ITU Telecommunication Standardization Sector AVC-1120
Former Q.2&3/15 Rapporteur Meeting
Boston, ... 18-21 February 1997
Original: English

STUDY GROUP 16
CONTRIBUTION

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TITLE: Discussion of Call Park Supplementary Service in H.323

Date: February 17, 1997

Purpose: To add Call Park Supplementary Service to Annex C of H.323

Overview: At the last meeting of Q.2/15 in Boulder (12/96), it was tentatively decided to start a new Annex C of H.323 for supplementary service specifications. This contribution discusses requirements and possible scenarios for a specification of the call park supplementary service for H.323 terminals. According to the Boulder results, the text is tentatively structured in the style of an Annex C.4 of H.323; however it may be decided that some more protocol related parts of it (particularly the detailed coding) might be moved to a new Annex of H.225.0 rather than H.323.

Table of Contents

C.4 Call Park and Unpark

C.4.1 Scope and Field of Application

This section describes the Call Park supplementary service (SS-CP), which is applicable to various basic services supported by H.323 Multimedia Terminals.

C.4.2 Definition

Call Park (SS-CP) is a supplementary service which enables the served user (user A) to place an existing call with user B to a parking position. The call can later be unparked by retrieving the parked party from the same terminal or another terminal. Upon successful invocation of the call park supplementary service the terminal that parked the call becomes idle and is no longer involved in communication. The parking position typically provides music/ video-on-hold to user B during the parking phase.

C.4.3 Description

C.4.3.1 Park

The call park supplementary service can be invoked by user A communicating with user B. In order to place a call into a parking position there are two forms of call parking: directed call park and non-directed call park.

In directed call park, user A specifies the destination address where the call is to be parked. This roughly behaves like single step transfer (see AVC-1117) to the destination address, but it doesn't alert or time out as a transfer would.

In non-directed call park, a default parking location is selected and the address, where the call has been parked, is returned to user A.

If the parking position allows to park more than one call, the user has to indicate a call identity while parking the call in order to be able to unpark that particular call at a later point of time. This call identity might be a default value or may be requested by a consultation call (see AVC-1117) of user A to the parking position.

The parking position may request that a user parking a call verifies its respective access rights.

If the call park invocation is unsuccessful (e.g. maximum number of parked calls at the requested parking position is exhausted), user A shall be informed.

C.4.3.2 Unpark

A parked call is retrieved upon user request by sending an unpark request to the parking position. The unpark request may be sent by the user that initially parked the call (user A), or by any other authorized user (user A´). Typically user A´ may correspond to the same human user picking up the call from an other terminal. If needed, user A may provide user A´ with the required information to unpark the call.

The unpark request shall contain the address of the parking position and the call identity unless default values apply for them.

The parking position may request that a user unparking a call verifies its respective access rights.

After successful unpark user A communicates with user B.

C.4.4 Example

The following message flows show a simple example for park and unpark.

The example assumes that the following conditions apply:

-only one default parking position is assigned to user A

-only one call at a time can be placed at that parking position

-the call is retrieved by the same user that initially parked the call (user A)

C.4.4.1 Park

C.4.4.1.1 Operational model

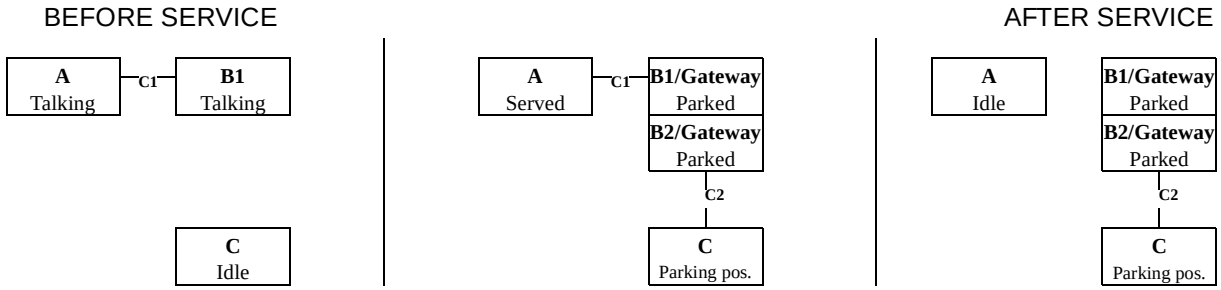

Figure 7 -1 Operational model for call park

C.4.4.1.2 Description from user point of view:

