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## Foreword

This European Telecommunication Standard (ETS) has been produced by the Signalling Protocols & Switching (SPS) Technical Committee of the European Telecommunications Standards Institute (ETSI), and is now submitted for the Vote phase of the ETSI standards approval procedure.

In accordance with CCITT Recommendation I.130 [1], the following three level structure is used to describe the supplementary telecommunications services as provided by European public telecommunications operators under the pan-European Integrated Services Digital Network (ISDN):

- Stage 1: is an overall service description, from the user's stand-point;
- Stage 2: identifies the functional capabilities and information flows needed to support the service described in stage 1; and
- Stage 3: defines the signalling system protocols and switching functions needed to implement the service described in stage 1.

This ETS details the stage 2 aspects (functional capabilities and information flows) needed to support the Meet-Me Conference (MMC) supplementary service. The stage 1 aspects are detailed in ETS 300 164 (1992). The individual calls in an MMC are each basic calls with no special signalling functions, therefore no stage three standard is provided.

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## 1 Scope

This standard defines the stage two of the Meet-Me Conference (MMC) supplementary service for the pan-European Integrated Services Digital Network (ISDN) as provided by European public telecommunications operators. Stage two identifies the functional capabilities and the information flows needed to support the service description. The stage two description also identifies user operations not directly associated with a call (see CCITT Recommendation I.130 [1]).

This standard is specified according to the methodology specified in CCITT Recommendation Q.65 [2].

This standard does not formally describe the relationship between this supplementary service and the basic call, but where possible this information is included for guidance.

In addition this standard does not specify the requirements where the service is provided to the user via a private ISDN. This standard does not specify the requirements for the allocation of defined functional entities within a private ISDN; it does however define which functional entities may be allocated to a private ISDN.

This standard does not specify the additional requirements where the service is provided to the user via a telecommunications network that is not an ISDN.

The MMC supplementary service provides an user with the ability to arrange for a call between more than two participants, all participants accessing a conference bridge.

No field of application and no conformance is specified to this standard. Therefore no method of testing is available.

## 2 Normative references

This standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references subsequent amendments to or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- [1] CCITT Recommendation I.130 (1988): "Method for the characterisation of telecommunication services supported by an ISDN and network capabilities of an ISDN".
- [2] CCITT Recommendation Q.65 (1988): "Stage 2 of the method for the characterisation of services supported by an ISDN".
- [3] CCITT Recommendation I.112 (1988): "Vocabulary of terms for ISDNs".
- [4] CCITT Recommendation Q.71 (1988): "ISDN 64 kbit/s circuit mode switched bearer service".
- [5] CCITT Recommendation I.210 (1988): "Principles of telecommunication services supported by an ISDN and the means used to describe them".
- [6] CCITT Recommendation Z.100 (1988): "Functional Specification and Description Language (SDL)".
- [7] Final draft prETS 300 164 (1992): "Integrated Services Digital Network (ISDN); Meet-Me Conference (MMC) supplementary service; Service description".

### 3 Definitions

For the purposes of this standard, the following definitions apply:

**Integrated Services Digital Network (ISDN):** see CCITT Recommendation I.112 [3] § 2.3 definition 308.

**Service; telecommunications service:** see CCITT Recommendation I.112 [3] § 2.2 definition 201.

**Special number:** see ETS 300 164 [7], Clause 3.

**Supplementary service:** see CCITT Recommendation I.210 [5] § 2.4.

### 4 Symbols and abbreviations

CC	Call Control
CCA	Call Control Agent
FE	Functional Entity
FEA	Functional Entity Action
ISDN	Integrated Services Digital Network
LE	Local Exchange
MMC	Meet-Me Conference
PTNX	Private Telecommunications Network eXchange
SDL	Specification and Description Language
TR	Transit exchange

### 5 Description

The MMC supplementary service shall be activated for a specified period booked in advance by the served user, who shall provide some parameters (date and time of the conference start, time of the conference end or conference duration, number of participants). The registration is beyond the scope of this supplementary service.

Each participant to the conference shall dial a special number attached to the booked conference, to access the conference bridge.

### 6 Derivation of the functional model

#### 6.1 Functional model description

The functional model for the MMC supplementary service is shown in figure 1.



Figure 1



A functional model for registration is outside the scope of this standard.

In a basic service the conference ports are assumed to be registered in a similar manner to the provision of multiple accesses to a single terminal.

## 6.2 Description of the functional entities

The functional entity for the MMC supplementary service shall be:

FE1                      MMC supplementary service control entity.

## 6.3 Relationship with a basic service

The relationship with a basic service is shown in figure 2.

NOTE:            The basic call model is defined in CCITT Recommendation Q.71 [4], § 2.1, with the exception that r1 represents an outgoing call relationship from a CCA and r3 represents an incoming call relationship to a CCA.

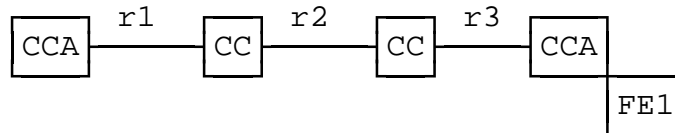


Figure 2

## 7 Information flows

### 7.1 Information flow diagrams

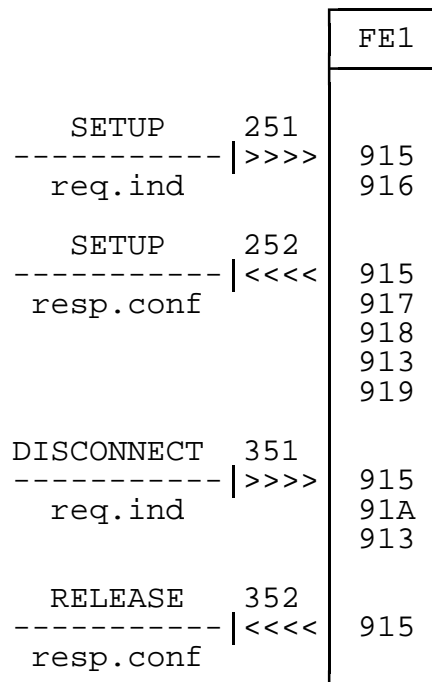


Figure 3: MMC supplementary service functions on an incoming call to a conference

## 7.2 Definition of individual information flows

There are no information flows specific to this service.

