CPG-----> conference disconnected <----REL-----> -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. Check "Remote hold" at SPB after. 6. Check "conference disconnected" after retrieving the held call. 				
Case b)				
<pre> SPC SPA SPB -----IAM-----> <----ACM----- <----ANM----- -----CPG-----> check held state <----IAM----- -----ACM-----> -----ANM-----> <----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... <----CPG-----> -----REL-----> conf disc <----RLC-----> <----REL-----> -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. The user at SPB is released with Cause #16 – Normal call clearing. 				

TSS THREE_PTY/	TP ISS_V_16_4	ISUP'97 reference 2.5.2.1.1.3/Q.734.2	Selection expression Local	Q.788 reference 2.14.4
Test purpose				
<i>Served user disconnects both remote users and terminates the call</i>				
To verify that the IUT (controlling the conference) can send the appropriate notification to the two remote users when disconnecting both remote users on the 3PTY call.				
The IUT should send to the appropriate remote users a CPG with a generic notification indicator (depending on A-B active-held or A-C active-idle connection). The event indicator in the CPG is set to "progress".				
Pre-test conditions				
Arrange the data in the IUT such that the served user has activated 3PTY and HOLD supplementary services.				
Case a)				
<pre> SPC SPA SPB -----IAM-----> <-----ACM----- <-----ANM----- -----CPG-----> check held state <-----IAM----- -----ACM-----> -----ANM-----> <-----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... <-----REL-----> -----CPG-----> -----RLC-----> remote hold -----REL-----> <-----RLC----- </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. Check "Remote hold" as a reaction to first releasing user at SPC. 6. Check that Release is received at SPB with Cause #16 - Normal call clearing. 				
Case b)				
<pre> SPC SPA SPB -----IAM-----> <-----ACM----- <-----ANM----- -----CPG-----> check held state <-----IAM----- -----ACM-----> -----ANM-----> <-----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... <-----CPG-----> -----REL-----> conf disc <-----RLC----- <-----REL----- -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. Check that Release is received at SPB with Cause #16 - Normal call clearing. 				

TSS THREE_PTY/	TP ISS_V_16_5	ISUP'97 reference 2.2.1/Q.734.2	Selection expression Local	Q.788 reference 2.14.3
Test purpose				
<i>Remote user disconnects 3PTY call</i>				
To verify that the IUT (controlling the conference) can successfully continue the 3PTY call after receiving disconnection by one of the remote users, and send the appropriate notification to the remaining party.				
The IUT should send to the other remote user CPG with a generic notification indicator (depending on A-B active-held or A-C active-idle connection). The event indicator in the CPG is set to "progress".				
NOTE – The "remote hold" notification should be sent in a CPG to the other remote user, followed by the "conference disconnected" notification in a separate CPG .				
Pre-test conditions				
Arrange the data in the IUT such that the served user has activated 3PTY and HOLD supplementary services.				
Case a)				
<pre> SPC SPA SPB -----IAM-----> <-----ACM----- <-----ANM----- -----CPG-----> check held state <-----IAM----- -----ACM-----> -----ANM-----> <-----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... -----REL-----> -----CPG-----> <-----RLC-----> remote hold -----CPG-----> conf disc -----REL-----> <-----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. Check "Remote hold" indication at SPB. 6. Check "conference disconnected" after retrieving the held call. 7. Check that Release is received at SPB with Cause #16 – Normal call clearing. 				
Case b)				
<pre> SPC SPA SPB -----IAM-----> <-----ACM----- <-----ANM----- -----CPG-----> check held state <-----IAM----- -----ACM-----> -----ANM----- <-----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... <-----CPG-----> <-----REL----- conf disc -----RLC-----> -----REL-----> -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. User at SPB disconnects with Cause #16 Normal call clearing. 				

TSS THREE_PTY/	TP ISS_V_16_6	ISUP'97 reference 2.5.2.2-4.1; Table 2-1/Q.734.2	Selection expression IntermE	Q.788 reference 2.14.1
Test purpose				
<i>Transit support of 3PTY</i>				
To verify that the IUT can transparently transfer all information related to 3PTY.				
The IUT should be able to transparently transfer the CPG message with the following notifications in the generic notification indicator in both the forward and the backward direction:				
1) "Conference established" 2) "Conference disconnected" 3) "Remote hold"				
Case a)				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> <----ACM----- <----ACM----- <----ANM----- <----ANM----- -----CPG-----> -----CPG-----> check held state -----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... -----CPG-----> -----CPG-----> remote hold remote hold -----CPG-----> -----CPG-----> conf disc conf disc -----REL-----> -----REL-----> <----RLC----- <----RLC----- </pre>				
<hr/> 1. Set up a call from SPB to SPC and put it on hold. 2. Check "conference established" indication in the CPG. 3. Check through-connection of the speech path. 4. Check "remote hold" indication at SPB. 5. Check "conference disconnected" indication.				
Case b)				
<pre> SPC SPA SPB <----IAM----- <----IAM-----> -----ACM-----> -----ACM-----> -----ANM-----> -----ANM-----> <----CPG-----> <----CPG-----> check held state <----CPG-----> <----CPG-----> conf est conf est ... 3PTY communication ... <----CPG-----> <----CPG-----> remote hold remote hold <----CPG-----> <----CPG-----> conf disc conf disc -----REL-----> -----REL-----> -----RLC-----> -----RLC-----> </pre>				
<hr/> 1. Set up a call from SPB to SPC and put it on hold. 2. Send "conference established" indication in the CPG. 3. Check through-connection of the speech path. 4. Send "remote hold" indication from SPB. 5. Send "conference disconnected" indication.				

TSS THREE_PTY/	TP ISS_V_16_7	ISUP'97 reference 2.5.2.5.1; Table 2-1/ Q.734.2	Selection expression DLE	Q.788 reference 2.14.1
Test purpose				
<i>Remote user included in 3PTY</i>				
To verify that the IUT can receive the notification information related to 3PTY, and pass it on to the access signalling system.				
The IUT should be able to transparently transfer the CPG message with the following notifications in the generic notification indicator in both the forward and the backward direction:				
1) "Conference established" 2) "Conference disconnected" 3) "Remote hold"				
<pre> access SPA SPB(MTC) SPD (controlling 3PTY) <----setup-----<----IAM-----<----IAM----- -----alerting---> -----ACM-----> -----ACM-----> -----connect----> -----ANM-----> -----ANM-----> <--remote hold--<----CPG-----<----CPG----- remote hold remote hold <----conf est----<----CPG-----<----CPG----- conf est conf est ... 3PTY communication ... <---remote hold--<----CPG-----<----CPG----- remote hold remote hold <----conf disc---<----CPG-----<----CPG----- conf disc conf disc <---disconnect---<----REL-----<----REL----- RLC-----> -----RLC-----> </pre>				
<ol style="list-style-type: none"> 1. Set up a call to a UNI at SPA and put it on hold. 2. Assist call set up to the access observe the indications: "conference established", "conference disconnected" and "remote hold". 3. The 3PTY served user starts the 3PTY conversation 4. Check the 3PTY communication towards the remote party. 5. Send "remote hold" indication to the remote party, sign that the other party has been disconnected. 6. Send "conference disconnected", sign that the remote user has been retrieved. 7. Check that communication is possible and release the call. 				

TSS THREE_PTY/	TP ISS_V_16_8	ISUP'97 reference 2.6.15/Q.734.2	Selection expression Local	Q.788 reference None
Test purpose				
<i>Served user initiates 3PTY; interaction with HOLD</i>				
To verify that the IUT does not send any notifications to the remote users by request of HOLD by the served user during the 3PTY conversation active phase.				
Pre-test conditions				
Arrange the data in the IUT such that the served user has activated 3PTY and HOLD supplementary services.				
<pre> SPC SPA SPB -----IAM-----> <-----ACM----- <-----ANM----- -----CPG-----> check held state <-----IAM----- -----ACM-----> -----ANM-----> -----CPG-----> -----CPG-----> conf est conf est ... 3PTY communication ... </pre> <p style="text-align: center;">Served user at SPA activates hold --> nothing is observed at SPB</p> <pre> -----CPG-----> -----REL-----> conf disc <-----RLC----- -----REL-----> -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a first call from SPA to SPB and put it on hold. 2. Set up a second call from SPA to SPC. 3. Join the two calls into a 3PTY communication and check "conference established" in the CPG. 4. Check the 3PTY communication towards each party. 5. Check that no notification of call Hold is received at SPC. 				

TSS THREE_PTY/	TP ISS_V_16_9	ISUP'97 reference 2.7/Q.734.2	Selection expression IWorkE	Q.788 reference None
Test purpose				
<i>3PTY; interaction with other networks</i>				
To verify that the IUT will discard the call progress information in case of interaction with network which does not provide it. The 3PTY should be completed.				
<pre> SP (non-ISUP) SPA SPB (MTC) SPD (controlling 3PTY) <----IAI-----> <----IAM-----> -----ACM-----> -----ACM-----> -----ANC-----> -----ANM-----> <----CPG-----> remote hold <----CPG-----> conf est ... 3PTY communication ... <----CPG-----> remote hold <----CPG-----> conf disc <----CCL-----> <----REL-----> -----RLC-----> </pre> <hr/> <p>1. Set up a call from SPB to a non-ISUP destination at SPC and put it on hold. 2. Send "conference established" indication in the CPG. 3. Check through-connection of the speech path. 4. Send "remote hold" indication from SPB. 5. Send "conference disconnected" indication.</p>				

7.2.17 Rappel automatique sur non-réponse (CCNR, *completion of calls on no reply*)

7.2.17.1 CCNR-ISUP

TSS CCNR_ISUP/	TP ISS_V_17_1_1	ISUP'97 reference 4.2.1.1; 5.3.1.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>ISUP Preference Indicator in the CCNR call</i>				
To verify that for the CCNR call, the IUT sets the ISUP preference indicator in the forward call indicator parameter in the IAM to "ISDN User Part required all the way".				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- No reply ----disconnect--> -----REL-----> <-----RLC----- ... TCAP transaction ... <-----recall----- --setup CCNR call--> -----IAM-----> ISUP required all the way : <-----disconnect--- <-----REL----- :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to free user at SPB. 2. User at SPB has no reply. 3. Check that user at SPB becomes free by using the RemoteUserFree CCNR ASE operation. 4. CCNR call with "ISDN User Part required all the way" in the FCI of the IAM. 				

TSS CCNR_ISUP/	TP ISS_V_17_1_2	ISUP'97 reference 4.2.1.3/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>CCNR parameter in the CCNR call</i>				
To verify that for the CCNR call, the IUT includes in the IAM the CCNR call indicator in the CCSS parameter coded as "CCSS call".				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- No reply ----disconnect--> -----REL-----> <-----RLC----- ... TCAP transaction ... -----CCNR recall---> -----IAM-----> : <-----disconnect--- <-----REL----- :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to free user at SPB. 2. User at SPB has no reply. 3. Check that user at SPB becomes free by using the RemoteUserFree CCNR ASE operation. 4. Check Indication "CCSS call" in the IAM. 				

TSS CCNR_ISUP/	TP ISS_V_17_1_3	ISUP'97 reference 5.1.1.1.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>CCNR call with retained basic call information</i>				
To verify that for the CCNR call, the IUT includes the retained call information in the IAM :				
User service information; User service information prime; Access transport (e.g. called party sub-address); Called party number.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR and such that the relevant call information that is to be tested may be provided by the calling user.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- No reply ---disconnect----> -----REL-----> <-----RLC----- ... TCAP transaction ... <----recall----- --setup CCNR call-> -----IAM-----> ISUP required all the way : <---disconnect---- <-----REL----- :</pre>				
<hr/> 1. Set up a call with USI, USIp, ATP and/or CdPN, which encounters user at SPB no answer, activates TCAP and terminates the call. 2. User at SPB is free. 3. Check that user at SPB becomes free by using the RemoteUserFree CCNR ASE operation. 4. CCNR call with "ISDN User Part required all the way" in the FCI of the IAM. The retained call information about ATP, USI, USIp and CdPN shall be checked too.				

TSS CCNR_ISUP/	TP ISS_V_17_1_4	ISUP'97 reference 5.1.1.1/Q.733.5	Selection expression OLE AND PICS A.19/3	Q.788 reference None
Test purpose				
<i>CCNR call with retained call information & interactions with other supplementary services</i>				
To verify that for the CCNR call, the IUT includes the retained call information in the IAM: Calling party number (if supported); Access transport (e.g. calling party sub-address if supported); UUS1,2,3 (retained request if supported); UUS1 (information given by user in response to CCNR recall, if supported); Optional forward call indicator (with COLP request).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR and such that the relevant call information for the applicable supplementary services may be provided by the calling user (e.g. SUB, COLP).				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- No reply ---disconnect---> -----REL-----> <-----RLC----- ... TCAP transaction ... <-----recall----- --setup CCNR call--> -----IAM-----> ISUP required all the way : <-----disconnect--- <-----REL----- :</pre>				
<hr/> <ol style="list-style-type: none"> Set up a call with Calling party number (if supported) ATP (e.g. calling party sub-address if supported); UUS1, 2, 3 (retained request if supported) UUS1 (information given by user in response to CCNR recall, if supported) OFCI (with COLP request) which encounters user at SPB with no answer, activates TCAP and terminate the call. User at SPB is free. Check that user at SPB becomes free by using the RemoteUserFree CCNR ASE operation. CCNR call with "ISDN User Part required all the way" in the FCI of the IAM. The retained call information about ATP, UUS1,2,3 request, UUI in CCNR recall and CdPN shall be checked too. 				

TSS CCNR_ISUP/	TP ISS_V_17_1_5	ISUP'97 reference 5.3.2.1; 5.3.3.1; 5.3.4.1/Q.733.5	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Transit support of CCNR Possible Indicator parameter</i>				
To verify that the IUT is able to pass the CCNR Possible Indicator parameter in the ACM/CPG transparently to the preceding exchange.				
<pre> SPC SPA SPB <-----IAM----- <-----IAM----- -----ACM-----> -----ACM-----> <-----REL----- <-----REL----- -----RLC-----> -----RLC-----> </pre>				
1. Check CCNR Possible Indicator parameter in the ACM/CPG.				

