

Porta 🌄 Billing 100[™]



PortaBilling100 and MVTSPro: Integration Guide

Maintenance Release 20

www.portaone.com

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Preface

This document shows you how to set up PortaBilling100 in conjunction with MVTS Pro to provide various VoIP services, such as H323 traffic exchange.

Where to Get the Latest Version of This Guide

The hard copy of this guide is updated at major releases only, and does not always contain the latest material on enhancements occurring between minor releases. The online copy of this guide is always up to date, and integrates the latest changes to the product. You can access the latest copy of this guide at: www.portaone.com/support/documentation/

Conventions

This publication uses the following conventions:

- Commands and keywords are given in **boldface**
- Terminal sessions, console screens, or system file names are displayed in fixed width font.

The **exclamation mark** draws your attention to important information or actions.

NOTE: Notes contain helpful suggestions about or references to materials not contained in this manual.

Timesaver means that you can save time by performing the action described in the paragraph.

Tips provide information that might help you solve a problem.



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1. Solution Architecture

Interaction Diagram



VoIP Nodes

A node is an element of your VoIP network, such as a gateway, proxy, gatekeeper, and so on. A node:

- participates in the call flow (passes a call through itself),
- communicates with the billing in order to determine whether a particular call should be allowed or not,
- provides accounting information to the billing after the call is completed, so the call can be charged.

MVTS Pro is a typical VoIP node: it accepts incoming calls, performs authorization in the billing, sends calls to the remote gateway for termination and, finally, delivers accounting records to the billing.

RADIUS Server

In order to communicate with external entities such as VoIP gateways, the RADIUS protocol is used. VoIP nodes serve as radius clients, and PortaBilling100 serves as a radius server. The client sends a request (set of attributes) to the server, and the server replies. There are three types of requests:

- 1. **Authentication** the VoIP node have to determine whether a certain account (the account ID passed in the User-Name attribute) is valid and is allowed to use the service. Billing replies with either a rejection or an acknowledgement (including optional attributes such as h323-credit-amount available funds).
- 2. **Authorization** the VoIP node have to determine whether an account is allowed to make a call to a specific destination. Billing replies with either a rejection or an acknowledgement (including

optional attributes such as h323-credit-time – maximum allowed call duration).

3. **Accounting** – the VoIP node sends information about the completed call, and the billing replies with a confirmation that it has been processed successfully.

MVTS Pro

Please visit the **Mera Systems website** to learn about the functionality, architecture and specifications of this high-performance class-4 softswitch.

MVTS Pro-PortaBilling100 Dialogue

MVTS Pro sends requests to the billing so as to obtain information for the following actions:

- Call authorization. One of the endpoints tries to make an outgoing call. MVTS Pro sends an authorization request to the billing in order to check whether this account is allowed to make a call to that destination and what the maximum allowed credit time is.
- Routing. (This is usually done as part of call authorization). MVTS Pro requests that the billing calculate the optimum potential routes for this call (taking into consideration cost, preferences and other carrier parameters).
- Accounting. When the call is completed (successfully or not), MVTS Pro sends an accounting request to the billing, so that the account can be charged for this call.

2. MVTS Pro Installation and Configuration

Install MVTS Pro

This manual does not cover the details of MVTS Pro installation. Mera recommends that this initial configuration be performed by Mera's own engineers.

Before configuring MVTS to work with PortaBilling, Mera must be configured to accept calls from incoming gateways. For initial setup instructions, consult the Quick Start Guide or the MVTS Pro Operator's Manual, or any other relevant documentation that Mera Systems has provided you.

