

TELECOMMUNICATION STANDARDIZATION SECTOR OF ITU

Series Q Supplement 10 (12/1999)

SERIES Q: SWITCHING AND SIGNALLING

**Technical Report TRQ.2002: Information Flow Elements** 

ITU-T Q-series Recommendations - Supplement 10

(Formerly CCITT Recommendations)

## ITU-T Q-SERIES RECOMMENDATIONS

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## SUPPLEMENT 10 TO ITU-T Q-SERIES RECOMMENDATIONS

## **TECHNICAL REPORT TRQ.2002: INFORMATION FLOW ELEMENTS**

## **Summary**

This Supplement specifies the information flow elements that will be used in the development of the TRQ.2xxx series of signalling requirements. The content of the information flow elements are based on the general aspects as defined in the Supplement 7 – Technical Report TRQ.2001: General aspects for the development of unified signalling requirements.

#### **Source**

Supplement 10 to ITU-T Q-series Recommendations was prepared by ITU-T Study Group 11 (1997-2000) and was approved under the WTSC Resolution No. 5 procedure on 3 December 1999.

#### **FOREWORD**

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The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

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In this publication, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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## **Supplement 10 to Q-series Recommendations**

## **TECHNICAL REPORT TRQ.2002: INFORMATION FLOW ELEMENTS**

#### 1 Scope

The purpose of this Supplement is to provide a single reference document containing the set of information flows that are used in the signalling requirement documents contained in the Technical Report series of supplements (TRQ.21xx and TRQ.22xx and TRQ.23xx).

#### 2 Normative References

The following Technical Reports and other references contain provisions which, through reference in this text, constitute provisions of this Supplement. At the time of publication, the editions indicated were valid. All supplements and other references are subject to revision; all users of this Supplement are therefore encouraged to investigate the possibility of applying the most recent edition of the supplements and other references listed below. A list of the currently valid ITU-T Recommendations and supplements is regularly published.

- [1] ITU-T Q-series Recommendations Supplement 9 (1999), *Technical Report TRQ.2000: Roadmap for the TRQ.2xxx-series Technical Reports*.
- [2] ITU-T Q-series Recommendations Supplement 7 (1999), Technical Report TRQ.2001: General aspects for the development of unified signalling requirements.

#### 3 Definitions

This Supplement defines the following terms:

- **3.1** addressed party: The party addressed by the requested signalling capability.
- **3.2** addressed serving node: Network equipment associated with the party addressed by the requested signalling capability.
- **3.3 backward**: The direction from the addressed party to the party requesting a signalling capability.
- **3.4 network connection**: An ATM network connection of topology type 1 to 5 as defined in Table 1-4/TRQ.2001 [1].
- **3.5 call**: An end-to-end communications service between two or more call party end points, or between one call party end point and its Serving Node.
- **3.6 call owner**: One who initiates a call is the Call Owner. There is only one Call Owner per call.
- **3.7 forward**: The direction from the requesting party to the addressed party.
- **3.8 party owner**: One who adds a party to a call is the owner of that party. There may be several party Owners within a call.
- **3.9 relay node**: Network equipment, such as a transit bearer exchange, which contains a bearer control functional entity but no call control functional entity.
- **3.10** requesting party: The party requesting a signalling capability.
- **3.11 requesting serving node**: Network equipment associated with the party requesting a signalling capability.

**3.12 serving node**: Network equipment, such as a local exchange or private branch exchange, which contains call control and bearer control functional entities.

#### 4 Abbreviations

This Supplement uses the following abbreviations:

NA Not Applicable

PEP Party End Point

## 5 Information flow principles

#### 5.1 Information flows and FE actions for release one service

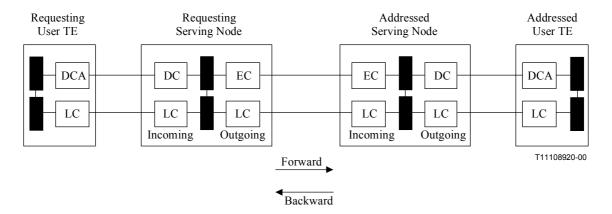
The information flows and functional entity actions are covered in Recommendation Q.71.

## 5.2 Information flow conventions for capability set three services

The drawing conventions associated with user plane and control plane reference direction, ATM switch through, symbology used to describe functional entity actions during connection establishment are contained in the following figures.

### **5.2.1** Convention of reference direction

See Figure 5-1.



**Figure 5-1 – Reference Direction Convention** 

- Requesting Serving Node is associated with the user terminal requesting a signalling capability.
- Addressed Serving Node is associated with the user terminal addressed by the requested signalling capability.
- Incoming side of a Node is the side closest to the user terminal requesting a signalling capability.
- Outgoing side of a node is the side closest to the user terminal addressed by the requested signalling capability.
- Forward direction is from the requesting user terminal to the addressed user terminal.
- Backward direction is from the addressed user terminal to the user terminal requesting a signalling capability.

#### 2 Q Series – Supplement 10 (12/1999)

The reference to the incoming side and outgoing side is independent of the direction of transport of user data. When a call establishment signalling action has been requested, then the requesting user TE becomes the originating user TE and the requesting serving node becomes the originating serving node. In the same instance, the addressed user TE becomes the terminating user and the addressed serving node becomes the terminating serving node. However, when other signalling capabilities are invoked, the above convention is more useful since these actions could be invoked by a party that did not originate the call.

## 5.2.2 Convention for ATM switch through

Figure 5-2 illustrates the switch convention to be used in the handling of ATM connections within a network node.

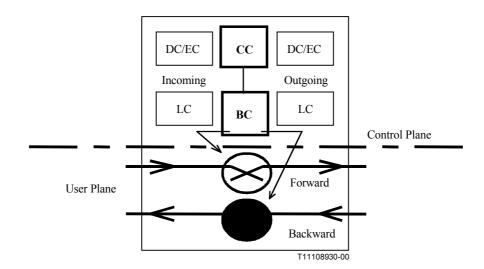


Figure 5-2 – Convention for ATM switch through

• The "BC" is responsible for bandwidth reservation, bandwidth allocation, connection switch through, connection release, and bandwidth release in the forward and backward direction.

### 5.2.3 Information flow terminology

The terminology for information flows to be used in the stage 2 representation of the signalling capability sets are covered in this subclause. The signalling information flows are based on the two "generic" information flow sequences illustrated below.

It is useful to conceive for the exchange of information between peer functional entities in terms of both one-phase and two-phase interactions. The one-phase mechanism is analogous to the two message request/response approach, while the two-phase is analogous to the CCR begin/ready/commit. Both of these mechanisms can be combined into a single one using CCR terminology as shown below.

All peer-to-peer exchanges are defined in terms of a superior/subordinate relationship according to the following definitions:

**5.2.3.1 superior**: The entity that ultimately decides on the commitment.

### **5.2.3.2 subordinate**: The peer of the superior.

The type A request (one phase mechanism) consists of the following exchange.

The requesting functional entity, acting as a subordinate, signals its peer with X.ready – where X represents the action to be performed. If the requested operation is successful, the superior functional entity shall complete the requested action and notify the subordinate functional entity that the action

has been completed with X.commit. If the action cannot be completed, the superior functional entity will notify the subordinate functional entity that the action was not completed with X.cancel. This is shown in the information flow in Figure 5-3 below:

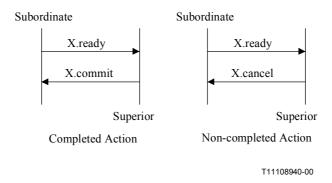


Figure 5-3 – Information flows for single-phase request mechanism

The type B request (two-phase mechanism) consists of the following exchange.

The requesting functional entity, acting as a superior, signals its peer with X.begin. If the request will be able to be completed, the subordinate functional entity shall notify the superior functional entity of this condition with X.ready and wait for further instructions from the superior functional entity before the requested action is completed. The superior may respond with either a flow that indicates that the action shall be completed (X.commit) or with a flow that indicates that the receiver shall disregard the requested action (X.cancel). If the requested operation is not successful, the subordinate functional entity shall notify the superior functional entity with X.cancel. These flows are illustrated below in Figure 5-4.

