



Preface

Revised: July 2, 2009, OL-12606-20

This document describes the network features and subscriber features supported by the Cisco BTS 10200 Softswitch. It explains the behavior of each feature from the end-user perspective, and the effect of provisionable options on feature behavior. This document is designed for engineers, technicians, and system administrators who install, configure, and operate the BTS 10200.



Caution

Some features involve the use of other network elements (NEs) deployed in the service provider network, for example, gateways, media servers, announcement servers, eMTAs, and SIP phones. See the [Component Interoperability](#) section of the *Release Notes* for a complete list of the specific peripheral platforms, functions, and software loads that have been used in system testing for interoperability with the BTS 10200 Release 5.0 software. Earlier or later releases of platform software might be interoperable and it might be possible to use other functions on these platforms. The list in the *Release Notes* certifies only that the required interoperation of these platforms, the functions listed, and the protocols listed have been successfully tested with the BTS 10200.

Conventions

This document uses the following conventions:



Note

Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the manual.



Caution

Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Updates to this Document for Release 5.0

Version OL-12606-20

The following information was added in version OL-12606-20:

- Added the subscriber details for which the Customer Originated Trace (COT) feature is inhibited. See [“Customer-Originated Trace \(COT\)” section on page 3-80](#) for details.
- Updated the [“Provisionable Parameters for VM and VMA” section on page 3-130](#).
- Enhanced the [“Call Transfer \(CT\)” section on page 3-79](#).

Version OL-12606-19

Updated the [“Change Number \(CN\)” section on page 3-80](#) to include additional descriptive information.

Version OL-12606-18

The following information was added in version OL-12606-18:

- Added the description for Change Number feature. See [“Change Number \(CN\)” section on page 3-80](#).

Version OL-12606-17

The following information was added in version OL-12606-17:

- Information regarding the block all inbound calls feature. See [“Block All Inbound Calls” section on page 3-79](#).
- Information regarding the provisioning of ANI screening on incoming calls. See [“ANI Screening on Incoming Calls” section on page 4-10](#).

Version OL-12606-16

The following information was changed in version OL-12606-16:

- Information was corrected in the [“Option to Send Redirecting Number as CPN for Redirected Calls” section on page 1-20](#).

Version OL-12606-15

The following information was changed in version OL-12606-15:

- Information was corrected in the notes for [Figure 3-4, “Searching an MLHG—Incoming Call to an Individual Terminal \(Example\)”](#).

Version OL-12606-14

Information regarding the interaction between the AR feature and CFB feature was added. See [“CFB Feature Interactions” section on page 22](#).

Version OL-12606-13

Information was added regarding the following features:

- The ENUM capability feature. See the [“ENUM Capability” section on page 47](#).

- The Multiline Variety Package feature. See the [“Multiline Variety Package”](#) section on page 105.
- The Seasonal Suspend feature. See the [“Seasonal Suspend Feature for Release 5.0 MR1 and Earlier”](#) section on page 59 and [“Seasonal Suspend Feature for Release 5.0 MR1.1 and Later”](#) section on page 63.
- Terminal and Group Make Busy Services. See the [“Terminal and Group Make Busy Services”](#) section on page 66.
- The CMTS Discovery Using Static Subnet Table feature. See the [“CMTS Discovery Using the Static Subnet Table”](#) section on page 46
- The Aggregation Id Subnet feature. See the [“Aggregation Id Subnet”](#) section on page 47.

Version OL-12606-12

Updated the information for Temporarily Disconnected Subscriber Status and Soft Dial Tone. See the [“Temporarily Disconnected Subscriber Status and Soft Dial Tone”](#) section on page 3-119.

Updated the Split-NPA information with a limitation note. See the [“Split-NPA”](#) section on page 1-38.

Version OL-12606-11

Information was added regarding protocol interworking for T.38 fax. See the [“Protocol Interworking”](#) section on page 1-43.

Additional details were added regarding the treatment of timeout and application server parameters for the voice-mail feature. See the [“Provisionable Parameters for VM and VMA”](#) section on page 3-130.

Version OL-12606-10

References to music on hold were removed for the Call Park and Privacy Screening features. The music on hold is not a feature provided by the BTS 10200 (although music can be provided by some third-party servers). Changes were made in [Chapter 3, “Subscriber Features.”](#)

Version OL-12606-09

Information was added regarding the treatment of incoming calls when certain subscriber features are invoked. See the [“Multiline Hunt Group \(MLHG\)”](#) section on page 3-90.

The MDN feature description was updated to include multiple secondary numbers. See the [“Multiple Directory Numbers \(MDN\)”](#) section on page 3-106

The new OCNA feature was added. See the [“Own Calling Number Announcement \(OCNA\)”](#) section on page 3-110

Additional details about account code and authorization code provisioning options was added in the [“Account Codes and Authorization Codes”](#) section on page 4-7.

Version OL-12606-08

A reference list of announcements was added at the end of the Privacy Screening description in the [“Privacy Screening”](#) section on page 6-38.

Version OL-12606-07

Information about the interaction of CHD, CW, and CFNA was changed for Release 5.0, Maintenance Release 1.1. See the [“Call Hold \(CHD\)”](#) section on page 3-69.

