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Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Make call request supplementary service

Technologies de l'information — Télécommunications et échange d'information entre systèmes — Réseau privé à intégration de services — Spécification, modèle fonctionnel et flux d'informations — Service supplémentaire de demande par appel

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Foreword

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International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

ISO/IEC 20113 was prepared by ECMA (as ECMA-343) and was adopted, under a special “fast-track procedure”, by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, in parallel with its approval by national bodies of ISO and IEC.

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Introduction

This International Standard is one of a series defining services and signalling protocols applicable to Private Integrated Services Networks (PISNs). The series uses ISDN concepts as developed by ITU-T and conforms to the framework of International Standards for Open Systems Interconnection as defined by ISO/IEC.

This International Standard specifies the Make Call Request supplementary service.

This International Standard is based upon the practical experience of ECMA member companies and the results of their active and continuous participation in the work of ISO/IEC JTC1, ITU-T, ETSI and other international and national standardization bodies. It represents a pragmatic and widely based consensus.

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Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Specification, functional model and information flows — Make call request supplementary service

1 Scope

This International Standard specifies supplementary service Make Call Request (SS-MCR), which is related, but not limited, to various basic services supported by Private Integrated Services Networks (PISNs). Basic services are specified in ISO/IEC 11574.

The supplementary service MCR enables a Requesting User to request a Co-operating User to establish a new Requested Call to a Destination User. This new Requested Call between the Co-operating and Destination User can be either a Basic call or call independent signalling connection.

Service specifications are produced in three stages, according to the method described in ETS 300 387. This International Standard contains the stage 1 and stage 2 specifications of SS-MCR. The stage 1 specification (Clause 6) specifies the supplementary service as seen by users of PISNs. The stage 2 specification (Clause 7) specifies the functional entities involved in the supplementary service and the information flows between them.

2 Conformance

In order to conform to this International Standard, a stage 3 standard shall specify signalling protocols and equipment behaviour that are capable of being used in a PISN which supports the supplementary service specified in this International Standard. This means that, to claim conformance, a stage 3 standard is required to be adequate for the support of those aspects of Clause 6 (stage 1) and Clause 7 (stage 2) which are relevant to the interface or equipment to which the stage 3 standard applies.

3 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 11574:2000, *Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Circuit-mode 64 kbit/s bearer services — Service description, functional capabilities and information flows*

ISO/IEC 11579-1:1994, *Information technology — Telecommunications and information exchange between systems — Private integrated services network — Part 1: Reference configuration for PISN Exchanges (PINX)*

ISO/IEC 11582:2002, *Information technology — Telecommunications and information exchange between systems — Private Integrated Services Network — Generic functional protocol for the support of supplementary services — Inter-exchange signalling procedures and protocol*

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ETS 300 387:1994, *Private Telecommunication Network (PTN); Method for the specification of basic and supplementary services*

ITU-T Rec. I.112:1993, *Vocabulary of terms for ISDNs*

ITU-T Rec. I.210:1993, *Principles of telecommunication services supported by an ISDN and the means to describe them*

ITU-T Rec. Z.100:1999, *Specification and Description Language*

4 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

4.1 External definitions

This International Standard uses the following terms defined in other documents:

— Basic Service (ISO/IEC 11574)

— Call, Basic call (ISO/IEC 11582)

— Call independent signalling connection (ISO/IEC 11582)

— Call Independent (ISO/IEC 11582)

— Call Related (ISO/IEC 11582)

— Private Integrated services Network eXchange (PINX) (ISO/IEC 11579-1)

— Private Integrated Services Network (PISN) (ISO/IEC 11579-1)

— Service (ITU-T Rec. I.112)

— Signalling (ITU-T Rec. I.112)

— Supplementary Service (ITU-T Rec. I.210)

— User (ISO/IEC 11574)

4.2 Other definitions

4.2.1
Co-operating User
The user who receives a Make Call Request and who shall set up a new Requested Call to the Destination User.

4.2.2
Destination User
The called user of the Requested Call i.e. the user to whom the Co-operating User shall establish a Requested Call.

4.2.3
Make Call Request
A request from the Requesting User for a new call (i.e. Requested Call) between a Co-operating User and a Destination User.

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4.2.4
Original Call
The call between the Requesting User and the Co-operating User. The Original Call can be either a Basic call or a call independent signalling connection and is correlated with the Requested Call.

4.2.5
Requested Call
The call between the Co-operating User and the Destination User that is established by the Co-operating User due to a Make Call Request from the Requesting User. The Requested Call can either be a Basic call (with a specific Basic Service) or a call independent signalling connection and is correlated with the Original Call.

4.2.6
Requesting User
The User who sends a Make Call Request to the Co-operating User with the request to establish a specific Requested Call to the Destination User.

5 Acronyms

ANF	Additional Network Feature
FE	Functional Entity
ISDN	Integrated Services Digital Network
MCR	Make Call Request
PINX	Private Integrated services Network eXchange
PISN	Private Integrated Services Network
SDL	Specification and Description Language
SS	Supplementary Service

6 SS-MCR stage 1 specification

6.1 Description

6.1.1 General description

The supplementary service MCR enables a Requesting User to request a Co-operating User to establish a new Requested Call to a Destination User. This new Requested Call between the Co-operating User and the Destination User can either be a Basic call or a call independent signalling connection. The new Requested Call shall be correlated to the Original Call between the Requesting User and the Co-operating User.

6.1.2 Qualifications on applicability to telecommunication services

This supplementary service is applicable to all basic telecommunication services.

6.2 Procedures

6.2.1 Provision / withdrawal

SS-MCR may be provided or withdrawn after pre-arrangement with the service provider or may be generally available to all users.

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6.2.2 Normal procedures

6.2.2.1 Activation, deactivation and interrogation

Not applicable.