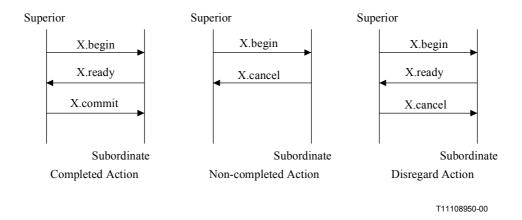


Figure 5-4 – Information flows for two-phase request mechanism

Figures 5-5 and 5-6 illustrate where the one-phase and two-phase mechanism are used.

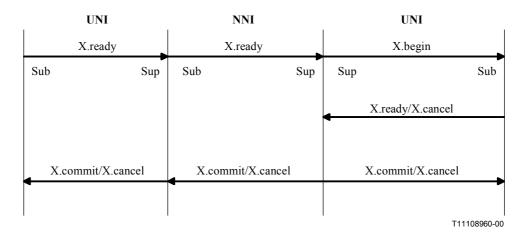


Figure 5-5 – UNI/NNI flows with one-phase request on NNI

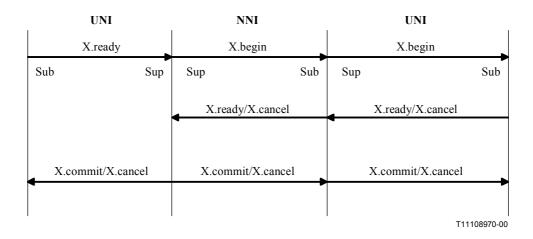
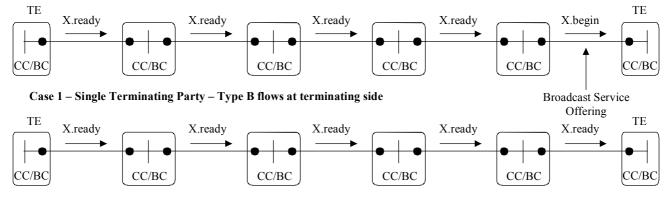
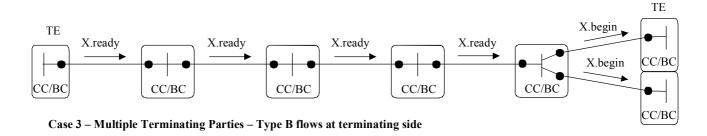


Figure 5-6 – UNI/NNI flows with two-phase request on NNI

In Figure 5-5, the one-phase mechanism is used at the calling (or requesting) users side, and both the one-phase and the two-phase mechanisms are used at the called (or confirming) users side. Either mechanism can be employed at the NNI, depending on which side should have the ultimate authority to commit. The authority is generally transferred to the called user side when there is a single mandatory party.



Case 2 – Single Terminating Party – Type A flows at terminating side



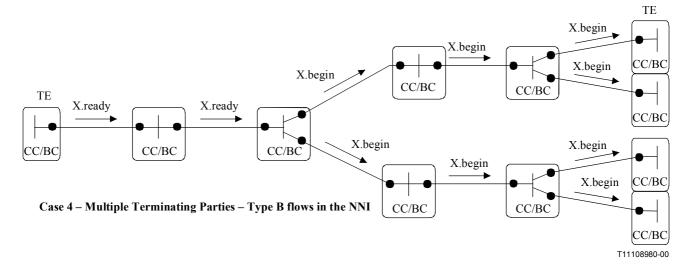


Figure 5-7 – Flows illustrating conversion of X.ready to X.begin

An unconfirmed information flow has also to be considered e.g. in order to support the notification capability items. The set of mechanisms may be executed e.g. in order to cover user-to-user negotiation of U-plane attributes.

It should be noted that for human non-interactive based services, the generic information flow sequence is terminated by either a single X.cancel, or one X.commit information flow.

## **6** Description of information flow elements

Table 6-1 contain the information flows sequences to be used in the specification of the stage 2 flows. The table associates each information flow "Action" with the signalling capabilities and the signalling plane which carries these information flow sequences.

Table 6-1 – Information flows used in stage 2 flow diagrams

Signalling Flow Sequence	begin	ready	commit	cancel	indication	Signalling Plane Association
Call-&-Bearer-Setup	✓	✓	✓	✓		Link
Call-Setup	✓	✓	✓	✓		enD/Edge
Join-Call-&-Bearer	✓	✓	✓	✓		enD/Edge
Join-Call	✓	✓	✓	✓		enD/Edge
Add-Bearer-to Call	✓	✓	✓	✓		Link
Add-Party-to-Bearer	✓	✓	✓	✓		Link
Attach-Party-to-Bearer	✓	✓	✓	✓		Link
Add-Party-to-Call	✓	✓	✓	✓		enD/Edge
Add-Party-&-Bearer-to-Call	✓	✓	✓	✓		Link
Detach-Party-from-Bearer		✓	✓	✓		Link
Release-Bearer		✓	✓	✓		Link
Release-Party-from-Call		✓	✓	✓		enD/Edge
Request-Detach-Party-from Bearer		✓	✓	✓		enD/Edge
Request-Release-Party-from-Call		✓	✓	✓		enD/Edge
Release-Call		✓	✓	✓		enD/Edge
Release-Call-&-Bearer		✓	✓	✓		enD/Edge
Renegotiate-Bearer	✓	✓	✓	✓		enD/Edge
Modify-Bearer	✓	✓	✓	✓		Link
Remote-Call-&-Bearer-Setup	✓	✓	✓	✓		enD/Edge
Remote-Add-Bearer-to-Call	✓	✓	✓	✓		enD/Edge
Remote-Add-Party-to-Bearer	✓	✓	✓	✓		enD/Edge
Remote-Attach-Party-to-Bearer	✓	✓	✓	✓		enD/Edge
Remote-Add-Party-&-Bearer-to-Call	✓	✓	✓	✓		enD/Edge
Remote-Detach-Party-from-Bearer		✓	✓	✓		enD/Edge
Remote-Release-Party-from-Call		✓	✓	✓		enD/Edge
Remote-Release-Bearer		✓	✓	✓		enD/Edge
Interrogation-Terminating-End-Point		✓	✓			enD/Edge
Look-Ahead	✓	✓		✓		enD/Edge
Report-enD/Edge					✓	enD/Edge
Report-Link					✓	Link
Notify-Call-Change					✓	enD/Edge
Notify-Call-&-Bearer-Change					✓	enD/Edge
Notify-Bearer-Change					✓	enD/Edge

The following subclauses contain the description of the information flow sequences listed in Table 6-1. In case that more than one addressed party is specified in an information flow, all parties are mandatory.

## 6.1.1 Call-&-Bearer-Set-up Information Flow Sequence

The action request (either begin or ready) information flow requests that a call and one or more network connections be established between the transmitting Functional Entity and the parties contained within the information flow.

#### 6.1.2 Call-Set-up Information Flow Sequence

The action request (either begin or ready) information flow requests that a call be established between the transmitting Functional Entity and the parties contained within the information flow.

## 6.1.3 Join-Call-&-Bearer Information Flow Sequence

The action request (either begin or ready) information flow requests that a party that is not associated with a call be added to the call and be attached as a leaf party to the bearers associated with the call. The call to be joined is designated by the LIJ Call ID.

### 6.1.4 Join-Call Information Flow Sequence

The action request (either begin or ready) information flow requests that a party that is not associated with a call be added to the call. The call to be joined is designated by the LIJ Call ID.

#### 6.1.5 Add-Bearer-to-Call Information Flow Sequence

The action request (either begin or ready) information flow requests that one or more network connections be established between the transmitting Functional Entity and the parties contained within the information flow.

### 6.1.6 Add-Party-to-Bearer Information Flow Sequence

The action request (either begin or ready) information flow requests that one or more new parties be added to the call and attached to the specified network connection(s) contained in the information flow

#### **6.1.7** Attach-Party-to-Bearer Information Flow Sequence

The action request (either begin or ready) information flow requests that one or more existing parties be attached to the specified existing network connection(s) contained in the information flow.

#### 6.1.8 Add-Party-to-Call Information Flow Sequence

The action request (either begin or ready) information flow requests that one or more parties be added to the call.

### 6.1.9 Add-Party-&-Bearer-to-Call Information Flow Sequence

The action request (either begin or ready) information flow requests that one or more parties and one or more new network connections be established between the transmitting Functional Entity and the parties contained within the information flow.

