INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

I.251.9

(07/96)

SERIES I: INTEGRATED SERVICES DIGITAL NETWORK

Service capabilities – Supplementary services in ISDN

Number identification supplementary services: Calling name identification presentation

ITU-T Recommendation I.251.9

(Previously CCITT Recommendation)

ITU-T I-SERIES RECOMMENDATIONS

INTEGRATED SERVICES DIGITAL NETWORK

GENERAL STRUCTURE	I.100–I.199
Terminology	I.110–I.119
Description of ISDNs	I.120–I.129
General modelling methods	I.130–I.139
Telecommunication network and service attributes	I.140–I.149
General description of asynchronous transfer mode	I.150–I.199
SERVICE CAPABILITIES	I.200–I.299
Scope	I.200–I.209
General aspects of services in ISDN	I.210–I.219
Common aspects of services in the ISDN	I.220–I.229
Bearer services supported by an ISDN	I.230–I.239
Teleservices supported by an ISDN	I.240–I.249
Supplementary services in ISDN	**I.250–I.299**
OVERALL NETWORK ASPECTS AND FUNCTIONS	I.300–I.399
Network functional principles	I.310–I.319
Reference models	I.320–I.329
Numbering, addressing and routing	I.330–I.339
Connection types	I.340–I.349
Performance objectives	I.350–I.359
Protocol layer requirements	I.360–I.369
General network requirements and functions	I.370–I.399
ISDN USER-NETWORK INTERFACES	I.400–I.499
Application of I-series Recommendations to ISDN user-network interfaces	I.420–I.429
Layer 1 Recommendations	I.430–I.439
Layer 2 Recommendations	I.440–I.449
Layer 3 Recommendations	I.450–I.459
Multiplexing, rate adaption and support of existing interfaces	I.460–I.469
Aspects of ISDN affecting terminal requirements	I.470–I.499
INTERNETWORK INTERFACES	I.500–I.599
MAINTENANCE PRINCIPLES	I.600–I.699
B-ISDN EQUIPMENT ASPECTS	I.700–I.799
ATM equipment	I.730–I.749
Management of ATM equipment	I.750–I.799

For further details, please refer to ITU-T List of Recommendations.

ITU-T RECOMMENDATION I.251.9

NUMBER IDENTIFICATION SUPPLEMENTARY SERVICES: CALLING NAME IDENTIFICATION PRESENTATION

Source

ITU-T Recommendation I.251.9 was prepared by ITU-T Study Group 1 (1993-1996) and was approved under the WTSC Resolution N°1 procedure on the 19th of July 1996.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. Some 179 member countries, 84 telecom operating entities, 145 scientific and industrial organizations and 38 international organizations participate in ITU-T which is the body which sets world telecommunications standards (Recommendations).

The approval of Recommendations by the Members of ITU-T is covered by the procedure laid down in WTSC Resolution No. 1 (Helsinki, 1993). In addition, the World Telecommunication Standardization Conference (WTSC), which meets every four years, approves Recommendations submitted to it and establishes the study programme for the following period.

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.

NOTE

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

© ITU 1996

All rights reserved. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the ITU.

CONTENTS

		Page
1	Definition	1
2	Description	1
2.1	General description	1
2.2	Specific terminology	1
3	Procedures	2
3.1	Provision/withdrawal	2
3.2	Normal procedures	2
	3.2.1 Activation/deactivation/registration	2
	3.2.2 Invocation and operation	2
3.3	Exceptional procedures	2
4	Network capabilities for charging	3
5	lnterworking considerations	3
5.1	lnterworking with non-ISDNs	3
5.2	lnterworking with private ISDNs	3
6	Interactions with other supplementary services	3
6.1	Advice of charge services	3
	6.1.1 Charging information at call set-up time (AOC-S)	3
	6.1.2 Charging information during the call (AOC-D)	3
	6.1.3 Charging information at the end of the call (AOC-E)	3
6.2	Call hold (HOLD)	4
6.3	Call transfer services	4
	6.3.1 Explicit Call Transfer (ECT)	4
	6.3.2 Normal Call Transfer (NCT)	4
6.4	Call Waiting (CW)	4
6.5	Closed User Group (CUG)	4
6.6	Completion of calls services	4
	6.6.1 Completion of Calls on No Reply (CCNR)	4
	6.6.2 Completion of Calls to Busy Subscriber (CCBS)	4
6.7	Conference services	4
	6.7.1 Conference calling (CONF)	5
	6.7.2 Meet-Me Conference (MMC)	5
	6.7.3 Preset Conference Calling (PCC)	5
	6.7.4 Three-Party Service (3PTY)	5
6.8	Diversion services	5
	6.8.1 Call Deflection (CD)	5