6.2.2.2 Invocation and operation

A Requesting User may use SS-MCR to request the set up of a new Requested Call between a Co-operating User and a Destination User.

NOTE The Requesting User and the Destination User can be the same user (e.g. Requesting/Destination User is a Message Centre)

To invoke SS-MCR the Requesting User may use, if available, an existing signalling connection (either call-related or call-independent) with the Co-operating User, otherwise the Requesting User shall establish a call independent signalling connection to the Co-operating User in order to convey the following information:

- address information of the Destination User (e.g. Party Number);
- optionally, number information of the Co-operating User (e.g. Party Number);
- optionally, number information of the Requesting User (e.g. Party Number);
- an indication for a Basic Service, if a Basic call is requested, otherwise an indication for a call independent signalling connection;
- a correlation ID for the Original Call and the Requested Call;
- an indication whether to retain the Original Call after successful establishment of the Requested Call.

If the entity serving the Co-operating User supports SS-MCR, this entity may check whether the Requesting User is allowed to invoke SS-MCR and if a call independent signalling connection or a Basic call with the indicated Bearer Service can be established. Afterwards, the Co-operating User may be informed about the SS-MCR request. The Requested Call shall be either a Basic call with the requested Basic Service or a call independent signalling connection, due to the received request. Additionally the following information shall be sent to the Destination User:

- address information of the Requesting User and Co-operating User (i.e. Party Number of the Requesting User) if received;
- a correlation ID for the Original Call and the Requested Call.

If the Requested Call is successfully established, an appropriate indication shall be sent to the Requesting User. The Original Call shall be retained or cleared immediately after successful establishment of the Requested Call dependent on the corresponding indication received in the initial Make Call Request from the Requesting User. The Co-operating User is responsible for clearing of the Requested Call. In case of retention of the Original Call the Requesting User is responsible for clearing of the Original Call to the Co-operating User.

6.2.3 Exceptional procedures

6.2.3.1 Activation, deactivation and interrogation

Not applicable.

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6.2.3.2 Invocation and operation

If the entity serving the Co-operating User does not support SS-MCR or if the validation of the request from the Requesting user fails or a call independent signalling connection or a Basic call with the indicated Basic Service cannot be established, an appropriate error indication shall be sent to the Requesting User. The Requesting User is responsible for clearing of the Original Call.

If the Co-operating User is busy when SS-MCR is invoked, an appropriate error indication shall be sent to the Requesting User. The Requesting User is responsible for clearing the Original Call.

6.3 Interactions with other Supplementary Services / Additional Network Features

Interactions with other supplementary services and ANFs for which PISN standards were available at the time of publication of this International Standard are specified below.

6.3.1 Calling Line Identification Presentation (SS-CLIP)

No interaction.

6.3.2 Connected Line Identification Presentation (SS-COLP)

No interaction.

6.3.3 Calling/Connected Line Identification Restriction (SS-CLIR)

No interaction.

6.3.4 Calling Name Identification Presentation (SS-CNIP)

No interaction.

6.3.5 Calling/Connected Name Identification Restriction (SS-CNIR)

No interaction.

6.3.6 Connected Name Identification Presentation (SS-CONP)

No interaction.

6.3.7 Call Forwarding Unconditional (SS-CFU)

If the Co-operating User has activated SS-CFU, the request to set up a new Requested Call shall not be forwarded. It is an implementation option for the entity serving the Co-operating User to either provide SS-MCR or to send an error indication towards the Requesting User.

SS-CFU, activated at the Destination User, is not affected by SS-MCR , i.e. the Requested Call may be forwarded.

6.3.8 Call Forwarding Busy (SS-CFB)

If a Co-operating User has activated SS-CFB and is in busy condition, the request to set up a new Requested Call shall not be forwarded and an error indication shall be provided towards the Requesting user.

SS-CFB, activated at the Destination User, is not affected by SS-MCR, i.e. the Requested Call may be forwarded.

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6.3.9 Call Forwarding No Reply (SS-CFNR)

If the Co-operating User has activated SS-CFNR and does not answer, the request to set up a new Requested Call shall not be forwarded. It is an implementation option for the entity serving the Co-operating User to either continue providing SS-MCR or to send an error indication towards the Requesting User.

SS-CFNR, activated at the Destination User, is not affected by SS-MCR, i.e. the Requested Call may be forwarded.

6.3.10 Call Deflection (SS-CD)

Deflection of the request to set up a new Requested Call shall not be allowed. The request to set up a new Requested Call shall not be deflected. It is an implementation option for the entity serving the Co-operating User to either provide SS-MCR or to send an error indication towards the Requesting User.

SS-CD, activated at the Destination User, is not affected by SS-MCR, i.e. the Requested Call may be deflected.

6.3.11 Path Replacement (ANF-PR)

No interaction.

6.3.12 Call Transfer (SS-CT)

No interaction.

6.3.13 Completion of Calls to Busy Subscribers (SS-CCBS)

No interaction.

6.3.14 Completion of Calls on No Reply (SS-CCNR)

No interaction.

6.3.15 Call Offer (SS-CO)

No interaction.

6.3.16 Do Not Disturb (SS-DND)

If the Co-operating User has activated SS-DND, it is an implementation option for the entity serving the Co-operating User to either provide SS-MCR or to send an error indication towards the Requesting User.

If the Destination User has activated SS-DND, it is an implementation option for the entity serving the Destination User to either present the Requested Call to the Destination User or to send an error indication towards the Co-operating User.

6.3.17 Do Not Disturb Override (SS-DNDO)

No interaction.

6.3.18 Call Intrusion (SS-CI)

No interaction.

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6.3.19 Advice of Charge (SS-AOC)

No interaction.

6.3.20 Recall (SS-RE)

No interaction.

6.3.21 Call Interception (SS-CINT)

No interaction.

6.3.22 Transit Counter (ANF-TC)

No interaction.

