

Configuring SS7, SCTP

OPERATING INSTRUCTION

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1 Overview

1.1 Description

This instruction describes, using an example, how to configure Stream Control Transmission Protocol (SCTP). The procedure in this example shows a complete configuration with usable values. For a specific customer configuration, other relevant values may be used.

1.2 Prerequisites

1.2.1 Documents

For configuration parameter information, see "Configuration File Description for SCTP" Reference [1].

1.2.2 Tools

Signaling Manager is supposed to be used for module configuration. For more details, see Reference [2].

1.2.3 Conditions

- The IP addresses must be known. The Local IP Address is the assigned both Evolved Virtual IP (eVIP) and IP address for the SCTP FE.





2 Procedure

This procedure describes how to create an SCTP Front End and its Local IP Address table or SCTP Front End with Distributed End Point property.

2.1 Creating SCTP Layer

In the **Signaling Manager** perform the following steps:

1. Expand **Signaling System** to view the underlying structure, if it is not already expanded.
2. Add element on **SCTPs**. An **SCTP FE** will be added. See Figure 1.

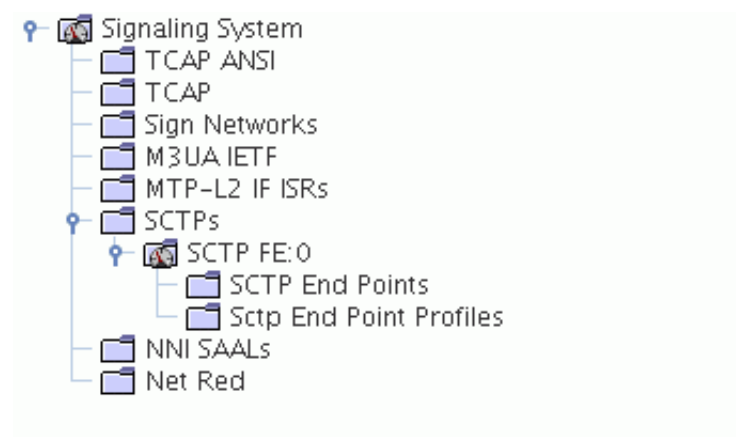


Figure 1 Added an Instance of SCTP. In case of using sctpcaf IMC there will be one SCTP without Instance ID

No SCTP End Point instance is added by default.

2.2 Configuring SCTP

It is up to applications which values must be set in the configuration.

2.2.1 SCTP Properties

All properties are using default values. If some properties are not visible in the SCTP property sheet, it is due to that **Expert mode** has not been selected in **Tools** menu.

Note: Local and remote IP addresses should be set in IPv6 format in case of IPv6 configuration.

2.2.2 Creating Local IP Address Table

In order to create Local IP Address Table/SCTP End Point element you may need to:

1. Add an element on **SCTP End Points**. An instance of IP Address Table , called **IP Address Table #1**, is added. See Figure 2.

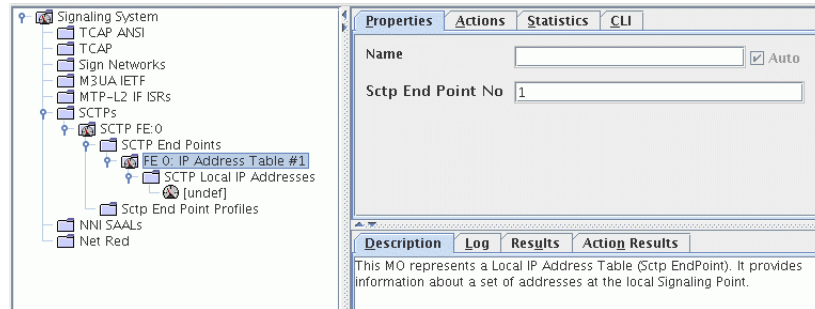


Figure 2 Added an Instance of SCTP Local IP Address Table. In case of using sctpcaf IMC there will be one SCTP without Instance ID

Note: By default an instance of an SCTP Local IP address, called **[undef]** is added in the **SCTP Local IP Addresses** element. In order to make this IP address valid, its **Address** property must be set. The **Port Number** property, that is visible in **Expert Mode** only, is not exported to the SCTP protocol layer when configuring pure SCTP. Value of **Port Number** property of Local address table is needed only if this End Point is used in **M3UA**. If **M3UA** isn't used, then **Port Number** can be left with default value.