Page

6.8.2 Call Forwarding Busy (CFB) 5
6.8.3 Call Forwarding No Reply (CFNR) 5
6.8.4 Call Forwarding Unconditional (CFU) 5
6.8.5 Selective Call Forwarding (SCF) 5
6.9 Direct-Dialling-In (DDI) 5
6.10 Incall Modification (IM) 6
6.11 ISDN Freephone Service (IFS) 6
6.12 Line Hunting (LH) 6
6.13 Malicious Call Identification (MCID) 6
6.14 Multi-Level Precedence and Preemption (MLPP) 6
6.15 Multiple Subscriber Number (MSN) 6
6.16 Name identification services 6
6.16.1 Calling Name Identification Presentation (CNIP) 6
6.16.2 Calling Name Identification Restriction (CNIR) 6
6.17 Number identification services 6
6.17.1 Calling Line Identification Presentation (CLIP) 6
6.17.2 Calling Line Identification Restriction (CLIR) 6
6.17.3 Connected Line Identification Presentation (COLP) 7
6.17.4 Connected Line Identification Restriction (COLR) 7
6.18 Outgoing Call Barring (OCB) 7
6.19 Reverse charging (REV) 7
6.20 Sub-addressing (SUB) 7
6.21 Support of Private Numbering Plan (SPNP) 7
6.22 Terminal Portability (TP) 7
6.23 User-to-User Signalling (UUS) 7
7 SDL description 7

Recommendation I.251. 9

NUMBER IDENTIFICATION SUPPLEMENTARY SERVICES: CALLING NAME IDENTIFICATION PRESENTATION

(Geneva, 1996)

1 Definition

calling name identification presentation (CNIP) is a supplementary service offered to the called party which provides name information associated with the calling party to the called party.

2 Description

2.1 General description

Calling name identification presentation service provides name information (the calling party name or an indication of privacy or unavailability) to the called party.

The storage and delivery of the calling party name are network functions. The calling party takes no action to activate, initiate, or in any manner provide calling name identification presentation. The called party, when subscribed to calling name identification presentation, automatically receives the name information when the presentation service is active. Delivery of a calling name may be affected by a subscriber of the calling name identification restriction service (for example, a subscriber of calling name identification restriction who invokes "privacy" when initiating a call would cause an indication of "private" to be delivered to a calling name identification presentation subscriber).

2.2 Specific terminology

For the purposes of this Recommendation, the following definitions apply.

2.2.1 calling name: Information associated with a specific calling party number. The maximum length is at least 15 characters and may be up to 50 characters. The exact length, format and character set (e.g. T.51, T.52) of the calling name to be delivered is a service provider option.

2.2.2 calling name identification user: This is the party who subscribes to the calling name identification presentation service and is the called party and has calling name identification presentation activated.

2.2.3 name information: The calling name, if available, or an indication of privacy or an indication of unavailability. In addition to the name, the character set used shall be identified to enable the correct presentation of special characters, etc. to the user.

2.2.4 network: In this description, network refers to all the ISDN telecommunications equipment that has any part in processing a call or a supplementary service for the user referred to. It does not include the ISDN terminal.

2.2.5 service provider: This is a company, organization, administration, business, etc. that sells, administers, charges for, etc. the service. The service provider may or may not be the provider of the network.

3 Procedures

3.1 Provision/withdrawal

The calling name identification presentation service can be provided on a subscription basis, or as a service provider option, can be provided to some or all users without subscription. The calling name identification presentation service can be withdrawn for administrative reasons or at the request of the subscriber.

As a service provider option, the calling name identification presentation service can be offered with several subscription options. The options apply separately to each ISDN number, per ISDN number and bearer service, or per interface as listed in Table 1. The service provider may not differentiate between 3.1 kHz audio and speech bearer capabilities for the purpose of assigning subscription options. If the calling name identification presentation service is provided to all users without subscription, the service provider shall assign subscription values.

TABLE 1/I.251.9

Subscription options for the calling name identification presentation service (per ISDN number, per ISDN number and bearer service, or per interface)

Subscription options	Values
Calling name identification presentation	Yes Yes and able to activate/deactivate No

3.2 Normal procedures

3.2.1 Activation/deactivation/registration

The activation and deactivation of calling name identification presentation can be done in two ways based on a subscription option:

1) If the user intends that‘ name information be delivered for all calls, then the service is always active when provisioned and remains active until the service provider withdraws the service.

