

3GPP2 X.S0004-325-E

v 1.0

Date: April 2008



3RD GENERATION  
PARTNERSHIP  
PROJECT 2  
"3GPP2"

## Mobile Application Part (MAP) -

### VOICE FEATURE SCENARIOS: CONFERENCE CALLING

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# REVISION HISTORY

Revision	Date	Remarks
X.S0004-325-E v1.0	April 2008	Initial publication.

# 1 INTRODUCTION

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Unless otherwise noted, the scenarios in this Part depict features operating individually; i.e., feature interactions are not considered unless specifically noted.

The scenarios in this Part do not include a complete listing of operation parameters, either in the figures or in the accompanying text descriptions. Parameters are included where they are deemed necessary to improve the understanding of the scenario. For a complete description of the parameters associated with each operation, refer to Parts 540 and 550.

## 2 THREE-WAY CALLING

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No feature-specific intersystem operations are required for the Three-Way Calling (3WC) feature.

## 3 CONFERENCE CALLING

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This section depicts the interactions between network entities in various situations related to automatic roaming and Conference Calling (CC). These scenarios are for illustrative purposes only.

### 3.1 CC Invocation with Call Setup Request

This scenario describes the invocation of CC by an authorized MS. The invocation occurs with a concurrent call setup request. It also illustrates how another party is added to the conference call via the entry of a feature code string by the controlling subscriber.

