



# SIP Trunk Configuration Guide

using



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**1-888-686-4769**

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

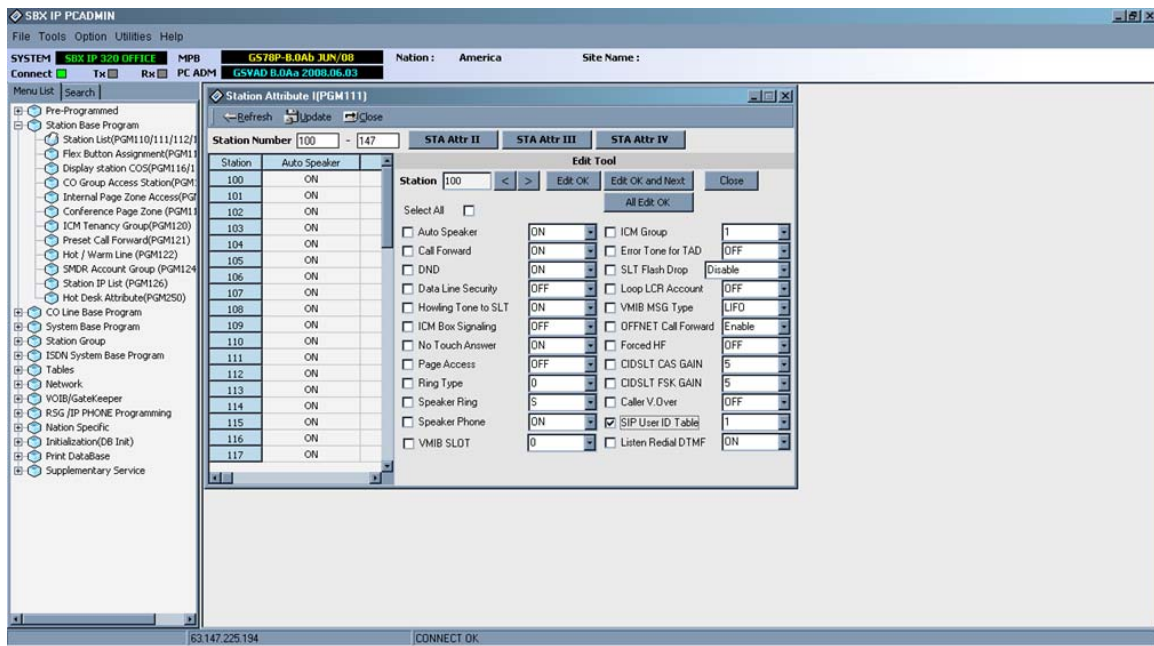
# RTNS SIP Trunk Configuration

## SIP Trunk Setup

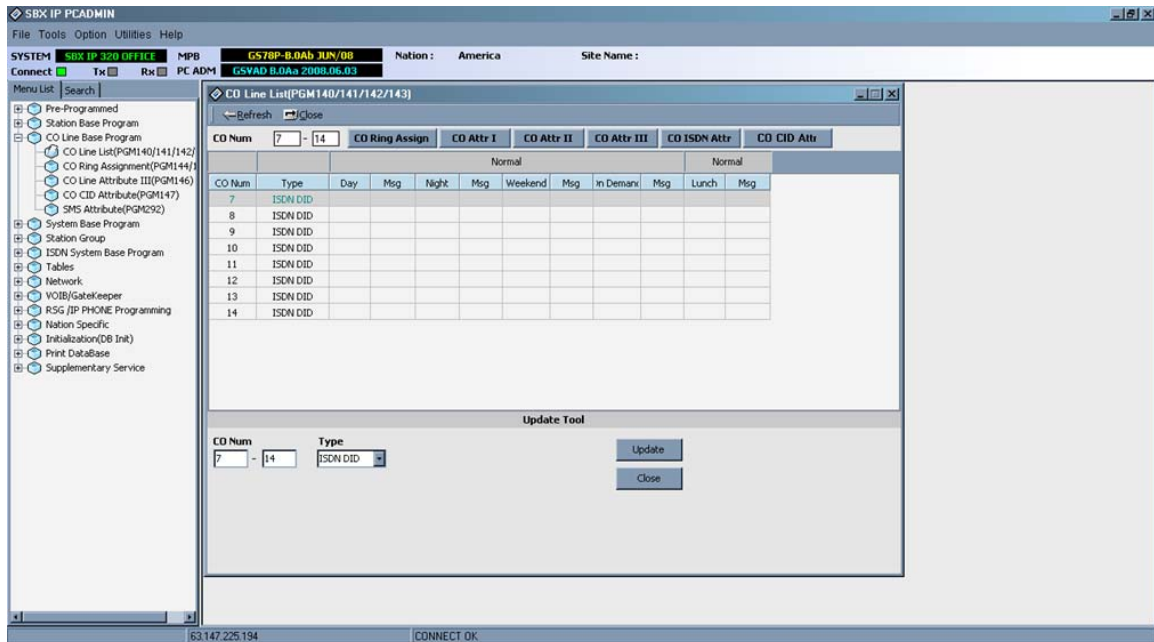
> PC Admin is needed to completely integrate SIP trunking with the SBX system.