6.3.23 Route Restriction Class (ANF-RRC)

No interaction.

6.3.24 Message Waiting Indication (SS-MWI)

No interaction.

6.3.25 Wireless Terminal Location Registration (SS-WTLR)

No interaction.

6.3.26 Wireless Terminal Incoming Call (SS-WTMI)

No interaction.

6.3.27 Wireless Terminal Outgoing Call (SS-WTMO)

No interaction.

6.3.28 Wireless Terminal Authentication of a WTM User (SS-WTAT)

No interaction.

6.3.29 Wireless Terminal Authentication of the PISN (SS-WTAN)

No interaction.

6.3.30 Common Information (SS-CMN)

No interaction.

6.3.31 Call Priority Interruption (Protection) (SS-CPI(P))

No interaction.

6.3.32 Private User Mobility Incoming Call (ANF-PUMI)

No interaction.

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6.3.33 Private User Mobility Outgoing Call (ANF-PUMO)

No interaction.

6.3.34 Private User Mobility Registration (SS-PUMR)

No interaction.

6.3.35 Single Step Call Transfer (SS-SSCT)

No interaction.

6.3.36 Simple Dialog (SS-SD)

No interaction.

6.3.37 Call Identification and Call Linkage (ANF-CIDL)

If applicable, the same Thread ID shall be used for the call between Requesting User and Co-operating User and the call between Co-operating User and Destination User.

6.3.38 Short Message Service (SS-SMS)

No interaction.

6.3.39 Message Centre Monitoring (SS-MCM)

No interaction.

6.3.40 Mailbox Identification (SS-MID)

No interaction.

6.4 Interworking considerations

If an adjacent network supports an equivalent feature, interworking between the PISN and the other network is allowed.

6.5 Overall SDL

Figure 1 contains the dynamic description of SS-MCR using the Specification and Description Language (SDL) defined in ITU-T Rec. Z.100 (1999). The SDL process represents the behaviour of the network in providing SS-MCR.

Input signals from the left and output signals to the left represent primitives from and to the Requesting User.

Input signals from the right and output signals to the right represent primitives from and to the Co-operating User.

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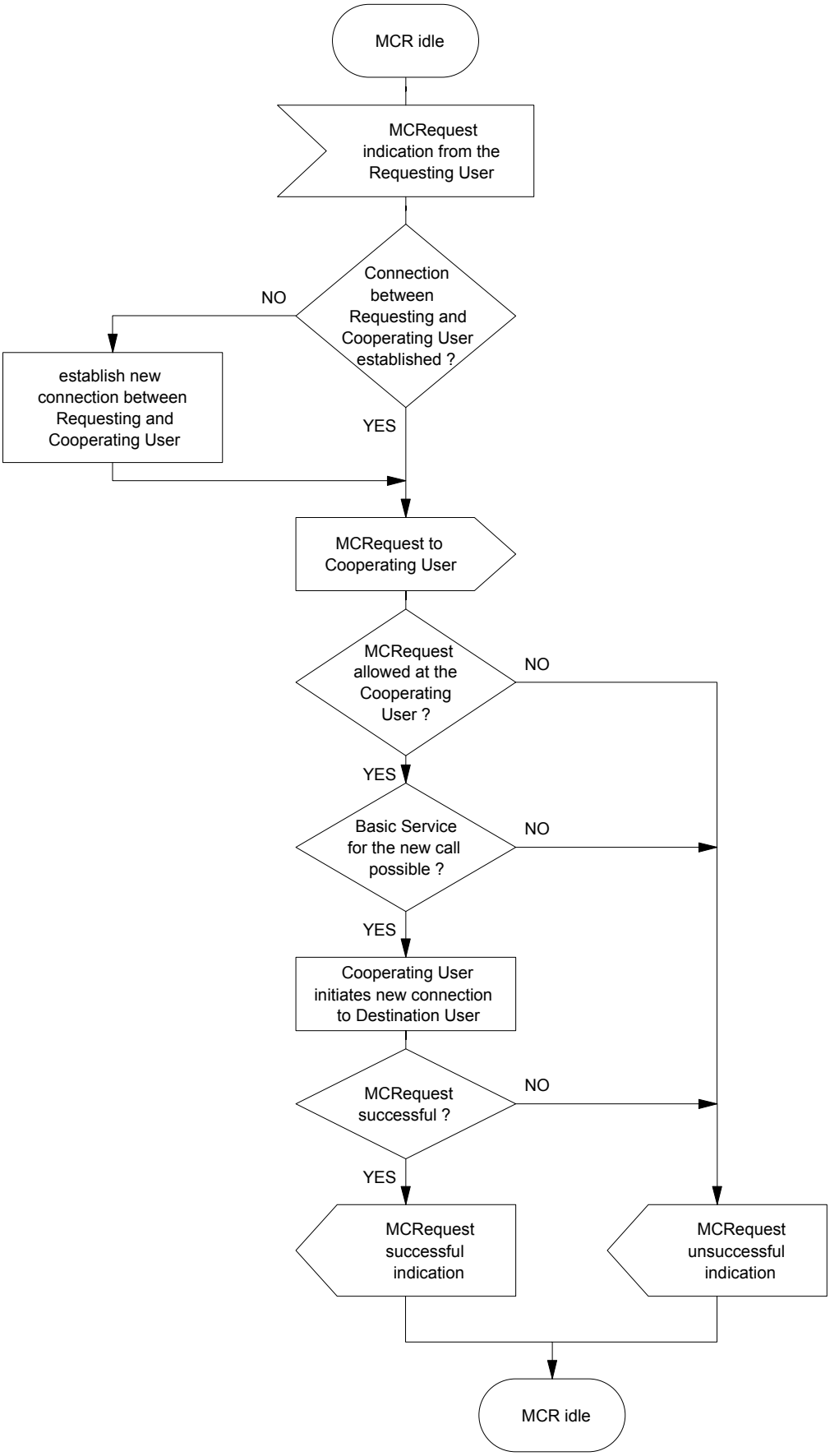

Figure 1 — SS-MCR Overall SDL

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7 SS-MCR stage 2 specification

7.1 Functional model

7.1.1 Functional model description

The functional model shall comprise the following Functional Entities (FEs):

FE1 Requesting User's User Agent;

FE2 Requesting User's control entity;

FE3 Co-operating User's control entity;

FE4 Co-operating User's User Agent;

FE5 Destination User's control entity;

FE6 Destination User's User Agent.