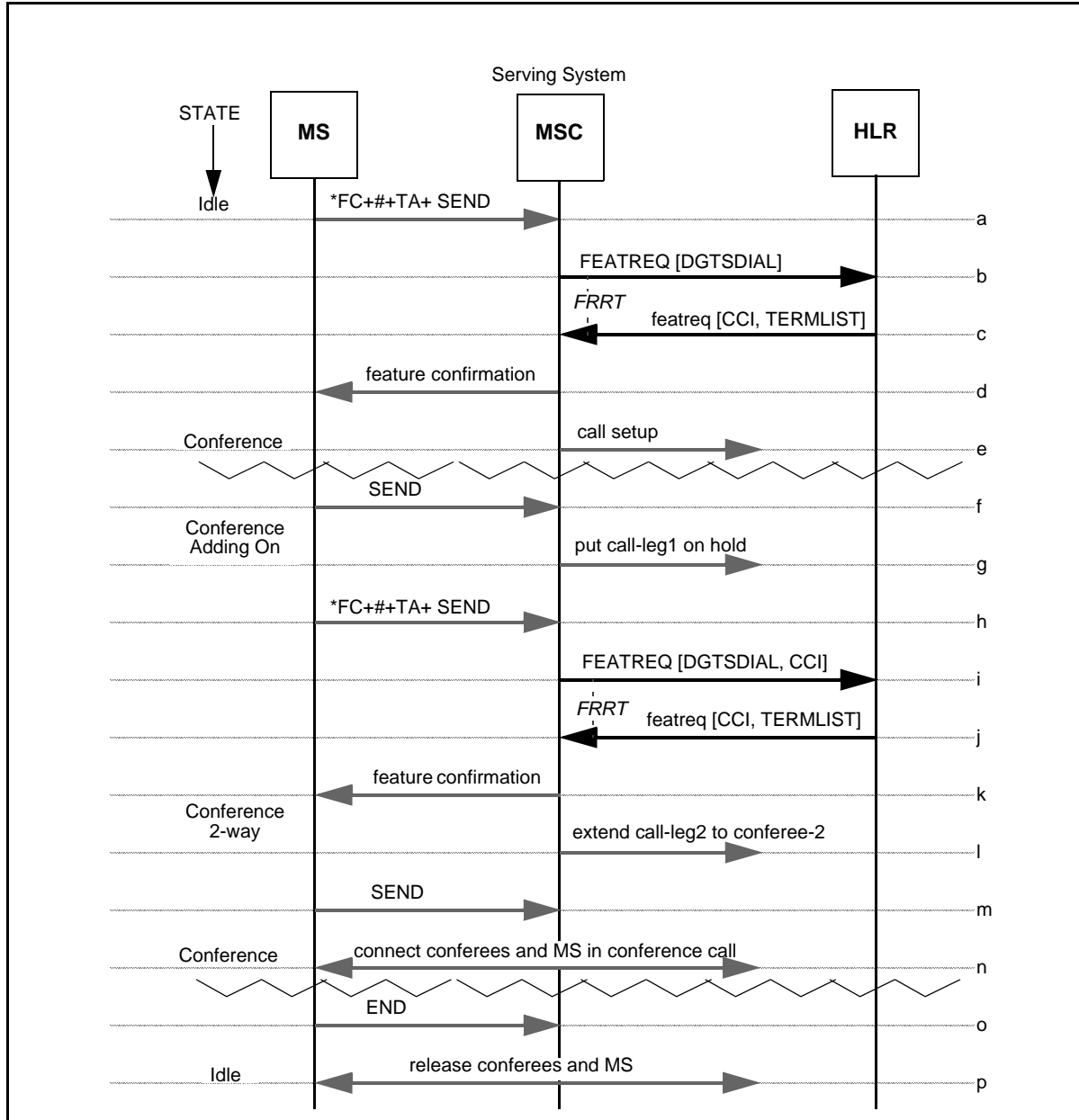


Figure 1 — CC Invocation with Call Setup Request

- a. A call origination and dialed digits are received by the Serving MSC. During analysis of the dialed digits, the Serving MSC detects a feature code string.
- b. The dialed digits are included in a FEATREQ and sent from the Serving MSC to the HLR associated with the MS.

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- c. The HLR detects the authorized CC request and sends a `featreq` to the Serving MSC. The `featreq` includes call routing information in the `TerminationList` parameter. It also includes the `ConferenceCallingIndicator` parameter, indicating that Conference Calling is active for the call.

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Additional Parameters	Usage	Type
CCI	ConferenceCallingIndicator. Presence of this parameter indicates that the outgoing call is to be handled as a Conference Call. The parameter carries the maximum number of allowed conferees.	R

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- d. The Serving MSC stores the `ConferenceCallingIndicator` information, activates conference calling, and provides treatment to the served MS as indicated in the `featreq`. In this case, the treatment is to apply feature confirmation.
- e. The Serving MSC extends the call using the call routing information in the `TerminationList` parameter (call-leg-1).
- f. MS-1 sends a flash request to the Serving MSC (i.e., presses the `SEND` key).
- g. The Serving MSC puts call-leg-1 on hold.
- h. Dialed digits are received by the Serving MSC. During analysis of the dialed digits, the Serving MSC detects a feature code string.
- i. The dialed digits are included in a `FEATREQ` and sent from the Serving MSC to the HLR associated with the MS. The Serving MSC also includes the `ConferenceCallingIndicator` parameter, indicating the number of conferees already in the call.
- j. The HLR detects the authorized CC request and sends a `featreq` to the Serving MSC. The `featreq` includes call routing information in the `TerminationList` parameter. It also includes the `ConferenceCallingIndicator` parameter, indicating that Conference Calling is active for the call and the maximum number of allowed conferees.
- k. The Serving MSC provides treatment to the served MS as indicated in the `featreq`. In this case, the treatment is to apply feature confirmation.
- l. The Serving MSC extends the call using the call routing information in the `TerminationList` parameter (call-leg-2).
- m. MS-1 sends a Flash Request to the Serving MSC (i.e., presses the `SEND` key).
- n. The Serving MSC connects the served MS, the held conferee and the new party into a conference call.
- o. MS-1 sends a Disconnect Request to the Serving MSC (i.e., presses the `END` key).
- p. The Serving MSC releases the served MS and conferees and discards the `ConferenceCallingIndicator` information.

### 3.2 CC Add Party (Without Feature Code Entry)

This scenario describes the invocation of CC by an authorized MS. The invocation occurs with a concurrent call setup request. It also illustrates how another party is added to the conference call via the entry of a termination address only (i.e., no feature code is entered when adding the second party) by the controlling subscriber.

