

Spectrum Enterprise SIP Trunking Service Vertical IP500 IP PBX Configuration Guide

About Spectrum Enterprise:

Spectrum Enterprise is a division of Charter Communications following a merger with Time Warner Cable and acquisition of Bright House Networks. Spectrum Enterprise is a national provider of scalable, fiber technology solutions. The Spectrum Enterprise portfolio includes networking and managed services solutions, including Internet access, Ethernet and Managed Network Services, Voice, TV and Cloud solutions. Our industry-leading team of experts works closely with clients to achieve greater business success.

About this document:

Spectrum Enterprise assures IP PBX compatibility by conducting interoperability testing to ensure any potential compatibility issues have been resolved prior to installation. Please review the IP PBX configuration instructions in this guide prior to your installation date.

Be advised that this document may contain references to Charter or Charter Business. All references to Charter should be read as Spectrum Enterprise.

Thank you,

Spectrum Enterprise

Vertical IP500 IP PBX Configuration Guide



1 Introduction

This document describes how to configure the Vertical IP500 IP PBX to interoperate with the Charter network. It does not provide any information to provision, configure, or use the features of the IP PBX. Please refer to the documentation provided with the IP PBX or contact the vendor.

2 Configuration

2.1 Setting SIP Carrier Options

To configure the SIP carrier options, follow the step-by-step procedure.

Step	Action	Result
1	Navigate to IP Telephony	
2	Check SIP Enabled	Note: By default SIP Enabled is turned off.
3	Confirm SIP Local IP Address	Set to the local IP address of the Vertical IP500 PBX.
4	Go to the next table	

Sgneing Protocols SSP System Parameters Advanced Codec Settings OTMP Transport Settings Quality of Service (QOS) Default Inbound Routing Signaling Control Points Signaling Control Points Sonduidth Management Others	SIP Enabled SIP Local IP Address: 10.70.85.2
	Restore Rooty Done Heb



Step	Action	Result
1	Click SIP Advanced Parameters	
2	Check SIP Enabled	SIP Advance Parameters screen opens Note: All parameters are assigned by default
3	Click Ok button	The IP Telephony screen opens again
4	Click Done button	
5	Procedure completed	

General	Global Aut	nentication				
Timers			-			
Session	(secs):	0				
MIN Ses	sion(secs):	0				
T1 (ms):		500				
T2 (ms):		4000				
T4 (ms):		5000				
Invite tim DNS Supp DNS Cach Listener P	eout (secs): ort: le Lifetime (s ort:	180 "A" rec secs): 3600 5060	ord lookup	•]		
Transpo	UDP	ed TCP				
				0	K	Cancel

2.2 Setting System Parameters

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To set the system parameters, follow the step-by-step procedure.

Step	Action	Result	
1	Navigate to IP Telephony		
2	In the menu	Ensure the default settings are as shown	
	Click the Advanced Codec Settings		
3	Go to the next table		

Signaling Protocols SIP System Parameters System Codec Settings Code Setting	Jtter Buffer Mnimum Nominal Maximum Jtter Buffer Size (ms): 10 to 60 to 120 ✓ Enable Dynamic/Adaptive Jtter
Coll Routing Cal Routing Cal Routing Control Points Signaling Control Points Bandwidth Management Zones	Echo Cancelation Coverage (ms): 32 Cenerate Comfort Noise Transmit Gain (dB): 0 Receive Gain (dB): 0 Restore Defaults
	Restra Loriz Done Ha

Step	Action	Result
1	In the menu	
	Click the DTMF Transport Settings	
2	Make sure the Preferred DTMF Transport is set to RFC 2833	
3	Click Done button	
4	Procedure completed	

SIP	DTMF Digit Transport Preferred DTMF Transport RFC 2833 -
Advanced Codec Settings DTMF Transport Settings Quality of Service (QOS) IP Telephone Settings	DTMF Play Out Timing 80 milliseconds per digit 80 milliseconds between digits
Signaling Control Points Bandwidth Management Zones	
	Restore Defaults
Changes applied.	Restore Defaults

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2.3 Setting SIP Profile

To set the SIP profile, follow the step-by-step procedure.

