
Connecting with *Free World Dialup (FWD)*

Free World Dialup (FWD) (<http://www.pulver.com/fwd/>) offers telephone service using the VoIP standard SIP. The service allow users making/receiving VoIP calls to/from VoIP telephone numbers and making VoIP calls to PSTN telephone numbers. *FWD* lets you make free calls using your favorite telephone, computer or PDA and any broadband connection. It provides calling local or international numbers all with the same ease, speed, and high quality. This document will explain how to utilize OnDO PBX with *FWD*.

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1. Setting up a *FWD* account

Please obtain an account from *FWD* website.

PSTN telephone number	#####
Server Name	fwd.pulver.com
User ID/number	633001 (example)
Password	*****

2. ARS Configuration for *FWD*

To define ARS settings for your *FWD* account:

- 1) Choose **[ARS]** in the OnDO PBX Admintool.
- 2) Type a route name in the entry field (we suggest *FWD*)
- 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 *FWD* service.

2.1. General Settings

Register URI	sip: 633001@fwd.pulver.com
Realm	
Proxy Address	fwd.pulver.com
User ID/Number	633001
Password	*****

In the **[Register URI]** field, enter your *FWD* 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 *FWD* in the appropriate fields.

2.2. Pattern Settings

2.2.1. Incoming call pattern

Direction	IN
Matching patterns: From	
Matching patterns: To	sip:633001@
Deploy patterns: From	
Deploy patterns: To	OnDO PBX extension number
Ignore Priorities smaller than No.	1
Deploy patterns: DTMF	
RTP relay	on(G.711u only)

To direct incoming calls from PSTN callers or VoIP callers, enter your user ID from *FWD* 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	"633001 "<sip: 633001@fwd.pulver.com>
Deploy patterns: To	sip:\$1@fwd.pulver.com
Ignore Priorities small than No.	1
Deploy patterns: DTMF	
RTP relay	on(G.711u only)

This rule handles calls made by OnDO PBX users via *FWD*: dialing "9" to reach outside of the PBX via *FWD*. 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.

2.2.3. Outgoing call pattern

Direction	OUT
Matching patterns: From	
Matching patterns: To	sip:555@
Deploy patterns: From	"633001 "<sip: 633001@fwd.pulver.com>
Deploy patterns: To	sip:**334@fwd.pulver.com
Ignore Priorities small than No.	1
Deploy patterns: DTMF	
RTP relay	on(G.711u only)

This rule handles calls made by OnDO PBX users via *FWD*: dialing "555" to reach outside of the PBX via iConnectHere (one of the peering partner of *FWD*). In the **[Matching patterns: To]** field, "555" represents the peering number of iConnectHere which is **334.

- ✓ *FWD provides a list of service provider partners which users can connect through dialing prefix access codes. For more information on peering numbers, please visit FWD's website:*

<http://www.freeworlddialup.com/content/view/full/333/>

- ✓ "555" is an example number to use. You can use any number that doesn't coincide with the reserved numbers such as 7*, 8*, 9*, 0*.

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.

Receiving calls to a *FWD* number

Matching Patterns	Deploy Patterns
\$addr=^69\.90\.155\.70 \$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)
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- *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
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5. Notes for Dial Plan settings

- ◆ This Dial Plan allows calls from the *FWD* 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 *FWD*'s SIP Server IP address. *FWD* may change their Server's IP address at any time.
- ◆ In this tutorial guide, [RTP relay] is set for "on(G.711u 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.

6. How to Call to PSTN with FWD

To call a PSTN line from an *FWD* account, you should sign up for a network provider (i.e., iConnectHere). Please visit <http://www.freeworlddialup.com/support/faq/> for other network providers.

Using iConnectHere as an example, dial “555” (see Section 2.2.3 Outgoing Call Pattern). There will be a voice that will prompt you for your pin number (iConnectHere account) or your user id and password (iConnectHere account). The next will be instructions on how to make that PSTN call. For example, to call a US phone number, you dial 1+ area code + 7 digits.

7. How To Call from PSTN with FWD

To call from PSTN line to an *FWD* account, you need to have a network provider that can provide you with a Direct Inward Dialing (DID) number. A network provider (i.e., IPKall – <http://www.ipkall.com/>) can provide you with a DID from Washington State. (The details for how to set up IPKall service with FWD is available on IPKall document on our website: http://www.brekeke.com/en/support/interoperability_itsp_en.html) The DID you receive through IPKall will be associated to your *FWD* account. When somebody from a PSTN calls the designated DID (Washington State phone number in this case) it will be connected to your *FWD* account.

For example:

IPKall Number (DID): 3600010001

FWD Account: 623000

From your PSTN line, dial 360 001 0001. It will be connected to the phone associated with the *FWD* account 623000.