#### 6.1.10 Detach-Party-from-Bearer Information Flow Sequence

The action request (ready) information flow requests that one or more parties be detached from a specified network connection contained in the information flow.

#### 6.1.11 Release-Bearer Information Flow Sequence

The action request (ready) information flow requests that one network connection specified in the information flow should be released from the call.

## 6.1.12 Release-Party-from-Call Information Flow Sequence

The action request (ready) information flow requests that one or more parties specified in the information flow should be released from the call.

#### 6.1.13 Request-Detach-Party-from Bearer Information Flow Sequence

The action request (ready) information flow is used to request the permission of the call owner to detach the designated party from the designated bearer(s). This information flow is associated with the detach-party-from-bearer information flow issued by the owner of the party to be detached.

## 6.1.14 Request-Release-Party-from-Call Information Flow Sequence

The action request (ready) information flow is used to request the permission of the call owner to release the designated party from the call. This information flow is associated with the release-party-from-call information flow issued by the party owner of the party to be released.

## 6.1.15 Release-Call Information Flow Sequence

The action request (ready) information flow requests that the call should be released.

### 6.1.16 Release-Call-&-Bearer Information Flow Sequence

The action request (ready) information flow requests that the call and its associated bearers be released.

## 6.1.17 Renegotiate-Bearer Information Flow Sequence

The action request (either begin or ready) information flow requests that the receiver review the contents of the flow and determine if the designated network connection characteristics can be accepted.

#### **6.1.18** Modify-Bearer Information Flow Sequence

The action request (either begin or ready) information flow requests that the receiver modify the network connection to the specified new characteristics being requested.

## 6.1.19 Remote-Call-&-Bearer-Set-up Information Flow Sequence

When this action is requested by a serving node, the serving node is requesting the addressed serving node to establish one or more network connections between the parties specified within the information flow. The addressed node will be the "root" node associated with the specified network connections.

## 6.1.20 Remote-Add-Bearer-to-Call Information Flow Sequence

When this action is requested by a serving node, the serving node is requesting the addressed serving node to establish the connections between the parties specified within the information flow. The addressed node is the "root" node associated with the specified network connections.

### 6.1.21 Remote-Add-Party-to-Bearer Information Flow Sequence

When this action is requested by a serving node, the serving node is requesting the addressed serving node to add one or more new parties to the call and attach them to the specified existing network connections identified within the information flow. The addressed node is the "root" node associated with the specified network connections.

## 6.1.22 Remote-Attach-Party-to-Bearer Information Flow Sequence

When this action is requested by a serving node, the serving node is requesting the addressed serving node to attach one or more existing parties to the specified existing network connections identified within the information flow. The addressed node is the "root" node associated with the specified network connections.

## 6.1.23 Remote-Add-Party-&-Bearer-to-Call Information Flow Sequence

When this action is requested by a serving node, the serving node is requesting the addressed serving node to add two or more parties to the new network connections specified within the information flow. The addressed node will be the "root" node associated with the specified network connections.

## 6.1.24 Remote-Detach-Party-from-Bearer Information Flow Sequence

When this action is invoked by a serving node, the serving node is requesting the addressed node that it detach one or more parties from the specified network connections. The addressed node is the "root" node associated with the specified network connections.

## 6.1.25 Remote-Release-Party-from-Call Information Flow Sequence

When this action is invoked by a serving node, the serving node is requesting the addressed node that it remove one or more parties from the specified call and if these parties are associated attached to any network connections, the addressed serving node is to detach these parties from these network connections.

## 6.1.26 Remote-Release-Bearer Information Flow Sequence

When this action is requested by a serving node, the serving node is requesting that the addressed node release one or more network connections from the call. The addressed node is the "root" associated with the specified network connections.

#### 6.1.27 Interrogation-Terminating-End-Point Information Flow Sequence

This action requests the receiving entity to determine if the parties can accept the indicated operation designated by the contents of the information flow. This operation does not require any signalling state change of the parties.

#### 6.1.28 Look-Ahead Information Flow Sequence

This action requests the receiving service node to determine if the parties can accept the indicated operation designated by the contents of the information flow. The operations include either adding a bearer or establishing call & bearer, which will cause the signalling state changes of the parties.

## 6.1.29 Report-End/Edge Information Flow Sequence

This action is information regarding the call that indicates that some event has taken place. An example of the type of information that is delivered is that the transmitting entity has received a Call Setup request and this request is being processed (Report.ind.{Call Proceeding}). No response is expected by the transmitting entity.

## 6.1.30 Report-Link Information Flow Sequence

This action is information regarding the network connection that indicates that some event has taken place. Two examples of this action can be illustrated by a Report.ind {Network Connection Proceeding} information flow and a Report.ind{Alerting} information flow. No response is expected by the transmitting entity.

#### 6.1.31 Notify-Call-Change Information Flow Sequence

Whenever a Party is added or released from the call, parties associated with the call can be notified by the End/Edge node signalling node entity that initiated the change. This is done so that the local view of the call and its associated parties is kept up to date in each End/Edge signalling node. No information flow is expected in response.

## 6.1.32 Notify-Call-&-Bearer-Change Information Flow Sequence

Whenever a party and a network connection is changed, such as addition of a party with an attachment or a detachment of parties to the network connection, parties associated with the call may be notified by the End/Edge signalling node entity initiating the change. This is done so that the local view of the call and its associated parties is kept up to date in each End/Edge signalling node. No information flow is expected in response.

## 6.1.33 Notify-Bearer-Change Information Flow Sequence

Whenever a network connection is modified, such as a change in bandwidth, or configuration, parties associated with the call can be notified by the End/Edge signalling node entity initiating the change. This is done so that the local view of the call and its associated network connections in each End/Edge signalling node entity is kept up to date. No information flow is expected in response.

### 6.2 Relationship between Parameters of Information Flows and Stage 2 model

This subclause specifies parameters to be used in information flows of the stage 2 functional model. This subclause only discusses those external flows between two signalling entities of TE/service/relay nodes, such as r11, r14, r17 for edge-to-edge or end-to-end signalling control, and r21, r24, r27 for link-to-link signalling control (see Figure 6-6).

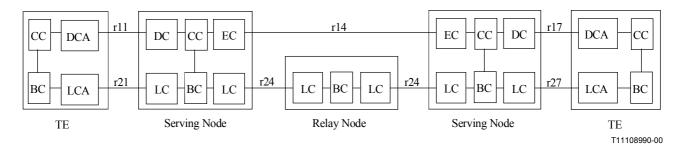


Figure 6-6 – Information relationships in broadband functional signalling model

Table 6-2 illustrates parameters to be used for either or both link and edge/end-to-end signalling control. All the parameters discussed in this subclause may not have one-to-one mapping to stage 3 protocol information elements.

Table 6-2 – Information parameters mapping to link and edge signalling associations