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 *RTNS* 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.



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- 3.) **CO Line ISDN Attributes (PGM 143)** – Set the COLP and CLIP Table Idx fields to 0, set the Call Type to Subscriber, 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.

The screenshot shows the SBX IP PCADMIN interface with the 'CO Line ISDN Attributes (PGM 143)' window open. The window displays a table of attributes for CO Lines 7 through 14. Below the table is an 'Update Tool' section with various configuration options.

CO Num	COLP Table Id	CLIP Table Id	Call Type	DID Conv type	Remove N	SDN ENBLK	Serv	CLI Transit	in for	Num Plan for Call
7	0	0	Subscriber	2	7	ON	CFW	KNOW	UNKNOWN	
8	0	0	Subscriber	2	7	ON	CFW	KNOW	UNKNOWN	
9	0	0	Subscriber	2	7	ON	CFW	KNOW	UNKNOWN	
10	0	0	Subscriber	2	7	ON	CFW	KNOW	UNKNOWN	
11	0	0	Subscriber	2	7	ON	CFW	KNOW	UNKNOWN	
12	0	0	Subscriber	2	7	ON	CFW	KNOW	UNKNOWN	
13	0	0	Subscriber	2	7	ON	CFW	KNOW	UNKNOWN	
14	0	0	Subscriber	2	7	ON	CFW	KNOW	UNKNOWN	

The 'Update Tool' section includes the following fields and options:

- CO Num: 7
- COLP Table Idx: 0
- CLIP Table Idx: 0
- Call Type: Subscriber
- DID Conv type: 2
- DID Remove Num: 7
- ISDN ENBLK Send: ON
- CLI Transit: CFW
- Double CLI Service
- Prefix Table Index(0-6): 0
- ICLID Usage
- Num Plan for Calling: UNKNOWN
- Num Plan for Called: UNKNOWN
- ISDN SS CD: NO Service
- ISDN 1 Digit Remove: OFF
- ISDN CP Inband: OFF
- CLI Type(0-2): NORMAL
- Screening Indicator: 0
- Deny Incoming Call: OFF

- 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.

The screenshot shows the SBX IP PCADMIN interface with the 'COLP Table (PGM 201)' window open. The window displays a table of COLP digits for Index 0 through 15. Below the table is an 'Update Tool' section.

Index	COLP Digits
0	6026806670
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

The 'Update Tool' section includes the following fields and options:

- Update/Delete and next
- Index: 0
- COLP Digits: 6026806670

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- 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.