The following relationship shall exist between these FEs:

ra between FE1 and FE2;

rb between FE2 and FE3;

rc between FE3 and FE4;

rd between FE3 and FE5;

re between FE5 and FE6.

Figure 2 shows these FEs and relationships.

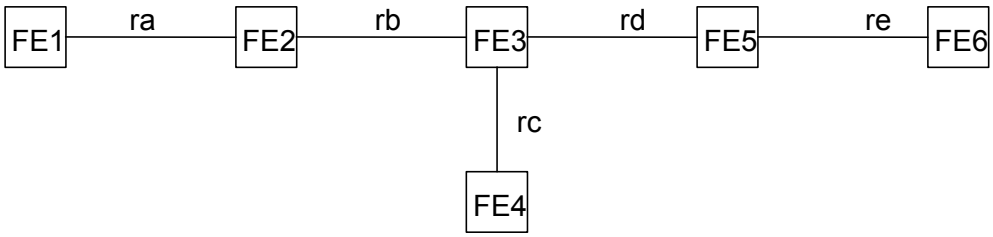

Figure 2 — Functional model for SS-MCR

7.1.2 Description of Functional Entities

7.1.2.1 Requesting User's User Agent, FE1

This Functional Entity:

— receives a request for a call from the requesting user and sends an indication to FE2;

— receives a notification about the progress of call establishment of the Requested Call from FE2;

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— receives a confirmation for the Requested Call from FE2.

7.1.2.2 Requesting User's Control entity, FE2

This Functional Entity:

— receives a request to establish a new call from FE1;

— establishes a signalling connection to FE3, if necessary;

— sends an indication to FE3 to establish a new call from FE3 to FE5;

— receives a notification about the progress of call establishment of the Requested Call from FE3 and sends a notification to FE1;

— receives a confirmation from FE3 for the Requested Call from FE3 to FE5 and sends a notification to FE1.

7.1.2.3 Co-operating User's Control entity, FE3

This Functional Entity:

— receives a request to establish a new call from FE2;

— sends a corresponding indication to FE4;

— checks if the request to establish a new call is allowed to be performed;

— initiates new call establishment and sends an indication about call request to FE5;

— sends a notification about the progress of call establishment of the Requested Call to FE2;

— sends a confirmation for the Requested Call to FE2.

7.1.2.4 Co-operating User's User Agent, FE4

This Functional Entity:

— receives an indication about call establishment from FE3;

— notifies the Co-operating user.

7.1.2.5 Destination User's Control entity, FE5

This Functional Entity:

— receives a request for call establishment from FE3;

— establishes a new call to FE3 and sends a corresponding indication to FE6.

7.1.2.6 Destination User's User Agent, FE6

This Functional Entity:

— receives an indication about call establishment from FE5;

— notifies the destination user.

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7.2 Information flows

7.2.1 Definition of information flows

In the tables listing the elements in information flows, the column headed "Request" indicates which of these elements are mandatory (M) and which are optional (O) in a request/indication information flow, and the column headed "Confirm" (confirmed information flows only) indicates which of these elements are mandatory (M) and which are optional (O) in a response/confirmation information flow.

7.2.1.1 MCR_CallRequest

MCR_CallRequest is a confirmed information flow across ra from FE1 to FE2 and rb from FE2 to FE3 used by the Requesting User to initiate establishment of a new call from FE4 to FE6.

Table 1 lists the elements within the MCR_CallRequest information flow.

Table 1 — Content of MCR_CallRequest

Element	Request	Confirm	NOTE
Destination Address	M		1
Requesting Address	O		2
Co-operating Address	O		3
Call Type	M		4
Correlation	M		5
Retain Original Call	O		6
Result		M	7

NOTE 1 This is the Destination User's Party Number (e.g. PISN number).

NOTE 2 This is the Requesting User's Party Number (e.g. PISN number).

NOTE 3 This is the Co-operating User's Party Number (e.g. PISN number).

NOTE 4 This is an indication whether a basic call with a certain basic service or call-independent signalling connection is requested.

NOTE 5 This is an indication for correlation of the Requested Call with the original call.

NOTE 6 This is an indication whether the original call shall be retained or cleared after establishment of the Requested Call.

NOTE 7 This indicates acceptance or the reason for rejection.

7.2.1.2 MCR_PromptCoop

MCR_PromptCoop is a confirmed information flow across rc from FE3 to FE4 used by the Co-operating User's Control Entity to prompt the Co-operating User prior to establishment of the Requested Call from FE4 to FE6.

MCR_PromptCoop is an internal message flow within the Co-Operating PINX between FE3 and FE4. Therefore this information flow is not visible on the external interface.

Table 2 lists the elements within the MCR_PromptCoop information flow.

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Table 2 — Content of MCR_PromptCoop

Element	Request	Confirm	NOTE
Requesting Address	O		1
Destination Address	M		2
Call Type	M		3
Result		M	4

NOTE 1 This is the Requesting User's identity (e.g. PISN number).

NOTE 2 This is the Destination User's identity (e.g. PISN number).

NOTE 3 This is an indication whether a basic call or call-independent signalling connection is requested.

NOTE 4 This indicates acceptance or the reason for rejection.