## 8 SDL diagrams for functional entities

SDLs are provided according to CCITT Recommendation Z.100 [6].

### 8.1 FE1

The SDLs for FE1 are shown in figures 4 to 10. The key to the contents of the SDLs is shown in table 1.

**Table 1**

Key for timers	
Tmmc1	expires at conference start time
Tmmc2	expires at conference end time minus 5 minutes
Tmmc3	expires at conference end time
Key for in-band notifications	
0	Conference soon starting
1	Waiting for other conferees
2	New conferee connected
3	Welcome to the conference
4	Five minutes before end
5	Operator connected

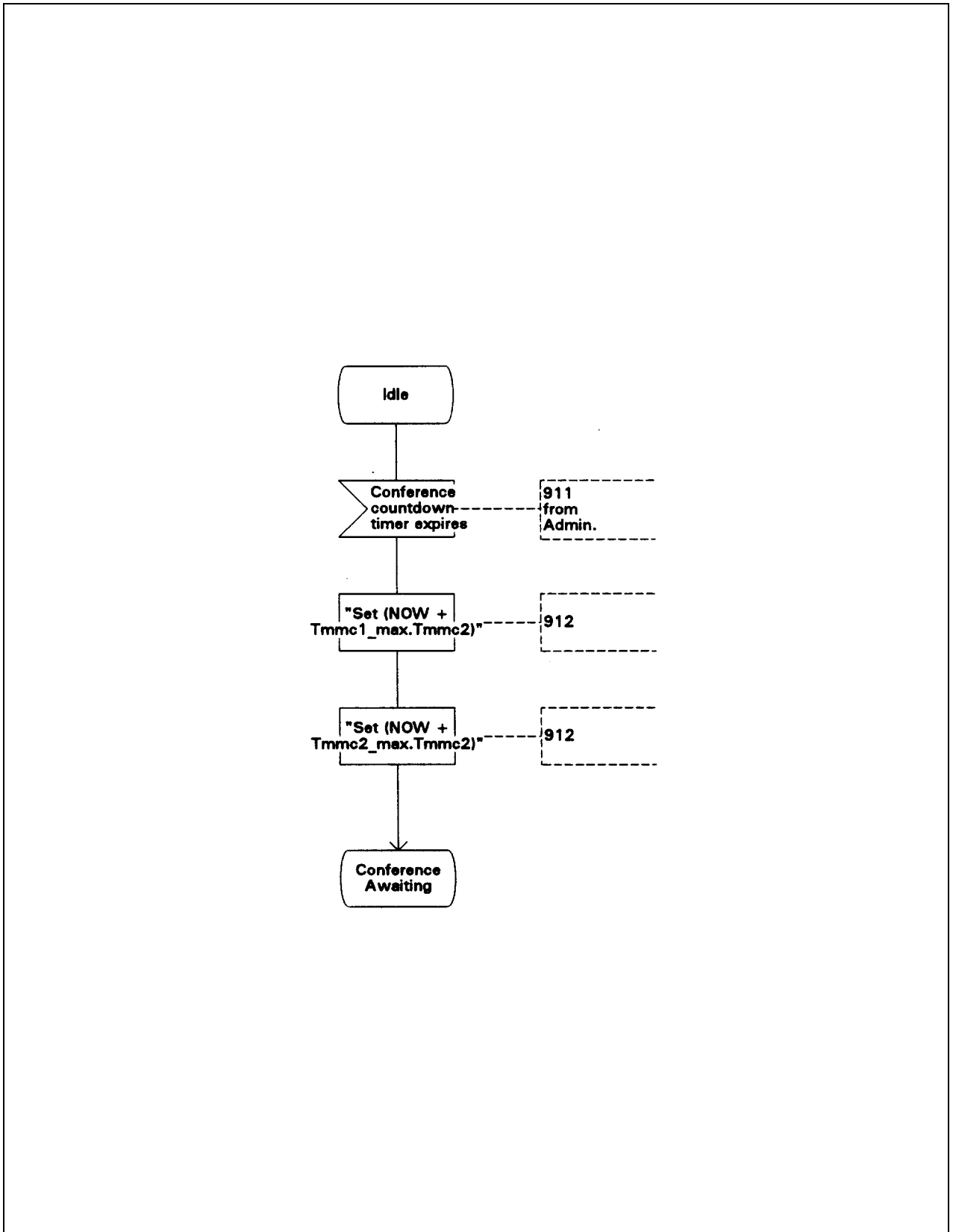


Figure 4

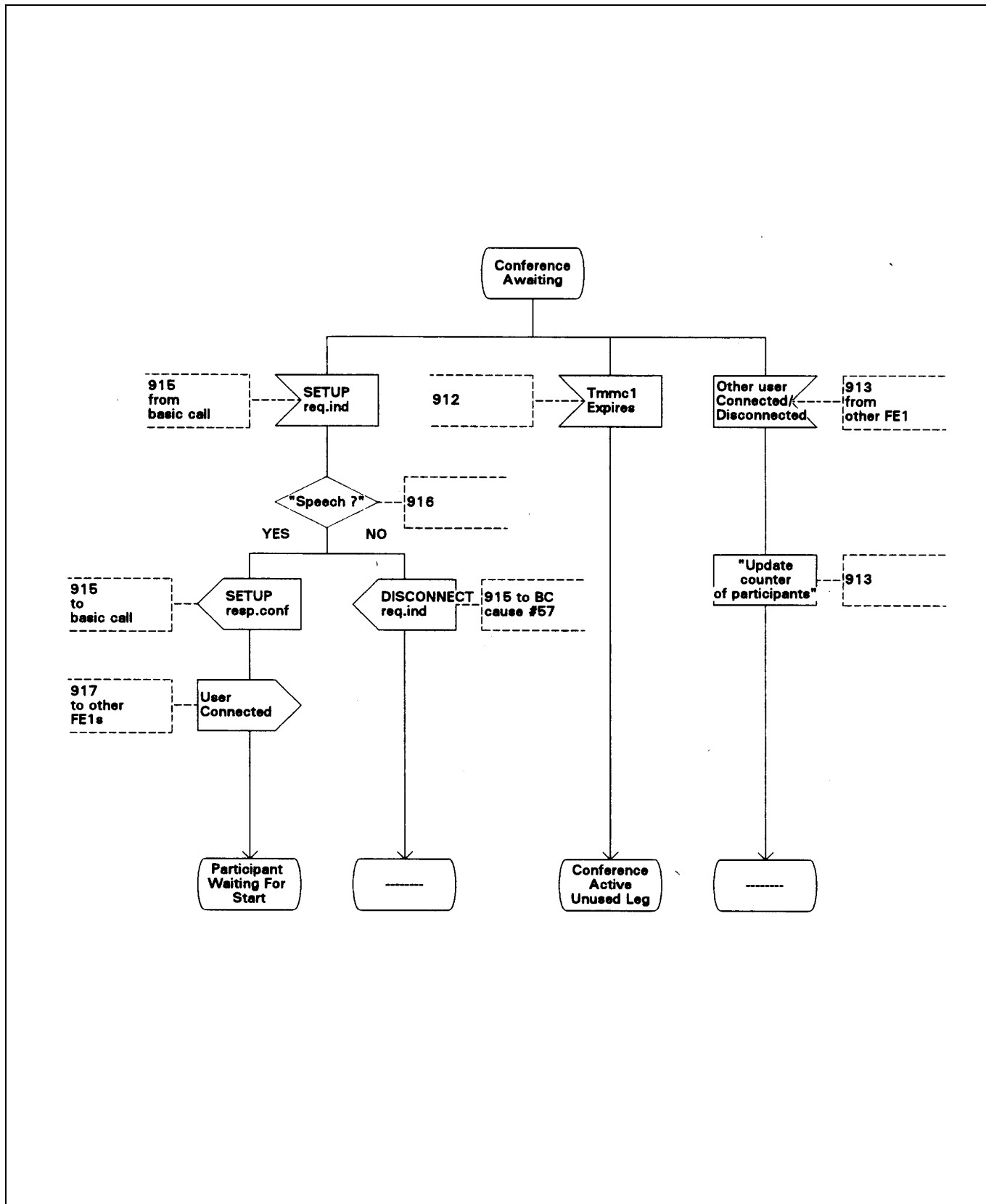


Figure 5

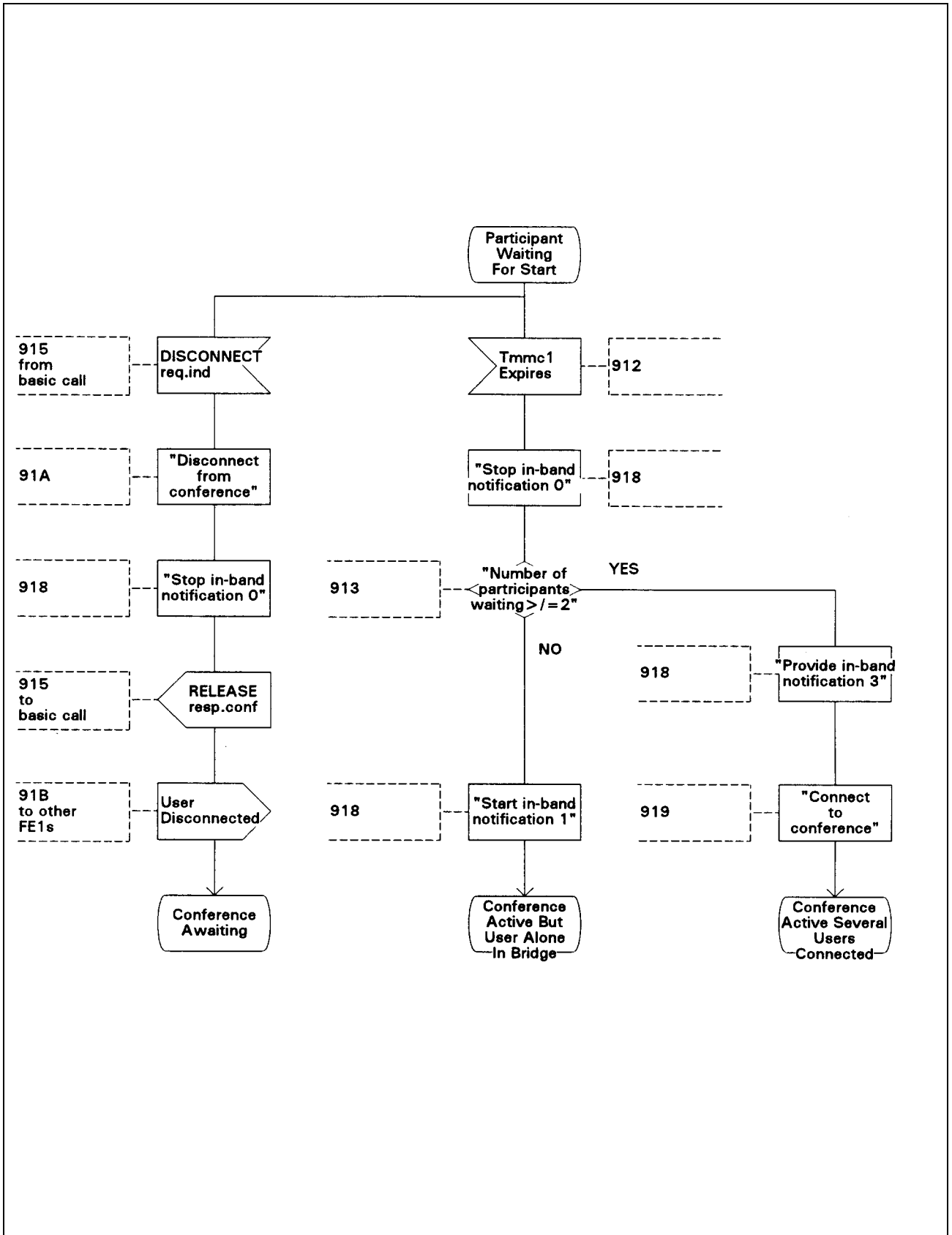


Figure 6 (sheet 1 of 2)





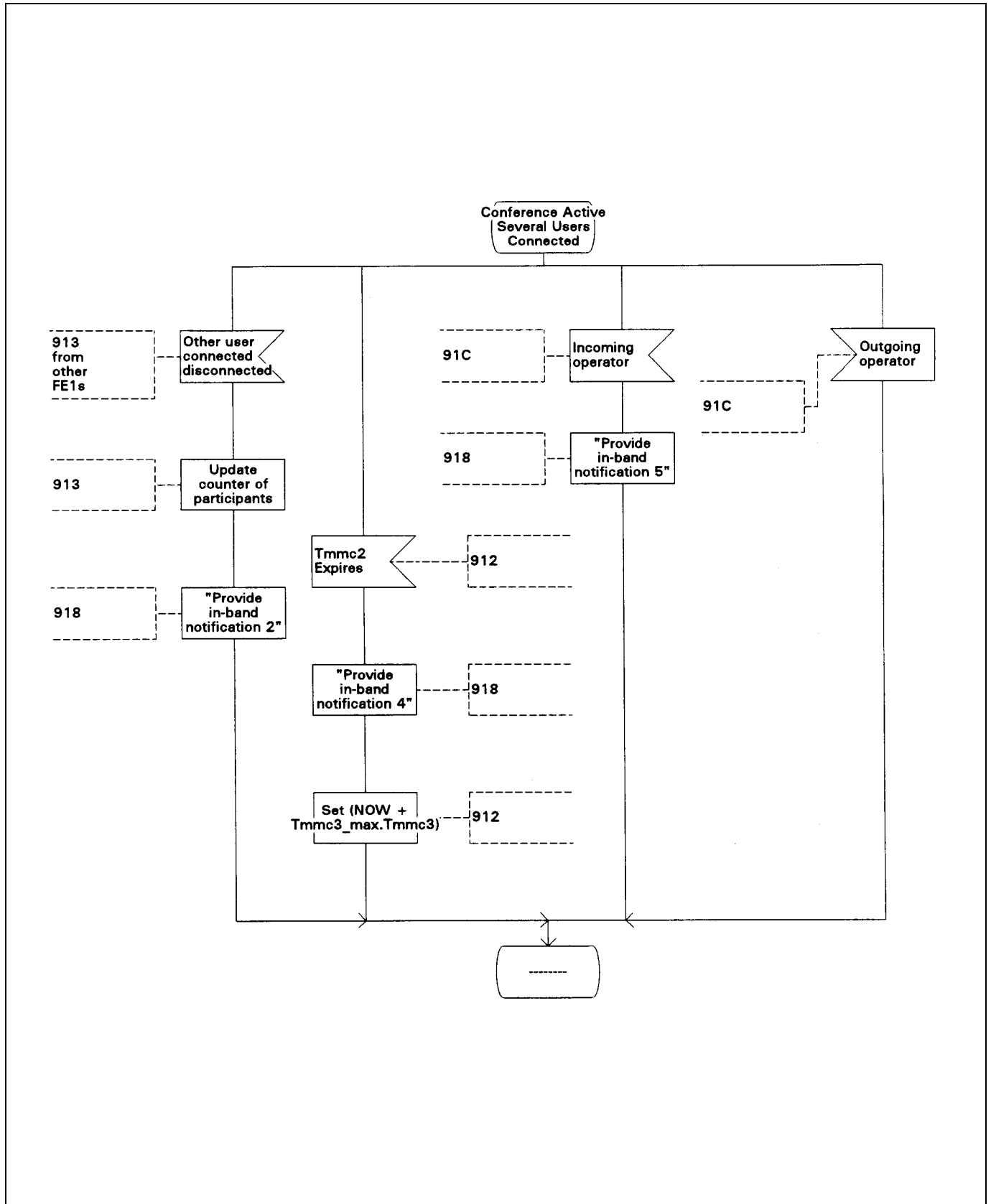


Figure 7 (sheet 2 of 2)