2) If the user requires the capability to activate and deactivate calling name identification presentation, then the service is active when the user indicates activation to the network and deactivated when the user indicates deactivation to the network.

3.2.2 Invocation and operation

If the served user is subscribed to the calling name identification presentation service, the called party will receive name information at the same time as receiving a call establishment request.

3.3 Exceptional procedures

The calling name identification presentation user will be sent an indication that name information is unavailable if the network does not have name information for a specific caller.

There are two cases where the calling name is not presented to the served user:

1) If the network has been unable to determine the appropriate name information to deliver to the called party (e.g. due to interworking with a non-ISDN network), then name information with an indication of unavailability shall be delivered.

2) When the calling party has an arrangement (see definition of calling name identification restriction) whereby presentation of calling name is not allowed, in which case an indication of privacy shall be delivered.

The calling name identification presentation user may be sent name information that is unrecognizable since the network does not check for validity of transmitted name information.

4 Network capabilities for charging

This Recommendation does not cover charging principles. Future Recommendations in the D-series are expected to contain that information. It shall be possible for the service provider to charge the subscriber accurately for this service.

5 lnterworking considerations

In the case where the calling and called users' networks use different character sets there may be a possibility to perform translation. This function is outside the scope of this Recommendation.

5.1 lnterworking with non-ISDNs

When the served user's network supports a smaller maximum calling name length than that of the calling user, and the length of the calling name supplied exceeds this maximum, then the name shall be truncated and characters in excess of this maximum shall not be presented.

5.2 lnterworking with private ISDNs

Calls originating in private ISDNs may include the calling name identification. If this information is missing, then the private network calling line identification is used to determine the associated calling name.

6 Interactions with other supplementary services

6.1 Advice of charge services

6.1.1 Charging information at call set-up time (AOC-S)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.1.2 Charging information during the call (AOC-D)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.1.3 Charging information at the end of the call (AOC-E)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.2 Call hold (HOLD)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.3 Call transfer services

Each call in the context of call transfer is treated separately for calling name identification presentation. Each called party would receive the calling party's name information during the alerting phase of each call.

6.3.1 Explicit Call Transfer (ECT)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.3.2 Normal Call Transfer (NCT)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.4 Call Waiting (CW)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

Therefore, when an end user, who subscribes to calling name identification presentation has call waiting service active, the name information should be delivered when the call is offered to the end user.

6.5 Closed User Group (CUG)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.6 Completion of calls services

6.6.1 Completion of Calls on No Reply (CCNR)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

NOTE - If user A accepts a CCNR recall, the resulting call is a normal call and destination B may receive calling name identification presentation.

6.6.2 Completion of Calls to Busy Subscriber (CCBS)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

NOTE - If user A accepts a CCBS recall, the resulting call is a normal call and destination B may receive calling name identification presentation.

6.7 Conference services

A user that has subscribed to calling name identification presentation should receive the calling party name information of a conference controller when:

a) the user is to be included as a "new party" during the invocation of a conference call; or

b) the user is being added to an existing conference call.

6.7.1 Conference calling (CONF)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.7.2 Meet-Me Conference (MMC)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.7.3 Preset Conference Calling (PCC)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.7.4 Three-Party Service (3PTY)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.8 Diversion services

When the call has undergone call forwarding, a called party may receive the names of the calling party, original called party, and last diverting party, depending on the availability of each name. That is, names of the various parties in a call are presented to a called party according to the same rules as apply to the number of calling party, original calling party, and last diverting party.

6.8.1 Call Deflection (CD)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.8.2 Call Forwarding Busy (CFB)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.8.3 Call Forwarding No Reply (CFNR)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.8.4 Call Forwarding Unconditional (CFU)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.8.5 Selective Call Forwarding (SCF)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.9 Direct-Dialling-In (DDI)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.10 Incall Modification (IM)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.11 ISDN Freephone Service (IFS)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.12 Line Hunting (LH)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.13 Malicious Call Identification (MCID)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.14 Multi-Level Precedence and Preemption (MLPP)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.15 Multiple Subscriber Number (MSN)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.16 Name identification services

6.16.1 Calling Name Identification Presentation (CNIP)

Not applicable.

6.16.2 Calling Name Identification Restriction (CNIR)

If the calling user has successfully invoked calling name identification restriction, then the calling name identification shall not be presented.

6.17 Number identification services

6.17.1 Calling Line Identification Presentation (CLIP)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service. A user may subscribe to both services and receive both the calling line identity and the calling name.

