Cisco BTS 10200 Softswitch SIP REFER Enhancement Feature Module, Release 6.0.3

Last Updated: August 10, 2011

The Cisco BTS 10200 Softswitch SIP REFER enhancement for the SIP call transfer feature allows BTS 10200 to terminate the transferor at an early-call-state, and play a ring-back tone to the transferee. When the destination line is found to be busy, the BTS 10200 sends a busy tone to the transferee.

This feature is an enhancement for the SIP Blind REFER for call transfer feature.

Contents

Feature Overview

A basic SIP REFER call involves the following:

- A transferee—the party who is transferred.
- A transferor—the transferring phone (a party that initiates REFER)
- A transfer target—the party at which the call is transferred (a destination line or a transferred-to subscriber)

A blind transfer feature is one in which the transferring phone connects the transferee to a destination line before a ringback begins.

For more information on the SIP REFER feature and the SIP Call Transfer (Blind and Attended), see *Cisco BTS 10200 Softswitch SIP Guide*.

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The following are the SIP REFER enhancements:

- The SIP REFER feature enhancement allows the BTS 10200 to terminate the transferor during an early-call-state. An early-call-state refers to a point in call during a blind REFER when you do not know whether the REFER initiated by the transferor is a success or a failure. Alternatively, it refers to a point in a blind REFER call flow when a *202 Accepted* message has been sent for a REFER request but a final *200 OK* response has not yet been sent.

  The early-call-state release of the transferor can be provisioned in the BTS 10200 using the **BT_EARLY_RELEASE_TO_TRANSFEROR** token in the **softsw-tg-profile** table. When enabled, the BTS 10200 sends a BYE message to the transferor following a *202 Accepted NOTIFY* message

- The BTS 10200 plays a ringback tone to the transferee when the transfer target rings. If the transferor is released and REFER fails, the original call between the transferor and transferee is discontinued. If the transferee is an Network-based Call Signaling (NCS) subscriber, the value of the parameter **RBK_ON_CONN_SUPP** (ringback-on-connection support specified in the **MGW_PROFILE** table) decides whether ringback tone is played to the transferee.

  Additionally, to play the ringback tone the transferee must be a BTS 10200's own MGCP/NCS subscriber and should not be located over a trunk.

- The BTS 10200 plays a busy tone to the transferee when the transfer target is busy and the transferor is terminated from the call at an early-call-state. However, the transferee must be a subscriber (only MGCP/NCS) of BTS 10200 Softswitch, and must not be located over a trunk.

BTS 10200 Softswitch removes a transferor from a call under the following circumstances:

- When the early-call-state release is enabled by provisioning **BT_EARLY_RELEASE_TO_TRANSFEROR**=Y in **softsw-tg-profile** table.

- When a transferor sends a BYE message when a 202 Accepted response is received from BTS 10200.

- When the BTS 10200 sends a BYE message after notifying the transferor of its subscription-termination.

- When a disconnect or an exception event is reported for the transferee or the transfer target (such as when a transferee hangs up).

Feature Provisioning

This section explains the new tokens/tables introduced for the feature and how to provision it.

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Note   The commands shown in this section are only examples; you need to enter values that are appropriate for your network and service requirements. The CLI syntax allows you to use commands in uppercase or lowercase. It also allows you to enter hyphens (-) or underscores (_) interchangeably. (Exceptions, if any, are noted in the procedures.)

For a complete list of tokens for each CLI table, as well as the allowed values, default values, and detailed descriptions for each token, see the *Cisco BTS 10200 Softswitch CLI Database* at this website: *http://www.cisco.com/en/US/docs/voice_ip_comm/bts/6.0.3/BTS603_Mainpage.html*

Following token is introduced in the **SOFTSW_TG_PROFILE** table:

Token Name	Table Name	Default Value	Description
BT_EARLY_RELEASE_TO_TRANSFEROR	**SOFTSW_TG _PROFILE**	N	When set to Y, the token enables the transferor to be removed from a call at an early-call state, and applies ring-back or busy tone at the transferee.

Command Usage

Command	Purpose
add softsw_tg_profile id=SS1; BT_EARLY_RELEASE_TO_TRANSFEROR = Y; OR **change softsw_tg_profile** id=SS1; BT_EARLY_RELEASE_TO_TRANSFEROR = Y;	Releases the transferor during an early-call-state.
add softsw_tg_profile id=SS1; BT_EARLY_RELEASE_TO_TRANSFEROR = N; OR **change softsw_tg_profile** id=SS1; BT_EARLY_RELEASE_TO_TRANSFEROR = N;	Retains the transferor in the call until the outcome of REFER (success/failure) is determined, or when the transferor initiates a BYE message.
change mgw_profile id=MGW1; rbk_on_conn_supp=Y	Specifies whether a ringback on connection support should be enabled for an NCS subscriber.

Additional References

Related Documents

Related Topic	Document Title
Summary of features and usage guidelines for this release	*Cisco BTS 10200 Softswitch Release Notes*
Reference listing of all CLI tables and tokens	Cisco BTS 10200 Softswitch CLI database
SIP Features	*Cisco BTS 10200 Softswitch SIP Guide*