Cisco BTS 10200 Softswitch Release Notes for Release 7.0

Revised on: July 15, 2010, OL-22328-02

Introduction

The Cisco BTS 10200 Softswitch is a class-independent software switch (softswitch) that provides next generation integrated voice and data switching solutions for packet networks.

Release 7.0 focuses on broadband and cable providers in the emerging markets, by providing H.248 protocol features for line-side access support. Release 7.0 also includes functionalities to increase the scalability of BTS 10200 by implementing a 64-bit architecture, business features and functionalities for next generation VoIP networks, such as call pickup (CPU) and multiline hunt group (MLHG) enhancements, session initiation protocol (SIP) based enhancement such as compliance to SIPconnect standards, and so on.

This document describes the new features and enhancements in Release 7.0. Maintenance (Vxx) releases may be issued after a major release. Vxx releases include release notes only if new information is added. For more information about BTS 10200, refer to the documents available in the Cisco BTS 10200 Softswitch documentation page:

http://www.cisco.com/en/US/products/hw/vcallcon/ps531/tsd_products_support_series_home.html

⚠️
Warning **Sun Explorer is installed as part of the Release 7.0 builds as a requirement from Sun Microsystems for resolving hardware issues, but is left disabled. Sun Explorer should not be enabled to run using cron because this is an untested and unsupported configuration.**

Sun Explorer is CPU intensive and may cause issues with the real-time processes running on active and standby BTS 10200 platforms. Sun Explorer should be run only when the BTS 10200 platform is OOS (for example, after a platform stop all command is executed).

This document has the following sections:

- New Features and Enhancements

- Installation

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- Hardware Requirements
    - Host Hardware
    - Ancillary Hardware
- Software Release Types
    - Release Names
- Component Interoperability
- Operator Access
- Bug Toolkit
- Obtaining Documentation and Submitting a Service Request

New Features and Enhancements

Table 1 lists the new features added and enhancements for Release 7.0:

Table 1   New Feature and Enhancements

New Features or Enhancements	Description
64-bit architecture enhancements	This feature includes enhancement of some of the call processing modules and associated libraries to 64-bit architecture to facilitate support for large memory model.
Audit of CA/FS to CA/FS nodes	This feature provides the functionality to compare (audit) the IDX database on both the CA/FS nodes.
	The *dbm_audit* program is the executable file that user needs to execute on any EMS node to perform CA/FS to CA/FS IDX audit. This feature is executed from the Unix command shell on any EMS node. The executable file of this feature is named *dbm_audit*, and it is installed in the */opt/bts/bin* directory on all BTS nodes. The audit report is generated in the */opt/ems/report* directory on the EMS node.
	The following is the command usage:
	`dbm_audit  -table <value1>  -platform <value2>  -type <value3>`
	where the -**table** parameter can have the following values:
	• **all**
	• a static table name
	The "**all**" value is the default value if the -**table** parameter is not specified.
	where the -**platform** parameter can have the following values:
	• **CA**
	• **FSAIN**
	• **FSPTC**
	• "**all**" for all the above platforms.
	The "**all**" value is the default value if the -**platform** parameter is not specified.
	where the -**type** parameter can have the following values:
	• **full**
	• **row_count**
	The "**row_count**" value is the default value if the -**type** parameter is not specified.

Table 1   ***New Feature and Enhancements***

New Features or Enhancements	Description
Billing enhancements	The following fields have been included in call detail record (CDR):
	• 264—Specifies the originator's MLHG group ID (used when the call is made from either the MLHG or the MLHG/centrex combined group.)
	• 265—Specifies the originator's centrex group ID (used when the call is made from either the centrex or the MLHG/centrex combined group.)
	• 266—Identifies the type of originating subscriber and is used with business digital voice subscribers. This field is used to keep the business CDRs separate from the residential services.
	• 267—Identifies the type of terminating subscriber and is used with business digital voice subscribers. This field is used to keep the business CDRs separate from the residential services.
	• 268—Specifies the ISDN T1 port that identifies the call originating from TDM PBX via Cisco IOS Gateway.
	• 269—Gets populated only when CODEC_TYPE=CODEC_STRING in the CDR. This field indicates the negotiated codec used by the originating endpoint.
	• 270—Gets populated only when CODEC_TYPE=CODEC_STRING in the CDR. This field indicates the negotiated codec used by the terminating endpoint.
	• 274—Represents the ID of the CONF type trunk group, created towards a Media Server.
	• 275—Represents the circuit ID of the outgoing trunk associated with the CONF type trunk group, towards a Media Server.
	The following fields have been modified in CDR:
	• 40—Specifies the MLHG identity of the subscriber on which the call terminates. If this field is NULL, data is not captured for the corresponding record.
	• 173—Specifies the centrex-group identity of the subscriber on which the call terminates. If this field is NULL, data is not captured for the corresponding record.
	The following fields have been reserved for future use in CDR:
	• 271—Specifies the trunk context associated with an incoming call.
	• 272—Specifies the trunk context associated with an outgoing call.
	• 273—Specifies the ID of a VPN group.
	Other fields that have been reserved for future use are 276, 277, 278, 279, and 280.
	For more details on the new and modified fields, see the "Billing Enhancements" section on page 11.