6.17.2 Calling Line Identification Restriction (CLIR)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.17.3 Connected Line Identification Presentation (COLP)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.17.4 Connected Line Identification Restriction (COLR)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.18 Outgoing Call Barring (OCB)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.19 Reverse charging (REV)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.20 Sub-addressing (SUB)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.21 Support of Private Numbering Plan (SPNP)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.22 Terminal Portability (TP)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.23 User-to-User Signalling (UUS)

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

7 SDL description

See Figure 1.

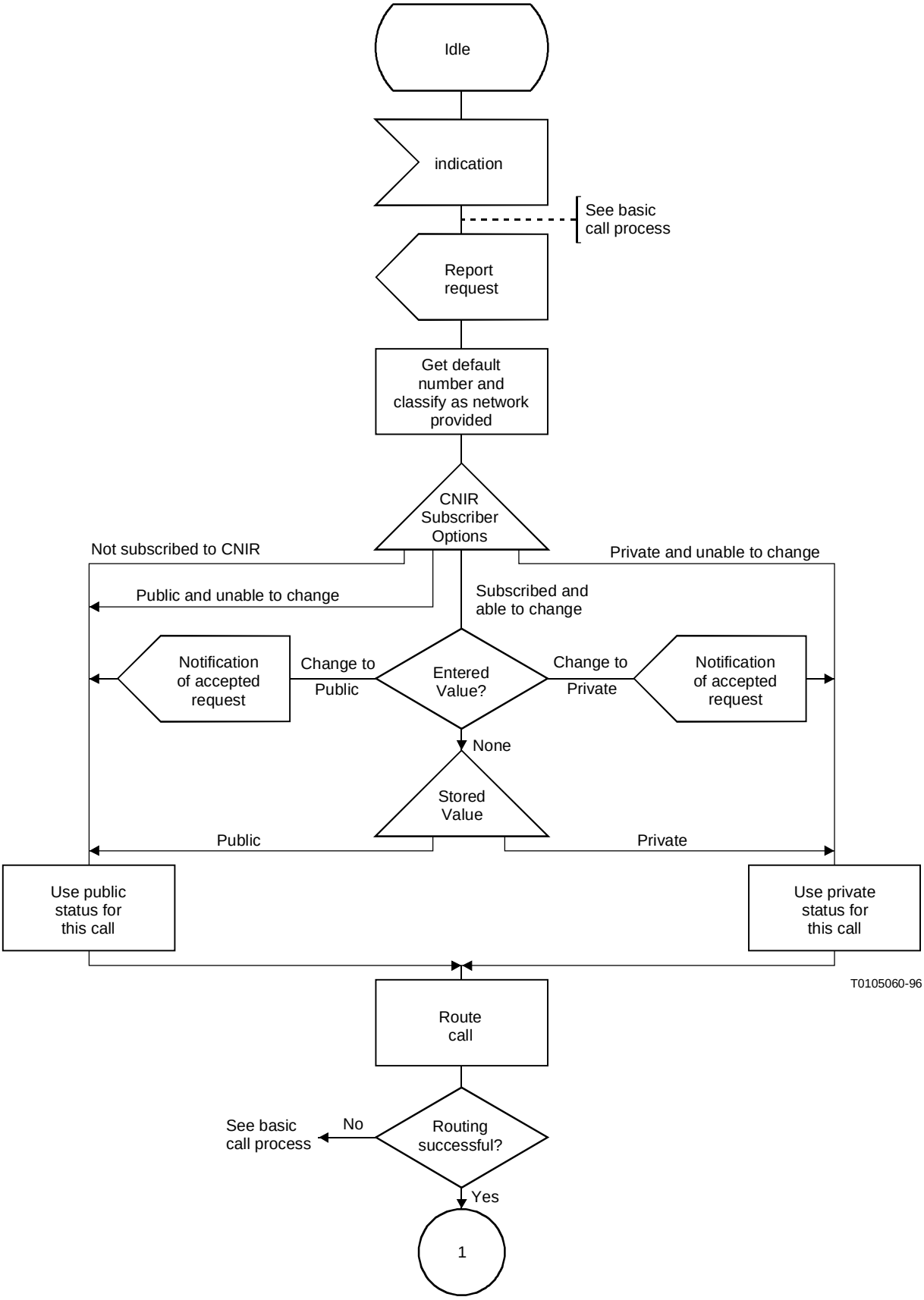

FIGURE 1/I.251.9 (sheet 1 of 2)