2. Set the **Address** property of the added SCTP Local IP Address, **[undef]**. The IP Address element will be updated with its set IP address. See Figure 3

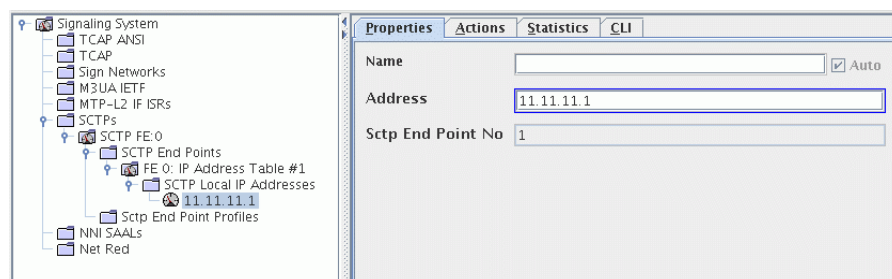


Figure 3 Address Field Which is Set with a Valid IP Address. In case of using sctpcaf IMC there will be one SCTP without Instance ID

2.2.3 Creating More Local IP Address

One Local IP Address was added during the steps in “Creating Local IP Address Table” in Section 2.2.2 on page 3. In order to add more Local IP Address for a certain Local IP Address Table, for instance **IP Address Table #1**, perform the following steps:



1. Add element on **SCTP Local IP Addresses**. An instance of SCTP Local IP Address, called **[undef]** is added in the **SCTP Local IP Addresses** element.
2. Set the **Address** property of the added SCTP Local IP Address, **[undef]**. The Local IP Address element will be updated with the set IP address, see Figure 3.

Note: You can also create a Local IP Address by making a copy of one already created instance. Its **Address** property must be updated. Duplicate IP Addresses are not allowed.

2.2.4

Creating More Sctp End Points

1. Select the previously added **FE 0: IP Address Table #1** and press the insert key or right click and select add. A second instance called **FE 0: IP Address Table #2** is added. SCTP Instance ID is not configurable for sctpcsf IMC.
2. Set the **Address** property of the added SCTP Local IP Address. The Local IP Address element will be updated with the set IP address.

Note: New End Points creation is necessary only if they are used in M3UA

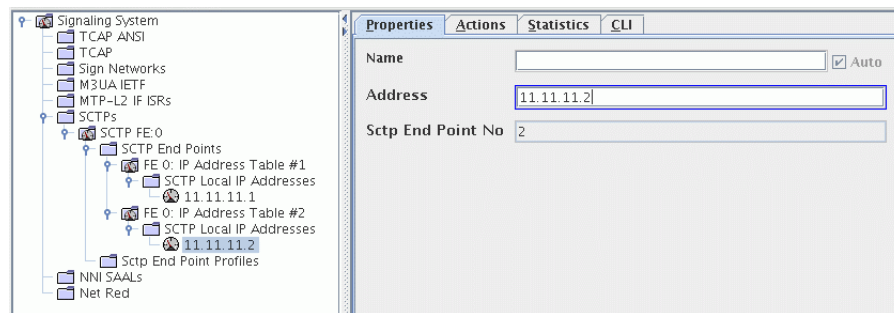


Figure 4 Added a second SCTP End Point. In case of using sctpcsf IMC there will be one SCTP without Instance ID

2.2.5

Validate SCTP

In order to validate, you select **Validate** from the **Edit** menu. The result will be displayed in the Results field below the Property sheet. If the configuration is not valid the incorrect properties will be listed in different lines. By Selecting a line, Signaling Manager will prompt to the location to edit the property with proper values to make the configuration valid.





Glossary

SCTP

Stream Control Transmission Protocol

VIP

Virtual IP address

M3UA

MTPL3 User Adaptation layer

SS7

Signaling System Number 7

FE

Front End





Reference List

- [1] Configuration File Description for SCTP, 190 73-CAA 901 548/3
- [2] Signaling Manager User Guide, 1553-CNA 403 0874/3