Configuring the

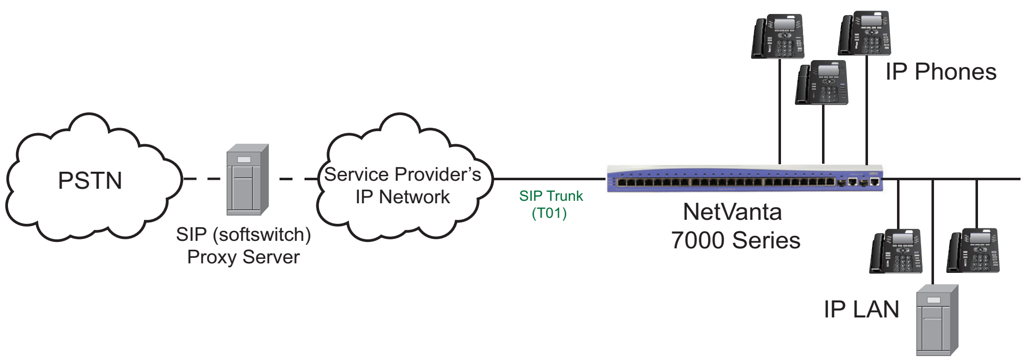
NetVanta 7000 Series

Connecting to a Bandwidth.com SIP Trunk

Quick Configuration Guide **61200268L1-42.2A** **February 2009**

Introduction

Session Initiation Protocol (SIP) trunking is a packet-based voice service that routes calls over an IP network to an IP-compatible private branch exchange (PBX) or voice switch using SIP signaling to place and receive calls. ADTRAN's NetVanta 7000 Series IP PBXs support SIP trunks delivered from your service provider. The following sections in this document explain application and configuration implementation of SIP trunking using the ADTRAN NetVanta 7000 Series IP PBXs.



ADTRAN Operating System (AOS) firmware version A2.02.00 or later is required on your NetVanta 7000 Series product in order to support SIP trunking.

The following ADTRAN documents are prerequisites to configuring a new SIP trunk on your system:

- *NetVanta 7000 Series Quick Start Guide*
- *NetVanta 7000 Series Web GUI Quick Configuration Guide*
- *NetVanta 7000 Administrator's Guide*
- *NetVanta 7000 Series SIP Trunking*

The following ADTRAN configuration guides are also available to assist with implementing configuration and application relating to SIP trunks and SIP networks:

- *Source and ANI Based Routing*
- *Switchboard and Dial Plan*
- *Transparent Proxy*
- *Voice Traffic over SIP Trunks*
- *Voice Quality Monitoring*
- *User Accounts (additional information available in the NetVanta 7000 Series Admin Guide)*
- *Voicemail (additional information available in the NetVanta 7000 Series Admin Guide)*

Configuration guides are located on the *AOS Documentation* CD shipped with your AOS unit or on the website at http://kb.adtran.com.

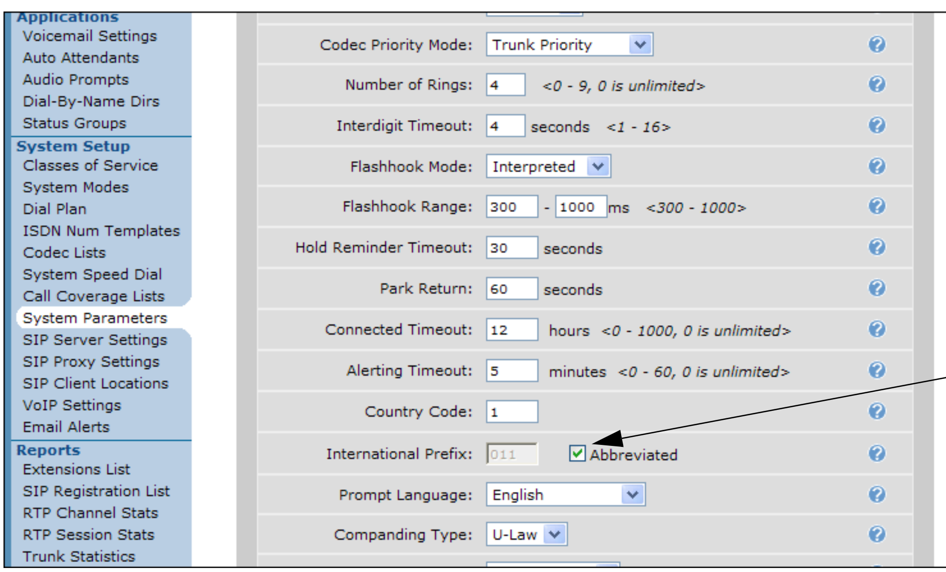
Follow the steps below to configure the incoming SIP trunk:

- Create a SIP trunk account.
  - Set the SIP server address.
  - Set the SIP registrar address.
- Create trunk group(s).

