Configuring the Signaling Connection Control Part

Additional sections:

**SCCP Initial Provisioning Tasks**

**Viewing GTT Connections**

**Viewing User Connections**

**Configuring TCAP Service Rules**

**Configuring Concerned PCs**

**Configuring Remote PCs**

**Configuring Remote SSNs**

In this section:

- Overview
- SCCP in the DSC Platforms SS7 Stack
  - Traffic Flow
- SCCP User Interface
- Before You Start the SCCP Configuration

For detailed information about the appropriate description of the various supported CPUs and VMs for the DSC Platforms, see Terminology.

### Overview

The Embedded DSC (DSC Platform) supports an internal Signaling Connection Control Part (SCCP) application. The SCCP is used for Global Title Translation (GTT) and/or traffic management of client applications connected to SCCP over IP in conjunction with MTP3. These client applications can be external applications connected to the Signaling Gateway (SG) application or internal Sonus applications such as the Point Code Emulator (PCE).

On the DSC Platform, SCCP is enabled in a fully distributed N-peer configuration on the the Routing VMs.

The SCCP is designed to process SS7 traffic on the Virtual Machines (VMs) in a load sharing manner. These VMs communicate their internal status with each other. For more information about the VMs Sonus Signaling Systems hardware configuration, see the Installation Guides

For SCCP User Adaptation Layer (SUA), the connections are configured at the SG UI. For more information about the SG, see Configuring the Signaling Gateway.

The Process Event feature that appears in the UI, but is not described in this guide, provides an alarm type which ensures that the applications in all slots function as expected. With this feature, each application defines its own concept of functioning as expected, which means that the configuration/database files are synchronized and loaded, inter-peer connections are correctly established, and the peer applications are ready to process traffic. For more information about this feature, see the appropriate section in the Platform Manager User Guide

If the application and its peer does not function as expected, an alarm is raised that is visible on the system's alarm panel. For more information about alarms, see the appropriate section in the Alarms Guide.

In accordance with GR-82-Core, *Signaling Transfer Point (STP) Generic Requirements (A Module of FR-CCS-18)*, Issue 10, December 2006, the DSC Platforms supports Memory Space Accounting (MSA). For more information about how this feature applies to SCCP, see the appropriate chapter in the Platform Manager User Guide

Note

The SG, GTT, and PCE software features are optional for the DSC Platform and can be purchased by contacting a DSC Platform Sales representative for product pricing and availability (see Sonus Sales).
SCCP in the DSC Platforms SS7 Stack

The following figure shows the SCCP in relation to the other major processes of the DSC Platform SS7 Stack. The SCCP uses TCP protocol to communicate with the Message Transfer Part (MTP) Level 3 and Signaling Gateway (SG). The GTT is a library of SCCP unless PCE is licensed. In this case, GTT is a separate process. The SG processes are used as interpreters between SCCP and the external client application. This stack structure is replicated on all Routing VMs, and the processes open a communication path between their peers. For a description of the term peer, see SCCP User Interface.

**Figure 1: SCCP in the Sonus SS7 Stack (2-Peer Example)**

### Traffic Flow

The GTT port on SCCP accepts multiple connections to enable GT traffic on each Routing VM. GT traffic is forwarded to the appropriate GTT application that is registered with the associated Destination Point Code (DPC) based on PC registration or using an Application ID registration.

The user port on SCCP accepts multiple connections to enable PC-SSN traffic. User traffic is forwarded to the appropriate user application that is registered with the associated DPC and subsystem number (SSN) or using gateway redirect (GWR) based on Application ID registration.

### SCCP User Interface

You can dynamically configure the SCCP attributes using the SCCP user interface (UI).

The DSC Platform supports a distributed architecture, provided that the system has the required cards to support this architecture. The SCCP UI displays screens with reference to peer IDs, which represent the SCCP on a given VM.

SCCP is optional on the DSC Platform, because this application is typically not required when the GTT, PCE, and SG are not licensed on the platform. If you choose to purchase any of these SS7 applications, the SCCP is automatically enabled and appears in the UI.

You can access the SCCP user interface (UI) from the DSC Platform Main Menu. It is assumed that you are an experienced user of this system and, therefore, are familiar with the logon process and the Main Menu operations. If you require information about this process and these operations, see the appropriate section in the Web UI and Menu UI Guide.

**Note**

Although in some of the procedures it is recommended that you do not change the attribute default values, the procedure to change these values is provided. These procedures are included so you can change the default values if this change is recommended by Customer Support.
Before You Start the SCCP Configuration

Before you start the SCCP configuration, make sure that you have completed the following tasks:

- installed and powered up the DSC Platform
- completed the initial configuration tasks
- set the system date and time
- configured the required passwords and familiarized yourself with the system UI
- configured the required MTP Level 3 (MTP3) NAs

For more information about performing the tasks listed in the preceding bulleted list, see the appropriate book in the DSC Platforms Documentation Library.