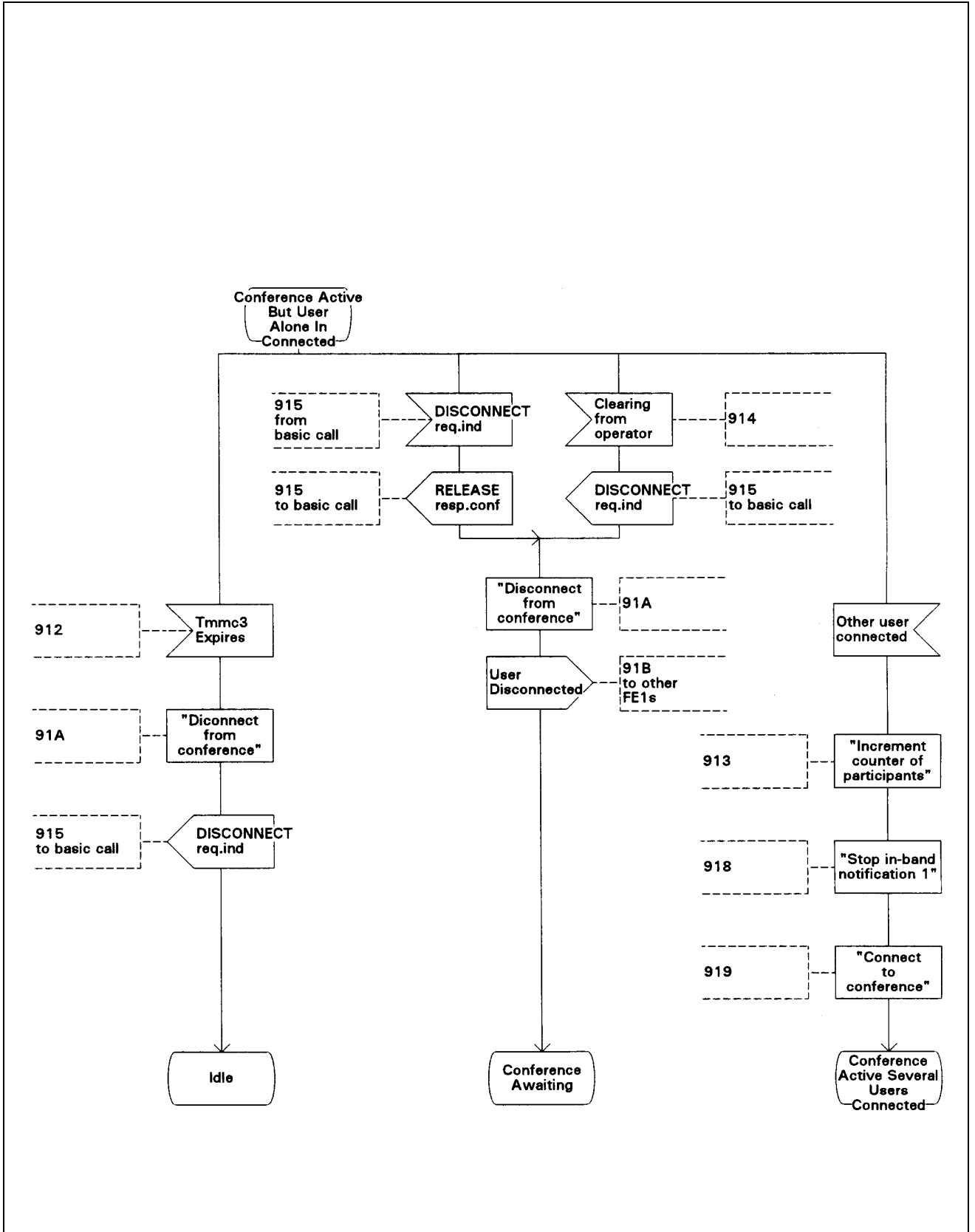


Figure 8 (sheet 1 of 2)