		INFORMATION FLOW  Function r11 r14 r17 r21 r24								
Items of Information	Function	r11	r14	r17	r21	r24	r27			
Call information										
LIJ-Call-ID	Both LC/EC	О	О	О	О	О	О			
Call Control Segment ID	Both LC/EC	M	M	M	M	M	M			
Call Owner: PEP "B" ID	Both LC/EC	О	О	О	О	О	О			
Direct Call association	Both LC/EC	_	M	_	_	M	_			
Addressed party Information	Both LC/EC	M/R	M/R	M	M/R	M/R	M			
PEP "x" ID	Both LC/EC	M	M	M	M	M	M			
Network address	Both LC/EC	О	О	О	О	О	О			
Party Owner: PEP "y" ID	Both LC/EC	О	О	О	О	О	О			
Remote party Information	Both LC/EC	O/R	O/R	O/R	O/R	O/R	O/R			
PEP "x" ID	Both LC/EC	M	M	M	M	M	M			
Network address	Both LC/EC	О	О	О	О	О	О			
Party Owner: PEP "y" ID	Both LC/EC	О	О	О	О	О	О			
Requesting party information	Both LC/EC	M	M	M	M	M	M			
PEP "x" ID	Both LC/EC	M	M	M	M	M	M			
Network address	Both LC/EC	О	О	О	О	О	О			
Party Owner: PEP "y" ID	Both LC/EC	О	О	О	О	О	О			
Event:	Both LC/EC	О	О	О	О	О	О			
Bearer information										
Network connection "x"	Both LC/EC	O/R	O/R	O/R	O/R	O/R	OR			
Bearer "1" ID	Both LC/EC	M	M	M	M	M	M			
Bearer type	Both LC/EC	О	О	О	О	О	О			
Parties connected	Both LC/EC	О	О	О	О	О	О			
PEP "x" ID	Both LC/EC	R	R	R	R	R	R			
(Termination Configuration)	Both LC/EC	О	О	О	О	О	О			
Addressed party's bearer branch information	LC	O/R	O/R	O/R	O/R	O/R	O/R			
PEP "x" ID	LC	M	M	M	M	M	M			
Transit Network Selection	LC	О	О	О	О	О	О			
Bearer branch characteristics	LC	О	О	О	О	О	О			
Addressed party's service module information	Both LC/EC	O/R	O/R	O/R	O/R	O/R	O/R			
PEP "x" ID	Both LC/EC	M	M	M	M	M	M			
Service module characteristics	Both LC/EC	О	О	О	О	О	О			
Service component list	Both LC/EC	О	О	О	О	О	О			
(Resource 1 ID)	Both LC/EC	О	О	О	О	О	О			
Resource information										
Session ID	Both LC/EC	О	О	О	О	О	О			
Resource "x"	Both LC/EC	O/R	O/R	O/R	O/R	O/R	O/R			
Resource "x" ID	Both LC/EC	M	M	M	M	M	M			
Resource type	Both LC/EC	О	О	О	О	О	О			
Parties communicating	Both LC/EC	О	О	О	О	О	О			
PEP "x" ID	Both LC/EC	R	R	R	R	R	R			

Table 6-2 – Information parameters mapping to link and edge signalling associations (concluded)

		INFO	ORMAT	TON F	LOW		
Items of Information	Function	r11	r14	r17	r21	r24	r27
Addressed party's service component information	Both LC/EC	O/R	O/R	O/R	O/R	O/R	O/R
PEP "x" ID	Both LC/EC	M	M	M	M	M	M
Service component characteristics	Both LC/EC	О	О	О	О	О	О
Requesting party's service component information	Both LC/EC	О	О	О	О	О	О
PEP "x" ID	Both LC/EC	M	M	M	M	M	M
Service component characteristics	Both LC/EC	О	О	О	О	О	О
Remote party's service component information	Both LC/EC	O/R	O/R	O/R	O/R	O/R	O/R
PEP "x" ID	Both LC/EC	M	M	M	M	M	M
Service component characteristics	Both LC/EC	О	О	О	О	О	О

LC Link-to-Link Control (LC)

Both of LC/EC Attribute used in both EC/DC and LC Information Flows

M Mandatory information

M/R Mandatory and Repeat information
O Optional information to some flows
O/R Optional and Repeat information

R Repeat information for multiple parties or connections

## 6.3 Information Flow and Stage 2 Model

This subclause shows relationship of each information flow name and the flow identifiers (r11, r14, r17, r21, r24, and r27) of stage 2 functional model in Table 6-3.

Table 6-3 – Information flow mapping to link and edge signalling associations

Name of Information Flow	DCA-DC (r11)	EC-EC (r14)	DC-DCA (r17)	LCA-LC (r21)	LC-LC (r24)	LC-LCA (r27)
CALL & BEARER SET-UP				✓	✓	✓
CALL SET-UP	✓	✓	✓			
JOIN-CALL-&-BEARER	✓	✓	✓			
JOIN-CALL	✓	✓	✓			
ADD BEARER TO CALL				✓	✓	✓
ADD PARTY TO BEARER				✓	✓	✓
ATTACH PARTY TO BEARER				✓	✓	✓
ADD PARTY TO CALL	✓	✓	✓			
ADD PARTY & BEARER TO CALL				✓	✓	✓
DETACH PARTY FROM BEARER				✓	✓	✓
RELEASE BEARER				✓	✓	✓
RELEASE PARTY-FROM CALL	✓	✓	✓			
REQUEST-DETACH-PARTY-FROM-BEARER	✓		✓			
REQUEST-RELEASE-PARTY-FROM-CALL	✓		✓			
RELEASE CALL	✓	✓	✓	✓	✓	✓
RELEASE CALL & BEARER				✓	✓	✓
RE-NEGOTIATE BEARER	✓	✓	✓			
MODIFY BEARER				✓	✓	✓
REMOTE-CALL & BEARER SET-UP		✓				
REMOTE-ADD BEARER TO CALL		✓				
REMOTE-ADD PARTY TO BEARER		✓				
REMOTE-ATTACH PARTY TO BEARER		✓				
REMOTE-ADD PARTY & BEARER TO CALL		✓				
REMOTE-DETACH PARTY FROM BEARER		✓				
REMOTE RELEASE PARTY FROM CALL		✓				
REMOTE-RELEASE BEARER		✓				
INTERROGATION-TERMINATING-END-POINT		✓	✓			
LOOK-AHEAD		✓				
REPORT END/EDGE	✓	✓	✓			
REPORT LINK				✓	✓	✓
NOTIFY-CALL-CHANGE	✓	✓	✓			
NOTIFY-CALL & BEARER-CHANGE	✓	✓	✓			
NOTIFY-BEARER-CHANGE	✓	✓	✓			

## 6.4 Information Parameters for Information Flows

In the following tables the information parameters relevant for each elemental information flow is listed.

## 6.4.1 Call-&-Bearer-Set-up - Call-Setup & Join-Call-&-Bearer

	Call-&-Bearer-Setup.begin	Call-&-Bearer-Setup.ready	Call-&-Bearer- Setup.commit	Call-&-Bearer-Setup.cancel	Call-Setup.begin	Call-Setup.ready	Call-Setup.commit	Call-Setup.cancel	Join-Call-&-Bearer.Begin	Join-Call-&-Bearer.ready	Join-Call-&-Bearer.commit	Join-Call-&-Bearer.cancel
Call information												
LIJ-Call-ID	О	О	О	О	О	О	О	О	M	M	M	M
Call Control Segment ID	M	M	M	M	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X	X		X	X	X		X	X	X	
Direct Call association	С	С	С	С	С	С	С	С	С	С	С	С
Addressed party Information	M-R	M-R	О		M-R	M-R	О		M-R	M-R	О	
PEP "x" ID	M	M	M		M	M	M		M	M	M	$\vdash$
Network address	О	О	О		О	О	О		О	О	О	
Party Owner: PEP "y" ID	О	О	О		0	О	О		О	О	О	
Remote party Information	O-R	O-R	O-R		O-R	O-R	O-R		O-R	O-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	О	О		0	О	О		O	О	О	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	О	
Requesting party information	О	О	О		О	О	О		О	О	О	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	O	О		0	О	О		O	О	O	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	О	
Event:			О				О				О	
Bearer information												
Network connection "x"	M-R	M-R	O-R		O-R	O-R	O-R					
Bearer "1" ID	M	M	M		M	M	M					
Bearer type	M	M	О		M	M	О					
Parties connected	M	M	О		M	M	О					
PEP "x" ID	M-R	M-R	M-R		M-R	M-R	M-R					
(Termination Configuration)	M	M	О		M	M	О					
Addressed party's bearer branch information	M-R	M-R	M-R									
PEP "x" ID	M	M	О									
Transit Network Selection	C	С										
Bearer branch characteristics	R-SL	R-SL	SR									
Addressed party's service module information	M-R	M-R	M-R		O-R	O-R	O-R					
PEP "x" ID	M	M	M		M	M	M					
Service module characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR					
Service component list	M	M	M		M	M	M					
(Resource 1 ID)	M	M	M		M	M	M					

	Call-&-Bearer-Setup.begin	Call-&-Bearer-Setup.ready	Call-&-Bearer- Setup.commit	Call-&-Bearer-Setup.cancel	Call-Setup.begin	Call-Setup.ready	Call-Setup.commit	Call-Setup.cancel	Join-Call-&-Bearer.Begin	Join-Call-&-Bearer.ready	Join-Call-&-Bearer.commit	Join-Call-&-Bearer.cancel
Resource information												
Session ID	О	О	O		О	О	О		О	О	O	
Resource "x"	M-R	M-R	O-R		O-R	O-R	O-R					
Resource "x" ID	M	M	M		M	M	M					
Resource type	M	M	M		M	M	M					
Parties communicating	M	M	M		M	M	M					
PEP "x" ID	M	M	M		M	M	M					
Addressed party's service component information	M-R	M-R	O-R		O-R	O-R	O-R					
PEP "x" ID	M	M	M		M	M	M					
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR					
Requesting party's service component information	O-R	O-R	O-R		O-R	O-R	O-R					
PEP "x" ID	M	M	M		M	M	M					
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		-			
Remote party's service component information	M-R	M-R	O-R		O-R	O-R	O-R					
PEP "x" ID	M	M	M		M	M	M					
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR					

