

Spectrum Enterprise SIP Trunking Service Barracuda Phone System 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

Barracuda Phone System IP PBX Configuration Guide



1 Introduction

This document describes how to configure the Barracuda Phone System IP PBX Version 3.x to interoperate with the Charter network. It does not provide any information how to provision, configure or use the features of the phone system. Please refer to the documentation provided with the IP PBX or contact the vendor.

2 Configuration

Follow the step-by-step procedure to configure the Barracuda Phone System IP PBX.

2.1 SIP Trunk Setup

Step	Action	Result
1	Select: PROVIDERS Tab	SIP Providers screen opens
2	Go to next table	

The screenshot shows the Barracuda Phone System web interface. The 'PROVIDERS' tab is selected and highlighted in red. The interface displays the following information:

- System Dashboard:** Dashboard > Status
- Status:**
 - Phone Status:** Configured Phones: 4, Assigned to People: 3, Unassigned Phones: 1, Phones Online: 4, Phones Offline: 0.
 - Updates and Support:** System: Communication Server 270, Serial: 663246, Firmware: 3.1.001.037, Energize Updates: 0, Instant Replacement: Not Purchased or Expired, Premium Support: Not Purchased or Expired, Product Activation: Activated.
- SIP Providers and Hardware Connections:**

Name	Provider Type	Status
Charter	SIP	No Registration Required
Analog port 1	TDM	OK
Analog port 2	TDM	OK
Analog port 3	TDM	OK
Analog port 4	TDM	OK

Step	Action	Result
3	Click: Add a Provider	Add a SIP account screen opens
4	Go to next table	



Step	Action	Result
5	Set Provider Name: Generic SIP (CallerID in from generic)	
6	Set Gateway Name: Charter	
7	Set Host: IP Address of the LAN side of the E-SBC	
8	Set Realm: IP address of the LAN side of the E-SBC	
9	Set Port: 5060	
10	Set Username: Provider assigned SIP trunk username	
11	Set Authorization Username: Provider assigned SIP trunk authorization username	
12	Set Register to Provider: Unchecked	
13	Go to next table	

Add a SIP account

Basic Information

Provider Type:	Generic SIP (CallerID in from generic) ▼
Gateway Name:	Charter
Host:	10.71.13.3
Realm:	10.71.13.3
Port:	5060
Username:	0044385386
Authorization Username:	0044385386
Password:	

Provider Registration

Register to Provider:

Registration Expire Time (Seconds): 3600



Step	Action	Result
14	Keep default settings in section pictured below	
15	Go to next table	

[DASHBOARD](#) | [SWITCHBOARD](#) | [EXTENSIONS](#) | **PROVIDERS** | [REPORTS](#) | [CONFIGURATION](#)

[Providers](#) > [SIP Providers](#) > Charter

Charter

SERVICES

Inbound Calls:

Outbound Calls:

Outbound Fax:

Inbound Registration

Allow Inbound Registration:

Outbound Caller ID Number

Use This Number:

Music on Hold

Music on Hold Class:



Step	Action	Result
16	In Codec Restriction Section: Remove the G.711 alaw codec (if not supported)	
17	Click: Create	Settings Saved
18	Go to next table	

DASHBOARD SWITCHBOARD EXTENSIONS PROVIDERS REPORTS CONFIGURATION

Providers > SIP Providers > Add a SIP account

Add a SIP account Cancel Create

Codec Restriction HELP

Codec Restriction: Available Codecs

- FULL-BAND (48KHZ)
- CELT
- OPUS
- SUPER-BAND (32KHZ)
- G.722.1C
- Speex

Selected Codecs

- G.711 ulaw 8kHz
- G.711 alaw 8kHz



2.2 SIP Trunk Advanced Settings

Step	Action	Result
19	Navigate to: SIP Providers	SIP Providers screen opens
20	Select: The newly created SIP Provider	
21	Go to next table	

Barracuda Phone System Signed in as: Admin (admin) Sign Out

DASHBOARD SWITCHBOARD EXTENSIONS PROVIDERS REPORTS CONFIGURATION

SIP Providers > Providers > SIP Providers

SIP Providers Add a Provider Help

Refresh Delete Selected

Show 25 entries Filter: Filter Results

Name	Account	Provider	Services	Status
Charter	1871133	Generic SIP (CallerID in from generic)	In Out	No Registration Required



Step	Action	Result
22	Set Caller ID Type: P-Asserted-Identity	
23	Add External DID Numbers: Add as many as needed	These DIDs will be used for extensions

24	Click: Save	Changes applied
25	Go to next table	



2.3 Call Routing

Step	Action	Result
26	Navigate to: Call Routing	Call Routing screen opens
27	Set Call Type: Choose from the drop down menu	
28	Set Send Call To: If multiple providers have been configured, then choose the appropriate provider. Otherwise leave at default settings	
29	Click: Add	Changes applied
30	Procedure Complete	

Barracuda Phone System Signed in as: Admin (admin) [Sign Out](#)

PROVIDERS | DASHBOARD | SWITCHBOARD | EXTENSIONS | REPORTS | CONFIGURATION

Providers > Call Routing Help

Manage Call Types...

Call Type	Restrict To	System Use	Send Calls To
<input type="checkbox"/> 11 Digit Dialing Emergency (USA) International Dialing with Authentication (011) International Dialing (011) Forced 10-digit Dialing Information Operator 10 Digit Dialing 7 Digit Dialing 7-digit Dialing (Area Code 609) 7-digit Dialing (Area Code 864) North America (NANPA) 11 Digit Dialing	<input type="checkbox"/> Manage... Restrictions are not available until the route is created.	Allow <input type="checkbox"/>	Charter <input type="text"/>



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