



Preface

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Introduction

This preface describes the objectives, audience, organization, and conventions of this document and explains how to find additional information on related Cisco products and services.

Document Objective

This guide provides instructions for operating, and maintaining the Cisco BTS 10200 Softswitch for release 4.5.1. You should read the other documentation supplied with your system before using this guide. A complete list of these documents is included in the [Documentation Suite, page xix](#) section of this guide.

Audience

This guide is intended for system administrators, system operators, and system technicians.

- The system administrator manages the host administrative functions, including configuring and maintaining system parameters, granting group and user IDs, and managing all Cisco MGC files and directories. The system administrator should have an in-depth knowledge of UNIX and a basic knowledge of data and telecommunications networking.
- The system technician should be familiar with telecommunication protocols, basic computer software operations, computer terminology and concepts, hierarchical file systems, common UNIX shell commands, log files, the configuration of telephony switching systems, the use of electrical and electronic telephony test equipment, and basic troubleshooting techniques.

Document Change History

[Table 1](#) describes the change history for this document.

Table 1 **Document Change History**

Release, Change Date	Subject	Change Summary
4.5.x, 07/21/2009	Updated Chapter 7	Updated Chapter 7 to include the Enabling NMS to Query Solaris SNMP Agent section.
4.5.x, 01/12/2008	Updated Chapter 2	Updated Chapter 2 information to include Managing Users and Managing Commands sections
4.5.1, 11/24/2008	Chapter 5, Maintenance and Diagnostics for External Resources and updated Chapter 3, Changing Subscriber DN	Added note on service states and provided additional information on changing the subscriber directory number
4.5.1, 8/4/2008	Chapter 6, Operations	Added steps to change subscriber DN.
4.5.1, 6/12/2008	Chapter 6, Operations	Added Oracle replication queue verification steps to “Archiving Your Database” section.
4.5.1, 10/13/2006	Chapter 6, Traffic Measurements	- Updated measurements tables. - Updated the chapter with measurement data specification information.
4.5.1, 10/13/2006	Chapter 3, Operations	- Revised the “Displaying Active Call Information” section—Referred to the command input and output parameters in the CLI document, and included an example of a call-trace query display. - Revised the “Creating an Archive” procedure. - Revised value for target state in control command example.
4.5.1, 5/15/2006	Chapter 4, Maintaining the BTS 10200 Softswitch	- Updated the section “Checking Mirroring on the Disk”: replaced the grep command with egrep, and added new examples. - Added information on Active Call Information Display. - Added information on Support of 30 OPCs. - Added information on Call Forwarding Combination.
4.5.1, 5/15/2006	Chapter 6, Traffic Measurements	- Added information on Call Forwarding Combination measurements - Updated measurements tables. - Updated the chapter with measurement data specification information.

Table 1 **Document Change History (continued)**

Release, Change Date	Subject	Change Summary
4.5.1, 5/15/2006	Chapter 5, Maintenance and Diagnostics for External Resources	• In the section “SS7 Trunk Termination Tests,” added information on output fields for test=5. • In the section “SS7 Trunk Termination Tests,” added a note for diag ss7-trunk-termination test=7.
4.5.1, 5/15/2006	Chapter 4, Maintaining the BTS 10200 Softswitch	• Updated the section “EMS Database Backup” by removing reference to shared memory data from the CA/FS.
4.5.1, 2/21/2006	Chapter 5, Maintenance and Diagnostics for External Resources	• In the section “Trunk Terminations”, added a note regarding using the control trunk termination command to control all trunk terminations for a particular CIC group to INS. The forced option brings the circuits to INS by using the reset procedure. • In the section “SS7 Trunk Termination Tests,” added information on output fields for test=5.
4.5.1, 2005	All Chapters	• Reorganized this Guide and updated information for the 4.5.1 release. • Chapter 11, “Disaster Recovery Procedures” has been moved to the <i>Cisco BTS 10200 Softswitch Troubleshooting Guide</i> for Release 4.5.1.

Document Conventions

This section describes the directory structure in which the Cisco BTS 10200 Softswitch software is installed. Refer to the *Cisco BTS 10200 Softswitch Release 4.5.1 Software Installation Guide* for a more detailed description of configuring the Softswitch environment.



Note

Refer to the *Cisco BTS 10200 Softswitch Command Line Interface Reference Guide* for a detailed description of all commands and tokens discussed in this document.

Typographic conventions used in this guide are shown in [Table 2](#).

Table 2 **Conventions Used in this Guide**

Convention	Meaning	Description / Comments
Boldface	Commands and keywords you enter as shown.	offset-list
<i>Italics</i>	Variables for which you supply values.	command <i>type interface</i> You replace the variable with specific information. In contexts that do not allow italics, such as online help, arguments are enclosed in angle brackets (< >).
Square brackets ([])	Optional elements.	command [abc] abc is optional (not required), but you can choose it.
Vertical bars ()	Separated alternative elements.	command [abc def] You can choose either abc or def, or neither, but not both.
Braces ({ })	Required choices.	command { abc def } You must choose either abc or def, but not both.
Braces and vertical bars within square brackets ([{ }])	A required choice within an optional element.	command [abc { def ghi }] You have three options: nothing abc def abc ghi
Caret character (^)	Control key.	The key combinations ^D and Ctrl-D are equivalent: Both mean “hold down the Control key while you press the D key.” Keys are indicated in capital letters and are not case sensitive.
A non-quoted set of characters	A string.	For example, when setting an SNMP community string to <i>public</i> , do not use quotation marks around the string; otherwise, the string will include the quotation marks.
System prompts	Denotes interactive sessions, indicates that the user enters commands at the prompt.	The system prompt indicates the current command mode. For example, the prompt Router (config) # indicates global configuration mode.
Screen font	Terminal sessions and information the system displays.	

