



Preface

The Cisco BTS 10200 Softswitch Release 5.0 SOAP Adapter Interface Specification Programmer Guide describes the SOAP adapter. The SOAP adapter provides a machine-to-machine interface (MMI) over Simple Object Access Protocol (SOAP).

The goal of the SOAP interface is to provide a provisioning method for the Cisco BTS 10200 Softswitch product that parallels the Command Line Interface (CLI) adapter in capabilities. SOAP provides an abstraction of the Cisco BTS 10200 Softswitch in a consistent, object-oriented model. Discussion of the actual object model for this interface is not within the scope of this document.

The *Cisco BTS 10200 Softswitch Command Line Interface Reference Guide* is the definitive source for token descriptions (parameters) and their values, as used in the SOAP interface.

Audience

This document is designed for intermediate and advanced SOAP programmers. It presumes an intermediate or higher level of SOAP programming familiarity.

Interface

The SOAP adapter uses the Tomcat AXIS version 1.4 package to develop and deploy the SOAP application. AXIS 1.4 is a third-party freeware provided as part of the BTS 10200 Tomcat package.

XML Interface

The XML interface is abstracted by SOAP itself. The Tomcat package uses either the Transmission Control Protocol (TCP) or the User Datagram Protocol (UDP) for connections. Narrowing on the NameService will also produce the BTS10200 objects. Narrowing is covered in great detail in the coding examples in the Cisco BTS 10200 Softswitch SDK package. This is bundled with the Cisco BTS 10200 Softswitch application.

To create separate application-level connections or objects requires some object pooling and numerous logins to obtain valid login keys for every instance of the BTS10200 object. Examples are available in the bundled SDK package.

Batch Data Retrieval (Paging)

Batch data retrieval (paging) is available using the CLI **show** command. Paging is required to view large data sets, and the initial setup of paging impacts BTS 10200 performance. Paged data is cached for quick retrieval upon subsequent requests. Paged data must be contiguous for optimal system performance. For more information, see the *Cisco BTS 10200 Softswitch Operations and Maintenance Guide*, the *Cisco BTS 10200 Softswitch Troubleshooting Guide*, and the *Cisco BTS 10200 Command Line Interface Reference Guide*.

Connections and Transactions

SOAP supports up to 100 simultaneous sessions. A session is any valid login to the SOAP interface. A transaction is any specific request; for example, **show** or **change**.

Each login session allocates its own set of resources, much like an individual CLI session. If a command is not executed within 10 minutes, the session is identified as idle. An idle session is removed from the interface, and all resources are closed.



Note Idle time is configured through the `bts.properties` file of the Tomcat application jar file. The `bts.properties` file is located on the BTS 10200 in the `/opt/Tomcat` directory.



Note Modification of the `bts.properties` file should not be attempted without Cisco TAC support or supervision.