Version OL-12606-06

Information about MLHG features and feature activation was added in the [“Multiline Hunt Group \(MLHG\)” section on page 3-90](#).

Additional information about call types was added in the [“National White and Black Lists \(Number Blocking\)” section on page 4-4](#).

Cross references to CLI commands were updated to provide a link to the *Cisco BTS 10200 Softswitch CLI Database*. Other cross references were updated as needed.

Version OL-12606-05

All lawful intercept and CALEA information was moved to a new chapter, [Chapter 2, “Lawful Intercept and Enhanced CALEA Features,”](#) and information was updated as needed for this release.

For Release 5.0, Maintenance Release 1, and later, terminating SIP triggers were added for SIP subscribers. See the [“SIP Triggers” section on page 1-27](#). In addition, several updates and clarifications were added in this section.

The [“Outgoing Call Barring \(OCB\)” section on page 4-14](#) was reorganized for ease of use; information from all earlier software releases was combined into a single complete description of the feature.

Throughout the document, references to the Cognitronics brand name were updated to ThinkEngine Networks.

Version OL-12606-04

Clarifying examples were added to help explain the interaction of CHD, CW, and CFNA. See the [“Call Hold \(CHD\)” section on page 3-69](#). A cross reference to this information was also added in the [“CHD, CFNA, and CW Interaction for Centrex Subscriber” section on page 5-13](#).

Clarification was added that the reminder ring option is not provided for SIP endpoints. See the [“Do Not Disturb \(DND\)” section on page 3-81](#).

For Release 5.0, Maintenance Release 1, and later, provisionable parameters are added for collection of account codes for certain call types and endpoints. See the [“Account Codes \(Nonverified\) Tone-Based Operation” section on page 4-7](#).

Version OL-12606-03

The reference specification for lawful intercept was updated to PKT-SP-EM1.5-I02-050812 in [Chapter 2, “Lawful Intercept and Enhanced CALEA Features.”](#)

A reference to supported call types was added to the [“National White and Black Lists \(Number Blocking\)” section on page 4-4](#).

Editorial clarifications were made in the [“SIP Triggers” section on page 1-27](#).

Version OL-12606-02

Additional clarifications were added regarding MLHG in [Multiline Hunt Group \(MLHG\), page 90](#).

REFER and REPLACES features were added to the list of valid features in the [“Office Service ID and Default Office Service ID” section on page 3-134](#). Additional editorial clarifications were also made in this section.

Information about the black/white lists was clarified in the [“Overview—Black and White List Features” section on page 4-3](#).

Version OL-12606-01

This document includes all of the information about telephony features that was contained in the previous issue (Release 4.5.x) of the *Cisco BTS 10200 Softswitch Network and Subscriber Feature Descriptions*, and has been updated to incorporate Release 5.0 features. These include:

- [Chapter 1, “Network Features”](#)
 - [“8XX \(Toll-Free Calling\)” section on page 1-13](#)
 - [“911 Overflow Announcement” section on page 1-10](#)
 - [“Emergency 911 Trunk Connection Loss Alarm” section on page 1-10](#)
 - [“SIP Triggers” section on page 1-27](#)
 - [“RFC 2833 DTMF Relay—Call Agent Controlled Mode” section on page 1-24](#)
 - [“Network Loopback Test for ISDN PRI Trunks” section on page 1-61](#)
 - Minor updates and corrections in the following sections: [“Active Call Information Display” section on page 1-16](#), [“Alerting Notification to Third-Party Feature Server” section on page 1-17](#), [“Calling Party Number Options for Outbound SETUP Messages” section on page 20](#), and [“T.38 Fax Relay, Modem, and TDD Handling” section on page 1-38](#).
- [Chapter 2, “Lawful Intercept and Enhanced CALEA Features”](#)—New chapter added July, 2007 to collect all information on this topic.
- [Chapter 3, “Subscriber Features”](#)
 - Added a note in the [“Call Forwarding Features” section on page 3-6](#) referring to information about the SIP call redirection (302) feature.
 - Added a note to clarify the behavior of the AC and AR features when there is a FS switchover. See [“Automatic Callback \(AC\)—Repeat Dialing” section on page 3-75](#) and [Automatic Recall \(AR\)—Call Return, page 3-76](#).
 - Added information on MWI reset through CLI commands. See [“Message Waiting Indicator \(MWI\)—Audible and Visual” section on page 3-89](#).
 - Added information to the [“Multiline Hunt Group \(MLHG\)” section on page 3-90](#).
 - Added information to the [“Privacy Screening \(Calling Identity with Enhanced Screening\)” section on page 3-111](#).
 - Clarified the interaction between the OFFICE-SERVICE-ID and DEFAULT-OFFICE-SERVICE-ID parameters. See [Office Service ID and Default Office Service ID, page 3-134](#).
- [Chapter 4, “Class of Service Restrictions and Outgoing Call Barring Features”](#)—(none)
- [Chapter 5, “Feature Interactions”](#)—(none)
- [Chapter 6, “Interactive Voice Response Functions”](#)—Added the [“Privacy Screening” section on page 6-38](#) and the [“Multi-Lingual Support Feature” section on page 45](#).

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, obtaining support, providing documentation feedback, security guidelines, and also recommended aliases and general Cisco documents, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>