INTERNATIONAL TELECOMMUNICATION UNION

CCITT I.251.1 (rev.1)

THE INTERNATIONAL
TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE

INTEGRATED SERVICES DIGITAL NETWORK (ISDN)

GENERAL STRUCTURE AND SERVICE CAPABILITIES

DIRECT-DIALLING-IN

Recommendation I.251.1 (rev.1)

Geneva, 1992

FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation I.251.1 was prepared by Study Group I and was approved under the Resolution No. 2 procedure on the 4th of August 1992.

CCITT NOTE

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

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Recommendation I.251.1

DIRECT-DIALLING-IN

(revised 1992)

1 Definition

Direct-Dialling-In enables a user to directly call another user on an integrated services private branch exchange or other private system without attendant intervention.

2 Description

2.1 *General description*

This supplementary service shall be based on the use of the ISDN number. At least the significant part of the ISDN number shall be passed to the private ISDN, in order to progress the call to the destination. Direct-Dialling-In (DDI) shall apply to public ISDNs having either a closed or an open numbering plan.

2.2 *Specific terminology*

None.

2.3 *Qualifications on the applicability to telecommunication services*

No restriction to either circuit or packet mode.

3 Procedures

3.1 *Provision/withdrawal*

This service shall be provided/withdrawn after pre-arrangement with the service provider. The service provider shall allocate a set of ISDN numbers.

3.2 *Normal procedures*

3.2.1 *Activation/deactivation/registration*

Activation through subscription.

3.2.2 *Invocation and operation*

Call initiation procedures are the same as for the basic service. The calling and called users perceive the same completion procedures as for the basic service, without attendant intervention. Upon answer, the calling user is connected to the called user designated by the ISDN number.

Note – When the connection from the caller to the integrated services private branch exchange (ISPBX) is established, the called ISPBX might use the connection for call progress signalling transmission.

3.3 *Exceptional procedures*

3.3.1 *Activation/deactivation/registration*

Not applicable.

3.3.2 *Invocation and operation*

If the called user is busy or does not answer, the procedures for basic calls will apply.

If a call is made by sending incomplete address information, the call will be released by time supervision within the public exchange. A corresponding time supervision within the ISPBX may also be convenient.

3.4 *Alternative procedures*

3.4.1 *Activation/deactivation/registration*

Not identified.

3.4.2 *Invocation and operation*

Not identified.

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 to charge the subscriber accurately for the service.

5 Interworking requirements

No problems identified.

6 Interaction with other supplementary services

6.1 *Call Waiting*

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

6.2 *Call Transfer*

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

6.3 *Connected Line Identification Presentation*

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

6.4 *Connected Line Identification Restriction*

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

6.5 *Calling Line Identification Presentation*

No impact at the calling party's user-network interface, except that the network may be supplied with a calling party number as a result of DDI applying either:

i) at that interface, in which case a partial or full calling party number may be supplied and may be subject to screening by the network; or

ii) (subject to the existence of a special arrangement for not screening) at that interface or at another interface to which the same customer's equipment (e.g. a private network) is attached, in which case a full (national or international) number may be supplied.

At the called party's interface there is no impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.6 *Calling Line Identification Restriction*

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

6.7 *Closed User Group*

Closed user group membership should not be available on a per DDI number basis, but instead should be on the basis of the entire range of ISDN numbers applicable at the access or group of accesses.

6.8 *Conference Calling*

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

6.9 *Direct-Dialling-In*

Not applicable.

6.10 *Call diversion services*

6.10.1 *Call Forwarding Busy*

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

6.10.2 *Call Forwarding No Reply*

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

6.10.3 *Call Forwarding Unconditional*

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

6.10.4 *Call Deflection*

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

6.11 *Line Hunting*

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

6.12 *Three-Party Service*

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

6.13 *User-to-User Signalling*

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

6.14 *Multiple Subscriber Number*

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

Note 1 – In some networks, subscription to the DDI and to the Multiple Subscriber Number (MSN) supplementary service is mutually exclusive.

Note 2 – The DDI digits can be used by the private ISDN in the contact of the private ISDNs multiple subscriber number supplementary service.

6.15 *Call Hold*

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

6.16 *Advice of Charge*

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

6.17 *Multi-Level Precedence and Preemption*

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

6.18 *Priority*

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

6.19 *Malicious Call Identification*

If DDI is provided to the served user of Malicious Call Identification (MCID), then MCID should be provided either globally for the whole access or on a per DDI number basis, according to access arrangements. In both cases, the ISDN number of the called user, including DDI digits, should be registered.

6.20 *Outgoing Call Barring*

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

6.21 *Reverse Charging*

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

6.22 *Sub-addressing*

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

7 Dynamic description

The dynamic description is as for basic services.