Connecting with Vonage

Vonage (http://www.vonage.com/) offers telephone service using the VoIP (Voice over Internet Protocol) standard SIP (Session Initiation Protocol). The service allow users making and/or receiving VoIP calls to/from VoIP telephone numbers and making VoIP calls to PSTN telephone numbers. This document will explain how to utilize OnDO PBX with Vonage.

1. Setting Up a *Vonage* Account

After signing up for a *Vonage* account, you need to add a Vonage Softphone. This add-on service is required if you want to use your Vonage phone service with OnDO PBX.

Soft Phone Number	12345678910 (example)
Server Name	sphone.vopr.vonage.net(example)
Password	******

We use **sphone.vopr.vonage.net** as the proxy server throughout this document. Make sure you are able to send and receive calls from your softphone before proceeding to the next section.

2. Automatic Route Selection (ARS) Configuration for *Vonage*

To define ARS settings for your *Vonage* account:

1) Choose **[ARS]** in the PBX Admintool
2) Type a route name in the entry field (we suggest *Vonage*)
3) Click **[Create a new route]**. Your new route will appear in the list above
4) Click the **[Edit]** button next to your new route to define conditions

For more information on ARS settings, please refer to the OnDO PBX Administrator's Guide.

Please see the following sections of this document for ARS settings relevant to *Vonage* service.

2.1. General Settings

Register URI	sip:12345678910@sphone.vopr.vonage.net
Realm	
Proxy Address	sphone.vopr.vonage.net
User ID/Number	12345678910
Password	******

In the **[Register URI]** field, enter your *Vonage* user ID/number and the server name in the format shown above. Enter the server/proxy address, your User ID/number and password as assigned by *Vonage* in the appropriate fields.

2.2. Pattern Settings

2.2.1. Incoming call pattern

Direction	IN
Matching patterns: From	
Matching patterns: To	sip: 12345678910@
Deploy patterns: From	
Deploy patterns: To	<OnDO PBX extension number>
Ignore Priorities smaller than No.	1
Deploy patterns: DTMF	
RTP relay	on(G.711 u only)

To direct incoming calls from PSTN callers or VoIP callers, enter your user ID from *Vonage* in the **[Matching patterns: To]** field, in the format shown above. All calls terminated on your user ID/number will be directed to the extension set in the **[Deploy patterns: To]** field.

2.2.2. **Outgoing call pattern**

Direction	OUT
Matching patterns: From	
Matching patterns: To	sip:9(.+)@
Deploy patterns: From	"12345678910"<sip: 12345678910@ sphone.vopr.vonage.net >
Deploy patterns: To	sip:$1@sphone.vopr.vonage.net
Ignore Priorities small than No.	1
Deploy patterns: DTMF	
RTP relay	on(G.711 u only)

This rule handles calls made by OnDO PBX users via *Vonage*: dialing 9 first to calls placed outside of the PBX. In the **[Matching patterns: To]** field, "9" represents the dialing prefix, and (.+) represents any number of dialing digits. The **[Deploy patterns: To]** will automatically remove the prefix, 9, from all outgoing calls.

2.3. Priorities

Direction	IN/OUT
Max sessions	-1
Priorities	100

Here, all priority settings have been left at their respective default values. To give this rule a higher priority, set its Priority to a number with a lesser value. In the **[Max sessions]** field, -1 indicates an unlimited amount.

3. OnDO SIP Server Dial Plan Settings

Dial Plan can accommodate the unique requirements of each VoIP service provider.

For outbound calls

Matching Patterns	Deploy Patterns

`$request=^INVITE`
`to=(sphone\.vopr\.vonage\.net)`
`$port=15062`
	`$auth=off`

✓ *This Dial Plan needs to be placed before "from PBX1" (default dial plan).*

For inbound calls

Matching Patterns	Deploy Patterns

`$addr=^216\.115\.25\.198`
`$request=^INVITE`
`to=(.*)`
	`$target=localhost:15060`
	`To=%1`
	`$auth=off`

This Dial Plan needs to be placed before "to PBX" (default dial plan).

4. OnDO SIP Server Config Settings

Under the Configuration settings choose System and in the Network section put the Internet side address of your Broadband router. This settings is necessary when OnDO SIP Server is behind a router

Interface address 1	197.166.8.99 (example)

- *If your OnDO SIP Server is behind a router please set the port forwarding as described below:*

First, you will need to set port forwarding at the router located between the global network and your local network to forward packets with specific destination port numbers to the OnDO SIP Server. The ports you need to forward can be as follows:

Config > SIP [(General)] > SIP exchanger – Local Port [UDP]
Default value: 5060
Config > RTP > RTP exchanger – From Minimum Port to Maximum Port [UDP]
Default value: 10000-10999

5. Notes for Dial Plan settings

♦ This Dial Plan allows calls from the *Vonage* line to pass through without authentication from OnDO SIP Server. When INVITE authentication is turned off at [Config] menu in OnDO SIP Server, this Dial Plan setting can be omitted.

♦ Note that you may need to update Dial Plan rules that include *Vonage's* SIP Server IP address. *Vonage* may change their Server's IP address at any time.

♦ In this tutorial guide, [RTP relay] is set for "on(G.711 u only)" in ARS deploy pattern setting. In some cases, setting [RTP relay] = "off" may work; however, we have not tested all of the applicable environments.