Overall SDL diagram for calling name identification presentation/restriction

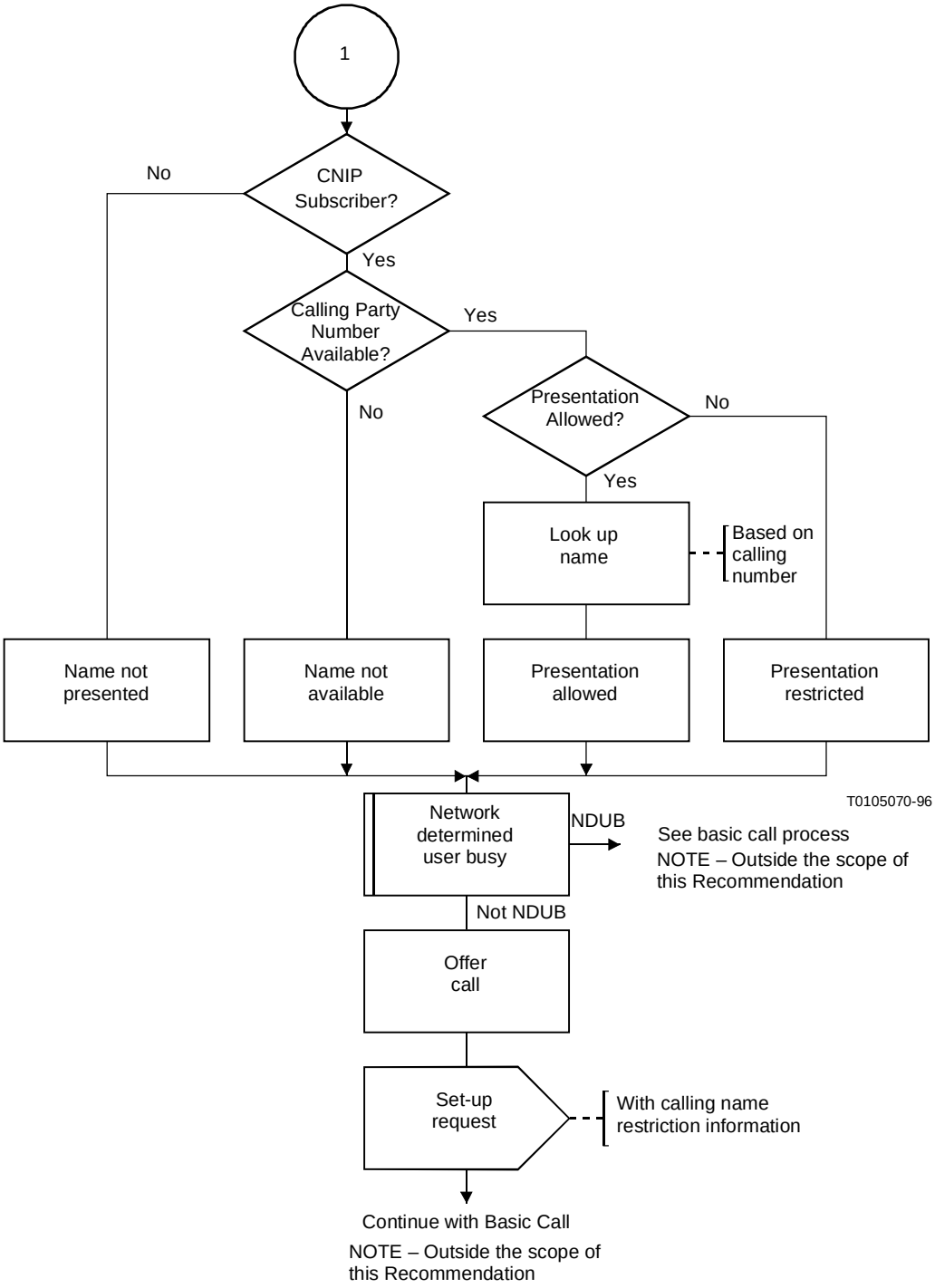

FIGURE 1/I.251.9 (sheet 2 of 2)

Overall SDL diagram for calling name identification presentation/restriction

ITU-T RECOMMENDATIONS SERIES

Series A	Organization of the work of the ITU-T
Series B	Means of expression
Series C	General telecommunication statistics
Series D	General tariff principles
Series E	Telephone network and ISDN
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media
Series H	Transmission of non-telephone signals
Series I	**Integrated services digital network**
Series J	Transmission of sound-programme and television signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	Maintenance: international transmission systems, telephone circuits, 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
Series Q	Switching and signalling
Series R	Telegraph transmission
Series S	Telegraph services terminal equipment
Series T	Terminal equipment and protocols for telematic services
Series U	Telegraph switching
Series V	Data communication over the telephone network
Series X	Data networks and open system communication
Series Z	Programming languages