TSS CCNR_ISUP/	TP ISS_V_17_1_6	ISUP'97 reference 5.3.2.1; 5.3.3.1; 5.3.4.1/Q.733.5	Selection expression IntermE	Q.788 reference None
Test purpose				
<i>Transit support of CCSS parameter in IAM</i>				
To verify that the IUT is able to pass CCSS parameter transparently to the succeeding exchange.				
<pre> SPC SPA SPB -----IAM-----> -----IAM-----> CCSS parameter : </pre> <hr/> <p>1. Set up a CCNR call to user at SPB. 2. Check that CCSSpar is received.</p>				

TSS CCNR_ISUP/	TP ISS_V_17_1_7	ISUP'97 reference 4.2.1.2/Q.733.5	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CCNR possible to destination B</i>				
To verify that the IUT is able to generate in a ACM/CPG message the field containing a CCNR possible indicator with a "CCNR possible" indication.				
<pre> access SPA SPB set the destination B user free <-----IAM----- -----ACM-----> No reply <-----REL----- -----RLC-----> <---disconnect--- : </pre> <hr/> <p>1. UNI at SPA no answer. 2. Check that "CCNR possible" is received in the ACM/CPG message. 3. Release the call.</p>				

TSS CCNR_ISUP/	TP ISS_V_17_1_8	ISUP'97 reference 4.2.1.3/Q.733.5	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CCNR parameter in the CCNR call</i>				
To verify that the IUT is able to terminate the CCNR call, with the CCNR call indicator in the CCNR parameter in the IAM coded as "CCNR call".				
<pre> access SPA SPB set the destination B no answer <-----IAM----- normal call -----ACM-----> CCNR possible No reply <---disconnect---> <-----REL----- -----RLC-----> ... TCAP transaction ... user frees resources RemoteUserFree to CCNR call (& reserve resource) resource(s) still available <----setup-----> <-----IAM----- CCNR call -----alert-----> -----ACM-----> -----connect-----> -----ANM-----> <----disc-----> <-----REL----- :</pre> <hr/> <ol style="list-style-type: none"> 1. UNI at SPA no answer. 2. Check that remote user is free by using the RemoteUserFree CCNR ASE operation. 3. Process a CCNR call specified in the IAM. 4. Check that the call is terminated (ANM, CON, ...). 				

TSS CCNR_ISUP/	TP ISS_V_17_1_9	ISUP'97 reference 5/Q.733.5	Selection expression DLE	Q.788 reference None
Test purpose				
<i>CCNR not possible to destination B</i>				
To verify that the IUT is able to generate in a ACM/CPG the CCNR possible indicator parameter with a "CCNR not possible" indication.				
NOTE – CCNR is not possible. Possible reasons include the queue is set to zero or filled up or due to maintenance reasons.				
Pre-test conditions				
Arrange the data in the IUT such that CCNR for destination B is not possible.				
<pre> access SPA SPB set the destination B user free <-----IAM----- normal call -----ACM-----> CCNR not possible No reply <---disconnect---> <-----REL----- -----RLC-----> :</pre> <hr/> <ol style="list-style-type: none"> 1. Set up a call to free user at SPA. 2. Check that "CCNR not possible" is received in the ACM or CPG message. 3. Release the call. 				

TSS CCNR_ISUP/	TP ISS_V_17_1_10	ISUP'97 reference 6.10.2.2 c)/Q.733.5	Selection expression DLE AND PICS A.19/9	Q.788 reference None
Test purpose				
<i>CCNR call as a normal call – Interaction with CFB</i>				
To verify that the IUT deletes the CCNR parameter in the IAM if the CCNR call is forwarded by the initially busy user.				
Pre-test conditions				
User at destination B must subscribe to and activate CFB to an external user while the recall timer is running (CCNR-T9).				
<pre> SPC SPA SPB -----IAM-----> (free) <----ACM----- CCNR possible No Reply -----REL-----> -----RLC-----> (user at SPA activates CDIV while CCNR-T9 runs) -----IAM-----> -----IAM-----> CFB with CCNRpar no CCNRpar :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to free user at SPA. 2. Check that no CCNRpar is received in the IAM. 				

TSS CCNR_ISUP/	TP ISS_V_17_1_11	ISUP'97 reference 5.3.5.1/Q.733.5	Selection expression DLE AND PICS A.19/6	Q.788 reference None
Test purpose				
<i>Maximum number of CCNR request queue entries of destination B</i>				
To verify that the IUT supports the maximum number of up to 5 queue entries.				
<pre> access SPA SPB set the destination B Free user no reply <----IAM----- -----ACM-----> CCNR possible -----REL-----> <----RLC-----> ...TCAP transaction ... Repeat more than 5 set up to no reply user at SPA : <----disconnect--- <----REL----- -----RLC-----></pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to free user at access. 2. Send maximum number of CCNR requests and check that user at SPA becomes free by using the RemoteUserFree CCNR ASE operation. 3. One more IAM after the maximum number of calls is reached at SPA. 4. Check that "CCNR not possible" is received in the ACM/CPG. 5. Release the call. 6. Set up calls (maximum 5 different) from SPB to SPA which encounters user at SPA no answer. Activate CCNR for the different calls. 7. User at SPB requests maximum allowed CCNR request. 8. Received ACM/CPG with "CCNR not possible". 				

TSS CCNR_ISUP/	TP ISS_V_17_1_12	ISUP'97 reference 5.3.5.1/Q.733.5	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Incoming non-CCNR call with identical service requirements released</i>				
To verify that the IUT, having an entry in the CCNR queue, releases a second incoming call if the service requirements of the second call are identical to the entry being processed and resources are available.				
NOTE – The original request remains in the queue.				
Pre-test conditions				
Arrange the data in the IUT so that there are free resources in addition to the resource reserved for the first CCNR request.				
<pre> access SPA SPB set the destination B free user no reply <-----IAM----- 1st call -----ACM-----> CCNR possible <-----REL----- -----RLC-----> ... TCAP transaction ... user frees resources RemoteUserFree to 1st call (& reserve resource resource(s) still available for potential 2nd call <-----IAM----- 2nd. independent call -----REL-----> released because identical requirements <-----RLC----- ... check TCAP transaction ... <-----IAM----- 1st. CCNR call (empty queue) ...continue CCNR call 1st call. :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a 1st call to free user at access. 2. Check address complete message with CCNR possible(1st call). 3. Check that remote user is free by using the RemoteUserFree CCNR ASE operation. 4. Process a second identical (with the same requirement to the one being processed) set up to the same remote user. 5. Check that the call is released with cause XXXXXXXX (2nd call). 6. Continue the 1st CCNR call in order to get an idle state. 7. Continue the 2nd CCNR call in order to get an idle state. 				

TSS CCNR_ISUP/	TP ISS_V_17_1_13	ISUP'97 reference 5.3.5.1/Q.733.5	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Incoming non-CCNR call with not identical service requirements accepted</i>				
To verify that the IUT, having a queue entry in the CCNR queue, accepts a second incoming call if the service requirements of the second call are not identical to the entry being processed and resources are available.				
NOTE – The original request remains in the queue.				
Pre-test conditions				
Arrange the data in the IUT so that there are free resources in addition to the resource reserved for the first CCNR request.				
<pre> access SPA SPB set the destination B free user no reply <-----IAM----- 1st call -----ACM-----> CCNR possible <-----REL----- -----RLC-----> ... TCAP transaction .. user frees resources RemoteUserFree to 1st call (& reserve resource) resource(s) still available for potential 2nd call <-----setup----- <-----IAM----- 2nd. independent call -----alert-----> -----ACM-----> -----connect-----> -----ANM-----> <-----disc----- <-----REL----- ...continue with the 1st CCNR call... :</pre>				
<hr/> <ol style="list-style-type: none"> 1. Set up a call to free user at access. 2. Check address complete message with CCNR possible(1st call). 3. Check that remote user is free by using the RemoteUserFree CCNR ASE operation. 4. Process a second non-identical (without the same requirement to the one being processed) set up. 5. Check that the call is accepted (ANM, CON, ...). 6. End the TCAP dialogue for the 1st call. 				