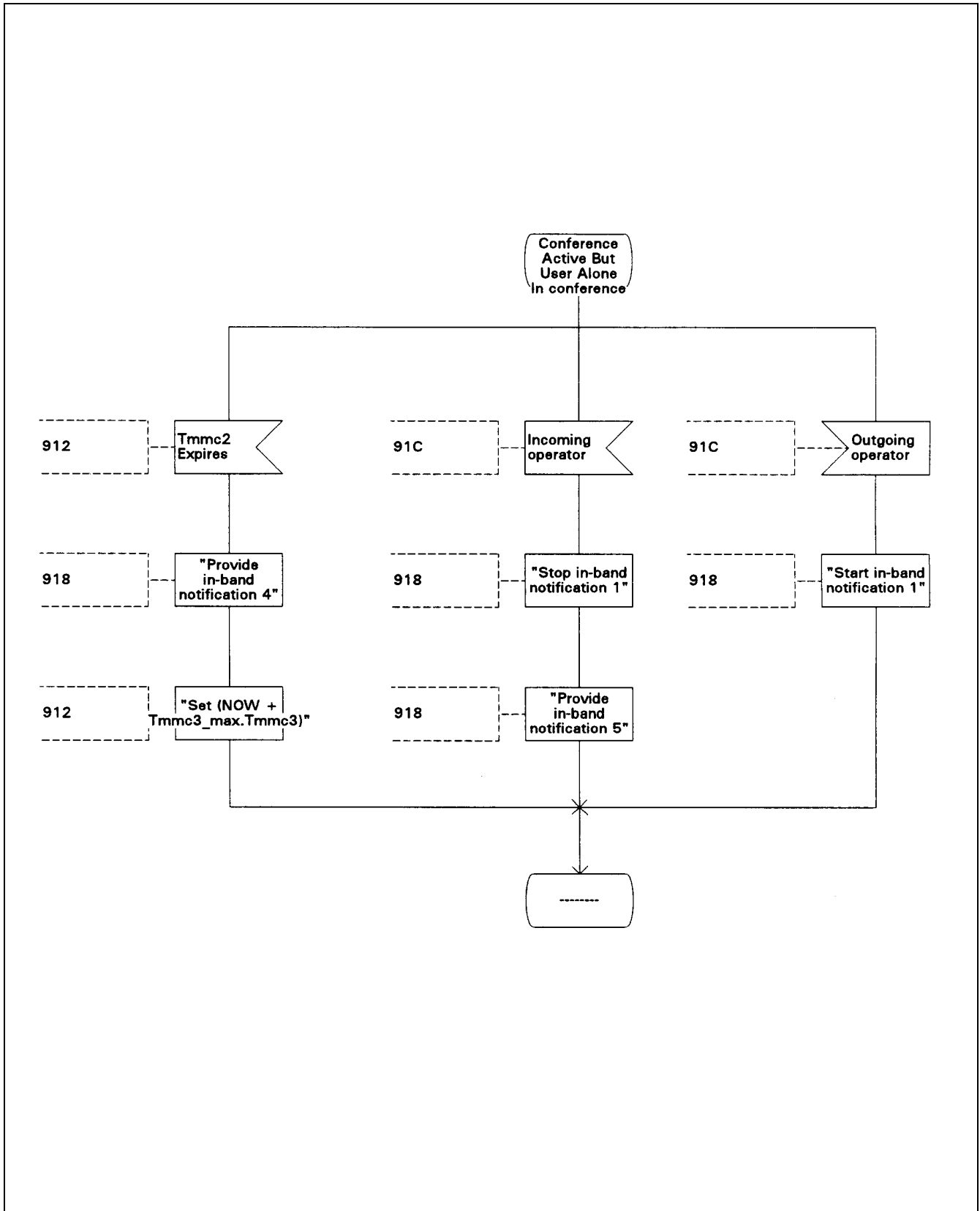


Figure 8 (sheet 2 of 2)

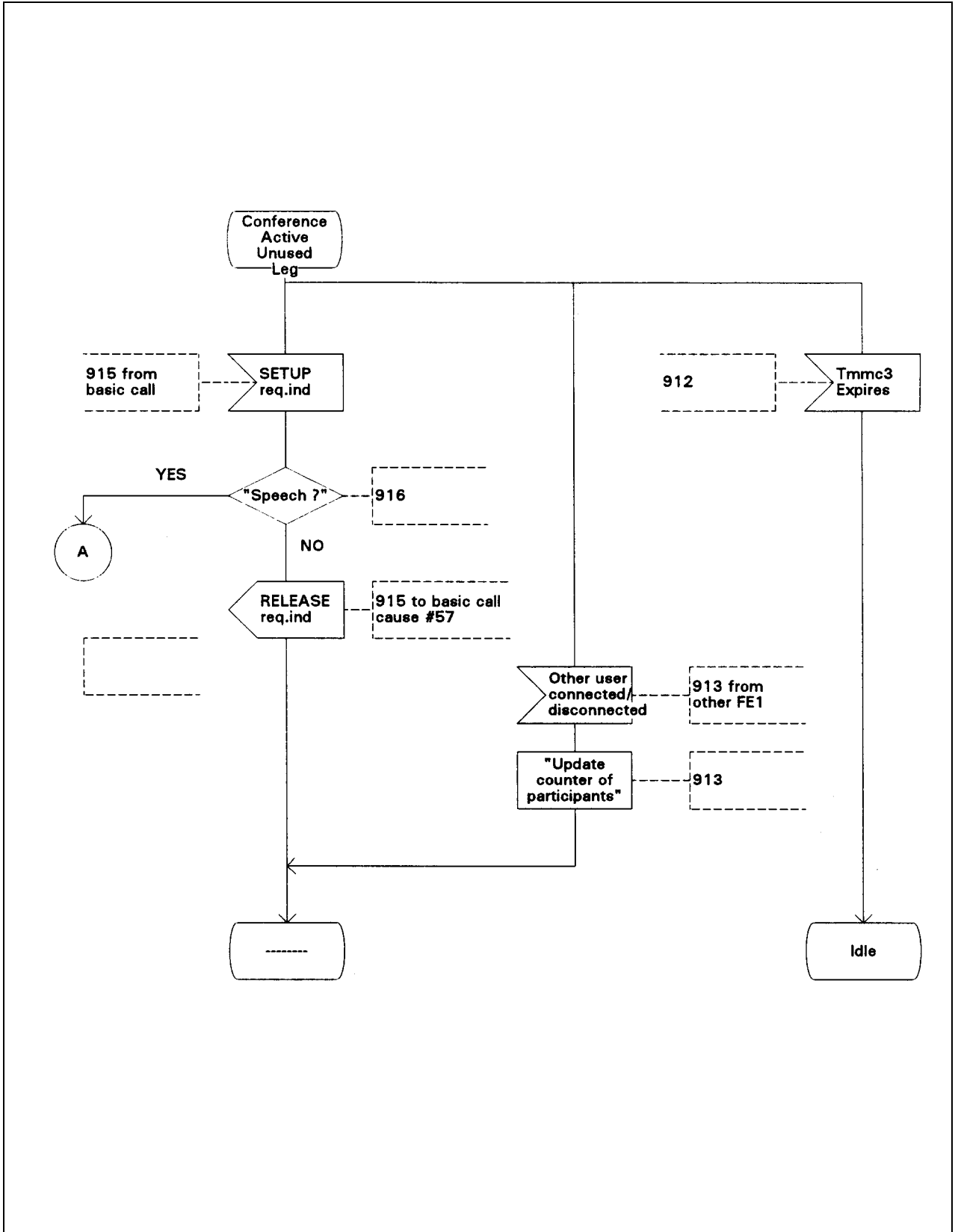


Figure 9 (sheet 1 of 2)