"blank" Not contained

X Contained (may be optional or mandatory)C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M Mandatory
O Optional

(SL) Indicates the presence of a Selection List

## $6.4.2 \quad Join-Call-Add-Bearer-to-Call\ \&\ Add-Party-to-Bearer$

	Join-Call.begin	Join-Call.ready	Join-Call.commit	Join-Call.cancel	Add-Bearer-to-Call.begin	Add-Bearer-to-Call.ready	Add-Bearer-to-Call.commit	Add-Bearer-to-Call.cancel	Add-Party-to-bearer.begin	A dd-Party-to-bearer.ready	Add-Party-to- bearer.commit	Add-Party-to-bearer.cancel
Call information												
LIJ-Call-ID	M	M	M	M	О	О	О	О	O	О	О	О
Call Control Segment ID	M	M	M	M	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X	X		X	X	X		X	X	X	
Direct Call association	С	С	С	С	С	С	С	С	С	С	С	С
Addressed party Information	M-R	M-R	О		M-R	M-R	О		M-R	M-R	О	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	О	О		О	О	О		О	О	О	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	О	
Remote party Information	O-R	O-R	O-R		O-R	O-R	O-R		O-R	O-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	0	О	О		О	О	О		O	О	О	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	О	
Requesting party information	О	О	О		O	О	О		O	О	О	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	О	О		О	О	О		О	О	О	
Party Owner: PEP "y" ID	О	О	О		О	О	О		0	О	О	
Event:			О				О				О	
Bearer information												
Network connection "x"					M-R	M-R	O-R		M-R	M-R	O-R	
Bearer "1" ID					M	M	M		M	M	M	
Bearer type					M	M	О		M	M	О	
Parties connected					M	M	О		M	M	O	
PEP "x" ID					M-R	M-R	M-R		M-R	M-R	M-R	
(Termination Configuration)					M	M	О		M	M	О	
Addressed party's bearer branch information					M-R	M-R	M-R		M-R	M-R	M-R	
PEP "x" ID					M	M	О		M	M	О	
Transit Network Selection					C	С			С	С		
Bearer branch characteristics					R-SL	R-SL	SR		R-SL	R-SL	SR	
Addressed party's service module information					M-R	M-R	M-R		M-R	M-R	M-R	
PEP "x" ID					M	M	M		M	M	M	
Service module characteristics					R-SL	R-SL	SR		R-SL	R-SL	SR	
Service component list					M	M	M		M	M	M	
(Resource 1 ID)					M	M	M		M	M	M	
Resource information												
Session ID					O	О	О		O	О	О	
Resource "x"					M-R	M-R	O-R		M-R	M-R	O-R	
Resource "x" ID					M	M	M		M	M	M	
Resource type					M	M	M		M	M	M	

	Join-Call.begin	Join-Call.ready	Join-Call.commit	Join-Call.cancel	Add-Bearer-to-Call.begin	Add-Bearer-to-Call.ready	Add-Bearer-to-Call.commit	Add-Bearer-to-Call.cancel	Add-Party-to-bearer.begin	A dd-Party-to-bearer.ready	Add-Party-to- bearer.commit	Add-Party-to-bearer.cancel
Parties communicating					M	M	M		M	M	M	
PEP "x" ID					M	M	M		M	M	M	
Addressed party's service component information					M-R	M-R	O-R		M-R	M-R	O-R	
PEP "x" ID					M	M	M		M	M	M	
Service component characteristics					R-SL	R-SL	SR		R-SL	R-SL	SR	
Requesting party's service component information					O-R	O-R	O-R		O-R	O-R	O-R	
PEP "x" ID					M	M	M		M	M	M	
Service component characteristics					R-SL	R-SL	SR		R-SL	R-SL	SR	
Remote party's service component information					M-R	M-R	O-R		M-R	M-R	O-R	
PEP "x" ID					M	M	M		M	M	M	
Service component characteristics					R-SL	R-SL	SR		R-SL	R-SL	SR	

"blank" Not contained

X Contained (may be optional or mandatory)C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M MandatoryO Optional

(SL) Indicates the presence of a Selection List

## 6.4.3 Attach-Party-to-Bearer – Add-Party-to-Call & Add-Party-&-Bearer-to-Call

	Attach-Party-to- Bearer.begin	Attach-Party-to- Bearer.ready	Attach-Party-to- Bearer.commit	Attach-Party-to- Bearer.cancel	Add-Party-to-Call.begin	Add-Party-to-Call.ready	Add-Party-to-Call.commit	Add-Party-to-Call.cancel	Add-Party-&-Bearer-to- Call.begin	Add-Party-&-Bearer-to- Call.ready	Add-Party-&-Bearer-to- Call.commit	Add-Party-&-Bearer-to- Call.cancel
Call information												
LIJ-Call-ID	О	О	О	О	О	О	О	О	О	О	О	О
Call Control Segment ID	M	M	M	M	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X	X		X	X	X		X	X	X	
Direct Call association	C	С	C	С	С	С	С	С	С	С	С	С
Addressed party Information	M-R	M-R	О		M-R	M-R	О		M-R	M-R	О	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	О	О		О	О	О		О	О	О	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	0	
Remote party Information	O-R	O-R	O-R		O-R	O-R	O-R		O-R	O-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	О	О		О	О	О		О	О	О	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	О	
Requesting party information	О	О	О		О	О	О		О	О	О	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	0	О		О	О	О		О	O	О	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	О	
Event:			O				О				О	
Bearer information												
Network connection "x"	M-R	M-R	O-R		O-R	O-R	O-R		M-R	M-R	O-R	
Bearer "1" ID	M	M	M		M	M	M		M	M	M	
Bearer type	M	M	О		M	M	О		M	M	О	
Parties connected	M	M	О		M	M	О		M	M	О	
PEP "x" ID	M-R	M-R	M-R		M-R	M-R	M-R		M-R	M-R	M-R	
(Termination Configuration)	M	M	О		M	M	О		M	M	О	
Addressed party's bearer branch information	M-R	M-R	M-R						M-R	M-R	M-R	
PEP "x" ID	M	M	О						M	M	О	
Transit Network Selection	C	С							С	С		
Bearer branch characteristics	R-SL	R-SL	SR						R-SL	R-SL	SR	
Addressed party's service module information	M-R	M-R	M-R		O-R	O-R	O-R		M-R	M-R	M-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service module characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	igsquare
Service component list	M	M	M		M	M	M		M	M	M	
(Resource 1 ID)	M	M	M		M	M	M		M	M	M	
Resource information												
Session ID	О	О	О		О	О	О		О	О	О	
Resource "x"	M-R	M-R	O-R		O-R	O-R	O-R		M-R	M-R	O-R	
Resource "x" ID	M	M	M		M	M	M		M	M	M	
Resource type	M	M	M		M	M	M		M	M	M	

	Attach-Party-to- Bearer.begin	Attach-Party-to- Bearer.ready	Attach-Party-to- Bearer.commit	Attach-Party-to- Bearer.cancel	Add-Party-to-Call.begin	Add-Party-to-Call.ready	Add-Party-to-Call.commit	Add-Party-to-Call.cancel	Add-Party-&-Bearer-to- Call.begin	Add-Party-&-Bearer-to- Call.ready	Add-Party-&-Bearer-to- Call.commit	Add-Party-&-Bearer-to- Call.cancel
Parties communicating	M	M	M		M	M	M		M	M	M	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Addressed party's service component information	M-R	M-R	O-R		O-R	O-R	O-R		M-R	M-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Requesting party's service component information	O-R	O-R	O-R		O-R	O-R	O-R		O-R	O-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Remote party's service component information	M-R	M-R	O-R		O-R	O-R	O-R		M-R	M-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	

