CHAPTER 7

Preparing for Dial Plan Provisioning

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Introduction

This chapter describes the tasks you need to perform before you can begin provisioning a dial plan. It also describes the tools you will use, and provides detailed information on the dial plan parameters and syntax conventions that you must be familiar with as you create your dial plan. This chapter includes the following sections:

- Provisioning Prerequisites
- Provisioning Tools
- Creating a Dial Plan

Note The Cisco BTS 10200 Softswitch can use two servers, an active and a standby, for maximum reliability. The dial plans discussed in this chapter apply to both the active and standby servers. You need only create one dial plan and deploy that dial plan on both servers.

Provisioning Prerequisites

This section describes the tasks that must be completed and the information that you need before you start dial plan provisioning.

Prerequisite Tasks

Here are some steps you should perform before you use this dial plan guide.

Step 1 Plan and diagram your network configuration in detail.

A detailed network diagram is essential for the creation of a dial plan. *Refer to the appropriate solution overview and provisioning documentation for detailed information about a particular solution.*

Step 2 Set up the Cisco BTS 10200 and install all required software.

Before you start the planning process, you should prepare the Cisco BTS 10200 as described in the following manuals and database:

- *Site Preparation and Network Communications Requirements*
- *Network Site Survey for Software Installation Cisco BTS 10200 Softswitch*
- Cisco BTS 10200 Softswitch Building Environment and Power Site Survey
- Cisco BTS 10200 Softswitch Cabling, VLAN, and IRDP Procedures
- Cisco BTS 10200 Softswitch CD Jumpstart Procedure for Solaris 10 Based Duplex Systems
- *Cisco BTS 10200 Softswitch Application Installation*
- *Cisco BTS 10200 Softswitch Provisioning Guide*
- Cisco BTS 10200 Softswitch CLI Database

Step 3 Complete all provisioning worksheets and site surveys, including filling in the names and IP addresses of all devices, attributes, and all other necessary information.

Prerequisite Information

Before you can complete the dial plan provisioning, you must collect the Cisco BTS 10200 dial plan provisioning information. Table 7-1 provides space for you to enter the following information:

- **id**—dial plan identification
- **dest_id**—destination identification
- **digit_string**—dial plan digit string
- **max_digits**—maximum number of digits
- **min_digits**—minimum number of digits
- **noa**—nature of address
- **split_npa**—split number plan area
- **del_digits**—deleted digits
- **pfx_digits**—prefix digits

Table 7-1 Trunk Worksheet Example

id	dest_id	digit_string	max_digits	noa	split_npa	del_digits	pfx_digits

Provisioning Tools

The Cisco BTS 10200 includes command-line interface (CLI) tools that you can use to provision the dial plan:

Command-Line Interface

The command-line interface can be used to provision and deploy dial plans for the Cisco BTS 10200.

- For detailed instructions on using the CLI, refer to the Cisco BTS 10200 Softswitch CLI Database.
- For more information on provisioning a dial plan with the CLI, refer to "Provisioning a Dial Plan with the Command-Line Interface" section on page 8-1.

Creating a Dial Plan

The following sections describe how to create and provision a dial plan for the Cisco BTS 10200.

Add a Dial Plan Profile

The Dial Plan Profile (dial-plan-profile) table creates dial-plan-profile-ids before they are assigned to subscribers or trunk groups. The dial-plan-profile-id links digit-string entries in the Dial Plan table within a dial plan. Different dial-plan-profile-ids are assigned to subscribers and trunk groups. A dial-plan-id must be created in this table before entries can be added to the Dial Plan table.

Command	Purpose
`add dial-plan-profile id=dp1; description=dialing plan profile id;`	Adds a dial plan profile

Add a Dial Plan

A dial plan analyzes, screens, and routes a call based on dialed digits. The Dial Plan (dial-plan) table holds dial plan information for a specific type of call. It defines valid dialing patterns and determines call routing. All records that share a common dial-plan-profile-id are considered a dial plan.

Command	Purpose
`add dial-plan id=sub; digit-string=469-255; noa=national; dest-id=local_call;`	Adds a dial plan

Cisco BTS 10200 Provisioning Sequence

The order in which you provision dial plan tables is important. The following list identifies the recommended sequence for Cisco BTS 10200 provisioning:

1. Add a media gateway profile.
2. Add a media gateway.
3. Add a termination.
4. Add a destination.
5. Add a dial plan profile.
6. Add a dial plan.
7. Add a subscriber profile.
8. Add a subscriber.
9. Generate a DN2Subscriber.
10. Control a media gateway.
11. Equip a subscriber termination.
12. Control a subscriber termination.

For additional Cisco BTS 10200 provisioning information, refer to the *Cisco BTS 10200 Softswitch Provisioning Guide*.