7.2.1.3 MCR_Inform

MCR_Inform is an unconfirmed information flow across rd from FE3 to FE5 and re from FE5 to FE6 used by the Co-operating User's Control Entity to notify the Destination User about establishment of the Requested Call from FE4 to FE6.

Table 3 lists the elements within the MCR_Inform information flow.

Table 3 — Content of MCR_Inform

Element	Request	Confirm	NOTE
Requesting Address	O		1
Co-operating Address	O		2
Correlation	M		3

NOTE 1 This is the Requesting User's identity (e.g. PISN number).

NOTE 2 This is the Co-operating User's identity (e.g. PISN number).

NOTE 3 This is an indication for correlation of the Requested Call with the Original call.

7.2.1.4 MCR_Alerting

MCR_Alerting is an unconfirmed information flow across rb from FE3 to FE2 and ra from FE2 to FE1 used by the Co-operating User's Control Entity to notify the Requesting User that the Requested Call from FE4 to FE6 has reached the Call Delivered state.

Table 4 lists the elements within the MCR_Alerting information flow.

Table 4 — Content of MCR_Alerting

Element	Request	Confirm	NOTE
Correlation	M		1

NOTE 1 This is an indication for correlation of the Requested Call with the Original call.

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7.2.2 Relationship of information flows to Basic Call information flows

The MCR_Inform request/indication information flow shall be sent across rd in conjunction with the basic call r1_setup request/indication, which is sent to initiate call establishment by the Co-operating User.

7.2.3 Information flow sequences

A stage 3 standard for SS-MCR shall provide signalling procedures in support of the information flow sequences specified below. In addition, signalling procedures should be provided to cover other sequences arising from error situations, interactions with Basic Call, interactions with other supplementary services, different topologies, etc.

The following abbreviations are used:

req request;

ind indication;

res response;

con confirm.

7.2.3.1 Make Call Request procedures of SS-MCR

Figure 3 shows in generic form the information flow sequence for invocation of SS-MCR.

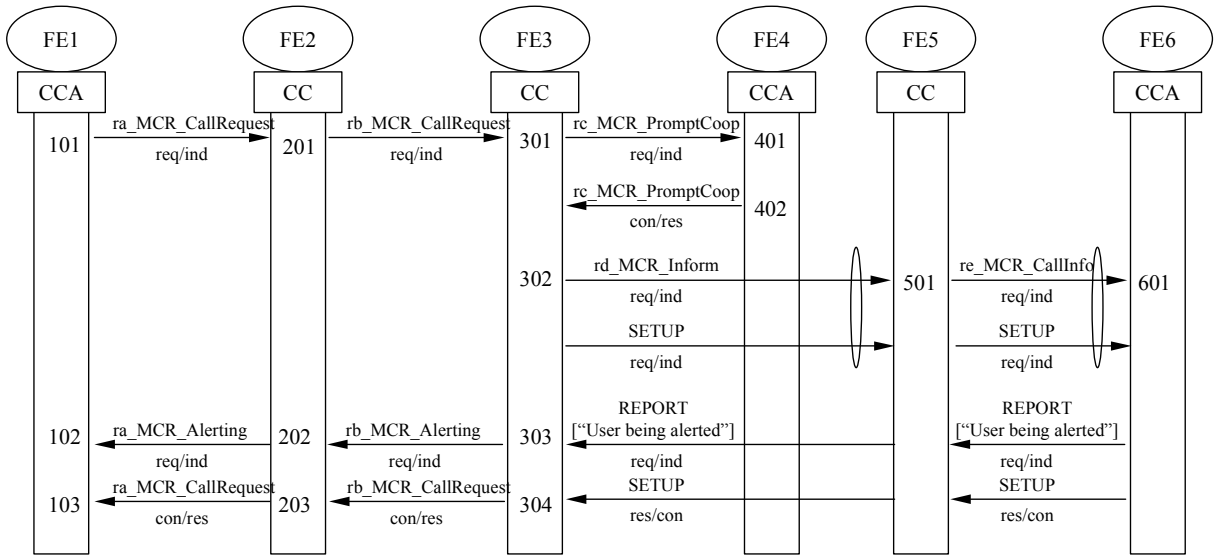

Figure 3 — Information flow sequence for invocation of SS-MCR

7.3 Functional Entity actions

7.3.1 Functional Entity actions of FE1

101 sends ra_MCR_CallRequest req/ind to FE2 indicating the necessary information needed to establish a call from FE4 to FE6.

102 receives ra_MCR_Alerting req/ind from FE2 indicating alerting of the Requested Call.

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103 receives ra_MCR_CallRequest res/con from FE2 indicating successful or unsuccessful call establishment of the Requested Call.

7.3.2 Functional Entity actions of FE2

201 receives ra_MCR_CallRequest req/ind from FE1, checks if the Requesting User request is valid and allowed to be performed, and sends rb_MCR_CallRequest req/ind to FE3 indicating the necessary information needed to establish a call from FE4 to FE6.

202 receives rb_MCR_Alerting req/ind from FE3 and sends the ra_MCR_Alerting req/ind to FE1.

203 receives rb_MCR_CallRequest res/con from FE3 indicating successful or unsuccessful call establishment of the Requested Call and sends the corresponding ra_MCR_CallRequest res/con to FE1.

7.3.3 Functional Entity actions of FE3

301 receives rb_MCR_CallRequest req/ind from FE2 and sends rc_MCR_PromptCoop req/ind to FE4.

302 receives rc_MCR_PromptCoop res/con from FE4 and sends rd_MCR_Inform req/ind to FE5.

303 receives REPORT req/ind indicating "User being alerted" from FE5 and sends rb_MCR_Alerting req/ind to FE2.

304 receives SETUP res/con from FE5 and sends rb_MCR_CallRequest res/con to FE2.