Step	Action	Result
1	In the menu	
	Navigate to IP Telephony	
2	Click Signaling Control Points > New	Signaling Control Points screen opens
3	Go to the next table	

😔 🏄 Signaling Protocols	Route Step Timeout: S seconds
SIP System Parameters System Parameters Advanced Codec Settings OTIVE Transport Settings Quality of Service (QOS) P Telephone Settings Call Routing Offault Infound Routing System Correct Point Sandwidth Management Tones	Nome.
	Edt New Delete Restore Apply Done Heb

Step	Action	Result
1	In the Name:	Note: For this example Charter was used.
	Enter the appropriate name	
2	Click Edit Inbound Routing tab	Signaling Control Points screen opens
3	Click Edit Inbound Routing Table button	Inbound Routing Table opens
4	Go to the next table	

Inbound Routing Outbound Ro	uting SIP Settings	
Edit Inbound Routing Table		
Intercept Destination:	None	
Access Profile for Tandem Calls:	None	



Step	Action	Result
1	In the Inbound Routing Table Click the Both radio button	
2	Click Add button to enter the Call Source Number and Dialed Number	 Note: For the example Inbound routing configuration the following was used: Call source number of (3038356006) and a Dialed Number of 3601 Call source number of (3038356047) and a Dialed Number of 3602 Call source number of (3038356048) and a Dialed Number of 3603
3	Click the OK button	The Signaling Control Points screen returns
4	Go to the next table	

ŝe	Mo	14	Ne.	ħ	ħ	Sa	Sort Tine	Erd Time	Call Source	Daled Number	Destra	DNIS Name	Ngitt.A Node	Night An Destra	C
	N.	8	1	X	N.	X	12:00 AM	12:59 PM	NRIS.	3801 3602	0		NotLised NotLised		
Ϋ́.	Π.	ų.	2	1	- W	11	20,91	12.5 Pt	1.30%	3603	0	222011	Jettael		
							- -								



Step	Action	Result
1	Click the Outbound Routing tab	
2	Click the appropriate radio button	Note: For this example, Use External Caller ID from User Configuration was clicked.
3	Go to the next table	

			and an international statement of
lame: Charter			
Inbound Routing	Outbound Routing	SIP Settings	
Use External	Caller ID from User C	Configuration	
Send Compar	vy Name and Main Nu	mber	
Send Station	Name and Internal Ex	xtension Number	
O Send Station	Name and this Numbe	eri l	
🛄 plos isst	3	 digits of calling extension number 	
Do Not Send	Caller ID		
			Cancel

Step	Action	Result
1	Click the SIP Settings tab	
2	To configure the SIP Trunk Profile	The Advance Settings screen opens
	Click Advance Setting Button	
3	Go to the next table	

Inbound Routing Ou	tbound Routing SIP Settings	Internet and a second second second second	
User Name:	3038356006		1999 (1999) 1999 (1999)
Proxy Server: 10.70.85.2 Port: 5060			
This SCP will: C Re	ceive registration from Contac gister with a Proxy,Registrar		
Authentication Se Authentication Authentication Na Password: Verify Password:	tings	Registration Settings Registration Required Registrar Ports	
Preferred DTM [®] Trans	port RFC 2833 •		

Step	Action	Result
1	Check the box Enable Outbound Proxy	
2	 Enter the appropriate parameters for Outbound Proxy Settings: Outbound Proxy Server: 10.70.85.10 Outbound Proxy Port: 5060 	Note: Parameters settings are for example only.
3	Click Local Listen Port radio button to Default	
4	Check Monitor SIP Trunks	
5	Leave the SIP OPTION Message Settings to the default parameters	
6	At Contact Source:	
	Select Calling Party	
7	Click Ok button	The Signaling Control Points screen returns
8	To save	
	Click the Done button	
9	Procedure completed	

Outbound Proxy Se	oxy ettings -					
Outbound Proxy Se	rver: 10	.70.85.10				
Outbound Proxy Po	rt: 50	060				
Default Custom:						
🔄 Include UUI Data in :	SIP Mess	ages				
Monitor SIP Trunks SIP OPTION Messa Keep Alive Timer (s Recovery Timer (se	ge Settir econds): conds):	0 180				
SIP URI To Wave Map	oing					
Called Party Source:	Request URI From URI Contact URI					
Calling Party Source:						
SCP User Name Source						
Wave To SIP URI Mapp	xing					
To Source:	Called Party					
From Source:	Calling Party - @ Proxy -					
Contact Source:	Calling P	Party		•		
P-Asserted-ID Source:	None		-	@ Proxy 🗸		
SIP Trunk Transfer Op	tions (SIF	P REFER / REF on Supervise on Blind Tran	PLACES] d Transf sfer	ier		

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