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TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

ITU-T Recommendation Q.734 (03/93)

Stage 3 description for multiparty supplementary services using Signalling System no. 7

Clause 1 – Conference calling

Clause 2 – Three-party service

This covering note is to warn readers that the version of ITU-T Q.734.2 (03/93) contained in the volume ITU-T Q.734 (03/93) is "obsolete", superseded by ITU-T Q.734.2 (07/96). Only ITU-T Q.734.1 (03/93) remains in force.

ITU-T Q.734.2 (03/93) was originally published with ITU-T Q.734.1 (03/93) in the same volume named ITU-T Q.734 (03/93). ITU-T Q.734.2 (07/96) was subsequently published separately.

To correct this situation, the electronic version of ITU-T Q.734 (03/93) was split into two, with ITU-T Q.734.1 (03/93) remaining "in-force" and ITU-T Q.734.2 (03/93) labelled as "obsolete".



INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

Q.734

(03/93)

SPECIFICATIONS OF SIGNALLING SYSTEM No. 7

STAGE 3 DESCRIPTION FOR MULTIPARTY SUPPLEMENTARY SERVICES USING SIGNALLING SYSTEM No. 7

CLAUSE 1 – CONFERENCE CALLING
CLAUSE 2 – THREE-PARTY SERVICE

ITU-T Recommendation Q.734

(Previously “CCITT Recommendation”)

FOREWORD

The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the International Telecommunication Union. The ITU-T 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 World Telecommunication Standardization Conference (WTSC), which meets every four years, established the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

ITU-T Recommendation Q.734, clauses 1 and 2, was prepared by the ITU-T Study Group XI (1988-1993) and was approved by the WTSC (Helsinki, March 1-12, 1993).

NOTES

1 As a consequence of a reform process within the International Telecommunication Union (ITU), the CCITT ceased to exist as of 28 February 1993. In its place, the ITU Telecommunication Standardization Sector (ITU-T) was created as of 1 March 1993. Similarly, in this reform process, the CCIR and the IFRB have been replaced by the Radiocommunication Sector.

In order not to delay publication of this Recommendation, no change has been made in the text to references containing the acronyms "CCITT, CCIR or IFRB" or their associated entities such as Plenary Assembly, Secretariat, etc. Future editions of this Recommendation will contain the proper terminology related to the new ITU structure.

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

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CONTENTS

	<i>Page</i>
1 Conference calling	1
1.1 Definition.....	1
1.2 Description.....	1
1.3 Operational requirements.....	2
1.4 Coding requirements.....	2
1.5 Signalling requirements	3
1.6 Interactions with other supplementary services.....	6
1.7 Interaction with other networks	8
1.8 Signalling flows	8
1.9 Parameter values (timers)	16
1.10 Dynamic description	16
2 Three party	16
2.1 Definition.....	16
2.2 Description.....	16
2.3 Operational requirements.....	17
2.4 Coding requirements.....	17
2.5 Signalling requirements	18
2.6 Interactions with other supplementary services.....	20
2.7 Interactions with other networks.....	22
2.8 Signalling flows	22
2.9 Parameter values (timers)	25
2.10 Dynamic description.....	25



STAGE 3 DESCRIPTION FOR MULTIPARTY SUPPLEMENTARY SERVICES USING SS No. 7

(Helsinki, 1993)

1 Conference calling

1.1 Definition

conference calling (CONF) is an ISDN supplementary service which allows a user to communicate simultaneously with multiple parties, which may also communicate among themselves.

1.2 Description

1.2.1 General description

This supplementary service provides a user with the ability to have multi-connection call, i.e. a simultaneous communication between more than two parties.

When conference calling is invoked, the conference resources (e.g. a “bridge”) are allocated to the served user and any calls indicated by the service request are allocated to the conference.

This description is only applicable in case the conference bridge is located at the local exchange of the served user.

Once a conference is active, parties may be added, dropped, isolated (i.e. prevented from communicating with the conference), reattached or split (i.e. removed from the conference but remain connected to the conference controller).

The controller can place her/his connection to the conference on hold, retrieve the conference, disconnect herself/himself from the conference and release the entire conference.

The stage 1 definition for the conference calling supplementary service is given in Recommendation I.254.1. The stage 2 description for the conference calling supplementary service is given in Recommendation Q.84.1. The stage 3 DSS 1 description is given in Recommendation Q.954.1. This stage 3 description of the conference calling supplementary service uses ISDN user part protocol as defined in Recommendations Q.761-Q.764 and Q.730.

1.2.2 Specific terminology

Served user – The user which requests the conference call. The served user will be the user controlling the conference call. The served user may also be referred to as user A.

Conferee – The users involved in the conference not controlling the conference, i.e. all participants except the served user are referred to as conferees or parties. The conferees may also be known as users B, C, ...

Isolate – An action at the access that restricts communication in both direction with a participant of the conference.

Reattach – An action at the access that re-establishes the communication with a participant of the conference.

Split – An action at the access that creates a private communication between the served user and a remote user. The private communication is a normal “two-party” call.

Drop – An action at the access that clears the connection to a remote party.

Floating – The situation where the conference calling supplementary service exist without the served user.

1.2.3 Qualifications on the applicability to telecommunication services

See stage 1 description, Recommendation I.254.1.

1.2.4 State definitions

No specific state definitions are identified.

1.3 Operational requirements

1.3.1 Provision/withdrawal

See stage 1 description, Recommendation I.254.1.

1.3.2 Requirements on the originating network side

Not applicable.

