INTERNATIONAL TELECOMMUNICATION UNION

CCITT

Q.951

THE INTERNATIONAL
TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE

STAGE 3 DESCRIPTION FOR SUPPLEMENTARY SERVICES USING DSS 1

STAGE 3 DESCRIPTION FOR NUMBER IDENTIFICATION SUPPLEMENTARY SERVICES USING DSS 1

SECTION 1 – Direct-Dialling-In (DDI)

SECTION 2 – Multiple Subscriber Number (MSN)

SECTION 8 – Sub-addressing (SUB)

Recommendation Q.951

Geneva, 1992

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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 Q.951, §§ 1, 2, 8, was prepared by Study Group XI and was approved under the Resolution No. 2 procedure on the 4th of February 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 Q.951

STAGE 3 DESCRIPTION FOR NUMBER IDENTIFICATION SUPPLEMENTARY SERVICES USING DSS 1

1 Direct-Dialling-In (DDI)

1.1 *Definition*

This service enables a user to call directly to another user on an ISDN private branch exchange (ISPBX) or other private systems, without attendant intervention. This supplementary service is based on the use of the ISDN number and does not include Sub-addressing.

1.2 *Description*

1.2.1 *General description*

DDI numbers form part of the international numbering plan according to Recommendation E.164.

This Recommendation provides the flexibility to Administrations to use national numbering plans of fixed or variable lengths. This flexibility also applies to DDI numbers, i.e. even within a given ISPBX or other private system, DDI numbers of different lengths may appear.

In networks with an open numbering plan, the length of the DDI number is not necessarily known by the servicing local exchange nor by any other entity of the public network.

DDI is provided when at least a part of the ISDN number which is significant to the called user is passed to that user. These last digits (fixed or variable length) are sent from the exchange and received by the ISPBX or other private system by en-bloc or overlap receiving, which finally and automatically establish a call to the destination without the assistance of an operator. These last digits are sent in accordance with Recommendation Q.931, § 5.2.

1.2.2 *Specific terminology*

The DDI number is that part of the ISDN number which is significant to an ISPBX or other private system.

1.2.3 *Qualification of the applicability to telecommunication services*

No restrictions.

1.2.4 *State definitions*

The states associated with basic call control according to Recommendation Q.931 are applicable.

1.3 *Operational requirements*

1.3.1 *Provision/withdrawal*

This service shall be provided after prior arrangement with the Administration and shall be withdrawn on the subscriber's request or for administrative reasons.

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1.3.2 *Requirements on the originating network side*

The basic call control procedures according to Recommendation Q.931, § 5.1 are applicable.

1.3.3 *Requirements in the network*

Not applicable to DSS 1 (digital subscriber Signalling System No. 1).

1.3.4 *Requirements on the terminating network side*

When the DDI feature is provided to the called user, at least the DDI number shall be passed to the user in the called party number information element. The en-bloc or overlap receiving procedure is used to transfer the called party number information according to the rules specified in Recommendation Q.931, § 5.2.

The destination network side may check the range and the format of the DDI number before it is passed to the called user.

1.4 *Coding requirements*

The DDI number is a part of the ISDN number which shall be inserted in the called party number information element coded as in Recommendation Q.931, § 4.5.8.

1.5 *Signalling requirements*

1.5.1 *Activation/deactivation/registration*

Not applicable to DSS 1.

1.5.2 *Invocation and operation*

1.5.2.1 *Normal operation*

1.5.2.1.1 *Actions at the originating local exchange*

Not applicable.

1.5.2.1.2 *Actions at the transit exchange*

Not applicable to DSS 1.

1.5.2.1.3 *Actions at the destination local exchange*

The DDI number is delivered from the network to the called user according to the procedures of Recommendation Q.931, § 5.2.

The type of number is included in the called party number information element sent to the called user and shall be coded as:

– unknown (see Table 4-8/Q.931, Note 2 against “Type of Number”); or

– subscriber number, national number or international number (see Table 4-8/Q.931, Note 3 against “Type of Number”).

Note – This coding is independent of the use of en-bloc procedures (where the called party number is sent in a single message) or overlap procedures (where the called party number is sent in segments in several messages as it becomes available).

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1.5.2.2 *Exceptional procedures*

No exceptional procedures are required.

1.6 *Interactions with other supplementary services*

1.6.1 *Call Waiting*

No interaction.

1.6.2 *Call Transfer*

No applicable interaction at this time.

1.6.3 *Connected Line Identification Presentation*

No interaction.

1.6.4 *Connected Line Identification Restriction*

No interaction.

1.6.5 *Calling Line Identification Presentation*

No interaction.

1.6.6 *Calling Line Identification Restriction*

No interaction.

1.6.7 *Closed User Group*

No interaction.

1.6.8 *Conference Calling*

No applicable interaction at this time.

1.6.9 *Direct-Dialling-In*

Not relevant.

1.6.10 *Call Diversion (Call Forwarding) service*

No applicable interaction at this time.

1.6.10.1 *Call Forwarding Busy*

1.6.10.2 *Call Forwarding No Reply*

1.6.10.3 *Call Forwarding Unconditional*

1.6.10.4 *Call Deflection*

1.6.11 *Line Hunting*

No applicable interaction at this time.

1.6.12 *Three-Party Service*

No applicable interaction at this time.

1.6.13 *User-to-User Signalling*

No interaction.

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