Table 1   *New Feature and Enhancements*

New Features or Enhancements	Description
Call Pickup	This feature allows a service provider to create a Call Pickup (CPU) group to facilitate a subscriber of a CPU group to pick up a call intended for any other subscriber in the group. The subscriber must dial the feature access code to answer a call on another line. Note that a subscriber can pick up a call only if the call is within the same CPU group. This feature is available to centrex and SIP centrex subscribers.

Table 1   *New Feature and Enhancements*

New Features or Enhancements	Description
H.248 Line-Side Access Control	This feature enables BTS 10200 to use H.248 line-side signaling to communicate with H.248 protocol-based network elements. This feature also enables BTS 10200 to provide protocol interworking between H.248 and SIP. The support for H.248 Protocol renders the necessary protocol interworking to complete voice-over-packet calls.
	The H.248 Line-Side Access Control provides Class-5 features to subscribers behind H.248 media gateways (MGWs) interfacing with BTS 10200 using the H.248 protocol.
	In Release 7.0, the following features are supported as part of the H.248 Line-Side Access Control:
	Features and Functionalities:
	• Basic calls originating from and terminating to subscribers using H.248 protocol.
	• Codec selection and negotiation. Codecs that are currently supported in BTS 10200 are also supported in the H.248 network.
	• Codec upspeed due to feature interaction such as call waiting, three-way call, and so on.
	• Ringback on connection from terminating subscriber, and local ringback from originating subscriber.
	• DSCP marking H.248 signaling messages.
	• Redundant Call Agent with virtual IP address as seen by the gateways.
	• Support for redundant MGWs with the same configured IP address.
	• Audit for endpoint state synchronization after failover.
	• Media Gateway keep-alive functionality.
	• DTMF relay/passthrough support
	– Enabling passthrough using G.711
	– Using RFC-2833 (implicit authorization) specific to GW implementation.
	– Using RFC-2833 (call agent authorization).
	• Fax and Modem—GW autonomous passthrough (supported only if both gateways can automatically switch to G.711 protocol).
	• Text/TDD—GW autonomous passthrough (supported only if both gateways can automatically switch to G.711 protocol).
	• Call agent overload handling.
	• VoIP metrics—RTP/analog port metrics.
	• Gateway DNS caching.
	• LCFO/OSI signaling support for H.248 endpoints.

Table 1 **New Feature and Enhancements**

New Features or Enhancements	Description
	Protocol-specific features:
	• Megaco/H.248 protocol to communicate with access gateways using line-side signaling and bearer path management.
	• H.248 version 2 capabilities and procedures as specified in ITU-T H.248.1 standard, for example, context, descriptors, packages, and so on. Audit capability command and topology descriptors are not supported in Release 7.0.
	• Text encoding of H.248/Megaco protocol (as described in H.248.1 standard, Annex B).
	• Support for User Datagram Protocol (UDP) as transport protocol (as specified in H.248.1 standard, Annex D).
	• Automatic calculation of timeout for outstanding transactions based on the methods suggested in Annex D.1.3, D.1.4, and D.1.5 of H.248 standard.
	• Guarantee consistent operation of the Media Gateway (ordering of commands, and so on) as defined in H.248.1 standard, section 9.1.
	• Megaco/H.248 error and reason code as specified in ITU H.248.8 standard.