User A (parking): communicating with B; selects address of C; transfers B to C

transfer accepted; idle

User B (parked): communicating with A; receives notification of call park; receive music, video

Row no.	**User / Application action**	a) primitive b) state c) timer	Note	**IP, H.225, QSIG, CSTA, H.245**	Note	a) primitive b) state c) timer	**User / Application action**
1	**MM Terminal A**			**Network**		**MM Terminal B**	
2	Active Basic Call between TE A and TE B Capabilities exchanged H.225 connection still exists UDP path for audio open						
3	Park call	*Transfer with rerouting (see AVC-1117)* rerouteingNumber=[address of C]					

C.4.4.2 Unpark

C.4.4.2.1 Operational model

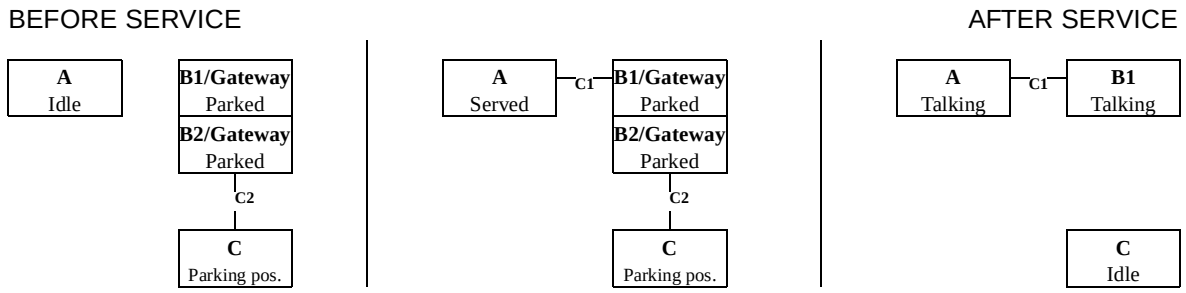

Figure 7 -2 Operational model for call park

C.4.4.2.2 Description from user point of view:

User A (unparking): selects address of C; request unpark; receive notification of incoming call; accept call; communicating with B

User B (parked): receive music, video from C; receive request of transfer; calling A; communicating with A

Row no.	User / Application action	a) primitive b) state c) timer	Note	IP, H.225, QSIG, CSTA, H.245	Note	a) primitive b) state c) timer	User / Application action
4	**MM Terminal B**			**Network**		**MM Terminal C**	
5	Parked call between TE B and TE C H.225 connection exists						
6	**MM Terminal A**			**Network**		**MM Terminal C**	
7	Request to unpark call			H.225 <SETUP> → Facility IE: invoke callUnpark			Receive H.225 setup_indication
8	receive unpark confirmation			H.225 <CONNECT> ← Facility IE: returnResult callUnpark			Receive unpark request
9	**MM Terminal B**			**Network**		**MM Terminal C**	
10		*Transfer with rerouting (see AVC-1117)* rerouteingNumber=[address of A]					request B to call A
11	**MM Terminal A**			**Network**		**MM Terminal C**	
12	Receive H.225 release_indication			H.225 <RELEASE COMPLETE> ←			release call to TE A
13	**MM Terminal B**			**Network**		**MM Terminal C**	

Row no.	**User / Application action**	a) primitive b) state c) timer	Note	**IP, H.225, QSIG, CSTA, H.245**	Note	a) primitive b) state c) timer	**User / Application action**
14	Receive H.225 release_ indica-tion			H.225 <RELEASE COMPLETE> ◄——			release call to TE B