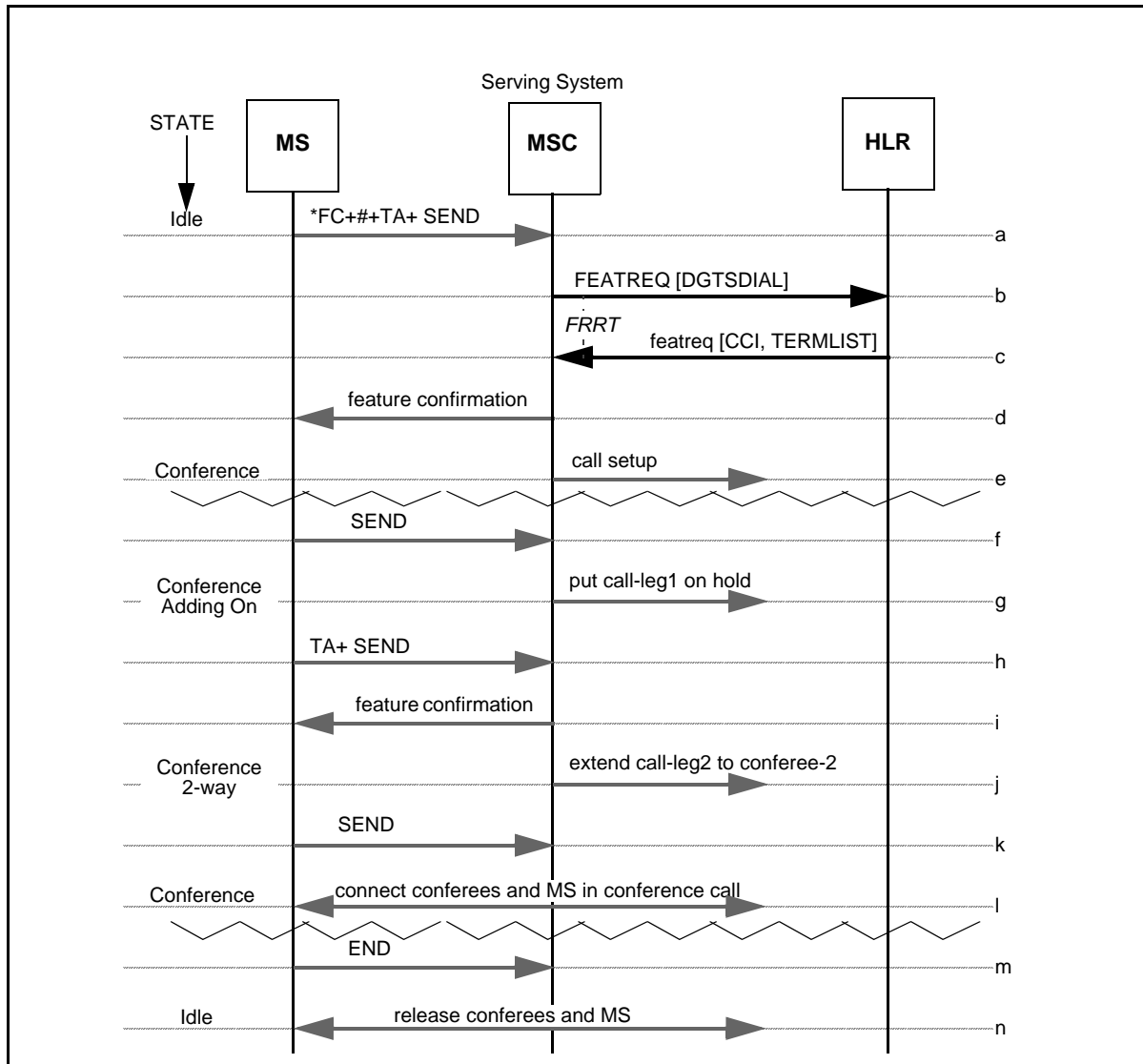


Figure 2 — CC Add Party (Without Feature Code Entry)

- a-g. Same as CC, Section 3.1, Steps a-g.
- h. Dialed digits are received by the Serving MSC.
- i. Since a feature code string is not present, the Serving MSC provides treatment to the served MS based on the fact that conference calling is active. If the maximum number of conferees has not been exceeded, the Serving MSC applies call confirmation.
- j. The Serving MSC extends the call using the termination address digits provided (call-leg-2).
- k. MS-1 sends a flash request to the Serving MSC (i.e., presses the SEND key).

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1. The Serving MSC connects the served MS, the held conferee and the new party into a conference call.
- m. MS-1 sends a Disconnect Request to the Serving MSC (i.e., presses the **END** key).
- n. The Serving MSC releases the served MS and conferees and discards the ConferenceCallingIndicator information.

### 3.3 CC Invocation During a Call

This scenario describes the invocation of CC by an authorized MS. The invocation occurs during a call.