Table 1 **New Feature and Enhancements**

New Features or Enhancements	Description
	Subscriber and Network features:
	• Anonymous Call Rejection (ACR)
	• Caller ID for
	– Calling Number Delivery (CND)
	– Calling Number Delivery Blocking (CNDB)
	– Calling Name Delivery
	• Call waiting (single-connection based)
	• Three-way calling (single-connection based) with external Media Server.
	• Call Forwarding Busy (CFB)
	• Call Forwarding Unconditional (CFU)
	• Call Forwarding No Answer (CFNA)
	• Call Hold (single-connection based) and other centrex features (CND, CNDB, CFU, CFB, CFNA, CW, CT, TWC, ACR, DND, COS).
	• Call Transfer (CT) (single-connection based).
	• Class of Service (COS) screening
	• Do Not Disturb (DND)
	• Vertical Service Codes (VSCs). (The valid formats for VSC ASCII strings are listed in the VSC table in the Cisco BTS 10200 Softswitch CLI Database. To view the current VSC values provisioned on your system, use the **show vsc** CLI command. To provision VSCs, see the VSC provisioning procedure in the *Cisco BTS 10200 Softswitch Provisioning Guide*.)
	• Voicemail (VM) and Voicemail Always (VMA)
	• Message Waiting Indicator (MWI) and Visual Message Waiting Indicator (VMWI)
	• Announcements for H.248 subscribers are provided using MGCP-Controlled Announcement Servers.
	• Multiline Hunt Group (MLHG)
	• Centrex group
	For details on the features listed above, see the *Cisco BTS 10200 Softswitch Network and Subscriber Feature Descriptions Guide*.

Table 1 **New Feature and Enhancements**

New Features or Enhancements	Description
	CALEA features - • Reporting call data to the delivery function (DF) server. Support for PacketCable 1.5 specifications based CALEA operation for full call identifying information (call data), as implemented for other signaling protocols. • Reporting call content to DF server. Support for capturing call-content is through service independent intercept (SII) architecture. For more information about SII architecture, refer to the "General Description of Lawful Intercept Implementation" section in the *Cisco BTS 10200 Softswitch Network and Subscriber Feature Description Guide*.
	Protocol interworking between • H.248 subscriber and H.248 subscriber. • H.248 subscriber and SIP subscriber. • H.248 subscriber and SIP trunk. • SIP subscriber and H.248 subscriber. • SIP trunk and H.248 subscriber. • H.248 subscriber to MGCP based Announcement Server. The H.248 Line-Side Access Control feature module document can be accessed from the following page: *http://www.cisco.com/en/US/docs/voice_ip_comm/bts/7.0/feature/module/ H248_Support_r70.html*
Identification of Business Digital Voice Subscribers (both NCS and SIP) in billing record	This feature enables a service provider to identify in a billing record if a call is made from a business subscriber or a residential subscriber. To identify the subscriber type, a new sub_type token, which can be set to either BUSINESS or RESIDENTIAL, has been added in the subscriber table. In Addition, two fields have been added in billing record namely, originating_sub_type (field number 266) and terminating_sub_type (field number 267). These fields identify the originating and terminating subscriber type, respectively.

Table 1   New Feature and Enhancements

New Features or Enhancements	Description
Enhanced MLHG feature	The following enhancements have been made to the MLHG feature: • Hunt for available terminals when the currently ringing terminal is not answered for a configured period. • Call rollover to voicemail when the last called terminal in MLHG group does not answer or is busy. Note that voicemail must be configured for the last terminal for this feature to be enabled. ✎ **Note** In Release 7.0, the above MLHG enhancements are not supported for H.248 subscribers.
Naming character expansion from 16 to 32 characters	This feature enables a user to use up to 32 characters to name the identifiers (ID) in the following tables: • **POP** • **LSA** • **LSA_PROFILE** The following commands refer to **POP_ID** token in CLI. • **POLICY_POP** • **SUBSCRIBER_PROFILE** • **TRUNK_GRP** The following commands refer to the **LSA_ID** token in CLI: • **POP** • **SUBSCRIBER_PROFILE**
SIP Connect Standards Compliance	This feature enables BTS 10200 to comply with SIPconnect standards. SIPconnect is an industry-wide, standards-based approach to direct IP peering between SIP-enabled IP PBXs and VoIP service provider networks. For more information on SIPconnect, see the SIPconnect forum page at: *http://www.sipforum.org/sipconnect*
Service impacting commands restricted to authorized users in CLI	This feature restricts the use of the following service commands, and enables the authorized users to run these commands only with the **ciscouser** login: • **download database** • **delete transaction_queue** • **change db_size**