7.2.17.2 CCNR-ASE (Elément du service d'application) (ASE, *CCNR-application service element*)

TSS CCNR_ASE/	TP ISS_TC_V_17_2_1	ISUP'97 reference 5.1.1.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Ability to perform a CCNR REQUEST class 1 operation – successful</i>				
To verify that the IUT can successfully perform a CCNR REQUEST operation if required by the calling user:				
NOTE 1 – Send a CCNRRRequest invoke to the DLE by using the TCAP primitive TC-BEGIN request (TC-INVOKE request).				
NOTE 2 – Receive a CCNRRRequest return result from the DLE in a TC-CONTINUE indication (TC-INVOKE indication).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- CCNR possible (normal call, user at SPB no answer) -----REL-----> <-----RLC----- ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQ--> stop CCNR-T2 <--TC_CONTINUE_INDx start CCNR-T3 : -----CCNR recall---> -----IAM-----> CCNR call : <----disconnect---- <-----REL----- :</pre> <hr/> <ol style="list-style-type: none"> 1. The access side activates CCNR. 2. The CCNRRRequest invocation is received. 3. The user at SPB is now free for a CCNR call. 4. CCNR call set up with "ISDN User Part required all the way" in the FCI of the IAM. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_2	ISUP'97 reference 5.1.1.2/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Ability to perform a CCNR REQUEST class 1 operation – unsuccessful</i>				
To verify that if a failure occurs (short or long term denial) while invoking a CCNR REQUEST operation, the IUT is able to indicate the result to the calling user.				
NOTE 1 – Send a CCNRRRequest invoke to the DLE by using the TCAP primitive TC-BEGIN request (TC-INVOKE request).				
NOTE 2 – Receive a CCNRRRequest return error from the DLE in a TC-END indication (TC-U-ERROR indication).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- CCNR possible (normal call, user at SPB no answer) -----REL-----> <-----RLC----- ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxxTC_BEGIN_REQxxxx-> stop CCNR-T2 <---TC_END_INDxxxxxxxxx </pre> <hr/> <p>1. The access side activates CCNR. 2. The CCNRRRequest invocation is received.</p>				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_3	ISUP'97 reference 5.1.2.1.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Ability to perform a CCNR CANCEL class 4 operation</i>				
To verify that the IUT can successfully perform a deactivation request if required by the calling user:				
NOTE – Send a CCNRCancel invoke without cancelCause to the DLE by using the TCAP primitive TC-END request (TC-INVOKE request).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- CCNR possible (normal call, user at SPB no answer) -----REL-----> <-----RLC-----> ... TCAP transaction ... start CCNR-T1 -- <-CCNR Act request--> --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQxx-> stop CCNR-T2 <--TC_CONTINUE_INDxx start CCNR-T3 <--CCNR Deact request--> --CCNR Deact response--> xxTC_END REQxxxx---> stop CCNR-T3 </pre> <hr/> <p>1. The access side activates and deactivates CCNR. 2. Check that the CCNRRequest invocation is received.</p>				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_4	ISUP'97 reference 5.3.1.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Ability to indicate a CCNR recall to the calling user</i>				
To verify that the IUT can successfully initiate a CCNR recall to the calling user:				
NOTE – Receive a RemoteUserFree invoke from the DLE in a TC-CONTINUE indication (TC-INVOKE indication).				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- CCNR possible (normal call, user at SPB no answer) -----REL-----> <-----RLC----- ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQxxxx--> stop CCNR-T2 <--TC_CONTINUE_INDxxxx start CCNR-T3 : <--CCNR recall act--- -----CCNR recall----> -----IAM-----> CCNR call : <----disconnect----- <-----REL-----> : :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCNR request and CCNR recall. 2. Check that the CCNRRequest invocation is received. 3. The user at SPB is now free for a CCNR call. 4. Check that CCNR call with "ISDN User Part required all the way" in the FCI of the IAM. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_5	ISUP'97 reference 5.3.1.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Calling user busy when destination B becomes free</i>				
To verify that the IUT can act correctly after receipt of the indication that destination B is free but calling user A is still busy:				
NOTE 1 – Receive a RemoteUserFree invoke from the DLE in a TC-CONTINUE indication (TC-INVOKE indication).				
NOTE 2 – Notify the calling user A.				
NOTE 3 – Send CCNRSuspend invoke in a TC-CONTINUE request (TC-INVOKE request) to the DLE.				
NOTE 4 – Eventually send CCNRResume invoke in TC-CONTINUE request (TC-INVOKE request) to the DLE if the calling user becomes free.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- CCNR possible (normal call, user at SPB no answer) -----REL-----> <-----RLC-----> ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQxxxx-> stop CCNR-T2 <--TC_CONTINUE_INDxxxx CCNRRequest return result start CCNR-T3 <--TC_CONTINUE_INDxxxx RemoteUserFree stop CCNR-T3 arrange user to be found busy xxxxTC_CONTINUE_REQ--> CCNRSuspend or CCNR busy --Receive notification that the user at SPB is now free, --Send no response for that --User A is now free xxxTC_CONTINUE_REQ--> CCNRResume </pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCNR. 2. Check that the CCNRRequest invocation is received. 3. The user at SPB is now free for a CCNR call. 4. End the TCAP dialogue in order to get an initial state. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_6	ISUP'97 reference 1.3/Q.733.5	Selection expression Local AND PICS A.19/1	Q.788 reference None
Test purpose				
<i>Support of the retain option</i>				
To verify that the IUT performs the retain option by setting the retainSupported parameter to TRUE or FALSE in the CCNRRequest or in the CCNRRequest return result .				
Pre-test conditions for OLE				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
Case a)				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM-----> CCNR possible (normal call, user at SPB no answer) -----REL-----> <-----RLC-----> ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQxxxx-> retainSupported=TRUE stop CCNR-T2 <--TC_CONTINUE_INDxxxx retainSupported=TRUE start CCNR-T3 </pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCNR. 2. Check that the CCNRRequest invocation is received with "RetainSupported =TRUE". 3. End the TCAP dialogue in order to get an initial state. 				
Case b)				
<pre> access SPA SPB set the destination B free <-----IAM-----> -----ACM----->CCNR possible (normal call, user at SPB no answer) -----REL-----> <-----RLC-----> ... TCAP transaction ... <--TC_BEGIN_REQxxxx retainSupported=TRUE xxxxTC_CONTINUE_IND-> retainSupported=TRUE user free <-----REL-----> <-----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. UNI at SPA free. 2. Check that the CCNRRequest invocation is received with "RetainSupported =TRUE". 3. Free destination B. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_7	ISUP'97 reference 5.1.1.1/Q.733.5	Selection expression OLE AND PICS A.19/2	Q.788 reference None
Test purpose				
<i>Maximum number of outstanding CCNR requests of a user</i>				
To verify that the IUT does not send any CCNRRequest to the DLE if the maximum number of outstanding requests is reached.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA -----setup-----> -----IAM-----> <-----ACM----- CCNR possible (normal call, user at SPB no answer) -----REL-----> <-----RLC----- ... TCAP transaction ... </pre>				
<pre> start CCNR-T1 -- <--CCNR Act request-- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQxxxx--> stop CCNR-T2 <--TC_CONTINUE_INDxxxx CCNRRequest return result start CCNR-T3 repeat activate CCNR request until the maximum number of CCNR request supported by SPA check that no CCNR request is send after the specified number of entries </pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCNR. 2. Check that no TC-BEGIN_REQ is sent after the maximum number of CCNR request is reached at SPA. 3. The test case fails if the maximum number of outstanding requests is reached and CCNRRequest is received. 4. End the TCAP dialogue in order to get an initial state. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_8	ISUP'97 reference 5.1.1.2.2; 5.3.5.1; 5.5.4/Q.733.5	Selection expression DLE AND PICS A.19/6	Q.788 reference None
Test purpose				
<i>Maximum number of queue entries CCNR requests</i>				
To verify that the IUT sends a CCNRRequest return error to the OLE if the maximum number of queue entries is reached.				
NOTE – Send CCNRRequest return error in TC-END request (TC-INVOKE request).				
<pre> access SPA SPB set the destination B free -----IAM----- -----ACM----->CCNR possible (normal call, user at SPB no answer) -----REL----- -----RLC-----> ... TCAP transaction ... <---xxTC_BEGIN_REQx xxTC_CONTINUE_IND--> CCNRRequest return result ... repeat activate CCNR request until the maximum number of CCNR request supported by the IUT is reached (fill up the queue) -----IAM----- -----ACM-----> User no answer -----REL----- -----RLC-----> <---xxTC_BEGIN_REQx xxxxTC_END_IND----> CCNRRequest return error (short or long term denial) User free -----REL----- -----RLC-----> </pre>				
<hr/> <ol style="list-style-type: none"> 1. UNI at SPA becomes free. 2. Call to the destination B. 3. Check that "CCNR possible" is received in the address complete message. 4. Check that CCNRRequest return error is received in TC_END_IND. 5. Free destination B. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_9	ISUP'97 reference 5.5.4/Q.733.5	Selection expression Local	Q.788 reference None
Test purpose				
<i>Ability to end a dialogue</i>				
To verify that the IUT can end a TCAP dialogue after a successful CCNR call.				
NOTE – Send a TC-END request without component primitive upon sending of the ACM , CPG or CON .				
Pre-test conditions for OLE				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA set the destination B free User no answer : <-----IAM----- -----ACM-----> -----REL-----> -----RLC----- ... TCAP transaction ... <---xxTC_BEGIN_REQx xxTC_CONTINUE_IND--> CCNRRequest return result : xxTC_CONTINUE_IND--> RemoteUserFree : <----set up----- <-----IAM----- CCNR call -----ACM-----> xxxxTC_END_IND-----> : <----disconnect---- <-----REL-----</pre>				
<hr/> 1. UNI at SPA free. 2. Check that a TC_END_IND primitive without component is received in order to end the CCNR operation.				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_10	ISUP'97 reference 7.1/Q.733.5	Selection expression OLE AND PICS A.19/7	Q.788 reference None
Test purpose				
<i>Initiate the CCNR supplementary service even if no even if no CCNR possible indicator is received in the ACM/CPG</i>				
To verify that the IUT sends a CCNRRequest invoke if the calling user activates the CCNR.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- (normal call, user at SPB no answer) -----REL-----> <-----RLC----- ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQxxxx--> stop CCNR-T2 <--TC_CONTINUE_INDxxxx start CCNR-T3 : -----CCNR recall---> -----IAM-----> CCNR call : <----disconnect----> <-----REL-----> :</pre> <hr/> <p>1. The access side activates CCNR. 2. Check that the CCNRRequest invocation is received. 3. The user at SPB is now free for a CCNR call. 4. CCNR call set up with "ISDN User Part required all the way" in the FCI of the IAM.</p>				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_11	ISUP'97 reference 9.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Support of the retention timer CCNR-T1</i>				
To verify that the retention timer CCNR-T1 can be started after receive of a address complete message with CCNR possible from the DLE and stopped normally after activation of the CCNR supplementary service by the calling user.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA -----setup-----> -----IAM-----> <----ACM----- (normal call, user at SPB no answer) <----disconnect--- <----REL----- -----RLC-----> SPB starts CCNR-T1 and receives nothing until the timer expires <----facility----- Act CCNR start CCNR-T1 send nothing until it expires </pre>				
<hr/> 1. The access side activates CCNR after CCNR-T1 runs out. 2. Check that no CCNR request is stored in the queue.				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_12	ISUP'97 reference 5.5.4.1 c); 9.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Support of the CCNR request operation timer CCNR-T2</i>				
To verify that the timer CCNR-T2 can be started after sending of a CCNRRRequest to the DLE and stopped normally after receipt of CCNRRRequest return result from the DLE.				
NOTE – If the timer expires a TC-END with TC-L-CANCEL indication primitive is received from the DLE and the service request is rejected.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA -----setup-----> -----IAM-----> <----ACM----- (normal call, user at SPB no answer) <----disconnect--- <----REL----- -----RLC-----> ... TCAP transaction ... start CCNR-T2 xxxxTC-BEGIN_REQ--> SPB starts CCNR-T2 and sends <--TC-ENDxxxxxxxxxxxxx TC-END_IND if the timer expires </pre>				
<hr/> 1. The access side activates CCNR. 2. End the TCAP dialogue in order to get an initial state.				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_13	ISUP'97 reference 5.1.2.1.2/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Support of the CCNR service duration timer CCNR-T3</i>				
To verify that the IUT can successfully deactivate a CCNR request if the CCNR service duration timer CCNR-T3 expires.				
NOTE – Send a CCNRCancel invoke with cancelCause to the DLE by using the TCAP primitive TC-END request (TC-INVOKE request) with cancelCause "CCNR-T3 Timeout".				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA -----> -----IAM-----> <----ACM----- (normal call, user at SPB no answer) <----disconnect--- <----REL----- -----RLC----- ... TCAP transaction ... start CCNR-T2 xxxxTC_BEGIN_REQ--> CCNRRequest invoke stop CCNR-T2 <---TC_CONT_INDxxxxx CCNRRequest return result start CCNR-T3 starts CCNR-T3 and sends TC_CONTINUE_IND with RemoteUserFree if it expires <---TC_CONT_INDxxxxx RemoteUserFree xxxxTC_END_REQ----> TC_END_IND with CancelCause "timeout CCNR-T3" </pre> <hr/> <ol style="list-style-type: none"> 1. The access side activates CCNR. 2. After CCNR-T3 timer expiry the IUT shall send the CancelCause "CCNR-T3 timeout" in a TC-END. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_14	ISUP'97 reference 5.1.2.1.2 ii); 9.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>Support of the CCNR recall timer CCNR-T4</i>				
To verify that the timer CCNR-T4 can be stopped after receiving an indication from the user for a CCNR recall.				
NOTE – CCNR-T4 contains the maximum time the network will wait for the calling user A to respond to a CCNR recall. The OLE sends a CCNRCancel invoke in TC-END request to the DLE in case of CCNR-T4 expiry.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----ACM----- (normal call, user at SPB no answer) <----disconnect--- <----REL----- -----RLC-----> ... TCAP transaction ... </pre>				
<pre> start CCNR-T2 xxxxTC_BEGIN_REQ--> CCNRRequest invoke start CCNR-T3 <---TC_CONT_INDxxxxx CCNRRequest return result : <---TC_CONT_INDxxxxx RemoteUserFree </pre>				
SPB starts CCNR-T4 and receives TC_END_IND with CancelCause if it expires xxxxxTC_END_REQ---> TC_END_IND with CancelCause "timeout CCNR-T3"				
<hr/> 1. The access side activates CCNR and does not accept the CCNR recall within CCNR-T4. 2. Check that the CancelCause "CCNR-T4 timeout" is received in a TC_END.				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_15	ISUP'97 reference 5.3.1.2 b) i)/Q.733.5	Selection expression OLE AND PICS A.19/5	Q.788 reference None
Test purpose				
<i>Reject a second identical activation of CCNR</i>				
To verify that the IUT does not send any CCNRRequest to the DLE if a second identical activation of CCNR is done.				
Pre-test conditions				
Arrange the data in the IUT so that the calling user subscribes to CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <----ACM----- (normal call, user at SPB no answer) <---disconnect--- <-----REL----- -----RLC-----> (1st normal call) ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQ--> stop CCNR-T2 <--TC_CONTINUE_INDx start CCNR-T3 : -----setup-----> -----IAM-----> <----ACM----- (normal call, user at SPB no answer) <---disconnect--- <-----REL----- -----RLC-----> (2nd normal call) :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCNR. 2. First call to no answer user at SPB. 3. Check that the CCNRRequest invocation is received. 4. Second identical call from the IUT to the same SPB. 5. End the TCAP dialogue. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_16	ISUP'97 reference 5.3.1.2 b) ii)/Q.733.5	Selection expression OLE AND PICS A.19/4	Q.788 reference None
Test purpose				
<i>Treat a second identical activation of CCNR as a new request</i>				
To verify that the IUT treats a second identical activation of CCNR as a new request.				
Pre-test conditions				
Arrange the data in the IUT so that the calling user subscribes to CCNR supplementary service.				
<pre> access SPA -----setup-----> -----IAM-----> <-----ACM----- (normal call, user at SPB no answer) <----disconnect--- <-----REL----- -----RLC-----> (1st normal call) ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQ--> stop CCNR-T2 <--TC_CONTINUE_INDx start CCNR-T3 : -----setup-----> -----IAM-----> <-----ACM----- (normal call, user at SPB no answer) <----disconnect--- <-----REL----- -----RLC-----> (2nd normal call) ... TCAP transaction ... start CCNR-T1 -- <--CCNR Act request--- --CCNR Act response--> stop CCNR-T1 start CCNR-T2 xxxxTC_BEGIN_REQ--> stop CCNR-T2 <--TC_CONTINUE_INDx start CCNR-T3 :</pre>				
<hr/> <ol style="list-style-type: none"> 1. The access side activates CCNR. 2. First call to no answer user at SPB. 3. Check that the CCNRRRequest invocation is received. 4. Second identical call from the IUT to the same SPB. 5. Second identical activation of the CCNR request. 6. End the TCAP dialogue. 				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_17	ISUP'97 reference 5.1.2.2.2/Q.733.5	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Support of the CCNR service supervision timer CCNR-T7</i>				
To verify that the IUT deactivates the CCNR-request if CCNR-T7 expires.				
NOTE 1 – CCNR-T7 is started after sending a CCNRRRequest return result to the OLE.				
NOTE 2 – CCNR-T7 is stopped after the destination B becomes not busy, before sending RemoteUserFree to the OLE.				
NOTE 3 – Send a CCNRCancel invoke in a TC-END request (TC-INVOKE request) with cancelCause "CCNR-T7 Timeout".				
<pre> access SPA set the destination B free <-----IAM----- -----ACM----- (user at SPB no answer) -----REL----- <-----RLC----- ... TCAP transaction ... <---xxTC_BEGIN_REQx xxTC_CONTINUE_IND--> CCNRRRequest return result SPB starts CCNR-T7 and receives TC_END_IND with CancelCause "CCNR-T7 Timeout" if it expires xxxxxTC_END_IND---> user free <-----REL----- -----RLC-----> </pre>				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_18	ISUP'97 reference 5.3.1.5 a); 9.1/Q.733.5	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Support of the destination B idle guard timer CCNR-T8</i>				
To verify that no resources are available at the destination B side until timer CCNR-T8 expires.				
<pre> access SPA SPB set the destination B free -----IAM----- -----ACM-----> (user at SPB no answer) -----REL-----> <-----RLC----- ... TCAP transaction ... <---xxTC_BEGIN_REQx CCNRRequest xxTC_CONTINUE_IND--> CCNRRequest return result : User is now free SPB starts timers CCNR-T8 SPB checks every second that no resources are available by using T_LOCAL timer -----IAM----- -----REL-----> <-----RLC----- : <-----setup-----<-----IAM-----> CCNR-T8 expires -----alert----->-----ACM-----> -----connect----->-----ANM-----> :</pre>				
<hr/> <p>1. Check that no resources are available within CCNR-T8, e.g. send an IAM and receiving a REL.</p> <p>2. Check that resources are now available by sending an IAM and receiving an ACM, etc.</p>				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_19	ISUP'97 reference 5.3.5.2 d); 9.1/Q.733.5	Selection expression DLE	Q.788 reference None
Test purpose				
<i>Support of the DLE recall timer CCNR-T9</i>				
To verify that the timer CCNR-T9 can be started after sending of a TC-CONTINUE with RemoteUserFree from the DLE and stopped after CCNR call is received from the OLE.				
NOTE – Send a CCNRCancel invoke in a TC-END request (TC-INVOKE request) with cancelCause "CCNR-T9 Timeout".				
<pre> access SPA SPB set the destination B free <-----IAM----- -----ACM----- (user at SPB no answer) -----REL----- <----RLC----- ... TCAP transaction ... <---xxTC_BEGIN_REQx xxTC_CONTINUE_IND--> CCNRRequest return result : xxTC_CONTINUE_IND--> RemoteUserFree SPB starts CCNR-T9 and receives TC_END_IND with CancelCause "CCNR-T9 Timeout" if it expires xxxxxTC_END_IND---> <-----REL----- -----RLC-----> user free </pre>				
<hr/> 1. Check that the CancelCause "CCNR-T9 timeout" is received in a TC_END. 2. Free destination B.				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_20	ISUP'97 reference 7.7.3.3.1; 7.7.3.3.2; 9.3/Q.733.5	Selection expression Local AND PICS A.19/19	Q.788 reference None
Test purpose				
<i>Support of the interworking supervision timer T_{SUP}</i>				
To verify that the timer T _{SUP} is used correctly in case of interworking with a private network.				
NOTE 1 – The DLE sends a CCNRCancel invoke in TC-END request to the OLE without cancelCause in case of T _{SUP} timer expiry.				
NOTE 2 – The OLE sends a CCNRCancel invoke in TC-END request to the DLE without cancelCause in case of T _{SUP} timer expiry.				
Pre-test conditions for OLE				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> SPC SPA SPB (private network) -----IAM-----> -----IAM-----> <-----ACM----- <-----ACM----- (user at SPB no answer) <-----REL----- <-----REL----- -----RLC-----> -----RLC-----> ... TCAP transaction ... xxxTC-BEGIN_REQ--> xxTC-BEGIN_REQ--> SPB starts T_SUP and sends no CCNRRequest return result within T_SUP xxxTC-END_REQ---> TC-END_IND without CancelCause </pre>				
1. Check that a TC-END without CancelCause is received.				

TSS CCNR_ASE/	TP ISS_TC_V_17_2_21	ISUP'97 reference 5.1.1.1/Q.733.5	Selection expression OLE	Q.788 reference None
Test purpose				
<i>CCNR REQUEST not invoked</i>				
To verify that if a call is attempted with a ACM without CCNR possible indicator, then no CCNR REQUEST shall be sent from the OLE to the DLE.				
Pre-test conditions				
Arrange the data in the IUT such that the calling user subscribes to the CCNR supplementary service.				
<pre> access SPA SPB -----setup-----> -----IAM-----> <-----ACM----- (no CCNR possible indicator) (no answer from SP B) -----disconnect-- <-----REL-----> -----RLC-----> </pre>				
1. The access side shouldn't activate CCNR.				
2. Do not answer the call and do not include CCNR possible indicator.				

