Preface

Revised: December 2010, OL-23034-02

This book provides the background information you need to properly and efficiently manage the Cisco BTS 10200 Softswitch accounting subsystem. This information is applicable to Release 7.0. This document describes both the format of the accounting data generated by the system and the standard operational practices for managing that data.

The BTS 10200 serves as a class-independent switching network element. The solutions in which it is employed also take into account the need to support both traditional PSTN billing needs as well as additional requirements necessitated by the IP, ATM, and PacketCable backbones. Many of the informational elements within the accounting data find their basis in the traditional Bellcore AMA format with modifications and additions to account for the expanded needs and capabilities of the converged network environment.

The BTS 10200 accounting information includes details of service quality and feature invocations within the call context, which are a departure from traditional billing records. The mechanisms used to manage the data generated by and transported from the BTS 10200 follows legacy-type procedures and is documented in the following sections.

The BTS 10200 provides the following billing functions:

- Provides batch record transmission using standard FTP for the transfer of call detail records (CDRs) to a remote billing server or third-party billing mediation device.

> **Note** The BTS 10200 does not currently support the transmission of CDRs to redundant or multiple external billing mediation systems or billing servers.

- Issues events as appropriate, including potential billing data overwrites.

- Saves billing records based on allocated disk storage.

- Minor, major, and critical alarms.

- Supports user-provisionable billing subsystem parameters.

- Supports on-demand call detail block (CDB) queries based on ranges of timestamps, an originating number, a terminating number, last record written, or other fields in the call detail block.

The Bulk Data Management System (BDMS) application in the BTS 10200 gathers all billing-related call events from call processing, formats them into a standard format, and transmits the billing records using FTP to an external billing collection and mediation device that is part of the service provider's billing system. The FTP transfer occurs automatically every n minutes, where n is a number from 1 to 60 that the service provider can provision in the BTS 10200. The default value is 15 minutes.

The interface to the external billing mediation device can vary from carrier to carrier, so the BDMS supports a flexible profiling system. This profiling system allows the BTS 10200 to adapt quickly to any variation of the interface to the external billing mediation device, or to variations in the service provider's record keeping system.

Note For information on Billing-related Packet Cable Event Messages, refer to the *Cisco BTS 10200 Softswitch PacketCable Guide, Release 7.0*.

Organization

This document is divided into the following chapters and appendixes:

- Chapter 1, "Operational Procedures"—Describes the Cisco BTS 10200 Softswitch billing operational procedures.

- Chapter 2, "Example of a Call Detail Block File"—Provides an example of an actual call detail block (CDB) record generated by the Cisco BTS 10200 Softswitch's Element Management System (EMS) for a Local Plain Old Telephone Service (POTS) SIP to Media Gateway Control Protocol (MGCP) Line Call.

- Chapter 3, "Feature Server-Derived Call Data"—Describes feature-related data that is placed within various fields in the call detail block (CDB) records.

- Chapter 4, "Call Detail Block File Fields"—Illustrates the format of each field in a Call Detail Block (CDB), the order in which the field occurs, the possible values for the individual fields, and the meaning of the data within the field where applicable.

- Chapter 5, "QoS Metrics in CDRs"—Describes the metrics that can be collected and stored in the call detail records created by the Cisco BTS 10200 softswitch.

- Appendix A, "Call Termination Cause Codes"—Lists call termination cause values and definitions.

- Appendix B, "Time Zone Mapping Table"—Defines the various time zones supported by the Cisco BTS 10200 softswitch for localization of the various timestamps in the billing records.

Obtaining Documentation and Submitting a Service Request

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Document Change History

The following table provides the revision history for the *Cisco BTS 10200 Softswitch Billing Interface Guide, Release 7.0*.

Version Number	Issue Date	Status	Reason for Change
OL-23034-01	July 2010	Initial	Initial document for Release 7.0.
OL-23034-02	December 2010	Revised	Updated the Calling Party Category CDB field to include "Translated Number" with value 246.