VERTICAL™
SBX IP 320™

SIP Trunk Configuration Guide

using

bandwidth.com
Complete *business* communications

www.bandwidth.com
1-800-808-5150

The information contained in this document is specific to setting up SIP connections between Vertical SBX IP 320 and Bandwidth. If you require assistance with this application, please contact Vertical Customer Support.
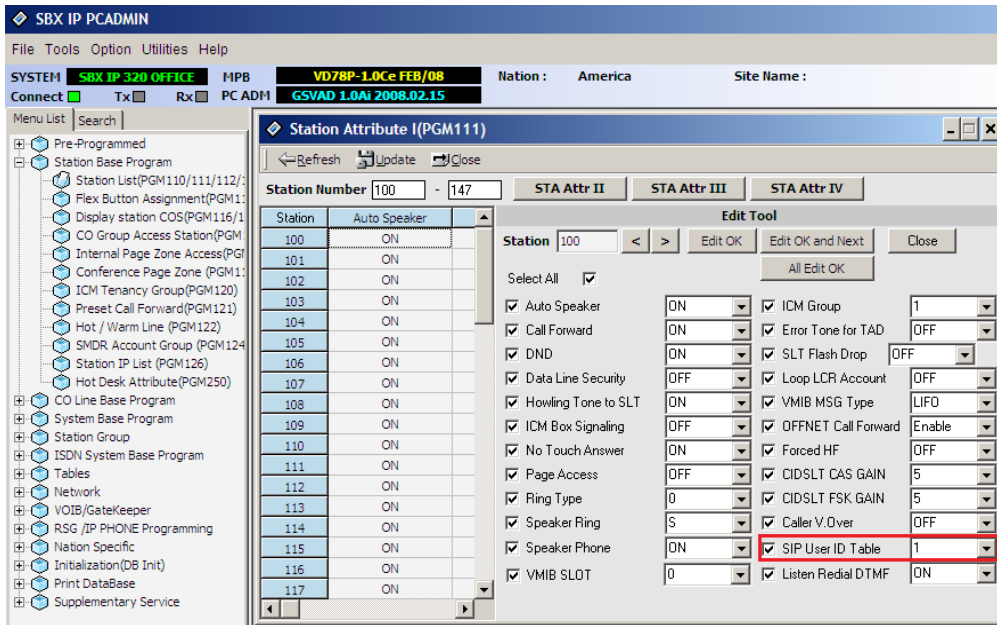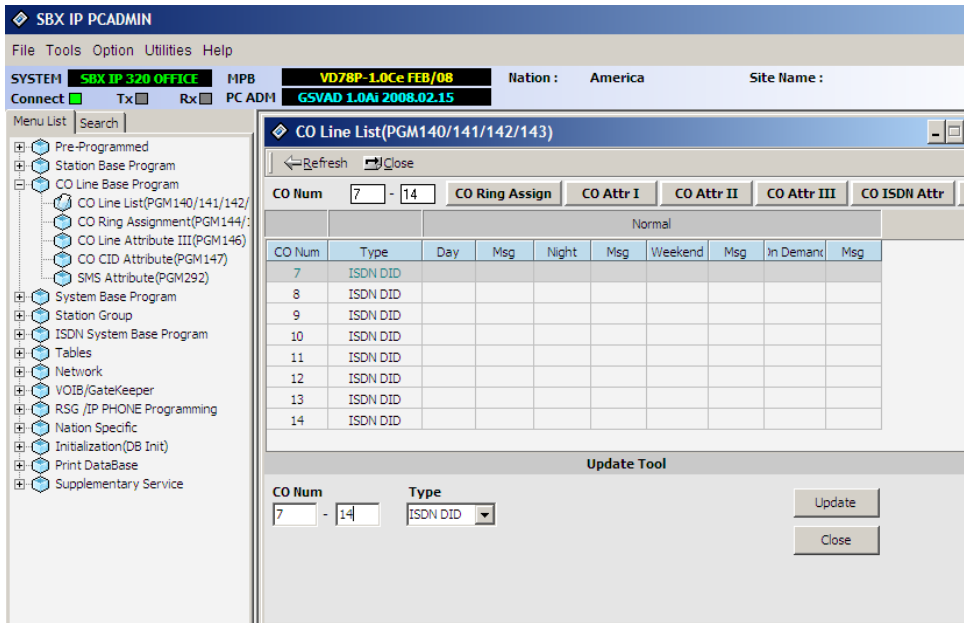
SIP Trunk Setup

> PC Admin is needed to completely integrate SIP trunking with the SBX system.

After starting the PC Admin program, select the program settings from the Menu List tab as indicated in Steps 1-9 for the SBX system to work with the *Bandwidth* SIP trunks.