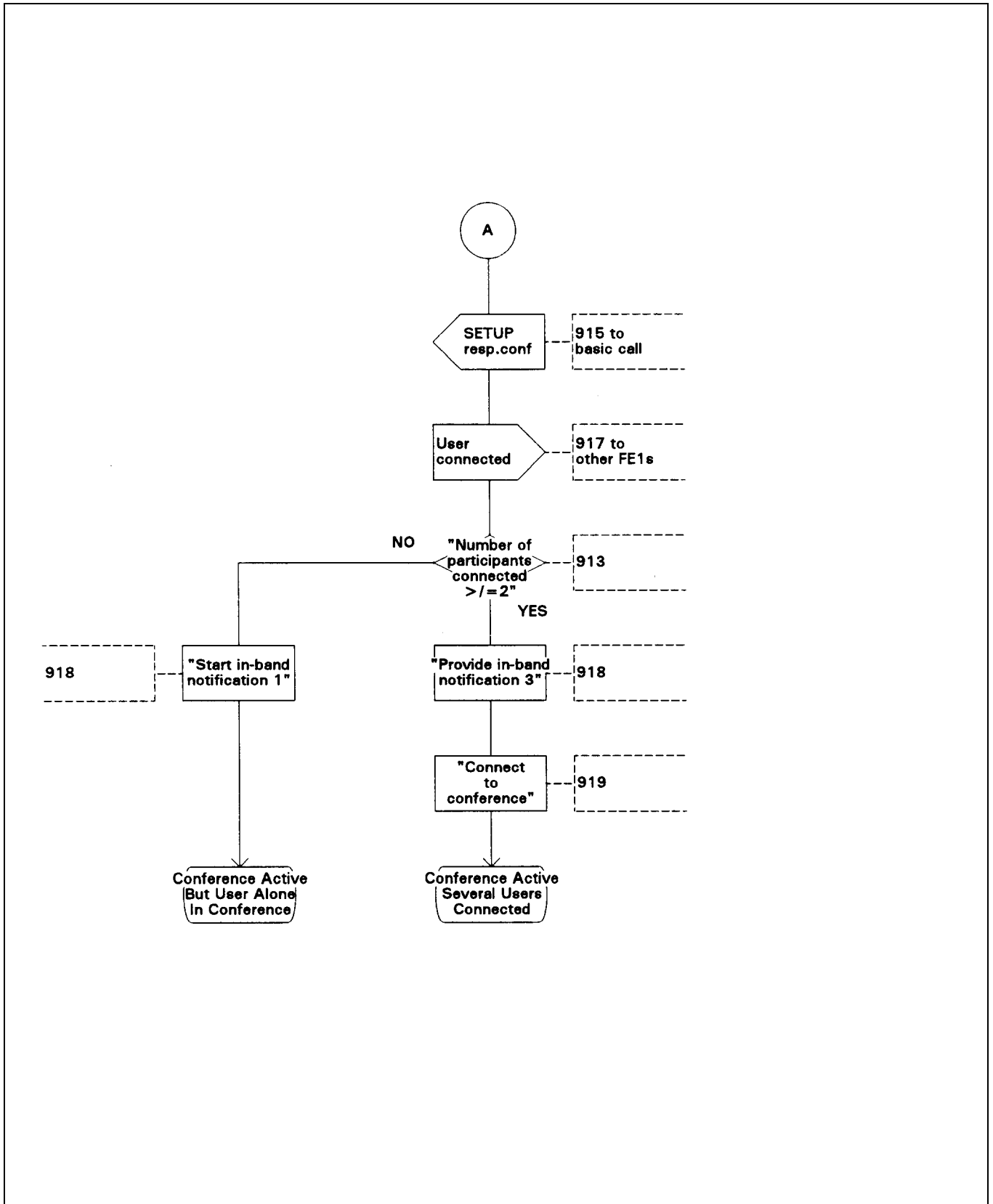
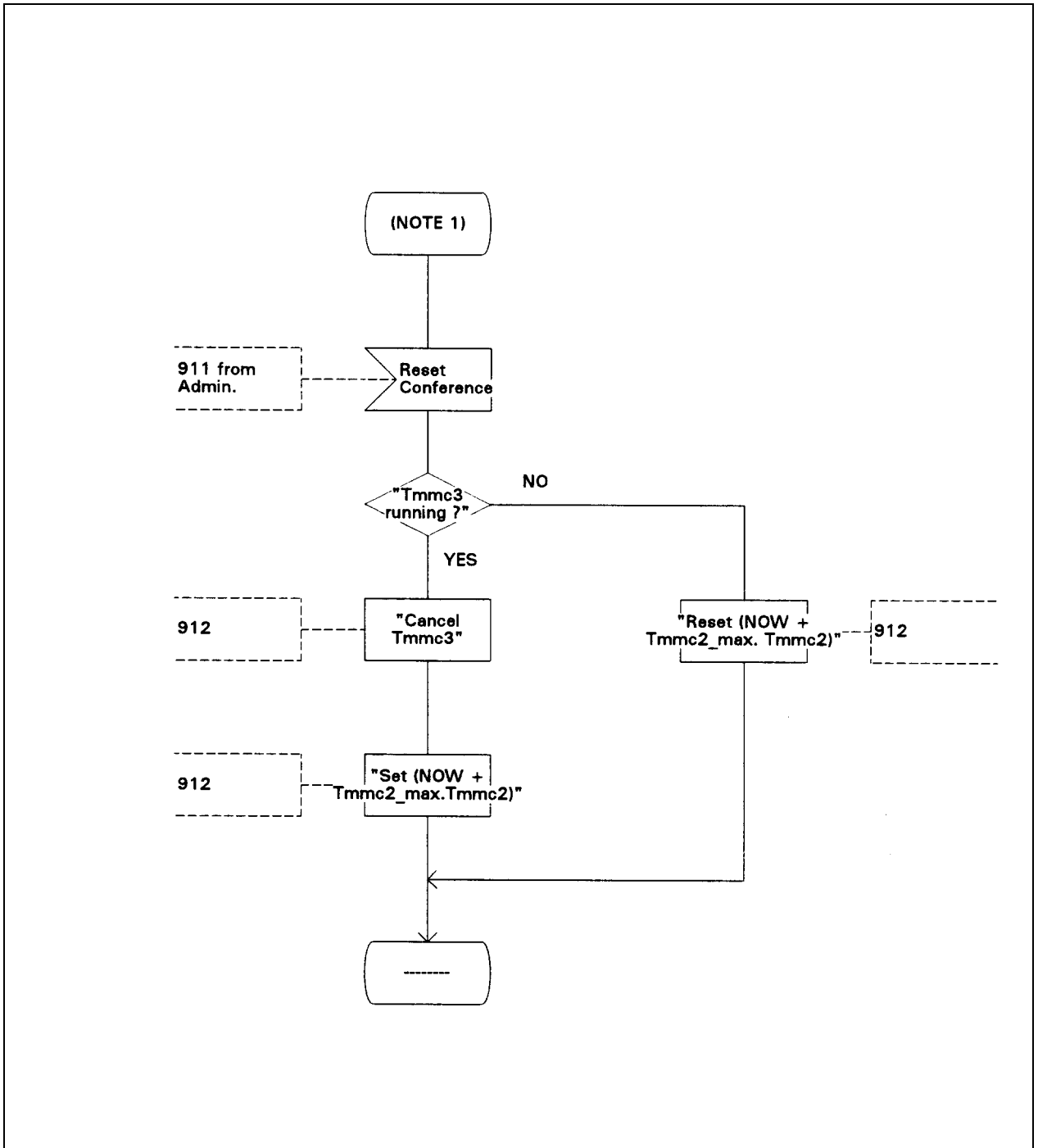