"blank" Not contained

X Contained (may be optional or mandatory)

C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M MandatoryO Optional

(SL) Indicates the presence of a Selection List

# 6.4.4 Detach-Party-from-Bearer – Release-Bearer – Release-Party-from Call & Request-Detach-Party-from-Bearer

	Detach-Party-form- Bearer.ready	Detach-Party-form- Bearer.commit	Detach-Party-form- Bearer.cancel	Release-Bearer.ready	Release-Bearer.commit	Release-Bearer.cancel	Release-Party-from- Call.ready	Release-Party-from- Call.commit	Release-Party-from- Call.cancel	Request-Detach-Party- from-Bearer.ready	Request-Detach-Party- from-Bearer.commit	Request-Detach-Party- from-Bearer.cancel
Call information												
LIJ-Call-ID	О	О	О	О	О	О	О	О	О	О	О	О
Call Control Segment ID	M	M	M	M	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X		X	X		X	X		X	X	
Direct Call association	С	С	С	С	С	С	С	С	С	С	С	С
Addressed party Information	M-R			M-R			M-R			M-R		
PEP "x" ID	M			M			M			M		
Network address	0			0			0			0		
Party Owner: PEP "y" ID	О			О			О			О		
Remote party Information	O-R			O-R			O-R			O-R		
PEP "x" ID	M			M			M			M		
Network address	О			О			О			О		
Party Owner: PEP "y" ID	О			О			0			О		
Requesting party information	О			О			О			О		
PEP "x" ID	M			M			M			M		
Network address	О			О			О			О		
Party Owner: PEP "y" ID	0			О			0			О		
Event:												
Bearer information												
Network connection "x"	M-R	M-R		M-R	M-R					M-R	M-R	
Bearer "1" ID	M	M		M	M					M	M	
Bearer type												
Parties connected												
PEP "x" ID												
(Termination Configuration)												
Addressed party's bearer branch information												
PEP "x" ID												
Transit Network Selection												
Bearer branch characteristics												
Addressed party's service module information												
PEP "x" ID												
Service module characteristics												
Service component list												
(Resource 1 ID)												

	Detach-Party-form- Bearer.ready	Detach-Party-form- Bearer.commit	Detach-Party-form- Bearer.cancel	Release-Bearer.ready	Release-Bearer.commit	Release-Bearer.cancel	Release-Party-from- Call.ready	Release-Party-from- Call.commit	Release-Party-from- Call.cancel	Request-Detach-Party- from-Bearer.ready	Request-Detach-Party- from-Bearer.commit	Request-Detach-Party- from-Bearer.cancel
Resource information												
Session ID												
Resource "x"												
Resource "x" ID												
Resource type												
Parties communicating												
PEP "x" ID												
Addressed party's service component information												
PEP "x" ID												
Service component characteristics												
Requesting party's service component information												
PEP "x" ID												
Service component characteristics												
Remote party's service component information												
PEP "x" ID												
Service component characteristics												

X Contained (may be optional or mandatory)C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M MandatoryO Optional

(SL) Indicates the presence of a Selection List

## 6.4.5 Request-Release-Party-from-Call – Release-Call – Release-Cal

	Request-Release-Party- from Call.ready	Request-Release-Party- from Call.commit	Request-Release-Party- from Call.cancel	Release-Call.ready	Release-Call.commit	Release-Call.cancel	Release-Call-&- Bearer.ready	Release-Call-&- Bearer.commit	Release-Call-&- Bearer.cancel	Look Ahead.begin	Look Ahead.ready	Look Ahead.Cancel
Call information												
LIJ-Call-ID	О	О	О	О	О	О	О	О	О	О	О	О
Call Control Segment ID	M	M	M	M	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X		X	X		X	X		X	X	
Direct Call association	С	С	С	С	С	С	С	С	С	С	С	С
Addressed party Information	M-R			M-R			M-R			M-R		
PEP "x" ID	M			M			M			M		
Network address	О			О			О			О		
Party Owner: PEP "y" ID	О			О			О			0		
Remote party Information	O-R			O-R			O-R			O-R		
PEP "x" ID	M			M			M			M		
Network address	О			О			О			О		
Party Owner: PEP "y" ID	О			О			О			0		
Requesting party information	О			О			О			О		
PEP "x" ID	M			M			M			M		
Network address	О			О			О			О		
Party Owner: PEP "y" ID	O			О			О			0		
Event:												
Bearer information												
Network connection "x"							M-R	M-R		O-R	O-R	
Bearer "1" ID							M	M		M	M	
Bearer type										M	M	
Parties connected										M	M	
PEP "x" ID										M-R	M-R	
(Termination Configuration)										M	M	
Addressed party's bearer branch information												
PEP "x" ID												
Transit Network Selection												
Bearer branch characteristics												
Addressed party's service module information										O-R	O-R	
PEP "x" ID										M	M	
Service module characteristics										R-SL	R-SL	
Service component list										M	M	
(Resource 1 ID)										M	M	

	Request-Release-Party- from Call.ready	Request-Release-Party- from Call.commit	Request-Release-Party- from Call.cancel	Release-Call.ready	Release-Call.commit	Release-Call.cancel	Release-Call-&- Bearer.ready	Release-Call-&- Bearer.commit	Release-Call-&- Bearer.cancel	Look Ahead.begin	Look Ahead.ready	Look Ahead.Cancel
Resource information										_	_	
Session ID										O	О	
Resource "x"										O-R	O-R	
Resource "x" ID										M	M	
Resource type										M	M	
Parties communicating										M	M	
PEP "x" ID										M	M	
Addressed party's service component information										O-R	O-R	
PEP "x" ID										M	M	
Service component characteristics										R-SL	R-SL	
Requesting party's service component information										O-R	O-R	
PEP "x" ID										M	M	
Service component characteristics										R-SL	R-SL	
Remote party's service component information										O-R	O-R	
PEP "x" ID										M	M	
Service component characteristics										R-SL	R-SL	

"blank" Not contained

X Contained (may be optional or mandatory)C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M Mandatory O Optional

(SL) Indicates the presence of a Selection List

## $6.4.6 \quad Renegotiate\text{-}Bearer-Modify\text{-}Bearer-Remote\text{-}Call\text{-}\&\text{-}Bearer\text{-}Setup$

	Renegotiate-Bearer.begin	Renegotiate-Bearer.ready	Renegotiate-Bearer.commit	Renegotiate-Bearer.cancel	Modify-Bearer.begin	Modify-Bearer.ready	Modify-Bearer.commit	Modify-Bearer.cancel	Remote-Call-&-Bearer- Setup.begin	Remote-Call-&-Bearer- Setup.ready	Remote-Call-&-Bearer- Setup.commit	Remote-Call-&-Bearer- Setup.cancel
Call information												
LIJ-Call-ID	О	О	О	О	О	О	О	О	O	О	О	О
Call Control Segment ID	M	M	M	M	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X	X		X	X	X		X	X	X	
Direct Call association	С	С	С	С	С	С	С	С	M	M	M	M
Addressed party Information	M-R	M-R			M-R	M-R			M-R	M-R	О	
PEP "x" ID	M	M			M	M			M	M	M	
Network address	О	О			О	О			О	О	О	
Party Owner: PEP "y" ID	О	О			О	О			О	О	О	
Remote party Information	O-R	O-R			O-R	O-R			O-R	O-R	O-R	
PEP "x" ID	M	M			M	M			M	M	M	
Network address	О	О			О	О			О	О	О	
Party Owner: PEP "y" ID	О	О			О	О			О	О	О	
Requesting party information	О	О			О	О			O	О	О	
PEP "x" ID	M	M			M	M			M	M	M	
Network address	О	О			О	О			О	О	О	
Party Owner: PEP "y" ID	О	0			О	0			О	О	0	
Event:											О	
Bearer information												
Network connection "x"	M-R	M-R	O-R		M-R	M-R	O-R		M-R	M-R	O-R	
Bearer "1" ID	M	M	M		M	M	M		M	M	M	
Bearer type	M	M	О		M	M	О		M	M	0	
Parties connected	M	M	О		M	M	О		M	M	О	
PEP "x" ID	M-R	M-R	M-R		M-R	M-R	M-R		M-R	M-R	M-R	
(Termination Configuration)	M	M	О		M	M	О		M	M	0	
Addressed party's bearer branch information	M-R	M-R	M-R		M-R	M-R	M-R		M-R	M-R	M-R	
PEP "x" ID	M	M	О		M	M	О		M	M	О	
Transit Network Selection	M	M			M	M			M	M		
Bearer branch characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Addressed party's service module information	M-R	M-R	M-R		M-R	M-R	M-R		M-R	M-R	M-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service module characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Service component list	M	M	M		M	M	M		M	M	M	
(Resource 1 ID)	M	M	M		M	M	M		M	M	M	
Resource information												
Session ID	О	О	О		О	О	O		О	О	О	
Resource "x"	M-R	M-R	O-R		M-R	M-R	O-R		M-R	M-R	O-R	
Resource "x" ID	M	M	M		M	M	M		M	M	M	
Resource type	M	M	M		M	M	M		M	M	M	