1.) **Station Attribute 1 (PGM 111)** – Program the SIP User ID Table that will correspond with the SIP account (programmed later in SIP Attributes 2).
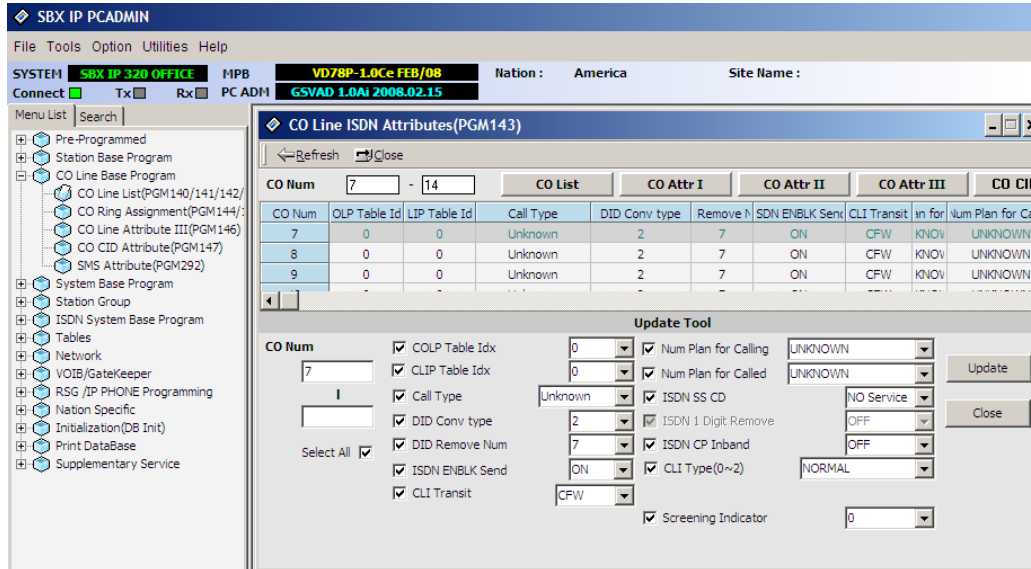

2.) **CO Line List (PGM 140)** – If the SIP carrier will be providing DID (direct inward dialing) trunks, program the VoIB trunks used for SIP integration as ISDN DID.
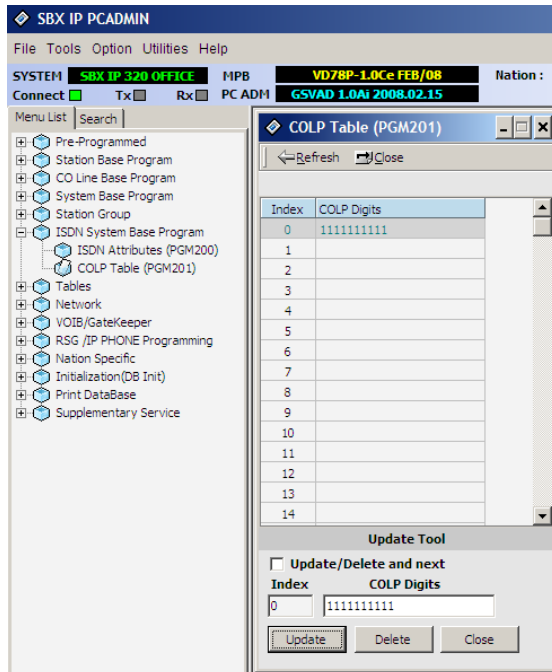
3.) **CO Line ISDN Attributes (PGM 143)** – Set the COLP and CLIP Table Idx fields to 0, set the Call Type to Unknown, the DID Conv Type to 2 (for integration with Flexible DID Table, PGM 231), set the DID Remove Num to 7 (or other entry if the carrier is sending more than 10 digits), and turn ISDN ENBLK Send to On.

4.) **COLP Table (PGM 201)** – Enter the COLP digits in Index 0 (this will correspond with PGM 143 buttons 1 and 2). The COLP digits will most likely be the same as the Authorization User Name in SIP Attributes 2.

5.) **Flexible DID Table (PGM 231)** – Program the ring assignments for the DID routes in this area. Use the last 3 digits of the inbound numbers that the SIP carrier provides as the table numbers.

6.) **Networking CO Line Attribute (PGM 322)** – Enter the VoIB trunks used for the SIP integration. Set the Networking CO Group to 0, the Networking CO Line Type to PSTN, Gatekeeper Usage to Off, VoIP mode to SIP, and program DTMF Mode to Inband DTMF, unless the carrier requires 2833.

7.) **VoIB/Gatekeeper Setting (PGM 340)** – Program the IP Address, Gateway Address, Subnet Mask, DNS address and Firewall address if you are using a one to one NAT through firewall/router for the VoIB card. Set the VoIB mode to SIP unless the system is networked with another system, if so, use the DUAL option. Program the DTMF Mode so it matches the same field in PGM 322.

8.) **SIP Attribute 1** – Program the Proxy Server Address (216.82.224.202) Proxy Registration Timer, Use Outbound Proxy check box, Primary and Secondary DNS Addresses, and Domain provided by the SIP carrier. Enable the remaining checkboxes (Remote Party ID, 181 message, SIP name and 100 Rel Support service if the SIP carrier requires them.

9.) **SIP Attributes 2** – Select the index number you used in **Station Attributes 1 (PGM 111)** Enter the User ID (*phone number*@216.82.224.202), Authentication User Name and set User ID Registration to provision.

This completes the SIP Trunk configuration process. If you have any other questions, please contact Vertical Customer Support for assistance.