The screenshot shows the 'Flexible DID Table (PGM231)' configuration window. The table below contains the following data:

Index	Name	Day Type	Day Dest.	Night Type	Night Dest.	Weekend Type	Weekend Dest.	Reroute Type	Reroute Dest.
670		Station	101	VMB	1	Not Assigned		Not Assigned	
671		Station	102	VMB	1	Not Assigned		Not Assigned	

The 'Update Tool' section includes the following fields and options:

- Index: 670
- Name: [Empty]
- Day Type: Station
- Night Type: VMB
- Weekend Type: Not Assigned
- Reroute Type: Not Assigned
- Lunch Mode Type: Station
- Day Dest.: 101
- Night Dest.: 1
- Weekend Dest.: [Empty]
- Reroute Dest.: [Empty]
- Lunch Mode Dest.: 100

- 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.

The screenshot shows the 'Networking CO Line Attribute (PGM322)' configuration window. The table below contains the following data:

CO Num	Networking CO Group	Networking CO Line Type	Gatekeeper Usage	VOIP Mode	DTMF Mode
7	0	PSTN	OFF	SIP	Inband DTMF
8	0	PSTN	OFF	SIP	Inband DTMF
9	0	PSTN	OFF	SIP	Inband DTMF
10	0	PSTN	OFF	SIP	Inband DTMF
11	0	PSTN	OFF	SIP	Inband DTMF
12	0	PSTN	OFF	SIP	Inband DTMF
13	0	PSTN	OFF	SIP	Inband DTMF
14	0	PSTN	OFF	SIP	Inband DTMF

The 'Update Tool' section includes the following fields and options:

- CO Num: 7 - 14
- Networking CO Group: 0
- Networking CO Line Type: PSTN
- Gatekeeper Usage: OFF
- VOIP Mode: SIP
- DTMF Mode: Inband DTMF

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- 7.) **VoIB/Gatekeeper Setting (PGM 340)** – Program the IP Address, Gateway Address, and Subnet Mask, 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.

The screenshot shows the 'VoIB/Gatekeeper Setting (PGM 340/341)' window in SBX IP PCADMIN. The window is divided into two tabs: 'SIP Attr 1' and 'SIP Attr 2'. The 'SIP Attr 1' tab is active, showing various configuration fields. The 'SIP Attr 2' tab is also visible, showing fields for 'GK Address', 'GK Find Address', 'GK Find Port', 'GK RAS Signal Port', 'GK Signal Port', 'VOIB GK ID', 'VOIB H323 ID', and 'VOIB E164 Addr'. The 'SIP Attr 1' tab includes fields for IP Address (63.147.225.195), GATEWAY Address (63.147.225.193), SUBNET Mask (255.255.255.224), DNS Address (4.2.2.2), Default Codec (G.723.1), Default Gain (31), No Delay (TOS) (unchecked), Throughput (TOS) (NORMAL), Reliability (TOS) (NORMAL), Trace Password, Firewall IP Address (0.0.0.0), VOIB Mode (Dual), DSP Use Silence Detection (unchecked), DSP Use Echo Canceler (checked), DTMF Mode (Inband DTMF), Jitter Buffer (150), Voice Monitor (unchecked), GK Usage (unchecked), GK Call Mode (Direct), GK Open H245 (unchecked), GK H245 Tunneling (unchecked), GK Pregranted Arq (unchecked), GK Out of Band Flash (unchecked), GK Time to live(sec) (30), H.323 Mode (FAST), Early H.245 (unchecked), H245Tunneling (unchecked), and TOS Precedence (0). The status bar at the bottom shows '63.147.225.194' and 'CONNECT OK'.