Table 1   New Feature and Enhancements

New Features or Enhancements	Description
Third-party software tool version support	The following versions of third-party tools are supported and used in Release 7.0 of BTS 10200: • JRE version 6u7 (i.e 1.6.0_07-b06) • Xerces 2.9.1 • ECS 1.4.2 • Apache 2.2.8 • PHP 5.0.4
Treatment of AMR and EVRC codecs in BTS 10200	This feature treats unrecognized codecs such as AMR and EVRC to be passed transparently by BTS 10200 during codec negotiation. Support for AMR and EVRC is limited to SIP. AMR and EVRC is not supported in conjunction with MGCP (including NCS and TGCP), H.323 and H248. Note that Call Admission Control (CAC) or Quality of Service (QoS) calculations are not performed corresponding to these codecs. These codecs cannot be provisioned as QoS codecs. An unrecognized codec that is passed to an MGCP (or TGCP or NCS) or H.248 endpoint or returned by an MGCP (or TGCP or NCS) or H.248 endpoint as part of an AuditEndpoint response is likely to be ignored.
Use of **Flash** button or **hookswitch** to connect to a waiting call when centrex subscribers have both CW and CHD features	This feature allows a centrex subscriber to connect to a waiting call using the **Flash** button or **hookswitch**, without having to dial the vertical service code (VSC) for CHD.

Billing Enhancements

Table 2 provides details of the new and modified fields in CDR:

Table 2   New and Modified Fields in CDR

Field Number	Common Name	Field Type	Field Size	Potential Values	Data Source	Field Description
264	Originator's MLHG Group	String	16	Alpha numeric characters	Subscriber:: MLHG_ID	Specifies originator's MLHG group ID (used when the call is made from either the MLHG or the MLHG/centrex combined group.)
265	Originator's Centrex Group	String	16	Alpha numeric characters	Subscriber:: CTXG_ID	Specifies originator's centrex group ID (used when a call is made from either the centrex or the MLHG/centrex combined group).

Table 2   New and Modified Fields in CDR

Field Number	Common Name	Field Type	Field Size	Potential Values	Data Source	Field Description
266	Originating Subscriber Type	Numeric		0—Residential 1—Business	Subscriber:: SUB_TYPE	Identifies the type of originating subscriber, and is used with business digital voice subscribers. This field is used to keep the business CDRs separate from residential services. In case of forwarded calls, the contents of the originating_sub_type of the forwarded call CDR may not be sufficient to determine if the call originated from a business subscriber. Therefore, both sub_type and billing_charge_number fields must be used to determine if the originator is a business subscriber.
267	Terminating Subscriber Type	Numeric		0 - Residential 1 - Business	Subscriber:: SUB_TYPE	Identifies the type of terminating subscriber, and is used with business digital voice subscribers. This field is used to keep the business CDRs separate from residential services.
268	X Route Tag	String	64	Numeric characters	SIP INVITE message	Specifies the ISDN T1 port that identifies a call originating from TDM PBX via Cisco IOS Gateway. IOS gateway has a proprietary tag called x-route-tag, in the VIA header in every INVITE message. This field does not capture the entire tag; it only captures the numeric part, that is, the port (numeric part after "cid:" and before "@", as in "x-route-tag="cid:001@24.30.210.37").
269	Originating Party's Codec Description	String	64	Alpha numeric characters	QoS table	Gets populated only when CODEC_TYPE=CODEC_STRING in CDR. This field indicates the negotiated codec used by the originating endpoint.