Configuring the SIP Trunk

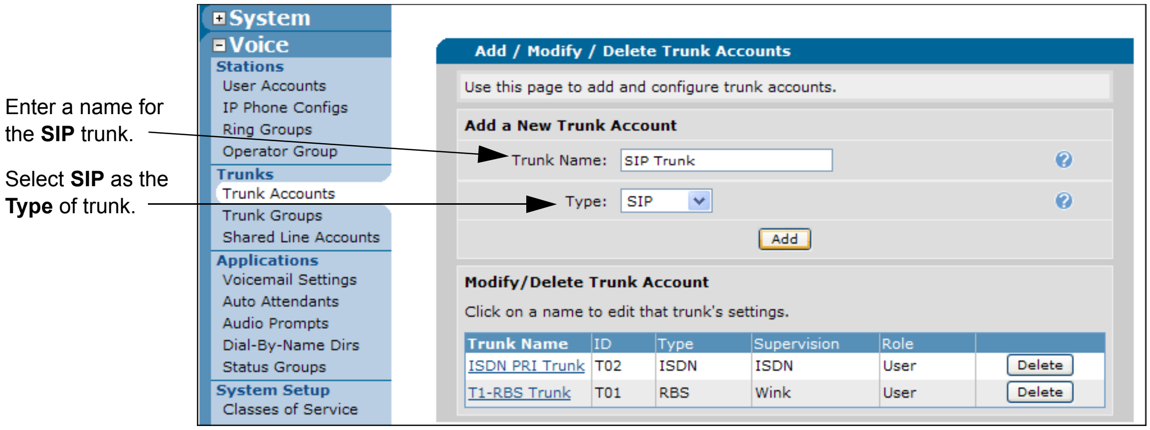
1. Open a Web-based graphical user interface (GUI) session. If you need assistance, follow the steps in the *NetVanta 7000 Series Web GUI Quick Configuration Guide* available on the *AOS Documentation* CD shipped with your unit.

2. Navigate to the **Voice > System Setup > System Parameters** menu. Verify that the **International Prefix Abbreviated** check box is selected to support E.164 dialing.



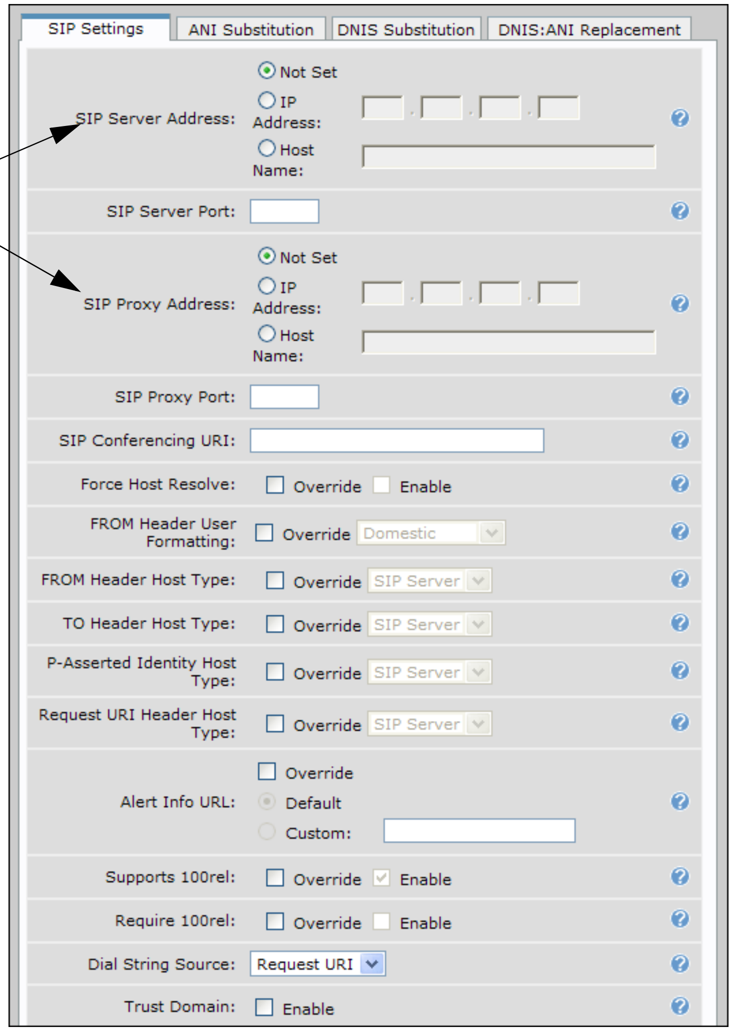
Verify that the **International Prefix Abbreviated** check box is selected.