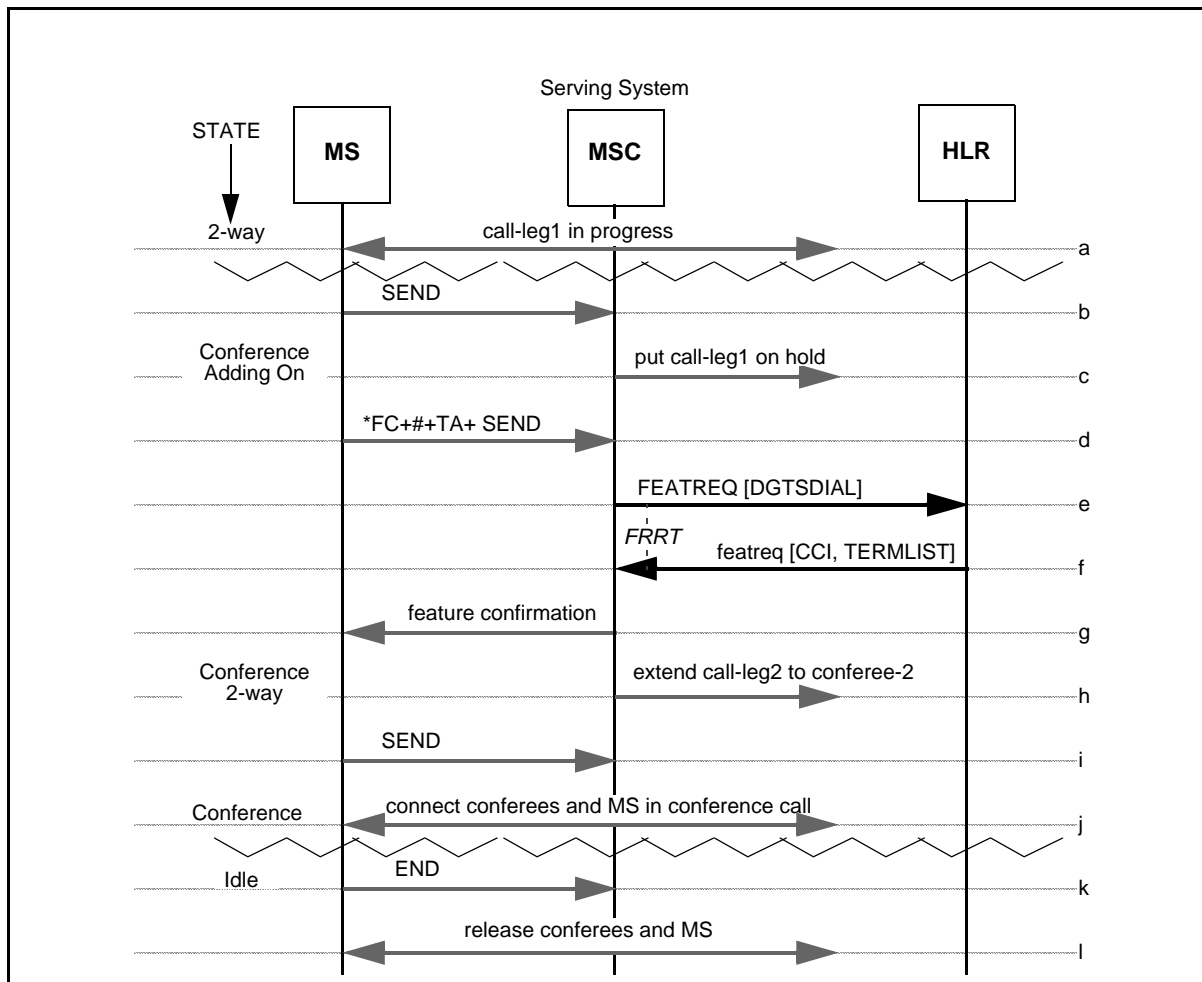


Figure 3 — CC Invocation During a Call

- a. MS-1 is engaged in a call (call-leg-1)
- b. MS-1 sends a flash request to the Serving MSC (i.e., presses the **SEND** key).
- c. The Serving MSC puts call-leg-1 on hold.
- d. Dialed digits are received by the Serving MSC. During analysis of the dialed digits, the Serving MSC detects a feature code string.
- e. The dialed digits are included in a FEATREQ and sent from the Serving MSC to the HLR associated with the MS.

- f. The HLR detects the authorized CC request and sends a `featreq` to the Serving MSC. The `featreq` includes call routing information in the `TerminationList` parameter. It also includes the `ConferenceCallingIndicator` parameter, indicating that Conference Calling is active for the call.

Additional Parameters	Usage	Type
CCI	ConferenceCallingIndicator. Presence of this parameter indicates that the outgoing call is to be handled as a Conference Call. The parameter carries the maximum number of allowed conferees.	R

- g. The Serving MSC stores the `ConferenceCallingIndicator` information, activates conference calling, and provides treatment to the served MS as indicated in the `featreq`. In this case, the treatment is to apply feature confirmation.
- h. The Serving MSC extends the call using the call routing information in the `TerminationList` parameter (`call-leg-2`).
- i. MS-1 sends a flash request to the Serving MSC (i.e., presses the `SEND` key).
- j. The Serving MSC connects the served MS, the held conferee and the new party into a conference call.
- k. MS-1 sends a Disconnect Request to the Serving MSC (i.e., presses the `END` key).
- l. The Serving MSC releases the served MS and conferees and discards the `ConferenceCallingIndicator` information.