Table 2   New and Modified Fields in CDR

Field Number	Common Name	Field Type	Field Size	Potential Values	Data Source	Field Description
270	Terminating Party's codec description	String	64	Alpha numeric characters	QoS table	Gets populated only when CODEC_TYPE=CODEC_STRING in CDR. This field indicates the negotiated codec used by the terminating endpoint.
271	Incoming Trunk Context (Reserved for future use)	String	64	Alpha numeric characters	SIP INVITE message	Specifies the trunk context associated with an incoming call.
272	Outgoing Trunk Context (Reserved for future use)	String	64	Alpha numeric characters	SIP INVITE message	Specifies the trunk context associated with an outgoing call.
273	VPN Group ID (Reserved for future use)	String	16	Alpha numeric characters	VPN_GRP::ID	Specifies the ID of a VPN group.
274	Conference Trunk Group Number	Numeric		32-bit unsigned value	TrunkGroup::Id	Represents the ID of the CONF type trunk group created towards a Media Server. This trunk group is selected for creating a conference with the Media Server. If this field contains a value of NULL, data is not captured for this record.
275	Conference Circuit ID	Numeric		16-bit unsigned value	Trunk::Id	Represents the circuit ID of the outgoing trunk, associated with the CONF type trunk group, towards a Media Server. If this field contains a value of NULL, data is not captured for this record.
276	Reserved					
277	Reserved					
278	Reserved					
279	Reserved					
280	Reserved					

Table 2 **New and Modified Fields in CDR**

Field Number	Common Name	Field Type	Field Size	Potential Values	Data Source	Field Description
40 (modified in Release 7.0)	Terminating MLHG Group	String	16	A group name of up to 16 characters	Subscriber:: MlhgId	Specifies the MLHG ID of the subscriber on which the call is terminating. If this field is NULL, data is not captured for this record.
173 (modified in Release 7.0)	Terminating Centrex Group	String	16	A group name of up to 16 characters.	Subscriber: CtxgId	Specifies the centrex group ID of the subscriber on which the call is terminating. If this field is NULL, data is not captured for this record.

Installation

Release 7.0 of BTS 10200 Softswitch is for fresh installations only. See installation related documents at:

http://www.cisco.com/en/US/products/hw/vcallcon/ps531/prod_installation_guides_list.html

Hardware Requirements

This section has the following topics:

- Host Hardware, page 14
- Ancillary Hardware, page 16

Host Hardware

Minimum required memory for CAs is 8 GB; 16 GB is required for larger systems.

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Caution To ensure that memory is available for the necessary switch functions, and to avoid negative impact on performance, do not run non-BTS applications on CAs.

8 GB Sample Configurations

The following sample BTS 10200 configurations use 8GB of physical memory. It is for illustrative purposes only.

- mediumNCS
  - 150,000 NCS subscribers
  - 10,000 for trunk groups
- H248Small
  - 60,000 H.248 subscribers

16 GB Sample Configurations

The following sample BTS 10200 configurations use 16 GB of physical memory. These examples are for illustrative purposes only.

- medium
  - 150,000 total subscribers (any combination of SIP and NCS)
  - 15,000 for H.323
  - 10,000 for trunk groups
- mgc
  - 50,000 total MGC subscribers
  - 10,000 for trunk groups
- tas
  - 200,000 total subscribers (20,000 can be SIP or NCS, up to 200,000 for TAS)
  - 10,000 for trunk groups
- commercial
  - 200,000 total subscribers (any combination of NCS, MGC, and 60,000 Centrex groups)
  - 2,000 for SIP
  - 200 for H.323
  - 10,000 for trunk groups

For more information on configurations, choose "Table Sizing Configuration" from the drop-list in the Cisco BTS 10200 CLI Database. For more information on how to access and download the CLI Database, refer to *Compressed CLI Database Readme* document available at:

http://www.cisco.com/en/US/products/hw/vcallcon/ps531/prod_command_reference_list.html

Table 3 lists requirements for supported host hardware. The requirements listed in the table are for a new installation of Release 7.0:

Table 3   Requirements for Supported Host Hardware

Platforms	Processors	Memory (in GB)	Disk Size (in GB)
Sun Fire V1280	4 x 1280	8	4 x 73
Sun Fire V1280	8 x 1200	16	2 x 73
Sun Fire V1280	12 x 1200	24	4 x 73
Sun Fire V240	2 x 1280	8	2 x 73
Sun Fire V245	2 x 1500	16	4 x 73
Sun Fire V440	4 x 1280	8	4 x 73
Sun Fire V445	4 x 1593	16	2 x 73
Sun Netra 1280	4 x 1200	8	2 x 73
Sun Netra 1280	8 x 1200	16	2 x 73
Sun Netra 1280	12 x 1200	24	2 x 73

Table 3 Requirements for Supported Host Hardware

Platforms	Processors	Memory (in GB)	Disk Size (in GB)
Sun Netra 1290	8 x 1500	32	2 x 146
Sun SPARC Enterprise T5120	4 core	16	2 x 146
Sun SPARC Enterprise T5220	4 core	16	2 x 146
Sun SPARC Enterprise T5120	8 core	16	2 x 146
Sun SPARC Enterprise T5220	8 core	16	2 x 146

Ancillary Hardware

Table 4 lists ancillary hardware required if you are using reference sale host hardware.