8 Portée des essais

Les objectifs définis dans la présente spécification de test couvrent la plupart des fonctions de la spécification de référence ISUP'97 pour les services complémentaires. Le Tableau 3 spécifie le nombre d'objectifs de test pour chaque service complémentaire.

Dans la mesure du possible, les objectifs de test précisent, dans leur présentation, les prescriptions apparentées de la norme. Pour cette raison, un objectif de test peut entraîner l'implémentation de plusieurs tests de la suite ATS.

La majorité des objectifs de test (plus de 80%) concernent avant tout la conformité du comportement. Le nombre d'objectifs de test portant sur des comportements non conformes est limité. Le développement des objectifs de test portant sur des comportements non conformes fera l'objet d'un complément d'étude.

Tableau 3/Q.785.2 – Nombre de tests pour les services complémentaires ISUP'97

Point	Service complémentaire	Groupe	Nombre d'objectifs de test
1	Identification de la ligne appelante	CLIP	19
2	Restriction d'identification de la ligne appelante	CLIR	11
3	Identification de la ligne connectée	COLP	18
4	Restriction d'identification de la ligne connectée	COLR	12
5	Portabilité de terminal	TP	10
6	Service 1 (implicite) de signalisation d'utilisateur à utilisateur	UUS1_I	6
	Service 1 (explicite) de signalisation d'utilisateur à utilisateur	UUS1_E	18
	Service 2 de signalisation d'utilisateur à utilisateur	UUS2	16
	Service 3 de signalisation d'utilisateur à utilisateur	UUS3	17
7	Groupe fermé d'utilisateurs	CUG	23
8	Sous-adressage	SUB	5
9	Identification des appels malveillants	MCID	16
10	Communication conférence, adjonction d'autres conférences	CONF	16
11	Transfert explicite de communication	ECT	30
12	Services de déviations d'appel	CDIV	49
13	Mise en attente	HOLD	12
14	Signal d'appel	CW	8
15	Rappel automatique sur occupation (ISUP)	CCBS_ISUP	15
	Rappel automatique sur occupation (ASE)	CCBS_ASE	21
16	Conférence à trois	THREE_PTY	9
17	Rappel automatique sur non-réponse (ISUP)	CCNR_ISUP	13
	Rappel automatique sur non-réponse (ASE)	CCNR_ASE	21
Total général			365

9 Conformité à la spécification du formulaire PICS

Un formulaire PICS conforme à la présente spécification de formulaire PICS sera techniquement l'équivalent de l'Annexe A, dont il respectera le numérotage et le classement des éléments.

Une déclaration PICS conforme à la présente spécification PICS:

- a) décrit une implémentation réputée conforme à la spécification de référence du sous-système utilisateur pour le RNIS (ISUP'97) [1] à [24];
- b) est un formulaire PICS conforme qui a été rempli conformément aux instructions données au paragraphe A.1;
- c) contient les informations nécessaires pour identifier de manière univoque tant le fournisseur que l'implémentation.

ANNEXE A²

Formulaire de déclaration de conformité d'implémentation (PICS) pour les services complémentaires du sous-système ISUP'97

A.1 Instructions for completing the PICS proforma

The supplier of the implementation shall complete the PICS proforma in each of the spaces provided. If necessary, the supplier may provide additional comments separately.

More detailed instructions are given at the beginning of the different subclauses of the PICS proforma.

A.1.1 Purposes and structure

The purpose of this PICS proforma is to provide a mechanism whereby a supplier of an implementation of the requirements defined in ISDN User Part (ISUP)'97 reference specification [1] to [20] may provide information about the implementation in a standardized manner.

The PICS proforma is subdivided into subclauses for the following categories of information:

- instructions for completing the PICS proforma;
- identification of the implementation;
- identification of the reference protocol specification;
- PICS proforma tables (containing the global statement of conformance).

A.1.2 Abbreviations and conventions

The PICS proforma contained in this annex is composed of information in tabular form in accordance with the guidelines presented in ISO/IEC 9646-7 [31].

Item column

It contains a number that identifies the item in the table.

Item description column

It describes each respective item (e.g. parameters, timers, etc.).

² **Droits de reproduction du formulaire PICS**

Les utilisateurs de la présente Recommandation sont autorisés à reproduire le formulaire PICS de la présente annexe pour utiliser celui-ci conformément à son objet. Ils sont également autorisés à publier le formulaire une fois celui-ci complété.

Reference column

It gives reference to the ISUP'97 specification for the supplementary services [1] to [20], except where explicitly stated otherwise.

Status column

The following notations, defined in ISO/IEC 9646-7 [31], are used for the status column:

- m mandatory – the capability is required to be supported.
- n/a not applicable – in the given context, it is impossible to use the capability. No answer in the support column is required.
- optional – the capability may be supported or not.
- o.i qualified optional – for mutually exclusive or selectable options from a set. "i" is an integer which identifies a unique group of related optional items and the logic of their selection which is defined immediately following the table.
- ci conditional – the requirement on the capability ("m", "o" or "n/a") depends on the support of other optional or conditional items. "i" is an integer identifying a unique conditional status expression that is defined immediately following the table. For nested conditional expressions, the syntax "IF ... THEN (IF ... THEN ... ELSE ...) ELSE ..." shall be used to avoid ambiguities. If an ELSE clause is omitted, "ELSE n/a" shall be implied.

NOTE – Support of a capability means that the capability is implemented in conformance to the ISUP'97 specification [1] to [20].

Support column

The support column shall be filled in by the supplier of the implementation. The following common notations, defined in ISO/IEC 9646-7 [31], are used for the support column:

- Y or y supported by the implementation.
- N or n not supported by the implementation.
- N/A or - no answer required (allowed only if the status is N/A, directly or after evaluation of a conditional status).

Values allowed column

This column contains the values or the ranges of values allowed.

Values supported column

The support column shall be filled in by the supplier of the implementation. In this column the values or the ranges of values supported by the implementation shall be indicated.

References to items

For each possible item answer (answer in the support column) within the PICS proforma a unique reference exists. It is defined as the table identifier, followed by a slash character "/", followed by the item number in the table. If there is more than one support column in a table, the columns shall be discriminated by letters (a, b, etc.) respectively.

Example 1: A.5/4 is the reference to the answer of item 4 in Table A.5 of Annex A.

Example 2: A.6/3b is the reference to the second answer (i.e. in the second support column) of item 3 in Table A.6 of Annex A.

A.2 Identification of the implementation

Identification of the Implementation Under Test (IUT) and the system in which it resides – the System Under Test (SUT) should be filled in so as to provide as much detail as possible regarding version numbers and configuration options.

The product supplier information and client information should both be filled in if they are different.

A person who can answer queries regarding information supplied in the ICS should be named as the contact person.

A.2.1 Date of the statement

Date of the statement:	
------------------------	--

A.2.2 Implementation under test (IUT) identification

IUT name:	
IUT version:	

A.2.3 System under test (SUT) identification

SUT name:	
Hardware configuration:	
Operating system:	

A.2.4 Product supplier

Name:	
Address:	
Telephone number:	
Facsimile number:	
Additional information:	

A.2.5 Client

Name:	
Address:	
Telephone number:	
Facsimile number:	
Additional information:	

A.2.6 ICS contact person

Name:	
Telephone number:	
Facsimile number:	
Additional information:	

A.3 Identification of the reference specification

This PICS proforma applies to the following standard: ITU-T Recommendations Q.73x (1997).

Note that as prerequisite it is necessary to support the basic services described in [21] to [24]. A separate PICS proforma has been specified for ISUP'97 basic services [32].

A.4 PICS proforma tables

A.4.1 Global statement of conformance

	(Yes/No)
Are all mandatory capabilities implemented?	

NOTE – Answering "No" to this question indicates non-conformance to the reference protocol specification. Non-supported mandatory capabilities are to be identified in the PICS, with an explanation of why the implementation is non-conforming.

A.4.2 Roles

Table A.1/Q.785.2 – Roles

Item	Is the implementation an ...	Reference	Status	Support
1	OLE – Originating local exchange	2.1.1.1/Q.764	o.1	
2	NTE – National transit exchange	2.1.1.2/Q.764	o.1	
3	OutIE – Outgoing international exchange	2.1.1.3/Q.764	o.1	
4	ITE – International transit exchange	2.1.1.4/Q.764	o.1	
5	IncIE – Incoming international exchange	2.1.1.5/Q.764	o.1	
6	DLE – Destination local exchange	2.1.1.6/Q.764	o.1	
o.1: It is mandatory to support at least one of these items.				

A.4.3 Capabilities

The following matrix is an abbreviation guide for roles:

OLE	NTE	OutIE	ITE	IncIE	DLE
Local	Transit	Gateway	Transit	Gateway	Local
	IntermE	IntermE	IntermE	IntermE	
CntrlE	CntrlE	CntrlE			
	IWorkE	IWorkE	IworkE	IWorkE	

Table A.2/Q.785.2 – Generic signalling procedures for supplementary services

Item	Is the exchange able to ...	Reference	Status	Support
1	End-to-end signalling – Pass along method?	Table 1/Q.761	o	
2	End-to-end signalling – SCCP connection oriented?	Table 1/Q.761	o	
3	End-to-end signalling – SCCP connectionless?	Table 1/Q.761	o	
4	Generic number transfer?	Table 1/Q.761	o	
5	Generic digit transfer?	Table 1/Q.761	o	

Table A.2/Q.785.2 – Generic signalling procedures for supplementary services (*concluded*)

Item	Is the exchange able to ...	Reference	Status	Support
6	Generic notification procedure?	Table 1/Q.761	o	
7	Simple service activation procedure?	Table 1/Q.761	o	
8	Remote operations procedure?	Table 1/Q.761	o	
9	Network specific procedures?	Table 1/Q.761	o	

Table A.3/Q.785.2 – Supplementary Services Major Capabilities

Item	Is the exchange able to ...	Reference	Status	Support
1	support the service Calling Line Identification Presentation (CLIP)?	Q.731.3	o	
2	support the service Calling Line Identification Restriction (CLIR)?	Q.731.4	o	
3	support the service Connected Line Identification Presentation (COLP)?	Q.731.5	o	
4	support the service Connected Line Identification Restriction (COLR)?	Q.731.6	o	
5	support the service Terminal Portability (TP)?	Q.733.4	o	
6	support at least one User-to-User Signalling service (UUS)?	Q.737.1	o	
7	support the service Closed User Group (CUG)?	Q.735.1	o	
8	support the service Sub-addressing (SUB)?	Q.731.8	o	
9	support the service Malicious Call Identification (MCID)?	Q.731.7	o	
10	support the service Conference Call, add-on (CONF)?	Q.734.1	o	
11	support the service Explicit Call Transfer (ECT)?	Q.732.7	o	
12	support the service Call Forwarding Busy (CFB)?	Q.732.2	o	
13	support the service Call Forwarding No Reply (CFNR)?	Q.732.3	o	
14	support the service Call Forwarding Unconditional (CFU)?	Q.732.4	o	
15	support the service Call Deflection (CD)?	Q.732.5	o	
16	support the service Call Hold (HOLD)?	Q.733.2	o	
17	support the service Call Waiting (CW)?	Q.732.1	o	
18	support the service Completion of Calls to Busy Subscribers (CCBS)?	Q.733.3	o	
19	support the Three Party service (3PTY)?	Q.734.2	o	
20	support the service Completion of Calls on No Reply (CCNR)?	Q.733.5	o	

Table A.4/Q.785.2 – CLIP

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[OutIE] omit the calling party number in case of bilateral agreements?	3.5.2.3.1/ Q.731	o	
2	[OutIE] omit the additional calling party number in the generic number in case of bilateral agreements?	3.5.2.3.1/ Q.731	o	
3	[OutIE] omit the calling sub-address in the access transport parameter in case of bilateral agreements?	3.2.1/Q.731	c31	
4	@[IncIE] add a prefix to the calling party number and set its nature of address indicator to "unknown"	3.5.2.4.1/ Q.731	o	
1	@[IncIE] support the coding "address not available" in the address presentation restricted indicator of the calling party number ?	3.10/Q.763; 3.5.2.4.2/ Q.731	o	
c51: IF A.5/1 THEN m ELSE n/a				
@: national use				

Table A.5/Q.785.2 – CLIR

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[OutIE] discard the calling party number if it is received with the address presentation restricted indicator set to "presentation restricted"?	4.5.2.3.2/ Q.731	o	
2	[OutIE] discard the additional calling party number in the generic number if it is received with the address presentation restricted indicator set to "presentation restricted"?	4.5.2.3.2/ Q.731	o	
3	[OutIE] discard the calling sub-address in the access transport parameter if the calling party number is received with the address presentation restricted indicator set to "presentation restricted"?	4.2.1/Q.731	c31	
c31: IF A.3/1 THEN m ELSE n/a				

Table A.6/Q.785.2 – COLP

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	@[OutIE] add a prefix to the connected number and set its nature of address indicator to "unknown"	5.5.2.3.1/ Q.731	o	
2	[IncIE] omit the connected number in case of bilateral agreements?	5.5.2.4.1/ Q.731	o	
3	[IncIE] omit the additional connected number in the generic number in case of bilateral agreements?	5.5.2.4.1/ Q.731	o	
4	[IncIE] remove the COL (zero the address signals of the connected number) and set the address presentation restriction indicator to "address not available"?	5.5.2.4.1/ Q.731	o	
5	[DLE] deliver the COL?	5.5.2.5.1/ Q.731	m	
6	[DLE] include, if provided by the user, the connected sub-address in the access transport parameter?	5.5.2.5.1/ Q.731	o	
@:national use				

Table A.7/Q.785.2 – COLR

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[IncIE] discard the connected number if it is received with the presentation restriction indicator set to "presentation restricted"?	6.5.2.4.1/ Q.731	o	
2	[IncIE] discard the additional connected number in the generic number if it is received with the presentation restriction indicator set to "presentation restricted"?	6.5.2.4.1/ Q.731	o	
3	[IncIE] remove the COL (zero the address signals of the connected number) and change the presentation restriction indicator from "presentation restricted" to "address not available"?	6.5.2.4.1/ Q.731	o	

Table A.8/Q.785.2 – Service not supported

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[Gateway] support discarding of Suspend and Resume messages, if the network does not support the TP service?	4.5.2.3.2; 4.5.2.4.2/ Q.733	c11	
2	[IncIE] support correct rejection or processing of CUG calls in case of interworking with networks not supporting CUG?	1.5.2.4.2; Table 1-1/ Q.735	c22	
3	[OutIE] return an IRS with bit A of the MCID response indicator set to 0 "MCID not included", if the national network does not support the MCID service?	7.5.2.3.2/ Q.731	c33	
c31: IF NOT A.3/5 THEN o ELSE n/a c32: IF NOT A.3/7 THEN m ELSE n/a c33: IF NOT A.3/9 THEN o ELSE n/a				