3. Navigate to the **Voice > Trunks > Trunk Accounts** menu. Enter the desired name for the SIP trunk in the **Trunk Name** field and select **SIP** as the trunk **Type**. Select **Add** to create the new trunk account.



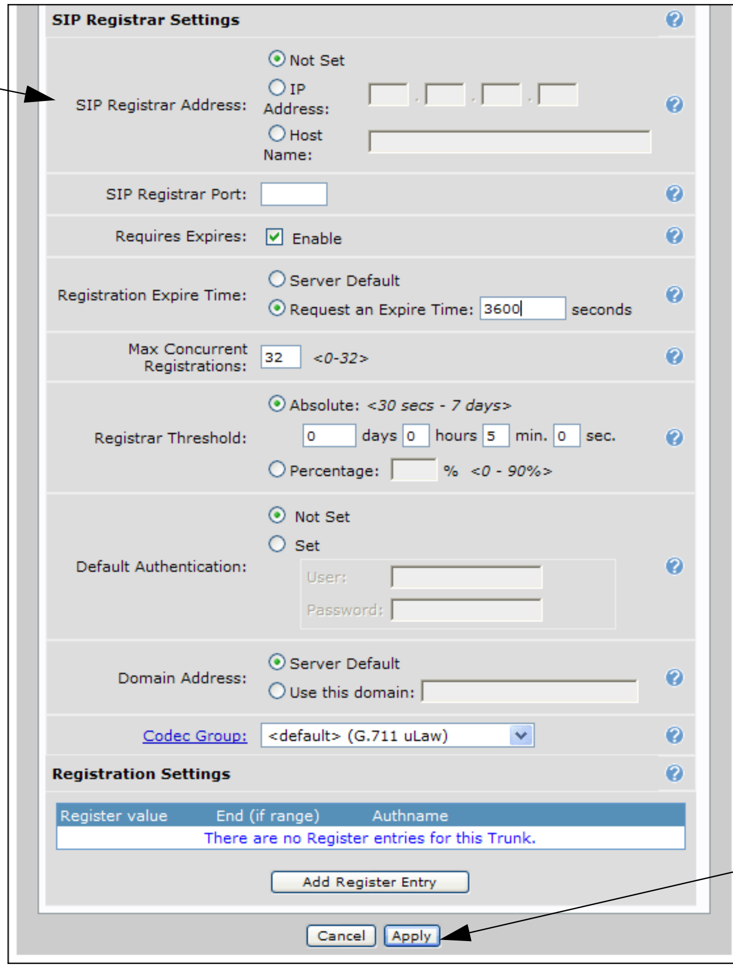
4. Continue the SIP trunk configuration on the **SIP Settings** tab. Set the SIP server and SIP proxy addresses using the information provided by your service provider.

Configure the **SIP Server Address** and **SIP Proxy Address**.



5. Still on the **SIP Settings** tab, scroll down and configure the **SIP Registrar Settings** using the information obtained from your service provider.

Configure the **SIP Registrar Address**.



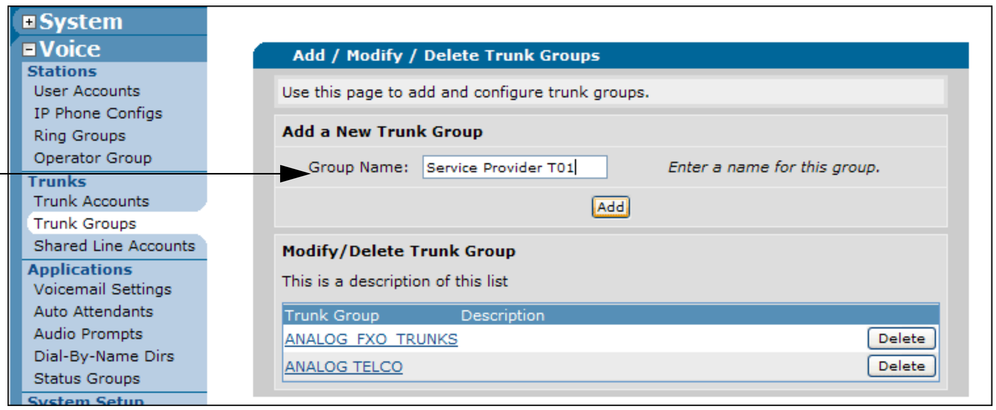
Select **Apply** to append the settings to create the new SIP identity number(s) registration.