7.3.4 Functional Entity actions of FE4

401 receives rd_MCR_Inform req/ind from FE3 and indicates the information to the Co-operating User.

402 sends rc_MCR_PromptCoop res/con to FE3.

7.3.5 Functional Entity actions of FE5

501 receives rd_MCR_Inform req/ind from FE3, checks if the Served User is not busy and sends re_MCR_Inform req/ind to FE6.

7.3.6 Functional Entity actions of FE6

601 receives re_MCR_Inform req/ind from FE5, and sends SETUP res/con to FE5.

7.4 Functional Entity behaviour

The FE behaviours shown below are intended to illustrate typical FE behaviour in terms of information flows sent and received. The behaviour of each FE is shown using the Specification and Description Language (SDL) defined in IUT-T Rec. Z.100 (1999).

7.4.1 Behaviour of FE1

Figure 4 shows the normal behaviour of FE1. Output signals to the left and input signals from the left represent information flows to and from FE2. Output signals to the right and input signals from the right represent information flows to and from the User.

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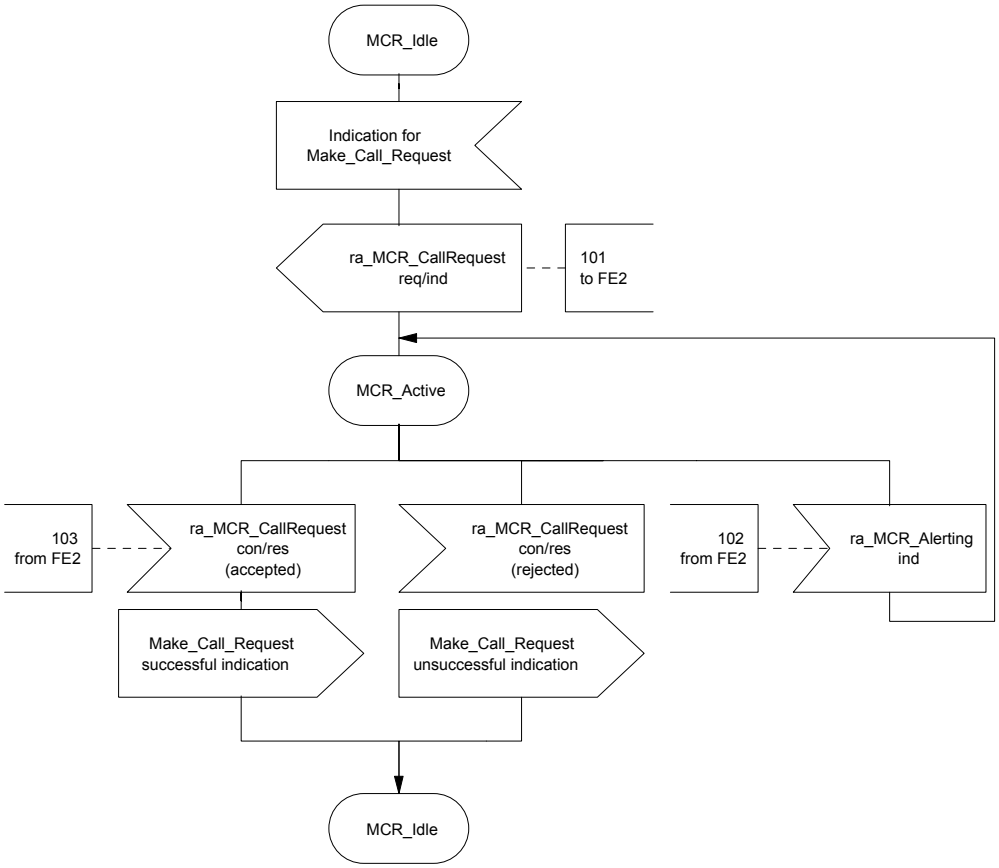

Figure 4 — SDL for MCR Procedures for FE1, Requesting User's User Agent

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7.4.2 Behaviour of FE2

Figure 5 shows the normal behaviour of FE2. Output signals to the left and input signals from the left represent primitives to and from the FE1. Output signals to the right and input signals from the right represent information flows from and to FE3.