1.3.3 Requirements in the network

No specific requirements are needed in the network.

1.3.4 Requirements on the terminating network side

Not applicable.

1.4 Coding requirements

The call progress message containing the generic notification indicator parameter including the notification in Table 1-1 will be sent towards the remote user when appropriate.

TABLE 1-1/Q.734

Generic notification indicator parameter field

Bits 7654321	Description
1000010	Conference established
1000011	Conference disconnected
1000100	Other party added
1000101	Isolated
1000110	Reattached
1000111	Other party isolated
1001000	Other party reattached
1001001	Other party split
1001010	Other party disconnected
1001011	Conference floating

The event indicator shall be coded 0000010 “Progress”.

The generic notification indicator parameter is accompanied by the parameter compatibility information parameter. The procedures for compatibility are defined in Recommendation Q.764.

1.5 Signalling requirements

The following ISUP procedures apply in case network option for user notifications is supported.

1.5.1 Activation/deactivation/registration

Not applicable.

1.5.2 Invocation and operation

1.5.2.1 Actions at the originating local exchange

In this case, the originating exchange is the exchange where the service is controlled. The originating exchange for this service is not necessarily the originating exchange for basic call.

1.5.2.1.1 Normal operation

1.5.2.1.1.1 Requirements related to echo control

a) *General*

The originating local exchange where the conference bridge is located should have the capability to invoke echo control procedures. This is necessary in case the total propagation delay for two legs in the conference is above the value where echo control is necessary (ref. 2.6/Q.764).

The exchange must also have the capability of storing propagation delay information received either in a received IAM (for incoming calls) or in ANM/CON (for outgoing calls) until call release. This must be done for all legs included in the conference.

b) *Criteria to initiate echo control procedures*

Upon adding a new call to the conference, the received propagation delay value related to this leg shall be added to each of the other legs to decide whether echo control apply for the legs concerned.

If echo control is necessary, the exchange will initiate echo control procedures for each of the legs concerned. (2.7/Q.764).

1.5.2.1.1.2 Requesting a conference from an active call and adding conferees

Upon successful request to begin the conference from an active call, user B participating in the active call will be added to the conference. A notification “conference established” shall be sent to user B informing that a connection to the conference is now established. The notification is conveyed in a call progress message (CPG).

Upon request to add a new conferee (user C) to the conference, a check is performed whether or not the maximum number of conferees is reached for that conference.

Upon the successful outcome of the add-on request, a notification “conference established” is sent to user C informing that connection to the conference is now established. The notification is conveyed in a CPG message. A notification “other party added” is sent in a CPG message towards all the non-affected conferees informing them that a new party is added to the conference call.

1.5.2.1.1.3 Isolate a party

The conference controller may request to isolate one conferee from the conference. The conferee is still connected to the conference, but communication in either direction is impossible.

A notification “isolated” is sent to the affected conferee informing that he/she is isolated from the conference. The notification is conveyed in a CPG message.

A notification “other party isolated” is sent within a CPG message towards all the non-affected conferees informing them that one party is isolated from the conference.

1.5.2.1.1.4 Reattach a party

The conference controller may request to reattach the isolated conferee to the conference.

A notification “reattached” is sent to the affected conferee informing that he/she is reattached to the conference. The notification is conveyed in a CPG message.

A notification “other party reattached” is sent within a CPG message towards all the non-affected conferees informing them that the isolated party is now reattached to the conference call.

1.5.2.1.1.5 Split a party

The conference controller may request to create a private communication with one of the conferees (splitting).

A notification “conference disconnected” is sent to the affected conferee informing that he/she is connected to the conference controller only. The notification is conveyed in a ISUP CPG message.

A notification “other party disconnected” is sent within a CPG message towards all the non-affected conferees informing them that the conference controller has split off with another party.

1.5.2.1.1.6 Disconnect a party

The conference controller may request to disconnect (drop) one or more of the parties on a one at a time basis. Normal release procedures apply towards the dropped conferee(s).

A notification “other party disconnected” is sent within a CPG message towards all the non-affected conferees informing them that another party is dropped from the conference.

1.5.2.1.1.7 Disconnect by a party

A conferee may request to be disconnected from the conference call. Normal release procedure apply for the leg between the conferee and the conference bridge.

A notification “Other party disconnected” is sent within a CPG message towards all the non-affected conferees informing them that another party has disconnected from the conference.

1.5.2.1.1.8 Terminate the conference

The conference controller may request to release the conference. The conference resources shall be released and normal release procedures apply towards all the conferees.

1.5.2.1.1.9 Disconnect the served user

The conference controller may explicitly request to be disconnected from the conference. The conferees will still be connected to the conference.

A notification “conference floating” is sent within a CPG message towards all the conferees informing them that the conference is now within a floating state, i.e. no conference controller is connected to the conference.

The conference resources shall be released when only one conferee is connected to the bridge or requirements for charging cannot be met. Normal basic call release procedures apply towards the remaining conferee.

1.5.2.1.1.10 Call clearing by served user

The conference controller may request to disconnect from the conference according to normal basic call procedure. If the conditions for floating are met the served user will be disconnected from the conference bridge, but the conferees will still be connected to the conference.

A notification “conference floating” is sent within a call progress message towards all the conferees informing that the conference is now within a floating state, i.e. no conference controller is connected to the conference.

The conference resources shall be released when only one conferee is connected to the bridge or requirements for charging can not be met. Normal basic call release procedures apply towards the remaining conferee.