Configuring the Trunk Group

Trunk groups combine one or more trunk accounts and assign outbound call characteristics. The trunk group is assigned outbound call capabilities (local calls, long distance calls, etc.). Additionally, a cost is assigned to each attribute in the outbound call template. Use this section to create the trunk group, add the trunk account members to the group, and define the outbound call templates and costs.

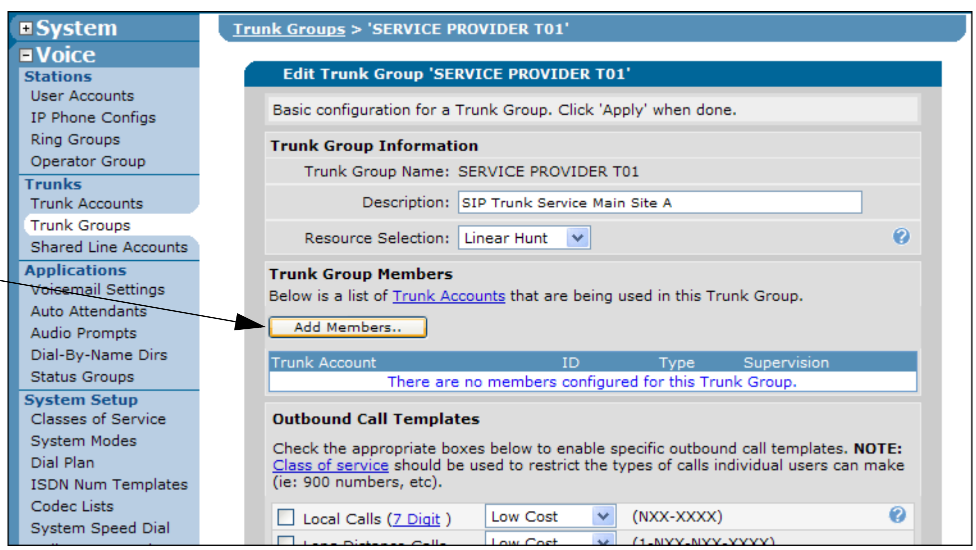
1. Navigate to the **Voice > Trunks > Trunk Groups** menu, enter a new **Group Name** and select **Add**. To edit an existing trunk, select the link for the desired trunk from the list under **Modify/Delete Trunk Group**.

Enter a **Group Name**.

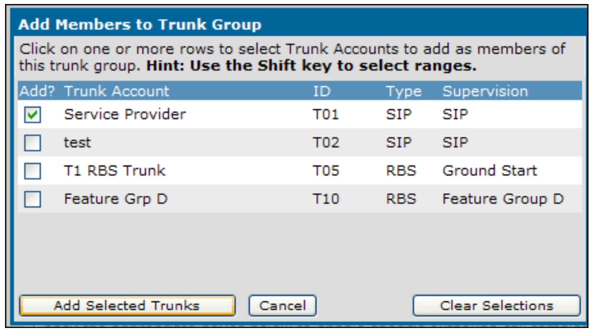


2. To add members to the trunk group, select the **Add Members** button. The **Add Members to Trunk Group** menu will appear.

Select **Add Members** to add trunk accounts to the trunk group.