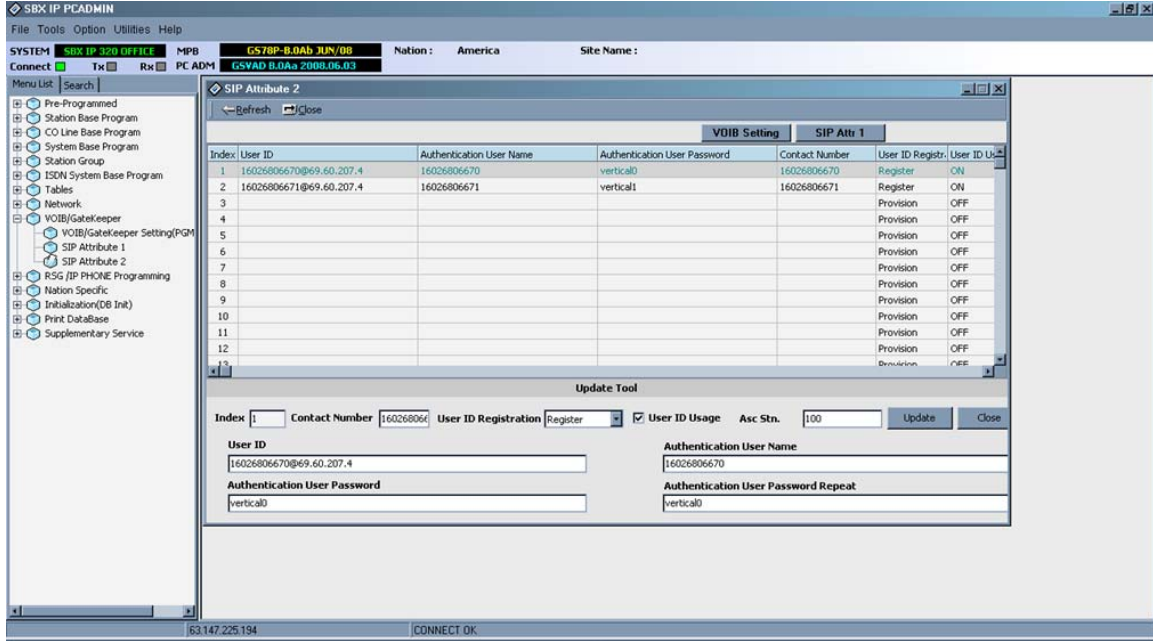
- 8.) **SIP Attribute 1** – Program the Proxy Server Address, Proxy Registration Timer, Use Outbound Proxy check box, Primary and Secondary DNS Addresses, and Domain provided by the SIP carrier. Enable the remaining checkboxes (Remote Party ID, Asserted ID Usage, 100Rel Support, etc) if the SIP carrier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

The screenshot shows the 'SIP Attribute 1' window in SBX IP PCADMIN. The window is divided into two tabs: 'VoIB Setting' and 'SIP Attr 2'. The 'VoIB Setting' tab is active, showing various configuration fields. The 'SIP Attr 2' tab is also visible, showing fields for 'Proxy Server Address', 'Proxy Server Port', 'Proxy Registration Timer', 'Use Outbound Proxy', 'Primary DNS Address', 'Secondary DNS Address', 'Domain', 'Connection Mode', '100Rel Support', 'Use Rport Method', 'Use Single Code Only', 'Remote Party ID', '181 Message', 'IP Centrex', 'SIP Name Service', 'Asserted ID Usage', 'Use Privacy', 'Use Ext. No', and 'Plus(+) Code(Max 3 Digits)'. The 'VoIB Setting' tab includes fields for Proxy Server Address (69.60.207.4), Proxy Server Port (5060), Proxy Registration Timer (3600), Use Outbound Proxy (checked), Primary DNS Address (4.2.2.2), Secondary DNS Address (4.2.2.1), Domain (69.60.207.4), Connection Mode (UDP), 100Rel Support (unchecked), Use Rport Method (unchecked), Use Single Code Only (unchecked), Remote Party ID (unchecked), 181 Message (checked), IP Centrex (unchecked), SIP Name Service (checked), Asserted ID Usage (unchecked), Use Privacy (unchecked), Use Ext. No (unchecked), and Plus(+) Code(Max 3 Digits) (001). The status bar at the bottom shows '63.147.225.194' and 'CONNECT OK'.



# RTNS SIP Trunk Configuration

- 9.) **SIP Attributes 2** – Enter the User ID, Authentication User Name, Authentication User Password, and repeat the Authentication User Password. The contact number might have to be added depending on what the carrier expects. Set User ID Registration to Register if the SIP carrier expects a registration packet from the SBX system. Check the User ID Usage box. If the carrier does not want a registration packet from the SBX, set this field to Provision.



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