Table 4 Ancillary Hardware

System	Description
DC	Cisco Catalyst 2970 x1 DC 10/100 Autosensing Fast Ethernet Switch
AC and DC	Terminal server that permits console login

Software Release Types

Table 5 lists the BTS 10200 software release types:

Table 5 Software Release Types

Release	Purpose	Version Numbering	Source and Defect Fixes
Major	Offers: • Significant new features • Enhancements • Architectural changes • Defect fixes	• Increments with each new version. • Numbers cannot be skipped.	• Based on a previous main release • Receives defect fixes synced from previous Main releases throughout its life
Point	Offers: • New features of limited scope • Enhancements • Defect fixes	• Increments as content is added. • Numbers can be skipped.	• Based on a previous major or point release • Receives defect fixes synced from previous major or point releases throughout its life
Maintenance	Offers defect fixes for specific problems.	• Increments as content is added. • Numbers can be skipped.	—

Release Names

BTS 10200 product release version numbering is defined as either:

- Cisco BTS 10200 uu.ww.xx.yzz Pxx (for example, in Release Notes)

  or

- 900-uu.ww.xx.yzz Pxx (CD part number)

where

- uu is the major release ID (0–99)—for example, 900-03.ww.xx.yzz

- ww is a point release (within a major) (0–99)—for example, 900-03.05.xx.yzz

- xx is the maintenance package number (within a point) (0–99)—for example, 900-03.05.03.yzz

- y is the software state, such that—for example, 900-03.05.03V00

    - D = Development load

    - I = Integration load

    - Q = System test load

    - F = Field verification ready

    - V = Verified (specified for externally available)

- When Pxx is at the end of the release numbering, a patch has been applied. P is the patch, and xx is the patch numbering.

Examples are:

- 900-04.05.00.V01

- 900-04.05.01.V00

- 900-05.00.00.V00

- 900-06.00.00.V00

Component Interoperability

Following table lists the certified platforms, functions, and protocols successfully tested with BTS 10200. Earlier or later releases of platform software might be interoperable, and it might be possible to use other functions on these platforms.

Platform(s) Tested	Function(s) Tested	Protocol(s) Tested	Load(s) Tested	Last Verified in BTS 10200 Release
Arris TM402P	MTA	• NCS 1.0 • IPSEC	5.0.50B	7.0
Arris TM502G	MTA	• NCS 1.0 • IPSEC	5.0.50B	7.0
Arris TM508A/512A	MTA	• NCS 1.0 • IPSEC	• SIP: TS 5.2.32 • NCS: 5.2.22	7.0

Platform(s) Tested	Function(s) Tested	Protocol(s) Tested	Load(s) Tested	Last Verified in BTS 10200 Release
Blueslice	• SH messaging • TAS Call Processing	Diameter	HSS 3000 4.0	6.0
Camiant MultiMedia Service Controller	Policy Server	—	2.3	7.0
Cisco 243x	IAD	MGCP 1.0	12.4(11)T4	7.0
Cisco 2651	SS7 Signaling Gateway	• SIGTRAN • M3UA/SUA	12.2(25)SW9	6.0
Cisco 5850	Trunking Gateway	—	12.3(11)T9	6.0
Cisco AS5300/5350/5400	Trunking Gateway	• MGCP 1.0 • TGCP	12.4.12c	7.0
Cisco BACC	Provisioning Server	—	2.6.2.7	7.0
Cisco Cat 3550	Ethernet Switch	—	121-22.EA10	7.0
Cisco DPE	Provisioning Server	—	2.6.1.7	7.0
Cisco ITP 7301	Signaling Gateway	SIGTRAN M3UA/SUA	12.2(25)SW9	6.0
Cisco ITP 7507	Signaling Gateway	—	12.2(25)SW9	7.0
Cisco ITP 7600	Signaling Gateway	—	—	6.0
Cisco MSFC1	IP Core - Cat 6500	—	6.4-20	7.0
Cisco MSFC1	IP Core - Cat 6500	—	121-26.E4	7.0
Cisco Network Registrar	IP address management	—	6.1.2.3	7.0
Cisco PXM45/AXSM	Trunking Gateway	• MGCP 1.0 • TGCP	5.3(10.201)	7.0
Cisco RPM	Trunking Gateway	• MGCP 1.0 • TGCP	12.4(6) T6	7.0
Cisco SUP720-3BXL	IP Core - Cat 7606	—	12.2(17D)SXB4	7.0
Cisco uBR 10K	CMTS	CALEA SII	12.3(17b)BC3	7.0