	Renegotiate-Bearer.begin	Renegotiate-Bearer.ready	Renegotiate-Bearer.commit	Renegotiate-Bearer.cancel	Modify-Bearer.begin	Modify-Bearer.ready	Modify-Bearer.commit	Modify-Bearer.cancel	Remote-Call-&-Bearer- Setup.begin	Remote-Call-&-Bearer- Setup.ready	Remote-Call-&-Bearer- Setup.commit	Remote-Call-&-Bearer- Setup.cancel
Parties communicating	M	M	M		M	M	M		M	M	M	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Addressed party's service component information	M-R	M-R	O-R		M-R	M-R	O-R		M-R	M-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Requesting party's service component information	O-R	O-R	O-R		O-R	O-R	O-R		O-R	O-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Remote party's service component information	M-R	M-R	O-R		M-R	M-R	O-R		M-R	M-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	

"blank" Not contained

X Contained (may be optional or mandatory)

C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M MandatoryO Optional

(SL) Indicates the presence of a Selection List

# 6.4.7 Remote-Add-Bearer-to-Call – Remote-Add-Party-to-Bearer – Remote-Attach-Party-to-Bearer

		<u> </u>	ı	1 1		1	1	1 1		1	I	
	Remote-Add-Bearer-to- Call.begin	Remote-Add-Bearer-to- Call.ready	Remote-Add-Bearer-to- Call.commit	Remote-Add-Bearer-to- Call.cancel	Remote-Add-Party-to- Bearer.begin	Remote-Add-Party-to- Bearer.ready	Remote-Add-Party-to- Bearer.commit	Remote-Add-Party-to- Bearer.cancel	Remote-Attach-Party-to- Bearer.begin	Remote-Attach-Party-to- Bearer.ready	Remote-Attach-Party-to- Bearer.commit	Remote-Attach-Party-to- Bearer.cancel
Call information												
LIJ-Call-ID	О	О	О	О	О	О	О	О	О	О	О	О
Call Control Segment ID	M	M	M	M	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X	X		X	X	X		X	X	X	
Direct Call association	M	M	M	M	M	M	M	M	M	M	M	M
Addressed party Information	M-R	M-R	О		M-R	M-R	О		M-R	M-R	О	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	0	О		О	О	0		О	О	0	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	О	
Remote party Information	O-R	O-R	O-R		O-R	O-R	O-R		O-R	O-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	О	О		О	О	О		O	О	О	
Party Owner: PEP "y" ID	О	О	О		О	О	О		О	О	O	
Requesting party information	О	О	О		0	О	О		0	О	О	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Network address	О	О	О		О	О	О		О	О	О	
Party Owner: PEP "y" ID	О	О	О		0	О	О		О	О	О	
Event:			О				О				О	
Bearer information												
Network connection "x"	M-R	M-R	O-R		O-R	O-R	O-R		M-R	M-R	O-R	
Bearer "1" ID	M	M	M		M	M	M		M	M	M	
Bearer type	M	M	О		M	M	О		M	M	О	
Parties connected	M	M	О		M	M	О		M	M	О	
PEP "x" ID	M-R	M-R	M-R		M-R	M-R	M-R		M-R	M-R	M-R	
(Termination Configuration)	M	M	О		M	M	О		M	M	О	
Addressed party's bearer branch information	M-R	M-R	M-R						M-R	M-R	M-R	
PEP "x" ID	M	M	О						M	M	О	
Transit Network Selection	M	M	~-						M	M	~-	
Bearer branch characteristics	R-SL	R-SL	SR						R-SL	R-SL	SR	
Addressed party's service module information	M-R	M-R	M-R		O-R	O-R	O-R		M-R	M-R	M-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service module characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Service component list	M	M	M		M	M	M		M	M	M	
(Resource 1 ID)	M	M	M		M	M	M		M	M	M	

	Remote-Add-Bearer-to- Call.begin	Remote-Add-Bearer-to- Call.ready	Remote-Add-Bearer-to- Call.commit	Remote-Add-Bearer-to- Call.cancel	Remote-Add-Party-to- Bearer.begin	Remote-Add-Party-to- Bearer.ready	Remote-Add-Party-to- Bearer.commit	Remote-Add-Party-to- Bearer.cancel	Remote-Attach-Party-to- Bearer.begin	Remote-Attach-Party-to- Bearer.ready	Remote-Attach-Party-to- Bearer.commit	Remote-Attach-Party-to- Bearer.cancel
Resource information												
Session ID	О	О	О		О	О	О		О	О	О	
Resource "x"	M-R	M-R	O-R		O-R	O-R	O-R		M-R	M-R	O-R	
Resource "x" ID	M	M	M		M	M	M		M	M	M	
Resource type	M	M	M		M	M	M		M	M	M	
Parties communicating	M	M	M		M	M	M		M	M	M	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Addressed party's service component information	M-R	M-R	O-R		O-R	O-R	O-R		M-R	M-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Requesting party's service component information	O-R	O-R	O-R		O-R	O-R	O-R		O-R	O-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	
Remote party's service component information	M-R	M-R	O-R		O-R	O-R	O-R		M-R	M-R	O-R	
PEP "x" ID	M	M	M		M	M	M		M	M	M	
Service component characteristics	R-SL	R-SL	SR		R-SL	R-SL	SR		R-SL	R-SL	SR	

"blank Not contained

X Contained (may be optional or mandatory)

C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M MandatoryO Optional

(SL) Indicates the presence of a Selection List

# 6.4.8 Remote-Add-Party-&-Bearer-to-Call, Remote-Detach-Party-from Bearer, Remote-Release-Party-from-Call, & Interrogation-Terminating-End-Point

	Remote-Add-Party-&-Bearer- to-Call.begin	Remote-Add-Party-&-Bearer- to-Call.ready	Remote-Add-Party-&-Bearer- to-Call.commit	Remote-Add-Party-&-Bearer- to-Call.cancel	Remote-Detach-Party-from- Bearer.ready	Remote-Detach-Party-from- Bearer.commit	Remote-Detach-Party-from- Bearer.cancel	Remote-Release-Party-from- Call.ready	Remote-Release-Party-from- Call.commit	Remote-Release-Party-from- Call.cancel	Interrogation-Terminating- End-Point.ready	Interrogation-Terminating- End-Point.commit
Call information												
LIJ-Call-ID	О	О	О	О	О	О	О	О	О	О		
Call Control Segment ID	M	M	M	M	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X	X		X	X		X	X		X	
Direct Call association	M	M	M	M	M	M	M	M	M	M	M	M
Addressed party Information	M-R	M-R	О		M-R	О		M-R	О		M-R	
PEP "x" ID	M	M	M		M	M		M	M		M	
Network address	0	0	0		0	0		0	0		0	
Party Owner: PEP "y" ID	О	О	О		О	О		О	О		О	
Remote party Information	O-R	O-R	O-R		O-R	O-R		O-R	O-R		O-R	
PEP "x" ID	M	M	M		M	M		M	M		M	
Network address	О	О	О		О	О		О	О		О	
Party Owner: PEP "y" ID	О	О	О		О	О		О	О		О	
Requesting party information	О	О	О		О	О		О	О		О	
PEP "x" ID	M	M	M		M	M		M	M		M	
Network address	О	О	О		О	О		О	О		О	
Party Owner: PEP "y" ID	О	О	О		О	О		О	О		О	
Event:			О			О			О			
Bearer information												
Network connection "x"	M-R	M-R	O-R		M-R	M-R						
Bearer "1" ID	M	M	M		M	M						
Bearer type	M	M	О									
Parties connected	M	M	О									
PEP "x" ID	M-R	M-R	M-R									
(Termination Configuration)	M	M	О									
Addressed party's bearer branch information	M-R	M-R	M-R									
PEP "x" ID	M	M	О									
Transit Network Selection	M	M										
Bearer branch characteristics	R-SL	R-SL	SR									
Addressed party's service module information	M-R	M-R	M-R									
PEP "x" ID	M	M	M									
Service module characteristics	R-SL	R-SL	SR									
Service component list	M	M	M									
(Resource 1 ID)	M	M	M									