Figure 9 (sheet 2 of 2)



NOTE 1: This figure applies to the following states:

- Conference awaiting;
- Participant waiting for start;
- Conference active, unused leg;
- Conference active, user alone in bridge;
- Conference active several users connected.

Figure 10

## 9 Functional entity actions

### 9.1 FEAs of FE1

For a call to a conference:

- 910: The functional entity shall check the number of conferees connected (NOTE).
- 911: The functional entity shall take into account a parameter initialisation or modification request from the administration (NOTE).
- 912: The functional entity shall set timers and respond to timers' expiration (NOTE).
- 913: The functional entity shall receive information from other FE1 processes and manage the number of conferees (NOTE).
- 914: The functional entity shall take into account a clearing request from the operator.
- 915: The functional entity shall function as a CCA control for incoming calls.
- 916: The functional entity shall check incoming calls bearer capability.
- 917: The functional entity shall inform other FE1 processes of the incoming of a new conferee.
- 918: The functional entity shall provide the conferees with specific information.
- 919: The functional entity shall connect conferees to a conference.
- 91A: The functional entity shall disconnect conferees from a conference.
- 91B: The functional entity shall inform other FE1 processes of the disconnection of existing conferees.
- 91C: The functional entity shall detect the presence/absence of an operator.

NOTE: These are achieved by means of a common relationship which exists between all FE1s involved in a conference call.

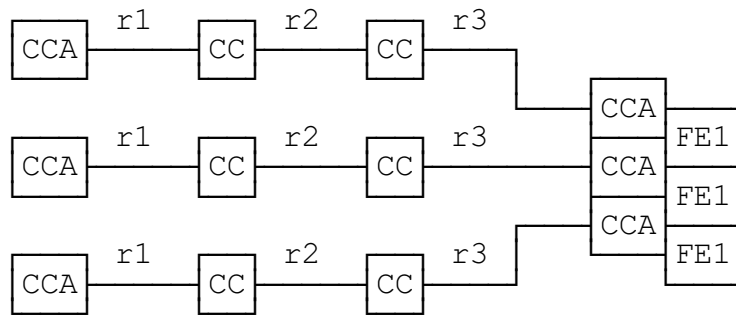
## 10 Allocation of functional entities to physical locations

The possible locations of functional entity FE1 which is always co-located with an associated CCA function to physical locations are shown in table 2.

Table 2

	FE1
Scenario 1	LE
Scenario 2	TR
Scenario 3	PTNX

**Annex A (informative): Multiple connections to a MMC**



**Figure A.1: Explanatory model for multiple connections to MMC**

NOTE: This model is included for information on how multiple basic service connections are made to a MMC using co-located CCAs and FE1s.

## History

<b>Document history</b>	
March 1993	First Edition
May 1996	Converted into Adobe Acrobat Portable Document Format (PDF)