Table 2 Conventions Used in this Guide (continued)

Convention	Meaning	Description / Comments
Angle brackets (< >)	Non-printing characters such as passwords.	
Exclamation point (!) at the beginning of a line	A comment line.	Comments are sometimes displayed by the Cisco IOS software.

**Caution**

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

**Timesaver**

Means *reader may be able to save some time*. Taking the action described could achieve a result in less time than might be achieved otherwise.

**Note**

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

Conventions used in the Cisco BTS 10200 Softswitch software are shown in [Table 3](#).

Table 3 Data Type Conventions

Data Type	Definition	Example
Integer	A series of decimal digits from the set of 0 through 9 that represents a positive integer. An integer may have one or more leading zero digits (0) added to the left side to align the columns. Leading zeros are always valid as long as the number of digits is less than or equal to ten digits. Values of this type have a range of zero through 4294967295.	123 000123 4200000000
Signed integer	The same basic format as the integer but can be either positive or negative. When negative, it is preceded by the sign character (-). As with the integer data type, this data type can be as many as ten digits in length, not including the sign character. The value of this type has a range of minus 2147483647 through 2147483647.	123 -000123 -21000000001
Hexadecimal	A series of 16-based digits from the set of 0 through 9, a through f, or A through F. The hexadecimal number may have one or more leading zeros (0) added to the left side. For all hexadecimal values, the maximum size is 0xffffffff (eight hexadecimal digits).	1f3 01f3000
Text	A series of alphanumeric characters from the ASCII character set, where defined. Tab, space, and double quote (") characters cannot be used. Text can be as many as 255 characters; however, it is recommended that you limit the text to no more than 32 characters for readability.	EntityID LineSES_Threshold999
String	A series of alphanumeric characters and white-space characters. A string is surrounded by double quotes (" "). Strings can be as many as 255 characters; however, it is recommended that you limit the strings to no more than 80 characters for readability.	"This is a descriptive string."

**Note**

Hexadecimal and integer fields in files may have different widths (numbers of characters) for column alignment.

Documentation Suite

The documents that make up the Cisco BTS 10200 Softswitch documentation set are listed in [Table 4](#).

Table 4 *Cisco BTS 10200 Softswitch Documentation*

Functional Area	Publication	Description and Audience
Hardware Installation	<i>Cisco BTS 1200 Softswitch Site Surveys and Cabling Procedures</i>	Describes the hardware components of the Cisco BTS 10200 Softswitch. Includes detailed information on the environmental requirements for all the components. Also provides a checklist of the hardware you should have before starting the installation and a checklist of all the connections for the components. The audience for these publications is the engineering personnel responsible for installing the components and verifying the hardware installation.
Software Release Notes	<i>Cisco BTS 1200 Softswitch Software Release Notes for Release 4.5.1</i>	Provides information that is specific to a particular release of the Cisco BTS 10200 Softswitch software. The audience for these publications is the engineering personnel responsible for installing, configuring, and upgrading software for the respective solutions.
Software Installation	<i>Cisco BTS 1200 Softswitch Release 4.5.1 Application Installation Procedures</i>	Describes the steps necessary to install the software components of the Cisco BTS 10200 Softswitch. The audience for this publication is the engineering personnel responsible for installing and configuring software for the Cisco BTS 10200 Softswitch.
Software Upgrade	<i>Cisco BTS 1200 Softswitch Release 4.5.1 Software Upgrade Procedures</i>	Describes the steps necessary to upgrade the software components of the Cisco BTS 10200 Softswitch from any previous release to Release 4.5.1. The audience for this publication is the engineering personnel responsible for upgrading and configuring software for the Cisco BTS 10200 Softswitch.
Reference	<i>Cisco BTS 1200 Softswitch Release 4.5.1 Command Line Interface Reference Guide</i>	Provides reference information for the hardware and software of the Cisco BTS 10200 Softswitch. The audience for this publication is the engineering personnel responsible for installing, configuring, operating, and upgrading the software for the respective components of the system.
Provisioning	Cisco BTS 10200 Softswitch Provisioning Guide	Provides procedures for provisioning your Cisco BTS 10200 Softswitch. The audience for this document is Cisco BTS 10200 Softswitch users, network operators, and administrators.

Table 4 Cisco BTS 10200 Softswitch Documentation (continued)

Functional Area	Publication	Description and Audience
Provisioning	<i>Cisco BTS 10200 Softswitch Release 4.5.1 ISDN Provisioning and Troubleshooting Guide</i> ,	Describes ISDN Provisioning and Troubleshooting for the Cisco BTS 10200 Softswitch. This document is intended for use by service provider management, system administration, and engineering personnel who are responsible for designing, installing, provisioning, and maintaining networks that use the Cisco BTS 10200 Softswitch.
Billing	<i>Cisco BTS 1200 Softswitch Billing Interface Guide</i>	Provides billing interface information for the Cisco BTS 10200 Softswitch software. This guide is intended for network operators and administrators who have experience with telecommunications networks, protocols, and equipment and who have familiarity with data communications networks, protocols, and equipment.

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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