	Remote-Add-Party-&-Bearer- to-Call.begin	Remote-Add-Party-&-Bearer- to-Call.ready	Remote-Add-Party-&-Bearer- to-Call.commit	Remote-Add-Party-&-Bearer- to-Call.cancel	Remote-Detach-Party-from- Bearer.ready	Remote-Detach-Party-from- Bearer.commit	Remote-Detach-Party-from- Bearer.cancel	Remote-Release-Party-from- Call.ready	Remote-Release-Party-from- Call.commit	Remote-Release-Party-from- Call.cancel	Interrogation-Terminating- End-Point.ready	Interrogation-Terminating- End-Point.commit
Resource information												
Session ID	О	О	О									
Resource "x"	M-R	M-R	O-R									
Resource "x" ID	M	M	M									
Resource type	M	M	M									
Parties communicating	M	M	M									
PEP "x" ID	M	M	M									
Addressed party's service component information	M-R	M-R	O-R									
PEP "x" ID	M	M	M									
Service component characteristics	R-SL	R-SL	SR									
Requesting party's service component information	O-R	O-R	O-R									
PEP "x" ID	M	M	M									
Service component characteristics	R-SL	R-SL	SR									
Remote party's service component information	M-R	M-R	O-R									
PEP "x" ID	M	M	M									
Service component characteristics	R-SL	R-SL	SR									

"blank" Not contained

X Contained (may be optional or mandatory)

C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M MandatoryO Optional

(SL) Indicates the presence of a Selection List

# 6.4.9 Remote-Release-Bearer, Report-enD/Edge, Report-Link, Notify-Call-Change, Notify-Call-&-Bearer-Change, & Notify-Bearer-Change

	Remote-Release- Bearer.ready	Remote-Release- Bearer.commit	Remote-Release- Bearer.cancel	Report- enD/Edge.indication	Report-Link.indication	Notify-Call- Change.indication	Notify-Call-&-Bearer- Change.indication	Notify-Bearer- Change.indication
Call information								
LIJ-Call-ID	О	О	О	О	O	О	О	О
Call Control Segment ID	M	M	M	M	M	M	M	M
Call Owner: PEP "B" ID	X	X	X		X	X	X	
Direct Call association	M	M	М	M	M	M	M	M
Addressed party Information	M-R	О		M-R	M-R	M-R	M-R	M-R
PEP "x" ID	M	M		M	M	M	M	M
Network address	0	О		О	О	О	О	О
Party Owner: PEP "y" ID	О	О		О	О	О	О	О
Remote party Information	O-R	O-R		O-R	O-R	O-R	O-R	O-R
PEP "x" ID	M	M		M	M	M	M	M
Network address	0	О		О	О	О	О	О
Party Owner: PEP "y" ID	О	О		О	О	О	О	О
Requesting party information	0	О		О	О	О	О	О
PEP "x" ID	M	M		M	M	M	M	M
Network address	0	О		О	О	О	О	О
Party Owner: PEP "y" ID	О	О		О	О	О	О	О
Event:		О		M	M	M	M	M
Bearer information								
Network connection "x"	M-R	M-R					M-R	M-R
Bearer "1" ID	M	M					M	M
Bearer type							О	О
Parties connected							О	О
PEP "x" ID							M-R	M-R
(Termination Configuration)							О	О
Addressed party's bearer branch information							M-R	M-R
PEP "x" ID							О	О
Transit Network Selection								
Bearer branch characteristics							SR	SR
Addressed party's service module information							M-R	M-R
PEP "x" ID							M	M
Service module characteristics							SR	SR
Service component list							M	M
(Resource 1 ID)							M	M

	Remote-Release- Bearer.ready	Remote-Release- Bearer.commit	Remote-Release- Bearer.cancel	Report- enD/Edge.indication	Report-Link.indication	Notify-Call- Change.indication	Notify-Call-&-Bearer- Change.indication	Notify-Bearer- Change.indication
Resource information								
Session ID							О	O
Resource "x"							O-R	O-R
Resource "x" ID							M	M
Resource type							M	M
Parties communicating							M	M
PEP "x" ID							M	M
Addressed party's service component information							O-R	O-R
PEP "x" ID							M	M
Service component characteristics							SR	SR
Requesting party's service component information							O-R	O-R
PEP "x" ID							M	M
Service component characteristics							SR	SR
Remote party's service component information							O-R	O-R
PEP "x" ID							M	M
Service component characteristics							SR	SR

"blank" Not contained

X Contained (may be optional or mandatory)

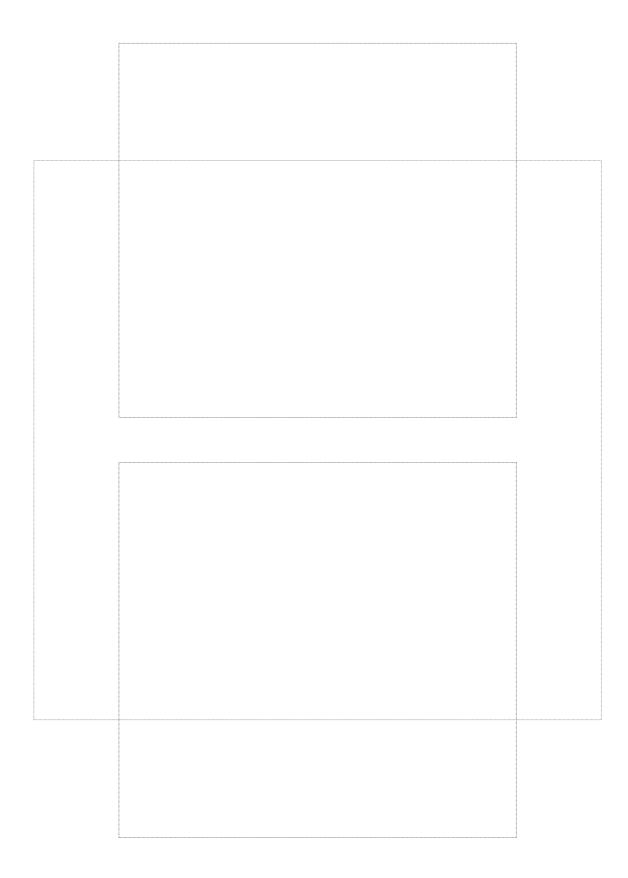
C Conditional on signalling reference point

R Contained, may be repeated, (may be optional or mandatory)

M Mandatory

O Optional

(SL) Indicates the presence of a Selection List



## ITU-T RECOMMENDATIONS SERIES Series A Organization of the work of the ITU-T Series B Means of expression: definitions, symbols, classification Series C General telecommunication statistics Series D General tariff principles Series E Overall network operation, telephone service, service operation and human factors Series F Non-telephone telecommunication services Series G Transmission systems and media, digital systems and networks Series H Audiovisual and multimedia systems Series I Integrated services digital network Series J Transmission of television, sound programme and other multimedia signals Series K Protection against interference Series L Construction, installation and protection of cables and other elements of outside plant TMN and network maintenance: international transmission systems, telephone circuits, Series M telegraphy, facsimile and leased circuits Series N Maintenance: international sound programme and television transmission circuits Series O Specifications of measuring equipment Series P Telephone transmission quality, telephone installations, local line networks Series O Switching and signalling Series R Telegraph transmission Series S Telegraph services terminal equipment Series T Terminals for telematic services Series U Telegraph switching Series V Data communication over the telephone network Series X Data networks and open system communications Series Y Global information infrastructure and Internet protocol aspects Series Z Languages and general software aspects for telecommunication systems