Table A.9/Q.785.2 – UUS

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	support the user-to-user information parameter with at least 32 octets as user information?	1.1.2.1; 1.2.2.1; 1.3.2.1/ Q.737	m	
2	support the maximum number of up to 128 octets as user information in the user-to-user information parameter? If not 128, specify maximum allowed number.	1.1.2.1; 1.2.2.1; 1.3.2.1/ Q.737	o	
3	support implicit request of service UUS1?	1.1/Q.737	o	
4	support explicit request of service UUS1?	1.1/Q.737	o	
5	[IntermE] support the rejection procedure of an explicit service request or discarding of user-to-user information as described in 1.1.5.2.5.2/Q.737	1.1.5.2.2.2/ Q.737	c51	
6	support service UUS2?	1.2/Q.737	o	
7	[DLE] deliver user-to-user information after the user has answered the call?	1.2.2.1/ Q.737	c72	
8	support service UUS3?	1.3/Q.737	o	
c81: IF A.8/4 THEN o ELSE n/a c82: IF A.8/6 THEN o ELSE n/a				

Table A.10/Q.785.2 – CUG

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	support Closed User Group with decentralized administration?	1/Q.735	m	
2	support Closed User Group with centralized administration?	1/Q.735	n/a	
3	[Gateway] support conversion of national to international CUG codes?	1.5.2.3.1; 1.5.2.4.1/ Q.735	o	
4	support invocation of CLIR for CUG calls?	1.6.6/Q.735	o	

Table A.11/Q.785.2 – SUB

Item	Is the exchange able to ...	Reference	Status	Support
1	support the maximum 23 octet length of the Sub-address parameter?	8.4; 8.7/Q.731	m	

Table A.12/Q.785.2 – MCID

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[OLE] provide the calling party sub-address as part of the MCID service?	7.2.1/Q.731	o	
2	[DLE] store and process the calling party sub-address as part of the MCID service?	7.2.1/Q.731	o	
3	[DLE] support the registration of the original called number and the redirecting number for MCID when invoking CFB, CFNR, CFU, CD?	7.6.10/Q.731	o	
4	[OutIE] omit for MCID the calling party number in case of bilateral agreements	7.5.2.3.1/ Q.731	o	
5	[IncIE] modify the MCID response indicator set to 0 "MCID not included" according to the information available in the exchange?	7.5.2.4.2/ Q.731	o	

Table A.13/Q.785.2 – CONF

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	support the user notification procedures?	1.5/Q.734	c11	
2	[OLE] support <i>which</i> maximum number of conference participants?	1.5.2.1.1.2/ Q.734	o	
c21 IF A.2/6 THEN o ELSE n/a				

Table A.14/Q.785.2 – ECT

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[Local] store remote user numbers (calling party number/connected number or additional calling party number/additional connected number) and send them in the call transfer number when call transfer is performed?	7.5.2.1.1.1/ Q.732.7	m	
2	support the loop prevention procedure?	7.2.1; 7.5.2.1.1.2/ Q.732.7	o	
3	[Local] support the timer T_{ECT} ? If yes, specify the timer value (2-6 s).	7.5.2.1.1.2.1; 7.9/Q.732.7	c31	
4	[Local] reject the call transfer in case of T_{ECT} timer expiry?	7.5.2.1.1.2.1/ Q.732.7	c42	
5	[Local] complete the call transfer in case of T_{ECT} timer expiry?	7.5.2.1.1.2.1/ Q.732.7	c52	
6	[Gateway] omit the call transfer number if the address presentation restriction indicator indicates "presentation restricted"?	7.5.2.3.1; 7.5.2.4.1/ Q.732.7	o	
7	[IWorkE] support call control interworking between ISUP'97 and protocols not supporting the loop prevention procedure, i.e. return a LOP (response) message with the indication "insufficient information"?	7.7/Q.732.7	c73	
8	[Local] reject the call transfer in case receipt of LOP messages with the response indicator set to "insufficient information"?	7.5.2.1.1.2.1/ Q.732.7	c84	
9	[Local] complete the call transfer in case receipt of LOP messages with the response indicator set to "insufficient information"?	7.5.2.1.1.2.1/ Q.732.7	c94	
c91: IF A.9/2 THEN m ELSE n/a c92: IF A.9/2 THEN o.2 ELSE n/a c93: IF A.9/2 THEN o ELSE n/a c94: IF A.9/2 THEN o.3 ELSE n/a o.2: It is mandatory to support exactly one of these options o.3: It is mandatory to support exactly one of these options				

Table A.15/Q.785.2 – CFB, CFNR, CFU, CD

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	support the diversion notification procedures?	2.5.2.5.1.2 d)/Q.732	m	
2	support the maximum number of up to 5 diversions for each call? If not 5, specify the maximum allowed number.	Table 2-2/ Q.732	o	
3	[DLE] omit octet 2 of the redirection information if the redirection counter equals 1?	3.45/Q.763	o	
4	[DLE] support the usage of the Original redirection reasons in the redirection information parameter with the encoding: 0001 user busy @ 0010 no reply @ 0011 unconditional @?	3.45/Q.763	o	
5	[DLE] include the redirection number in the ACM or CPG?	2.5.2.5.1.2 d)/Q.732	m	
7	[IncIE] pass on the redirection number if received in an ACM or CPG?	2.5.2.4.1/ Q.732	o	
9	[Local] support the usage of event information with the encoding: 0000100 CFB 0000101 CFNR 0000110 CFU?	2.4.2/Q.732	o	
10	[IntermE] support the transport of event information with the encoding: 0000100 CFB 0000101 CFNR 0000110 CFU?	2.4.2/Q.732	o	
11	[OutIE] omit the original called number in case of bilateral agreements?	2.5.2.3.1/ Q.732 3.5.2.3.1/ Q.731	o	
12	[OutIE] omit the redirecting number in case of bilateral agreements?	2.5.2.3.1/ Q.732 3.5.2.3.1/ Q.731	o	
13	[IncIE] omit the redirection number in case of bilateral agreements?	2.5.2.4.1/ Q.732 5.5.2.4.1/ Q.731	o	
14	@[OutIE] add a prefix to the redirection number and set its nature of address indicator to "unknown" (as for COLP A.6/1)	5.5.2.3.1/ Q.731	o	
15	@[IncIE] add a prefix to the original called number and set its nature of address indicator to "unknown" (as for CLIP A.4/4)	3.5.2.4.1/ Q.731	o	
16	@[IncIE] add a prefix to the redirecting number and set its nature of address indicator to "unknown" (as for CLIP A.4/4)	3.5.2.4.1/ Q.731	o	
@: national use				

Table A.16/Q.785.2 – CFNR, CD

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[Local] retain call to the served user until alerting begins at the diverted-to user (late release – option A)?	2.5.2.5.2.2; Table 2-2/ Q.732	o.4	
2	[Local] clear call to the served user on invocation of call diversion (immediate release – option B)?	2.5.2.5.2.2; Table 2-2/ Q.732	o.4	
3	[Local] through-connect in both directions immediately after sending the IAM?	2.5.2.5.1.2 c) ii)/Q.732	c31	
4	[Local] perform through-connection in both directions at the receipt of ACM or CON?	2.5.2.5.1.2 c) ii)/Q.732	c41	
5	[Local] support the Call Forwarding No Reply timer? If yes, specify the timer value.	Table 2-2/ Q.732	c52	
o.4: It is mandatory to support exactly one of these options				
c51: IF A.5/2 THEN o.5 ELSE n/a				
c52: IF A.3/13 THEN m ELSE o				
o.5: It is mandatory to support at least one of these options				

Table A.17/Q.785.2 – HOLD

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[OLE] support call hold as soon as the calling user has provided all of the information necessary for processing the call?	2.2.1/Q.733	o	
2	[OLE] support call hold by the calling user after alerting has commenced?	2.2.1/Q.733	c21	
3	supply the remote user with an in-band indication in the case of interworking with PSTN?	2.7/Q.733	o	
c31: IF A. 3/1 THEN m ELSE o				

Table A.18/Q.785.2 – CCBS

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[Local] support the retain option?	3.1.3 m)/Q.733.3	o	
2	[OLE] support the maximum number of up to 5 outstanding CCBS requests of a user? If not 5, specify the maximum allowed number.	3.5.1.1.1.1 /Q.733.3	o	
3	[OLE] include the calling party number in the CCBS request invoke component?	3.5.1.1.1.1/ Q.733.3	o	
4	[OLE] treat a second identical activation of CCBS as a new request?	3.5.3.1.2/ Q.733.3	o.6	
5	[OLE] reject a second identical activation of CCBS?	3.5.3.1.2/ Q.733.3	o.6	
6	[DLE] support the maximum number of up to 5 queue entries? If not 5, specify the maximum allowed number.	3.5.3.5.1/ Q.733.3	o	
7	[OLE] initiate the CCBS supplementary service even if no diagnostics is received in the release message with causes #17 or #34?	3.7.1/ Q.733.3	o	
8	[DLE] treat the CCBS call as a "destination B busy upon arrival of CCBS request" in case of interaction between CCBS and CFB?	3.6.10.2.2 c); 3.5.3.5.2 c)/Q.733.3	o.7	
2	[DLE] forward the CCBS call as a normal call in case of interaction between CCBS and CFB?	3.6.10.2.2 c)/Q.733.3	o.7	
10	[DLE] release the call with the diagnostics "CCBS possible" when the service is available?	3.5/Q.733.3	m	
11	[DLE] release the call with the diagnostics "CCBS not possible" if the service is not available?	3.5/Q.733.3	m	
12	[OLE] support the retention timer CCBS-T1? If yes, specify the timer value (greater than 15 s).	3.9.1/ Q.733.3	m	
13	[OLE] support the CCBS request operation timer CCBS-T2? The value of the timer shall be 10 s.	3.9.1/ Q.733.3	m	
14	[OLE] support the CCBS service duration timer CCBS-T3? If yes, specify the timer value (15-45 min).	3.9.1/ Q.733.3	m	
15	[OLE] support the CCBS recall timer CCBS-T4? If yes, specify the timer value (10-20 s).	3.9.1/ Q.733.3	m	
16	[DLE] support the CCBS service supervision timer CCBS-T7? The value of the timer shall be 60 min.	3.9.2/ Q.733.3	m	
17	[DLE] support the destination B idle guard timer CCBS-T8? If yes, specify the timer value (less than 15 s).	3.9.2/ Q.733.3	m	
18	[DLE] support the recall timer CCBS-T9? The value of the timer shall be 30 s.	3.9.2/ Q.733.3	m	
19	[Local] support the interworking supervision timer T _{SUP} ? The value of the timer shall be 60 min.	3.9.3/ Q.733.3	o	
o.6: It is mandatory to support exactly one of these options				
o.7: It is mandatory to support exactly one of these options				

Table A.19/Q.785.2 – CCNR

Item	Is the exchange [role] able to ...	Reference	Status	Support
1	[Local] support the retain option?	1.3/Q.733.5	o	
2	[OLE] support the maximum number of up to 5 outstanding CCNR requests of a user? If not 5, specify the maximum allowed number.	5.1.1.1.1/ Q.733.5	o	
3	[OLE] include the calling party number in the CCNR request invoke component?	5.1.1.1.1/ Q.733.5	o	
4	[OLE] treat a second identical activation of CCNR as a new request?	5.3.1.2/ Q.733.5	o.6	
5	[OLE] reject a second identical activation of CCNR?	5.3.1.2/ Q.733.5	o.6	
6	[DLE] support the maximum number of up to 5 queue entries? If not 5, specify the maximum allowed number.	5.3.5.1/ Q.733.5	o	
7	[OLE] initiate the CCNR supplementary service even if no CCNR possible indicator is received in the ACM/CPG	7.1/Q.733.5	o	
8	[DLE] treat the CCNR call as a "destination B no reply upon arrival of CCNR request" in case of interaction between CCNR and CFNR?	6.10.2.2 c); 5.3.5.2 d)/Q.733.5	o.7	
9	[DLE] forward the CCNR call as a normal call in case of interaction between CCNR and CFNR?	6.10.2.2 c)/Q.733.5	o.7	
10	[DLE] release the call with the diagnostics "CCNR possible" when the service is available?	5/Q.733.5	m	
11	[DLE] set the ACM/CPG with the indicator "CCNR not possible" if the service is not available?	5/Q.733.5	m	
12	[OLE] support the retention timer CCNR-T1? If yes, specify the timer value (greater than 15 s).	9.1/Q.733.5	m	
13	[OLE] support the CCNR request operation timer CCNR-T2? The value of the timer shall be a few seconds.	9.1/Q.733.5	m	
14	[OLE] support the CCNR service duration timer CCNR-T3? If yes, specify the timer value (60-180 min).	9.1/Q.733.5	m	
15	[OLE] support the CCNR recall timer CCNR-T4? If yes, specify the timer value (10-20 s).	9.1/Q.733.5	m	
16	[DLE] support the CCNR service supervision timer CCNR-T7? The value of the timer shall be 190 min.	9.2/Q.733.5	m	
17	[DLE] support the destination B idle guard timer CCNR-T8? If yes, specify the timer value (less than 15 s).	9.2/Q.733.5	m	
18	[DLE] support the recall timer CCNR-T9? The value of the timer shall be 20 s + some seconds for CCNR call set-up.	9.2/Q.733.5	m	
19	[Local] support the interworking supervision timer T _{SUP} ? The value of the timer shall be 190 min.	9.3/Q.733.5	o	
o.6: It is mandatory to support exactly one of these options				
o.7: It is mandatory to support exactly one of these options				

ANNEXE B³

Formulaire d'informations supplémentaires sur l'implémentation de protocole destinées au test (PIXIT) pour les services complémentaires du sous-système ISUP'97

The pixit proforma enlists all the parameters and data that are needed to configure the ATS (and/or the IUT) before executing the testing campaign. It is to be filled out as part of the preparation for testing by e.g. The test client. The testing laboratory then inputs this data into the implementation of the ATS. More information about the purpose and intent of the PIXIT can be found in ISO 9646-5 [30].