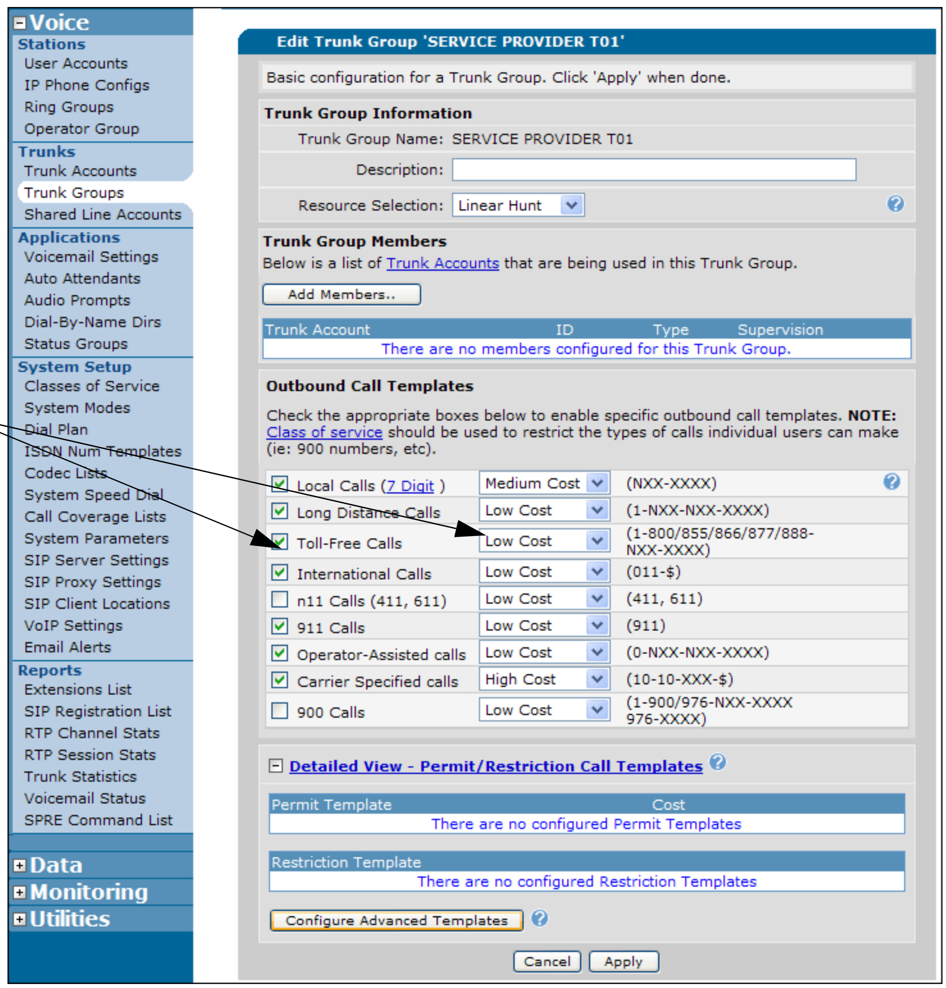
3. Add members by selecting the name you entered for the SIP trunk.



4. Select **Add Selected Trunks** to append the new member selection(s) and return to the **Edit Trunk Group** menu.

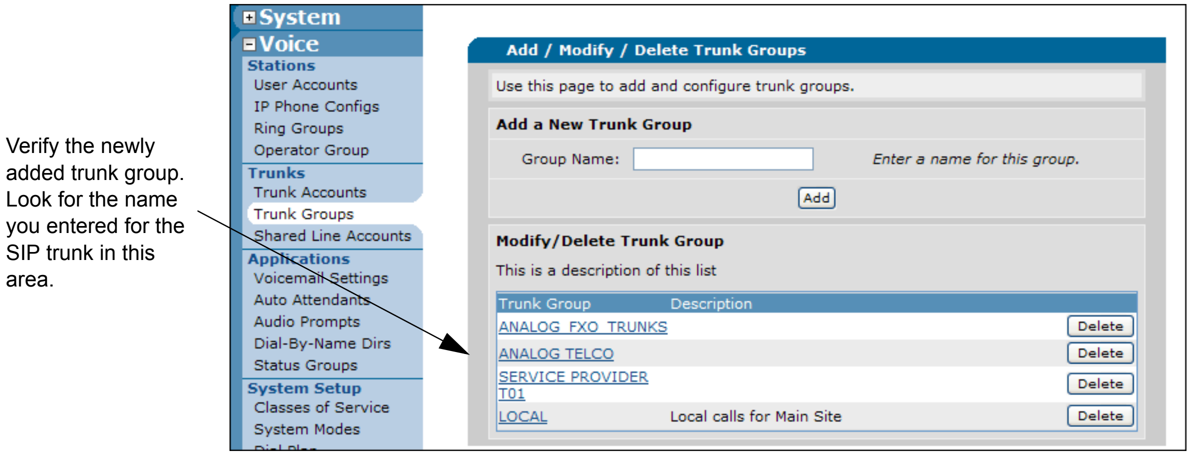
5. Select the appropriate check boxes under **Outbound Call Templates** to enable specific outbound call templates. Outbound call templates are the types of calls to allow from this trunk.

Select the boxes to enable specific outbound call templates for this trunk group. Select the cost for each template.



6. Select **Apply** at the bottom of the menu to append the new settings and return to the **Add/Modify/Delete Trunk Groups** menu.

7. Verify the addition of the new trunk group.



Special Configuration Notes

This section contains Bandwidth.com-specific SIP trunk configurations when interfacing with ADTRAN's NetVanta 7000 Series products.

E.164 Dialing Configuration

To support E.164 dialing, navigate to **Voice > VoIP Settings** and change the **FROM Header User Formatting** option to **International**.