Platform(s) Tested	Function(s) Tested	Protocol(s) Tested	Load(s) Tested	Last Verified in BTS 10200 Release
Cisco uBR7246VXR	CMTS	PacketCable EM 08	12.3(17b)BC5	6.0
Cisco UC500 2811	SS7 Signaling Gateway	• SIGTRAN • M3UA/SUA	12.4(11)SW3	6.0
Cisco UC500 2811	• Integrated Services Router • SIP PBX	SIP	12.4-11XJ	7.0
Cisco VISM-PR	Trunking Gateway	• MGCP 1.0 • TGCP	3.53(30.200)	7.0
Cisco VXSM	Trunking Gateway	• MGCP 1.0 • TGCP	5.53(10.206)	7.0
Cognitronics Cx500/Cx4000	Announcements	—	3.0	6.0
IP Unity Harmony 6000	Announcements	MGCP 1.0	3.1.19	7.0
IP Unity Harmony 6000	VoiceMail	SIP RFC3261	3.1	7.0
IP Unity Harmony 6000	Privacy Director	SIP RFC3261	3.1	6.0
IP Unity Harmony 6000	Media Server	MGCP 1.0	3.1	7.0
JSI CF	—	—	1.5 I01 Prototype v5.0	6.0
Linksys PAP2T	ATA	SIP	5.1.15a	7.0
Motorola SBV5220	MTA	NCS 1.0 IPSEC	2.16.1.3scm15	6.0
TeleData	H.248 Gateway	H.248	26	7.0
Netnumber	ENUM	—	Titan 5.2	7.0
Scientific Atlanta DPC2203	MTA	—	dpc2203-P10-14-v202r1262-061128asCMCST	6.0
Scientific Atlanta Dpx2203	MTA	NCS 1.0 IPSEC	dpx2203-p10-11-v112r1151-060803a	6.0
SS8 DDE	CALEA	—	3.1.1.40	6.0
SS8 SSDF	CALEA	—	4.0.0	6.0

Platform(s) Tested	Function(s) Tested	Protocol(s) Tested	Load(s) Tested	Last Verified in BTS 10200 Release
Tektronix DQ R7	• Network Loop Back • Network Continuity	MGCP	7.10 Build 168	6.0
Thomson MTA	—	—	—	6.0

Operator Access

Operator access to BTS 10200 is available only by using secure shell (SSH) session to the EMS. The BTS 10200 supports outbound FTP to other systems. It does not support inbound FTP.

For security purposes, SSH access is limited to the use of defined management interfaces.

BTS 10200 installation and upgrade procedures require you to change default user names and passwords.

Bug Toolkit

To access Bug Toolkit, have an Internet connection, Web browser, and a cisco.com username and password.

To query defects and caveats, follow this procedure:

Step 1 Click here to log onto Bug Toolkit.

Step 2 Click **Launch Bug Toolkit**.

Step 3 For a specific caveat, enter the ID number in the "Search for bug ID" field.

To view all caveats, go to "Select Product Category", and select "Voice and Unified Communications" from the menu.

Step 4 Select "Cisco BTS 10200 Softswitch" in the "Select Products" section.

Step 5 Select the **Software Version** such as 7.0, 6.0, and so on.

Step 6 Select the **Version Type** based on

- Known Affected Version (software/version assumed to contain the bug),
- Fixed-In (Software version/release in which the bug has been fixed),
- Found-In (Software version/release in which the bug was first reported)

Step 7 Use keywords to search for a caveat title and description.

Step 8 Select **Advanced Options**, including Bug Severity level, Bug Status Group, and Release Note Enclosure options, Modified Date.

Step 9 Click **Search**.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, 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

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