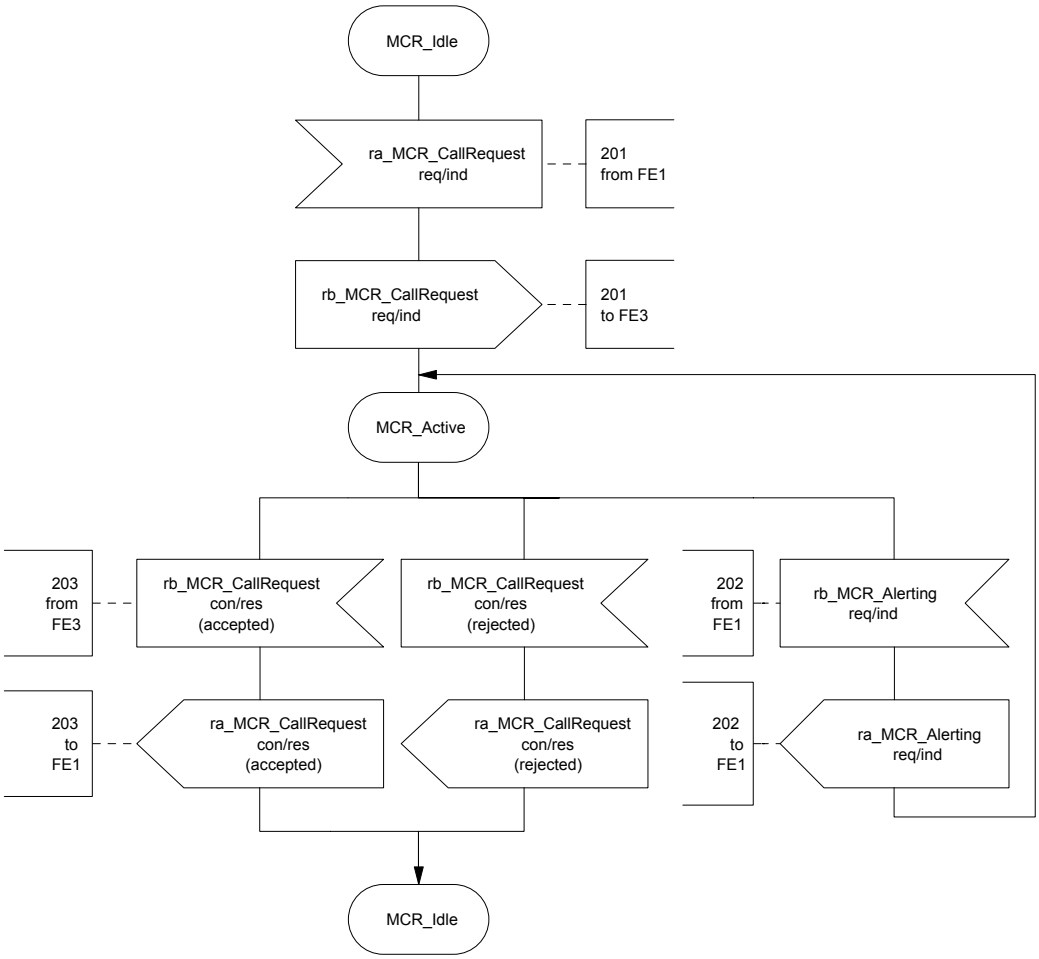

Figure 5 — SDL for MCR Procedures for FE2, Requesting User's control entity

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7.4.3 Behaviour of FE3

Figure 6 shows the normal behaviour of FE3. Output signals to the left and input signals from the left represent primitives to and from the FE2. Output signals to the right and input signals from the right represent primitives to and from the FE4 and FE5.

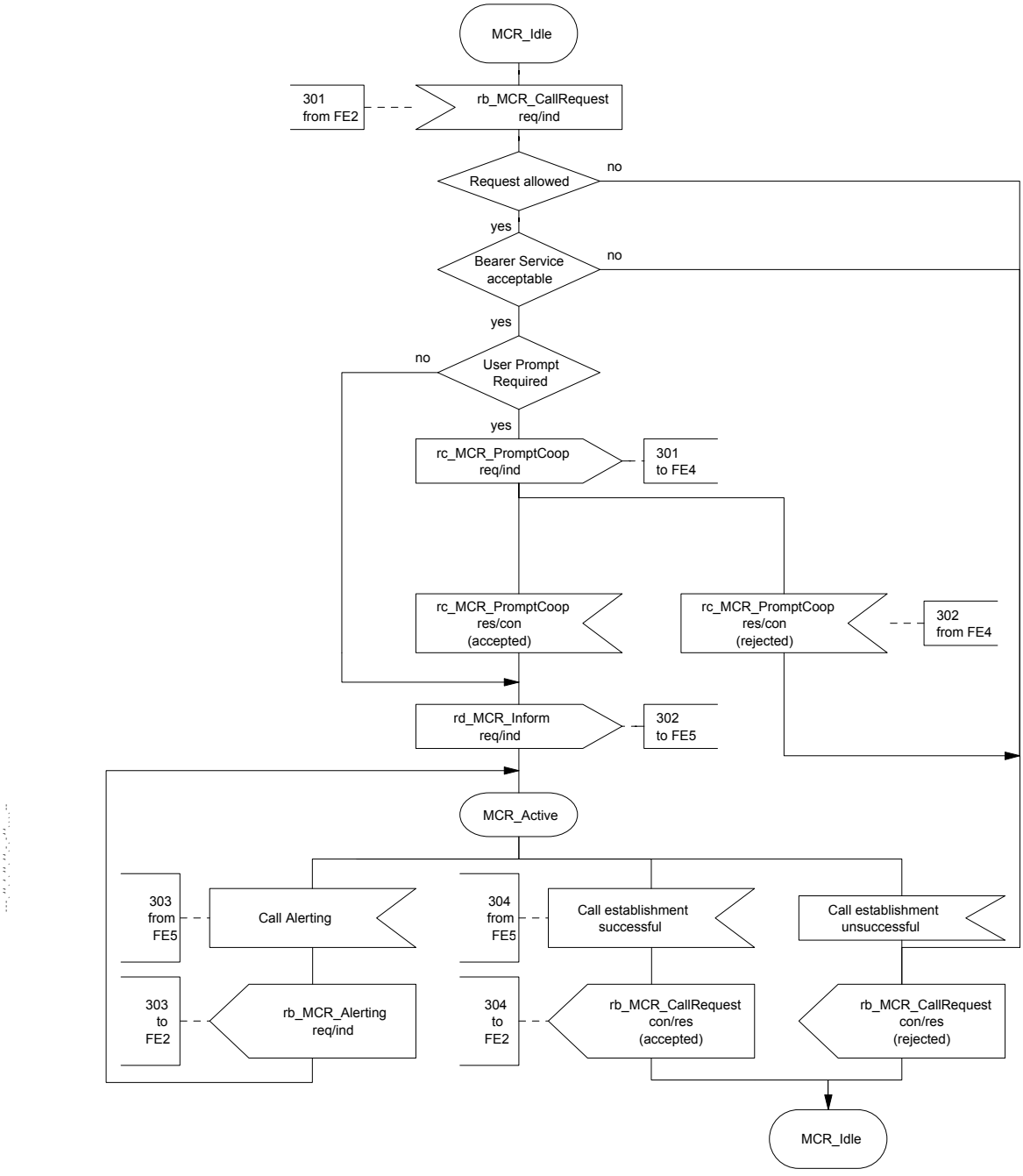

Figure 6 — SDL for MCR Procedures for FE3, Co-operating User's control entity

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7.4.4 Behaviour of FE4

Figure 7 shows the normal behaviour of FE4. Output signals to the left and input signals from the left represent primitives to and from the FE3.