### 3.4 CC Drop Last Party Invocation

This scenario describes the invocation of the CC Drop Last Party feature by an authorized MS. The invocation occurs during a call for which CC has been invoked.

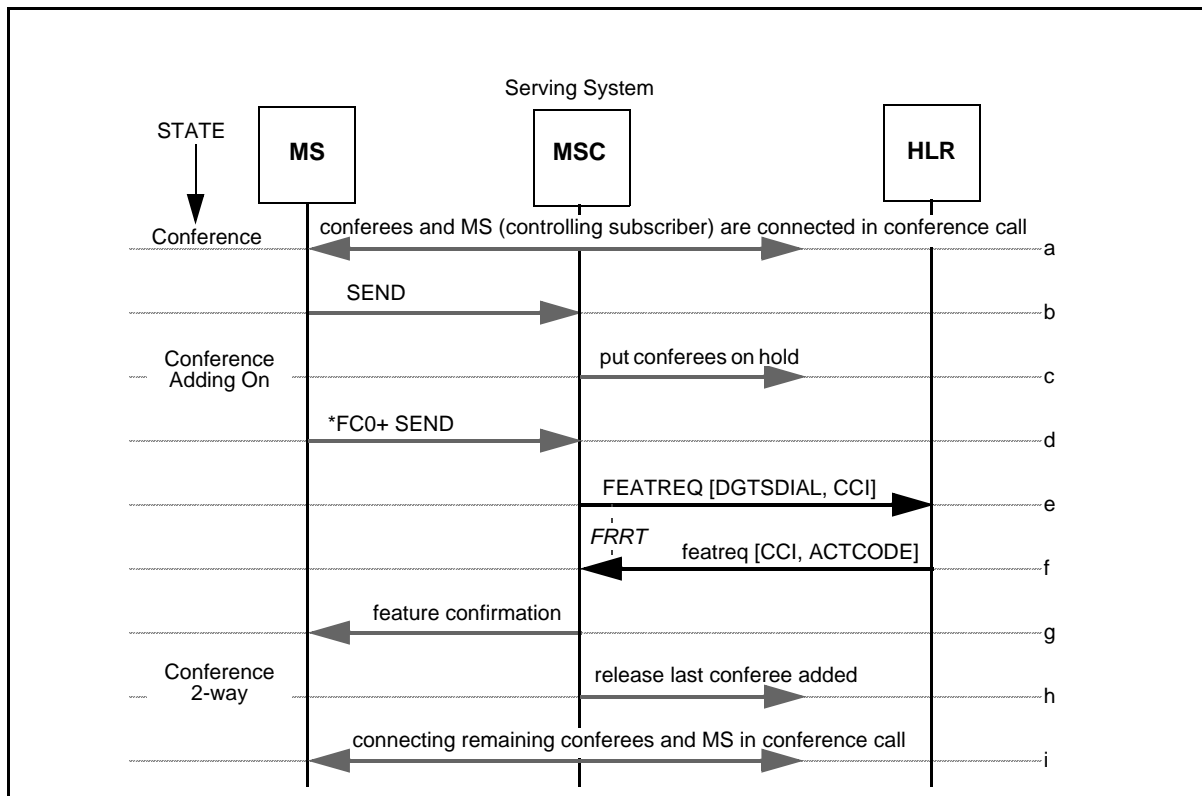


Figure 4 — CC Drop Last Party Invocation

- a. A multi-party conference call is in progress, with MS-1 as the controlling subscriber.
- b. MS-1 sends a flash request to the Serving MSC (i.e., presses the **SEND** key).
- c. MSC-1 puts the conferees on hold, allowing them to converse. A warning tone may be applied to the conferees.
- d. MS-1 sends the CC drop last party feature code to the Serving MSC.
- e. The dialed digits are included in a FEATREQ and sent from the Serving MSC to the HLR. The Serving MSC also includes the ConferenceCallingIndicator parameter, indicating that the request is for a conference call already in progress.
- f. The HLR detects the authorized CC DropLastParty request and sends a featreq to the Serving MSC. The featreq includes an ACTCODE parameter set to *Conference Calling Drop Last Party*. It also includes the ConferenceCallingIndicator parameter indicating that Conference Calling is active for the call and the maximum number of allowed conferees.
- g. The Serving MSC provides treatment to the served MS as indicated in the ACTCODE parameter. In this case, the treatment is to apply feature confirmation.
- h. The Serving MSC releases the last party added to the conference call.
- i. The Serving MSC connects MS-1 and the remaining held conferees into a conference call.