B.1 Identification summary

PIXIT NUMBER:	
TEST LABORATORY NAME:	
DATE OF ISSUE:	
ISSUED TO:	

B.2 Abstract test suite summary

PROTOCOL SPECIFICATION:	ITU-T RECOMMENDATION Q.73X (1997)
ATS SPECIFICATION:	ISUP_97_SUPPL_SERVICES
ABSTRACT TEST METHOD:	DISTRIBUTED MULTIPARTY TEST METHOD

B.3 Test laboratory

TEST LABORATORY IDENTIFICATION:	
TEST LABORATORY MANAGER:	
TEST LABORATORY CONTACT:	
MEANS OF TESTING:	
INSTRUCTIONS FOR COMPLETION:	

B.4 Client identification

CLIENT IDENTIFICATION:	
CLIENT TEST MANAGER:	
TEST FACILITIES REQUIRED:	

³ **Droits de reproduction du formulaire PIXIT**

Les utilisateurs de la présente Recommandation sont autorisés à reproduire le formulaire PIXIT de la présente annexe pour utiliser celui-ci conformément à son objet. Ils sont également autorisés à publier le formulaire une fois celui-ci complété.

B.5 System under test

NAME:	
VERSION:	
SCS NUMBER:	
MACHINE CONFIGURATION:	
OPERATING SYSTEM IDENTIFICATION:	
IUT IDENTIFICATION:	
PICS REFERENCE FOR IUT:	
LIMITATIONS OF THE SUT:	
ENVIRONMENTAL CONDITIONS:	

B.6 Ancillary protocols

PROTOCOL NAME	VERSION No.	PICS REF.	PIXIT REF.	PCTR REF.
MTP				
ACCESS PROTOCOL				

B.7 Protocol information for ISUP

B.7.1 Protocol identification

NAME:	ISDN USER PART (ISUP)'97 SUPPLEMENTARY SERVICES
VERSION:	
PICS REFERENCES:	

B.7.2 IUT information – PIXIT proforma tables

The pixit information requested in the following tables is needed to provide the necessary information for the execution of the testing campaign. It is assumed that one exchange role is tested at one time. The answers to some pixit questions are related to an individual role. A typical example is the nature of address indicator of the called party number value, which is different in the case of international gateways and national exchanges. That is why if several roles are to be tested, one completed copy of the pixit proforma for each role is needed.

B.7.2.1 General configuration

Signalling Point Codes

Two signalling point codes – one incoming and one outgoing have to be defined for the IUT. For an international intermediate exchange the incoming and outgoing point codes are the same, whereas for an international gateway exchange there are two different signalling point codes because they belong to two separate networks (international and national).

Circuit Identification Codes

From a formal point of view, in most test cases it is sufficient to use only one CIC per signalling link in order to execute the testing. From a practical point of view the tester could select any CIC within a range of CIC's belonging to a route, when initiating a call setup. The tester can, however, use the first CIC in the circuit group, without reducing the generality. The ATS requires the first CIC in the group as an answer to the PIXIT questions B.1/9 and B.1/10 in Table B.1.

Table B.1/Q.785.2 – General configuration

Item	Parameter	Parameter type	Explanation	Value
1	TSP_SPA_R	BIT_14	SS NO. 7 SIGNALLING POINT CODE OF THE SUT ON THE AB INTERFACE (RIGHT SIDE)	
2	TSP_SPA_L	BIT_14	SS NO. 7 SIGNALLING POINT CODE OF THE SUT ON THE AC INTERFACE (LEFT SIDE)	
3	TSP_SPB	BIT_14	SS NO. 7 SIGNALLING POINT CODE OF THE TESTER ON THE AB INTERFACE	
4	TSP_SPC	BIT_14	SS NO. 7 SIGNALLING POINT CODE OF THE TESTER ON THE AC INTERFACE	
5	TSP_NI_R	BIT_2	SS NO. 7 NETWORK INDICATOR ON THE AB INTERFACE	
6	TSP_NI_L	BIT_2	SS NO. 7 NETWORK INDICATOR ON THE AC INTERFACE	
7	TSP_SLS_R	BIT_4	SS NO. 7 SIGNALLING LINK SELECTION ON THE AB INTERFACE	
8	TSP_SLS_L	BIT_4	SS NO. 7 SIGNALLING LINK SELECTION ON THE AC INTERFACE	
9	TSP_CIC_R	BIT_12	SS NO. 7 CIRCUIT IDENTIFICATION CODE ON THE AB INTERFACE	
10	TSP_CIC_L	BIT_12	SS NO. 7 CIRCUIT IDENTIFICATION CODE ON THE AC INTERFACE	
11	TSP_NB_CICS	INTEGER	NUMBER OF SS NO. 7 CIRCUIT IDENTIFICATION CODES ON THE AB AND AC INTERFACES	
12	TSP_ALERT_MNT	BOOLEAN	MAINTENANCE_ACTION_SELECTION	
13	TSP_PCO_CAB	BOOLEAN	PCO_CAB_ACTION_SELECTION	

B.7.2.2 Parameter values

Subscriber Numbers

The subscriber numbers have to be specified for each role which is to be tested. All numbers are by default national (significant) numbers, having the nature of address indicator set accordingly. International numbers are built depending on the specific test situation by either using the own network's country code (answer to the pixit question B.2/9) or a foreign country code (answer to the pixit question B.2/10). The nature of address indicator for these numbers is set to "international".

Table B.2/Q.785.2 – Subscriber number parameter values

Item	Parameter	Parameter type	Explanation	Value
1	TSP_NB_A	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP A	
2	TSP_NB_B	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP B	
3	TSP_NB_C	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP C	
4	TSP_NB_D	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP D, BEYOND SP B.	
5	TSP_NB_D2	HEX_N	ANOTHER SUBSCRIBER NUMBER LOCATED AT SP D, BEYOND SP B.	
6	TSP_NB_D3	HEX_N	ANOTHER SUBSCRIBER NUMBER LOCATED AT SP D, BEYOND SP B.	
7	TSP_NB_D4	HEX_N	ANOTHER SUBSCRIBER NUMBER LOCATED AT SP D, BEYOND SP B.	
8	TSP_NB_E	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP E, BEYOND SP C.	
9	TSP_OWNCC	HEX_N	COUNTRY CODE OF THE OWN NETWORK	
10	TSP_FOREIGNC C	HEX_N	COUNTRY CODE OF A FOREIGN NETWORK	
11	TSP_PREFIX	HEX_N	@ PREFIX ADDED TO AN INTERNATIONAL NUMBER	

Table B.3/Q.785.2 – Additional number parameter values

Item	Parameter	Parameter type	Explanation	Value
1	TSP_NB_A_DEFAULT	HEX_N	SUBSCRIBER NUMBER WHICH WILL BE PROVIDED AS DEFAULT NUMBER BY THE NETWORK FOR UNI AT SP A (IUT)	
2	TSP_NB_B_DEFAULT	HEX_N	SUBSCRIBER NUMBER WHICH WILL BE PROVIDED AS DEFAULT NUMBER BY THE NETWORK FOR UNI AT SP B	
3	TSP_GENNBB	HEX_N	ADDITIONAL SUBSCRIBER NUMBER LOCATED AT SP B	
4	TSP_NB_C_AVAIL	HEX_N	INFORMATION MADE AVAILABLE BY THE NETWORK IN CASE OF MCID FOR THE UNI AT SP C (THE ONLY INFORMATION THE GATEWAY HAS, E.G. TRUNK NUMBER)	
5	TSP_NB_C_DEFAULT	HEX_N	SUBSCRIBER NUMBER WHICH WILL BE PROVIDED AS DEFAULT NUMBER BY THE NETWORK FOR UNI AT SP C	

Table B.3/Q.785.2 – Additional number parameter values (*concluded*)

Item	Parameter	Parameter type	Explanation	Value
6	TSP_NB_C_INCOMPLETE	HEX_N	SUBSCRIBER NUMBER WHICH WILL BE PROVIDED AS INCOMPLETE NUMBER BY THE NETWORK FOR UNI AT SP C	
7	TSP_GENNB_C	HEX_N	ADDITIONAL SUBSCRIBER NUMBER LOCATED AT SP C	
8	TSP_NB_A_MSN	HEX_N	MULTIPLE SUBSCRIBER NUMBER FOR THE SUBSCRIBER LOCATED AT SP A	
9	TSP_NB_B_DDI	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP B, WITH DDI	
10	TSP_NB_B_MSN	HEX_N	MULTIPLE SUBSCRIBER NUMBER FOR THE SUBSCRIBER LOCATED AT SP B	
11	TSP_NB_C_NON_ISUP	HEX_N	SUBSCRIBER NUMBER FOR WHICH THE CALL WILL BE ROUTED TO SP C, ON A NON-ISUP ROUTE	
12	TSP_NB_A_SAMECUG_NOIA	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP A BELONGING TO THE SAME CUG AS THE CALLING PARTY AT SP B – WITHOUT INCOMING ACCESS	
13	TSP_NB_A_SAMECUG_IA	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP A BELONGING TO THE SAME CUG AS THE CALLING PARTY AT SP B – WITH INCOMING ACCESS	
14	TSP_NB_A_OTHERCUG_NOIA	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP A BELONGING TO A DIFFERENT CUG AS THE CALLING PARTY AT SP B – WITHOUT INCOMING ACCESS	
15	TSP_NB_A_OTHERCUG_IA	HEX_N	SUBSCRIBER NUMBER LOCATED AT SP A BELONGING TO A DIFFERENT CUG AS THE CALLING PARTY AT SP B – WITH INCOMING ACCESS	

Table B.4/Q.785.2 – Other supplementary services parameter values

Item	Parameter	Parameter type	Explanation	Value
1	TSP_SUB_ADDRESS_LENGTH	OCT_1	LENGTH OF THE SUB-ADDRESS	
2	TSP_SUB_A	OCT_N	SUB-ADDRESS OF UNI AT SP A (IUT)	
3	TSP_SUB_B	OCT_N	SUB-ADDRESS OF UNI AT SP B (RIGHT SIDE)	
4	TSP_SUB_C	OCT_N	SUB-ADDRESS OF UNI AT SP C (LEFT SIDE)	
5	TSP_SUB_D	OCT_N	SUB-ADDRESS OF UNI AT SP D (BEYOND RIGHT SIDE SP B)	
6	TSP_SUB_E	OCT_N	SUB-ADDRESS OF UNI AT SP E (BEYOND LEFT SIDE SP C)	
7	TSP_CUGIC_NTWID	HEX_4	NETWORK IDENTITY OF THE CLOSED USER GROUP INTERLOCK CODE	
8	TSP_CUGIC_NTWID_INT	HEX_4	INTERNATIONAL NETWORK IDENTITY OF THE CLOSED USER GROUP INTERLOCK CODE	
9	TSP_CUGIC_BINCODE	HEX_4	BINARY CODE OF THE CLOSED USER GROUP INTERLOCK CODE	
10	TSP_CUGIC_BINCODE_INT	HEX_4	INTERNATIONAL BINARY CODE OF THE CLOSED USER GROUP INTERLOCK CODE	
11	TSP_CTREF	OCT_1	CALL TRANSFER REFERENCE	

B.7.2.3 Timer values

Table B.5/Q.785.2 – Timer values

Item	Parameter	Parameter type	Explanation	Value
1	TSP_T_WAIT	INTEGER	WAIT FOR SOME EVENT TIMER (MAX 30 S)	
2	TSP_T_GUARD	INTEGER	GUARD TIMER FOR THE TEST CASE (MIN 30 S)	
3	TSP_TOL	INTEGER	TOLERANCE FOR ISUP TIMERS (IN PERCENT)	
4	TSP_T_LOCAL	INTEGER	INTERNAL TIMER FOR TESTING CCBS-T8 TIMER (1 S)	

B.7.2.4 Other information

Table B.6/Q.785.2 – Other information

Item	Parameter	Parameter type	Explanation	Value
1	TSP_MAXB_CHANNEL	INTEGER	MAXIMUM NUMBER OF B CHANNELS AT THE ACCESS SIDE (NEEDED FOR CALL WAITING)	
2	TSP_ORIG_ISDN_ACCESS	BIT_1	USE OF ISDN ACCESS AT ORIGINATION ('1'B) OR NON-ISDN ACCESS ('0'B) IN THE FORWARD CALL INDICATORS	
3	TSP_DEST_ISDN_ACCESS	BIT_1	USE OF ISDN ACCESS AT TERMINATION ('1'B) OR NON-ISDN ACCESS ('0'B) IN THE BACKWARD CALL INDICATORS	
4	TSP_INTER NATIONAL_CALL	BOOLEAN	SET UP AN INTERNATIONAL CALL (TRUE) OR A NATIONAL CALL (FALSE) – USED IN THE INTERNATIONAL/NATIONAL CALL INDICATOR IN THE FORWARD CALL INDICATORS	
5	TSP_INTER NATIONAL_CDPN	BOOLEAN	USE AN INTERNATIONAL (TRUE) OR A NATIONAL SIGNIFICANT NUMBER (FALSE) CALLED PARTY NUMBER	
5a	TSP_NATADRI_R	BIT_7	USE OF NATURE OF ADDRESS FOR CALLED PARTY NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), MTC	
5b	TSP_NATADRI CG_R	BIT_7	USE OF NATURE OF ADDRESS FOR CALLING PARTY NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), MTC	
5c	TSP_NATADRI CN_R	BIT_7	USE OF NATURE OF ADDRESS FOR CONNECTED NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), MTC	
5d	TSP_NATADRI RG_R	BIT_7	USE OF NATURE OF ADDRESS FOR REDIRECTING NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), MTC	
5e	TSP_NATADRI OCN_R	BIT_7	USE OF NATURE OF ADDRESS FOR ORIGINAL CALLED NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), MTC	
5f	TSP_NATADRI RN_R	BIT_7	USE OF NATURE OF ADDRESS FOR REDIRECTION NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), MTC	

Table B.6/Q.785.2 – Other information (*concluded*)

Item	Parameter	Parameter type	Explanation	Value
5g	TSP_NATADRI CTN_R	BIT_7	USE OF NATURE OF ADDRESS FOR CALL TRANSFER NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), MTC	
5h	TSP_NATADRI CIN_R	BIT_7	USE OF NATURE OF ADDRESS FOR CALLED IN NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), MTC	
5i	TSP_NATADRI_L	BIT_7	USE OF NATURE OF ADDRESS FOR CALLED PARTY NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), PTC	
5j	TSP_NATADRI CG_L	BIT_7	USE OF NATURE OF ADDRESS FOR CALLING PARTY NUMBER INTERNATIONAL (0000100) NATIONAL (00000110), PTC	
5k	TSP_NATADRI CN_L	BIT_7	USE OF NATURE OF ADDRESS FOR CONNECTED NUMBER INTERNATIONAL (0000100) NATIONAL (00000110), PTC	
5l	TSP_NATADRI RG_L	BIT_7	USE OF NATURE OF ADDRESS FOR REDIRECTING NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), PTC	
5m	TSP_NATADRI OCN_L	BIT_7	USE OF NATURE OF ADDRESS FOR ORIGINAL CALLED NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), PTC	
5n	TSP_NATADRI RN_L	BIT_7	USE OF NATURE OF ADDRESS FOR REDIRECTION NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), PTC	
5o	TSP_NATADRI CTN_L	BIT_7	USE OF NATURE OF ADDRESS FOR CALL TRANSFER NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), PTC	
5p	TSP_NATADRI CIN_L	BIT_7	USE OF NATURE OF ADDRESS FOR CALLED IN NUMBER INTERNATIONAL (0000100) NATIONAL (0000011), PTC	
6	TSP_PDC	INTEGER	PROPAGATION DELAY FOR INCOMING AND OUTGOING ROUTES	
7	TSP_PDC_X	INTEGER	PROPAGATION DELAY ON THE INCOMING ROUTE (IN MS)	
8	TSP_PDC_D	INTEGER	PROPAGATION DELAY ON THE OUTGOING ROUTE (IN MS)	

ANNEXE C⁴

Formulaire de rapport de test de conformité au protocole (PCTR) pour les services complémentaires du sous-système ISUP'97

The PCTR proforma is based on ISO/IEC 9646-5 [30]. Any additional information needed can be found in this document.