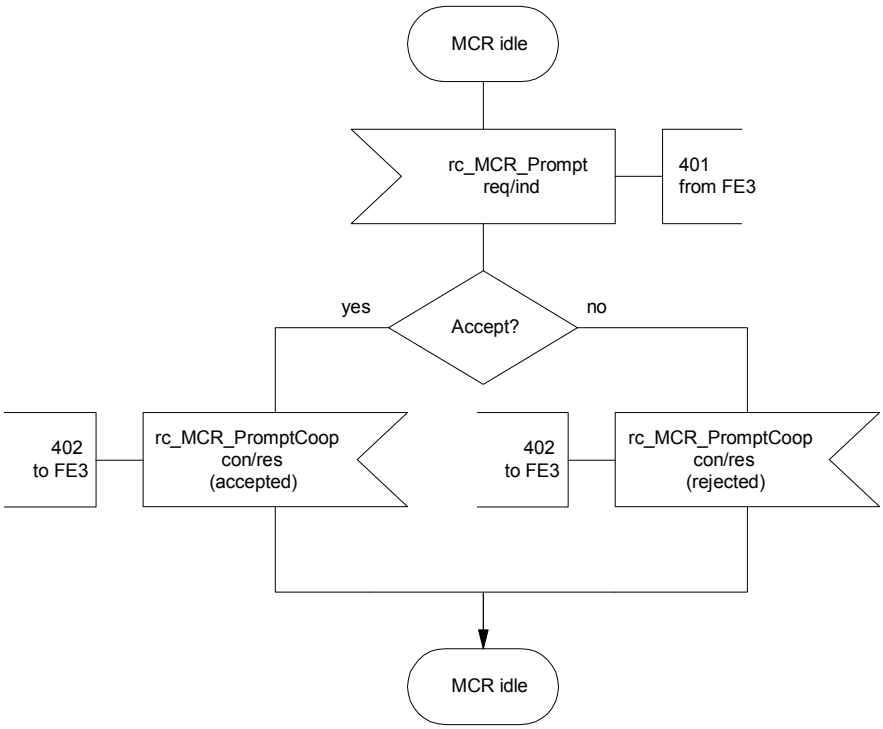

Figure 7 — SDL for MCR Procedures for FE4, Co-operating User's User Agent

7.4.5 Behaviour of FE5

Figure 8 shows the normal behaviour of FE5. Output signals to the left and input signals from the left represent primitives to and from the FE3. Output signals to the right and input signals from the right represent primitives to and from the FE6.

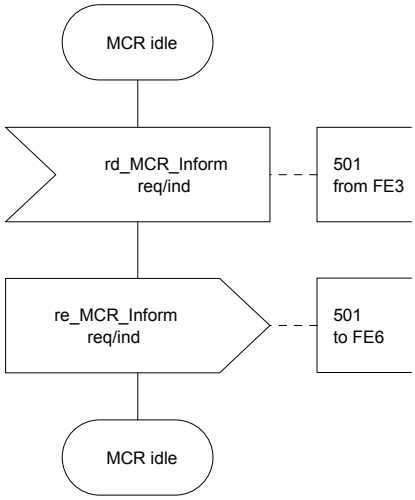

Figure 8 — SDL for MCR Procedures for FE5, Destination User's control entity

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7.4.6 Behaviour of FE6

Figure 9 shows the normal behaviour of FE6. Output signals to the left and input signals from the left represent primitives to and from the FE5.

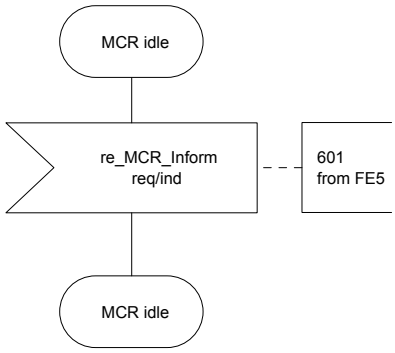

Figure 9 — SDL for MCR Procedures for FE6, Destination User's User Agent

7.5 Allocation of Functional Entities to physical equipment

The allocation of FEs to physical locations shall apply as shown in Table 5.

Table 5 — Scenarios for the allocation of FEs to physical equipment for SS-MCR

	FE1	FE2	FE3
Scenario 1	Requesting User	Requesting User PINX	Co-operating User PINX
Scenario 2	Message Centre	Message Centre PINX	Served User PINX

	FE4	FE5	FE6
Scenario 1	Co-operating User	Destination User PINX	Destination User
Scenario 2	Served User	Message Centre PINX	Message Centre

7.6 Interworking considerations

The allocation of FEs to physical locations in the case of interworking with other networks that support a compatible service shall apply as shown in Table 6.

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Table 6 — Scenarios for the allocation of FEs to physical equipment for SS-MCR in the case of interworking with other networks

	FE1	FE2	FE3
Scenario 3	Requesting User	Requesting User PINX	Co-operating User PINX
Scenario 4	Other network	Other network	Served User PINX
Scenario 5	Requesting User	Requesting User PINX	Other network
Scenario 6	Other network	Other network	Served User PINX
Scenario 7	Requesting User	Requesting User PINX	Other network
Scenario 8	Other network	Other network	Other network

	FE4	FE5	FE6
Scenario 3	Co-operating User	Other network	Other network
Scenario 4	Served User	Destination User PINX	Destination User
Scenario 5	Other network	Destination User PINX	Destination User
Scenario 6	Served User	Other network	Other network
Scenario 7	Other network	Other network	Other network
Scenario 8	Other network	Destination User PINX	Destination User

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