



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.81.1

**GENERAL RECOMMENDATIONS ON TELEPHONE
SWITCHING AND SIGNALLING**

**FUNCTIONS AND INFORMATION FLOWS FOR
SERVICES IN THE ISDN**

**STAGE 2 DESCRIPTION FOR NUMBER
IDENTIFICATION SUPPLEMENTARY
SERVICES – DIRECT DIALLING-IN**

ITU-T Recommendation Q.81.1

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation Q.81 was published in Fascicle VI.1 of the *Blue Book*. This file is an extract from the *Blue Book* and contains *only* the part of the Recommendation still in force. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

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

© ITU 1988, 1993

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.

Recommendation Q.81.1**STAGE 2 DESCRIPTION FOR NUMBER IDENTIFICATION SUPPLEMENTARY SERVICES - DIRECT DIALLING-IN****1 Direct dialling in (DDI)****1.1 Definition**

direct dialling in (DDI) enables a user to call directly another user on a ISPBX or other private system without attendant intervention.

1.2 Description**1.2.1 General description**

A part of the ISDN number, which is significant to the user, is passed to the user. This supplementary service is based on the use of the ISDN number and does not include sub-addressing.

Note 1 - A similar method to select a terminal on a passive bus is described in the Stage 1 description of the supplementary service MSN.

Note 2 - The caller may or may not find the ISDN number in the public directory.

Recommendation E.164 provides the flexibility for Administrations to use national numbering plans of fixed or variable number lengths. This flexibility also applies to DDI numbers, i.e. even within a given PABX DDI numbers of different lengths may appear.

The number of digits used by a PABX supporting the DDI feature is not necessarily known by their serving local exchange nor by any other entity of the public network.

The DDI number (fixed or variable length) is sent en-bloc or by over-lap sending from the exchange to the PABX or other private system which finally and automatically establishes a connection to the destination without the assistance of an operator.

1.2.2 Qualifications on the applicability to telecommunication services

No restrictions.

1.3 Derivation of a functional model (Step 1)**1.3.1 Functional model description**

Two functional models are used to show the different requirements of DDI.

Functional model 1 represents the situation where DDI is used to address a terminal on a single ISPBX connected to the public network.

Functional model 2 describes the situation where DDI is used to address a terminal within a private network consisting of several PBXs.

Although functional model 1 can be seen as a special application of model 2 it is preferred to describe the two models independently to show different situations more clearly.

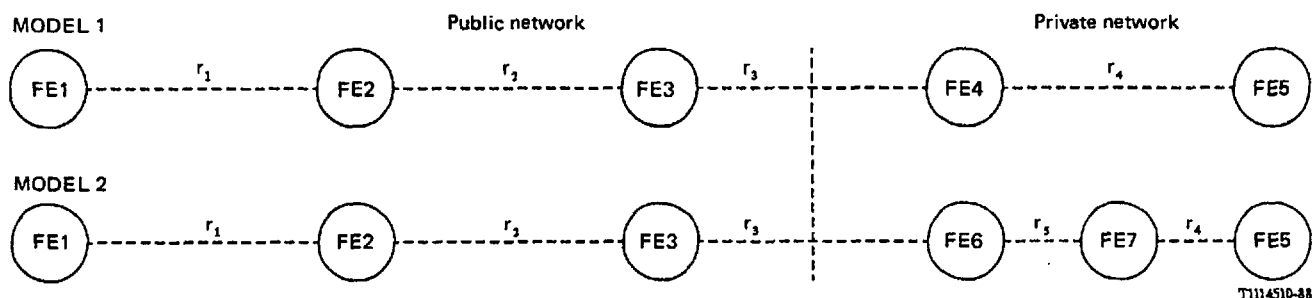


FIGURE 1-1/Q.81
Two functional models for DDI

1.3.2 Description of the functional entities

FE1: Call control agent of the calling user

FE2: Call control entity of the calling user

FE3: DDI Access control to the private network (located in the public network)

FE4: DDI Service control for the called user and access control in the private network

FE5: Call control agent of the called user

FE6: DDI Access control in the private network

FE7: DDI Service control in the private network for the called user.

1.3.3 Relationship to basic service

The call setup procedures in the public network are mainly the same as for the basic service.

FE1 and FE2 therefore have the same functionality as CCA and CC. r_1 and r_2 correspond to r_1 and r_2 in the basic service.

FE3 includes specific functionality of DDI in the relationship r_3 .

FE4, FE6 and FE7 are entities in a private network that are only specified here as far as they are influenced by r_3 . The same applies for r_4 and r_5 .