C.1 Identification summary

C.1.1 Protocol conformance test report

PCTR NUMBER:	
PCTR DATE:	
TEST LABORATORY IDENTIFICATION:	
TEST LABORATORY MANAGER:	
SIGNATURE:	

C.1.2 IUT identification

NAME:	
VERSION:	
PROTOCOL SPECIFICATION:	
PICS:	
PREVIOUS PCTR IF ANY:	

C.1.3 Testing environment

PIXIT NUMBER:	
ATS SPECIFICATION:	
ABSTRACT TEST METHOD:	DISTRIBUTED MULTIPARTY TEST METHOD
MEANS OF TESTING IDENTIFICATION:	
DATE OF TESTING:	
CONFORMANCE LOG REFERENCE(S):	
RETENTION DATE FOR LOG REFERENCE(S):	

⁴ **Droits de reproduction du formulaire PCTR**

Les utilisateurs de la présente Recommandation sont autorisés à reproduire le formulaire PCTR de la présente annexe pour utiliser celui-ci conformément à son objet. Ils sont également autorisés à publier le formulaire une fois celui-ci complété.

C.1.4 Limits and reservation

Additional information relevant to the technical contents or further use of the test report, or the rights and obligations of the test laboratory and the client, may be given here. Such information may include restriction on the publication of the report.

.....
.....
.....
.....

C.1.5 Comments

Additional comments may be given by either the client or the test laboratory on any of the contents of the PCTR, for example, to note disagreement between the two parties.

.....
.....
.....
.....

C.2 IUT Conformance status

This IUT has/not been shown by conformance assessment to be non-conforming to the referenced protocol specification.

Strike the appropriate words in this sentence. If the PICS for this IUT is consistent with the static conformance requirements (as specified in clause c.3 in this report) and there are no "fail" verdicts to be recorded (in clause c.6) strike the word "has/". Otherwise strike the words "/has not".

C.3 Static conformance summary

The PICS for this IUT is or is not consistent with the static conformance requirements in the specified protocol.

Strike the appropriate words in this sentence.

C.4 Dynamic conformance summary

The test campaign did/did not reveal errors in the IUT.

Strike the appropriate words in this sentence. If there are no "fail" verdicts to be recorded (in clause c.6 of this report) strike the word "did/". Otherwise strike the words "/did not".

Summary of the results of groups of test:

.....
.....
.....
.....

C.5 Static conformance review report

If clause C.3 indicates non-conformance, this subclause itemizes the mismatches between the PICS and the static conformance requirements of the specified protocol specification.

.....
.....
.....
.....

C.6 Test campaign report

Table C.1/Q.785.2 – Test campaign report – CLIP

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CLIP/ISS_V_1_1				
CLIP/ISS_V_1_2				
CLIP/ISS_V_1_3				
CLIP/ISS_V_1_4				
CLIP/ISS_V_1_5				
CLIP/ISS_V_1_6				
CLIP/ISS_V_1_7_a				
CLIP/ISS_V_1_7_b				
CLIP/ISS_V_1_8				
CLIP/ISS_V_1_9				
CLIP/ISS_V_1_10				
CLIP/ISS_V_1_11				
CLIP/ISS_V_1_12				
CLIP/ISS_V_1_13				
CLIP/ISS_I_1_14				
CLIP/ISS_V_1_15				
CLIP/ISS_V_1_16				
CLIP/ISS_I_1_17				
CLIP/ISS_I_1_18				
CLIP/ISS_V_1_19				

Table C.2/Q.785.2 – Test campaign report – CLIR

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CLIR/ISS_V_2_1				
CLIR/ISS_V_2_2				
CLIR/ISS_V_2_3				
CLIR/ISS_V_2_4				
CLIR/ISS_V_2_5				
CLIR/ISS_V_2_6				
CLIR/ISS_V_2_7_a				
CLIR/ISS_V_2_7_b				
CLIR/ISS_V_2_8				
CLIR/ISS_V_2_9				
CLIR/ISS_V_2_10				
CLIR/ISS_V_2_11				

Table C.3/Q.785.2 – Test campaign report – COLP

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
COLP/ISS_V_3_1				
COLP/ISS_V_3_2_a				
COLP/ISS_V_3_2_b				
COLP/ISS_V_3_2_c				
COLP/ISS_V_3_3_a				
COLP/ISS_V_3_3_b				
COLP/ISS_V_3_4_a				
COLP/ISS_V_3_4_b				
COLP/ISS_I_3_5_a				
COLP/ISS_I_3_5_b				
COLP/ISS_V_3_6_a				
COLP/ISS_V_3_6_b				
COLP/ISS_V_3_7_a				
COLP/ISS_V_3_7_b				
COLP/ISS_V_3_8_a				
COLP/ISS_V_3_8_b				
COLP/ISS_V_3_9_a				
COLP/ISS_V_3_9_b				
COLP/ISS_I_3_10_a				
COLP/ISS_I_3_10_b				
COLP/ISS_I_3_10_c				
COLP/ISS_I_3_10_d				
COLP/ISS_V_3_11_a				
COLP/ISS_V_3_11_b				
COLP/ISS_V_3_12_a				
COLP/ISS_V_3_12_b				
COLP/ISS_V_3_13_a				
COLP/ISS_V_3_13_b				
COLP/ISS_V_3_14_a				
COLP/ISS_V_3_14_b				
COLP/ISS_V_3_15_a				
COLP/ISS_V_3_15_b				
COLP/ISS_V_3_16_a				
COLP/ISS_V_3_16_b				
COLP/ISS_V_3_17_a				
COLP/ISS_V_3_17_b				
COLP/ISS_V_3_18_a				
COLP/ISS_V_3_18_b				

Table C.4/Q.785.2 – Test campaign report – COLR

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
COLR/ISS_V_4_1_a				
COLR/ISS_V_4_1_b				
COLR/ISS_I_4_2_a				
COLR/ISS_I_4_2_b				
COLR/ISS_V_4_3_a				
COLR/ISS_V_4_3_b				
COLR/ISS_V_4_4_a				
COLR/ISS_V_4_4_b				
COLR/ISS_V_4_5_a				
COLR/ISS_V_4_5_b				
COLR/ISS_I_4_6_a				
COLR/ISS_I_4_6_b				
COLR/ISS_V_4_7_a				
COLR/ISS_V_4_7_b				
COLR/ISS_V_4_8_a				
COLR/ISS_V_4_8_b				
COLR/ISS_V_4_9_a				
COLR/ISS_V_4_9_b				
COLR/ISS_V_4_10_a				
COLR/ISS_V_4_10_b				
COLR/ISS_V_4_11_a				
COLR/ISS_V_4_11_b				
COLR/ISS_V_4_12_a				
COLR/ISS_V_4_12_b				

Table C.5/Q.785.2 – Test campaign report – TP

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
TP/ISS_V_5_1				
TP/ISS_V_5_2				
TP/ISS_I_5_3				
TP/ISS_V_5_4_a				
TP/ISS_V_5_4_b				
TP/ISS_V_5_5				
TP/ISS_V_5_6				
TP/ISS_V_5_7				
TP/ISS_V_5_8				
TP/ISS_V_5_10				
NO_TP/ISS_I_5_9				

Table C.6-1-1/Q.785.2 – Test campaign report – UUS1 implicit

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
UUS/UUS1_I/ISS_V_6_1_1				
UUS/UUS1_I/ISS_V_6_1_2_a				
UUS/UUS1_I/ISS_V_6_1_2_b				
UUS/UUS1_I/ISS_I_6_1_3_a				
UUS/UUS1_I/ISS_I_6_1_3_b				
UUS/UUS1_I/ISS_I_6_1_4_a				
UUS/UUS1_I/ISS_I_6_1_4_b				
UUS/UUS1_I/ISS_V_6_1_5_a				
UUS/UUS1_I/ISS_V_6_1_5_b				
UUS/NO_UUS1_I/ISS_I_6_1_6_a				
UUS/NO_UUS1_I/ISS_I_6_1_6_b				

Table C.6-1-2/Q.785.2 – Test campaign report – UUS1 explicit

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
UUS/UUS1_E/ISS_V_6_1_7_a				
UUS/UUS1_E/ISS_V_6_1_7_b				
UUS/UUS1_E/ISS_I_6_1_8_a				
UUS/UUS1_E/ISS_I_6_1_8_b				
UUS/UUS1_E/ISS_I_6_1_9_a				
UUS/UUS1_E/ISS_I_6_1_9_b				
UUS/UUS1_E/ISS_I_6_1_10				
UUS/UUS1_E/ISS_V_6_1_11_a				
UUS/UUS1_E/ISS_V_6_1_11_b				
UUS/UUS1_E/ISS_V_6_1_13_a				
UUS/UUS1_E/ISS_V_6_1_13_b				
UUS/UUS1_E/ISS_I_6_1_14_a				
UUS/UUS1_E/ISS_I_6_1_14_b				
UUS/UUS1_E/ISS_V_6_1_15_a				
UUS/UUS1_E/ISS_V_6_1_15_b				
UUS/UUS1_E/ISS_V_6_1_17_a				
UUS/UUS1_E/ISS_V_6_1_17_b				
UUS/UUS1_E/ISS_V_6_1_18				
UUS/UUS1_E/ISS_V_6_1_19_a				
UUS/UUS1_E/ISS_V_6_1_19_b				
UUS/UUS1_E/ISS_V_6_1_20_a				
UUS/UUS1_E/ISS_V_6_1_20_b				
UUS/UUS1_E/ISS_V_6_1_21				
UUS/UUS1_E/ISS_V_6_1_22				
UUS/UUS1_E/ISS_V_6_1_23				
UUS/UUS1_E/ISS_V_6_1_24				
UUS/NO_UUS1_E/ISS_I_6_1_12_a				
UUS/NO_UUS1_E/ISS_I_6_1_12_b				
UUS/NO_UUS1_E/ISS_I_6_1_16_a				
UUS/NO_UUS1_E/ISS_I_6_1_16_b				
UUS/NO_UUS1_E/ISS_I_6_1_16_c				

Table C.6-2/Q.785.2 – Test campaign report – UUS2

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
UUS/UUS2/ISS_V_6_2_1				
UUS/UUS2/ISS_V_6_2_2_a				
UUS/UUS2/ISS_V_6_2_2_b				
UUS/UUS2/ISS_V_6_2_3				
UUS/UUS2/ISS_V_6_2_6_a				
UUS/UUS2/ISS_V_6_2_6_b				
UUS/UUS2/ISS_V_6_2_7				
UUS/UUS2/ISS_I_6_2_9_a				
UUS/UUS2/ISS_I_6_2_9_b				
UUS/UUS2/ISS_V_6_2_10				
UUS/UUS2/ISS_I_6_2_11				
UUS/UUS2/ISS_I_6_2_13				
UUS/UUS2/ISS_V_6_2_14_a				
UUS/UUS2/ISS_V_6_2_14_b				
UUS/UUS2/ISS_V_6_2_15_a				
UUS/UUS2/ISS_V_6_2_15_b				
UUS/UUS2/ISS_V_6_2_16_a				
UUS/UUS2/ISS_V_6_2_16_b				
UUS/NO_UUS2/ISS_I_6_2_4				
UUS/ NO_UUS2/ISS_I_6_2_5				
UUS/ NO_UUS2/ISS_I_6_2_8_a				
UUS/ NO_UUS2/ISS_I_6_2_8_b				
UUS/ NO_UUS2/ISS_I_6_2_12				

Table C.6-3/Q.785.2 – Test campaign report – UUS3

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
UUS/UUS3/ISS_V_6_3_1				
UUS/UUS3/ISS_V_6_3_2				
UUS/UUS3/ISS_V_6_3_3_a				
UUS/UUS3/ISS_V_6_3_3_b				
UUS/UUS3/ISS_V_6_3_4				
UUS/UUS3/ISS_V_6_3_7_a				
UUS/UUS3/ISS_V_6_3_7_b				
UUS/UUS3/ISS_V_6_3_8				
UUS/UUS3/ISS_V_6_3_10_a				
UUS/UUS3/ISS_V_6_3_10_b				
UUS/UUS3/ISS_V_6_3_11				
UUS/UUS3/ISS_I_6_3_12				
UUS/UUS3/ISS_I_6_3_13				
UUS/UUS3/ISS_V_6_3_14				
UUS/UUS3/ISS_V_6_3_15				
UUS/UUS3/ISS_V_6_3_16				
UUS/UUS3/ISS_V_6_3_17				
UUS/NO_UUS3/ISS_I_6_3_5_a				
UUS/NO_UUS3/ISS_I_6_3_5_b				
UUS/NO_UUS3/ISS_I_6_3_6_a				
UUS/NO_UUS3/ISS_I_6_3_6_b				
UUS/NO_UUS3/ISS_I_6_3_9_a				
UUS/NO_UUS3/ISS_I_6_3_9_b				

Table C.7/Q.785.2 – Test campaign report – CUG

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CUG/ISS_V_7_1				
CUG/ISS_V_7_2				
CUG/ISS_V_7_3				
CUG/ISS_V_7_6				
CUG/ISS_V_7_7				
CUG/ISS_V_7_8				
CUG/ISS_V_7_9				
CUG/ISS_V_7_10				
CUG/ISS_V_7_11				
CUG/ISS_V_7_12				
CUG/ISS_V_7_13				
CUG/ISS_V_7_14				
CUG/ISS_V_7_15				
CUG/ISS_V_7_16				
CUG/ISS_V_7_17				
CUG/ISS_V_7_18				
CUG/ISS_V_7_19				
CUG/ISS_V_7_20				
CUG/ISS_V_7_21				
CUG/ISS_I_7_22				
CUG/ISS_I_7_23				
NO_CUG/ISS_I_7_4				
NO_CUG/ISS_I_7_5				

Table C.8/Q.785.2 – Test campaign report – SUB

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
SUB/ISS_V_8_1				
SUB/ISS_V_8_2				
SUB/ISS_V_8_3				
SUB/ISS_I_8_4				
SUB/ISS_V_8_5				

Table C.9/Q.785.2 – Test campaign report – MCID

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
MCID/ISS_V_9_1				
MCID/ISS_V_9_2				
MCID/ISS_V_9_3				
MCID/ISS_V_9_5_a				
MCID/ISS_V_9_5_b				
MCID/ISS_V_9_6_a				
MCID/ISS_V_9_6_b				
MCID/ISS_V_9_8				
MCID/ISS_I_9_9				
MCID/ISS_V_9_10_a				
MCID/ISS_V_9_10_b				
MCID/ISS_V_9_11				
MCID/ISS_I_9_12_a				
MCID/ISS_I_9_12_b				
MCID/ISS_I_9_13				
MCID/ISS_V_9_14				
MCID/ISS_V_9_15_a				
MCID/ISS_V_9_15_b				
MCID/ISS_V_9_16				
NO_MCID/ISS_I_9_4				
NO_MCID/ISS_I_9_7				

Table C.10/Q.785.2 – Test campaign report – CONF

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CONF/ISS_V_10_1				
CONF/ISS_V_10_2				
CONF/ISS_V_10_3_a				
CONF/ISS_V_10_3_b				
CONF/ISS_V_10_4				
CONF/ISS_V_10_5				
CONF/ISS_V_10_6				
CONF/ISS_V_10_7				
CONF/ISS_V_10_8				
CONF/ISS_V_10_9				
CONF/ISS_V_10_10				
CONF/ISS_I_10_11				
CONF/ISS_I_10_12				
CONF/ISS_V_10_13_a				
CONF/ISS_V_10_13_b				
CONF/ISS_V_10_14				
CONF/ISS_V_10_15				
CONF/ISS_V_10_16				

Table C.11/Q.785.2 – Test campaign report – ECT

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
ECT/ISS_V_11_1_a				
ECT/ISS_V_11_1_b				
ECT/ISS_V_11_2_a				
ECT/ISS_V_11_2_b				
ECT/ISS_V_11_3_a				
ECT/ISS_V_11_3_b				
ECT/ISS_V_11_4_a				
ECT/ISS_V_11_4_b				
ECT/ISS_V_11_5				
ECT/ISS_V_11_6				
ECT/ISS_I_11_7				
ECT/ISS_I_11_8				
ECT/ISS_V_11_9				
ECT/ISS_V_11_10				
ECT/ISS_V_11_11				
ECT/ISS_V_11_12				
ECT/ISS_V_11_13				
ECT/ISS_V_11_14_a				
ECT/ISS_V_11_14_b				
ECT/ISS_V_11_15				
ECT/ISS_V_11_16				
ECT/ISS_V_11_17				
ECT/ISS_V_11_18				
ECT/ISS_V_11_19				
ECT/ISS_V_11_20_a				
ECT/ISS_V_11_20_b				
ECT/ISS_V_11_21_a				
ECT/ISS_V_11_21_b				
ECT/ISS_V_11_22_a				
ECT/ISS_V_11_22_b				
ECT/ISS_V_11_23_a				
ECT/ISS_V_11_23_b				
ECT/ISS_V_11_24				
ECT/ISS_V_11_25				
ECT/ISS_V_11_26_a				
ECT/ISS_V_11_26_b				
ECT/ISS_V_11_27_a				
ECT/ISS_V_11_27_b				
ECT/ISS_V_11_28				
ECT/ISS_V_11_29				
ECT/ISS_V_11_30				

Table C.12/Q.785.2 – Test campaign report – CDIV

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CDIV/ISS_V_12_1_a				
CDIV/ISS_V_12_1_b				
CDIV/ISS_V_12_1_c				
CDIV/ISS_V_12_2_a				
CDIV/ISS_V_12_2_b				
CDIV/ISS_V_12_2_c				
CDIV/ISS_V_12_2_d				
CDIV/ISS_V_12_3				
CDIV/ISS_V_12_4_a				
CDIV/ISS_V_12_4_b				
CDIV/ISS_V_12_4_c				
CDIV/ISS_V_12_5				
CDIV/ISS_I_12_6				
CDIV/ISS_I_12_7				
CDIV/ISS_I_12_8				
CDIV/ISS_V_12_9_a				
CDIV/ISS_V_12_9_b				
CDIV/ISS_V_12_10				
CDIV/ISS_I_12_11_a				
CDIV/ISS_I_12_11_b				
CDIV/ISS_I_12_11_c				
CDIV/ISS_V_12_12_a				
CDIV/ISS_V_12_12_b				
CDIV/ISS_V_12_12_c				
CDIV/ISS_V_12_13_a				
CDIV/ISS_V_12_13_b				
CDIV/ISS_V_12_14_a				
CDIV/ISS_V_12_14_b				
CDIV/ISS_V_12_15_a				
CDIV/ISS_V_12_15_b				
CDIV/ISS_V_12_15_c				
CDIV/ISS_V_12_16_a				
CDIV/ISS_V_12_16_b				
CDIV/ISS_V_12_17				
CDIV/ISS_V_12_18				
CDIV/ISS_V_12_19				
CDIV/ISS_V_12_20				
CDIV/ISS_V_12_21				
CDIV/ISS_V_12_22				

Table C.12/Q.785.2 – Test campaign report – CDIV (*concluded*)

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CDIV/ISS_V_12_23				
CDIV/ISS_V_12_24				
CDIV/ISS_V_12_25				
CDIV/ISS_V_12_26_a				
CDIV/ISS_V_12_26_b				
CDIV/ISS_V_12_26_c				
CDIV/ISS_V_12_27				
CDIV/ISS_V_12_28_a				
CDIV/ISS_V_12_28_b				
CDIV/ISS_V_12_29				
CDIV/ISS_V_12_30				
CDIV/ISS_V_12_31				
CDIV/ISS_V_12_32				
CDIV/ISS_V_12_33				
CDIV/ISS_V_12_34				
CDIV/ISS_V_12_35				
CDIV/ISS_V_12_36				
CDIV/ISS_V_12_37				
CDIV/ISS_V_12_38				
CDIV/ISS_V_12_39				
CDIV/ISS_V_12_40_a				
CDIV/ISS_V_12_40_b				
CDIV/ISS_V_12_40_c				
CDIV/ISS_V_12_40_d				
CDIV/ISS_V_12_40_e				
CDIV/ISS_V_12_41_a				
CDIV/ISS_V_12_41_b				
CDIV/ISS_V_12_42				
CDIV/ISS_V_12_43_a				
CDIV/ISS_V_12_43_b				
CDIV/ISS_V_12_44				
CDIV/ISS_V_12_45				
CDIV/ISS_V_12_46				
CDIV/ISS_V_12_47				
CDIV/ISS_V_12_48				
CDIV/ISS_V_12_49_a				
CDIV/ISS_V_12_49_b				
CDIV/ISS_V_12_49_c				

Table C.13/Q.785.2 – Test campaign report – HOLD

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
HOLD/ISS_V_13_1				
HOLD/ISS_V_13_2				
HOLD/ISS_V_13_3				
HOLD/ISS_V_13_4				
HOLD/ISS_V_13_5				
HOLD/ISS_V_13_6_a				
HOLD/ISS_V_13_6_b				
HOLD/ISS_V_13_7_a				
HOLD/ISS_V_13_7_b				
HOLD/ISS_V_13_8				
HOLD/ISS_V_13_9				
HOLD/ISS_V_13_10				
HOLD/ISS_V_13_11				
HOLD/ISS_V_13_12				

Table C.14/Q.785.2 – Test campaign report – CW

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CW/ISS_V_14_1				
CW/ISS_V_14_2				
CW/ISS_V_14_3				
CW/ISS_V_14_4				
CW/ISS_V_14_5				
CW/ISS_V_14_6				
CW/ISS_V_14_7				
CW/ISS_V_14_8				

Table C.15-1/Q.785.2 – Test campaign report – CCBS – ISUP part

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CCBS/ISUP/ISS_V_15_1				
CCBS/ISUP/ISS_V_15_2				
CCBS/ISUP/ISS_V_15_3				
CCBS/ISUP/ISS_V_15_4				
CCBS/ISUP/ISS_V_15_5				
CCBS/ISUP/ISS_V_15_6				
CCBS/ISUP/ISS_V_15_7				
CCBS/ISUP/ISS_V_15_8				
CCBS/ISUP/ISS_V_15_9				
CCBS/ISUP/ISS_V_15_10				
CCBS/ISUP/ISS_V_15_11				
CCBS/ISUP/ISS_V_15_12				
CCBS/ISUP/ISS_V_15_13				
CCBS/ISUP/ISS_V_15_14				
CCBS/ISUP/ISS_V_15_15				

Table C.15-2/Q.785.2 – Test campaign report – CCBS – ASE part

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CCBS/ASE/ISS_TC_V_15_1				
CCBS/ASE/ISS_TC_I_15_2				
CCBS/ASE/ISS_TC_V_15_3				
CCBS/ASE/ISS_TC_V_15_4				
CCBS/ASE/ISS_TC_I_15_5				
CCBS/ASE/ISS_TC_V_15_6_a				
CCBS/ASE/ISS_TC_V_15_6_b				
CCBS/ASE/ISS_TC_V_15_7				
CCBS/ASE/ISS_TC_I_15_8				
CCBS/ASE/ISS_TC_V_15_9				
CCBS/ASE/ISS_TC_V_15_10				
CCBS/ASE/ISS_TC_V_15_11				
CCBS/ASE/ISS_TC_V_15_12				
CCBS/ASE/ISS_TC_I_15_13				

Table C.15-2/Q.785.2 – Test campaign report – CCBS – ASE part (*concluded*)

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CCBS/ASE/ISS_TC_I_15_14				
CCBS/ASE/ISS_TC_I_15_15				
CCBS/ASE/ISS_TC_I_15_16				
CCBS/ASE/ISS_TC_I_15_17				
CCBS/ASE/ISS_TC_I_15_18				
CCBS/ASE/ISS_TC_I_15_19				
CCBS/ASE/ISS_TC_I_15_20				
CCBS/ASE/ISS_TC_I_15_21				

Table C.16/Q.785.2 – Test campaign report – 3PTY

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
THREE_PTY/ISS_V_16_1				
THREE_PTY/ISS_V_16_2_a				
THREE_PTY/ISS_V_16_2_b				
THREE_PTY/ISS_V_16_3_a				
THREE_PTY/ISS_V_16_3_b				
THREE_PTY/ISS_V_16_4_a				
THREE_PTY/ISS_V_16_4_b				
THREE_PTY/ISS_V_16_5_a				
THREE_PTY/ISS_V_16_5_b				
THREE_PTY/ISS_V_16_6_a				
THREE_PTY/ISS_V_16_6_b				
THREE_PTY/ISS_V_16_7				
THREE_PTY/ISS_V_16_8				
THREE_PTY/ISS_V_16_9				

Table C.17/Q.785.2 – Test campaign report – CCNR

ATS Reference	Selected [Y/N]	Run [Y/N]	Verdict [P/F/I]	Observations (Reference to any observations made in clause C.7)
CCNR-ISUP/ISS_V_17_1				
CCNR-ISUP/ISS_V_17_2				
CCNR-ISUP/ISS_V_17_3				
CCNR-ISUP/ISS_V_17_4				
CCNR-ISUP/ISS_V_17_5				
CCNR-ISUP/ISS_V_17_6				
CCNR-ISUP/ISS_V_17_7				
CCNR-ISUP/ISS_V_17_8				
CCNR-ISUP/ISS_V_17_9				
CCNR-ISUP/ISS_V_17_10				
CCNR-ISUP/ISS_V_17_11				
CCNR-ISUP/ISS_V_17_12				
CCNR-ISUP/ISS_V_17_13				
CCNR-ASE/ISS_V_17_2_1				
CCNR-ASE/ISS_V_17_2_2				
CCNR-ASE/ISS_V_17_2_3				
CCNR-ASE/ISS_V_17_2_4				
CCNR-ASE/ISS_V_17_2_5				
CCNR-ASE/ISS_V_17_2_6				
CCNR-ASE/ISS_V_17_2_7				
CCNR-ASE/ISS_V_17_2_8				
CCNR-ASE/ISS_V_17_2_9				
CCNR-ASE/ISS_V_17_2_10				
CCNR-ASE/ISS_V_17_2_11				
CCNR-ASE/ISS_V_17_2_12				
CCNR-ASE/ISS_V_17_2_13				
CCNR-ASE/ISS_V_17_2_14				
CCNR-ASE/ISS_V_17_2_15				
CCNR-ASE/ISS_V_17_2_16				
CCNR-ASE/ISS_V_17_2_17				
CCNR-ASE/ISS_V_17_2_18				
CCNR-ASE/ISS_V_17_2_19				
CCNR-ASE/ISS_V_17_2_20				
CCNR-ASE/ISS_V_17_2_21				

C.7 Observations

Additional information relevant to the technical content of the PCTR is given here.

ANNEXE D

Suite de tests abstraite pour les services complémentaires du sous-système ISUP'97

For further study.

SERIES DES RECOMMANDATIONS UIT-T

- Série A Organisation du travail de l'UIT-T
- Série B Moyens d'expression: définitions, symboles, classification
- Série C Statistiques générales des télécommunications
- Série D Principes généraux de tarification
- Série E Exploitation générale du réseau, service téléphonique, exploitation des services et facteurs humains
- Série F Services de télécommunication non téléphoniques
- Série G Systèmes et supports de transmission, systèmes et réseaux numériques
- Série H Systèmes audiovisuels et multimédias
- Série I Réseau numérique à intégration de services
- Série J Transmission des signaux radiophoniques, télévisuels et autres signaux multimédias
- Série K Protection contre les perturbations
- Série L Construction, installation et protection des câbles et autres éléments des installations extérieures
- Série M RGT et maintenance des réseaux: systèmes de transmission, de télégraphie, de télécopie, circuits téléphoniques et circuits loués internationaux
- Série N Maintenance: circuits internationaux de transmission radiophonique et télévisuelle
- Série O Spécifications des appareils de mesure
- Série P Qualité de transmission téléphonique, installations téléphoniques et réseaux locaux
- Série Q Commutation et signalisation**
- Série R Transmission télégraphique
- Série S Equipements terminaux de télégraphie
- Série T Terminaux des services télématiques
- Série U Commutation télégraphique
- Série V Communications de données sur le réseau téléphonique
- Série X Réseaux pour données et communication entre systèmes ouverts
- Série Y Infrastructure mondiale de l'information et protocole Internet
- Série Z Langages et aspects informatiques généraux des systèmes de télécommunication