Configure External Routing via PortaBilling

To query PortaBilling for routes, MVTS Pro must be configured via the web interface in four places:

^ \Z7 /V\V \	
MVTS Pro	
Hard Administration	
Equipment	- and default termination gateways
Zones	
Codec groups	
Termination	
Dial peers	- Create a dial peer that uses the
Routing policies	
Real-time information	
Global settings	Tweak the RADIUS protocol to
System global settings	work correctly with PortaBilling
Disconnect codes	
RADIUS servers ENUM servers	Configure PortaBilling
DNS servers	as a KADIUS Server
Area specifics	
🗄 🚞 Logs	

Equipment

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 	_						

Name	Allow termination	Is routing server	Protocol
PortaBilling Routing			Same as for incoming leg 💌
h323:PORTAONE			H.323
sip:PORTAONE			SIP
PORTAONE			Same as for incoming leg 💌
Cancel OK			

When configuring the equipment, ensure that:

• the name of the H323 gateway is h323:PORTAONE and the

protocol is H.323;

• the name of the gateway for SIP routing is **sip:PORTAONE** and the protocol is **SIP**;

• the name of the gateway that supports both H323 and SIP is PORTAONE and the protocol is **Same as for incoming leg**;

• termination is allowed for all the gateways.

Create origination gateway

📅 Equipment 🖫 🕰									
	Name	Allow origination	Registration mode	Orig. IP † ¹ address list	RADIUS username	RADIUS password	Enable RADIUS authentication	Enable RADIUS authorization	Enable RADIUS accounting
	Origination	Yes	No registration	195.138.219.14	195.138.219.14	cisco	Yes		Yes

When configuring the gateway, ensure that:

• origination is allowed;

• the registration mode is set to **No registration**, since PortaBilling100 does not support digest authentication with MVTS Pro and the registration feature cannot be used;

- the IP address of the gateway is added to the Orig.IP address list;
- the **RADIUS username** is the gateway's IP;
- the **RADIUS password** is always **cisco**;

• both RADIUS authentication and accounting are enabled, while RADIUS authorization is disabled.

Dial Peers

🚞 Dial peers 🖳									
Name Equipment list DST prefix allow patterns									
	PortaBilling Routing	PortaBilling Routing	.*						
Switch	Switch to edit mode Rows: I I I I P P Rows on page: 25 V								

When configuring the dial peer, ensure that:

• the equipment list includes only one item, i.e. the reference to PortaBilling serving as the routing server configured above;

• the DST prefix allow pattern is ".*".

Global Settings

🚞 System global settings 🖽 🔩

Switch	n to edit mode	Rows: 🗟 🗹 1-25 💌 🕑 🕅 Rows on page: 25 💌	
	Section	Parameter name	¥alue ∱¹
	RADIUS	NAS-IP-Address parameter sent to RADIUS	210.50.5.123
	RADIUS	External routing w/o authorization	1
	RADIUS	Use H323_IVR_IN parameter in UserName field	0

When configuring the global settings, ensure that:

- the NAS-IP-Address is set to the real IP address of your MVTS Pro;
- the other settings are as shown in the screenshot above.

Radius Server

<u> </u>	RADIUS servers									
	RADIUS server name	Enable authentication	Enable authorization	Enable accounting	Enable external routing	Authentication address	Accounting address	Send ACCT.START/STOP packets	External routing address	External routing port
	Portabiling Yes Yes Yes 210.50.6.246 of both legs for each rerouting attempt 210.50.6.246 1812									
Switch	Switch to edit mode Rows: R C 1.1 Rows on page: 25									

When configuring the RADIUS server, ensure that:

- the external routing port is set to 1812;
- the address for Authentication, Accounting and Routing is set to the IP of your PortaBilling master;

• the secret is the same as the one which will be set in the node configuration of PortaBilling.

3. PortaBilling Configuration

Please see the **PortaBilling100 Web Reference Guide** for detailed instructions on how to navigate in and utilize the web interface, as well as detailed explanations of particular fields.

Checklist

Print this page and use it to check off the operations you have completed when performing system setup according to the instructions in this chapter. Please be sure to perform all of the operations (i.e. all of the boxes should be checked), otherwise the service will not work.

Operation	Do	ne
General configuration		
Enable H323-based routing.	[]
Fill in company data in Company Info.	[]
Specify base currency.	[]
For any other currency you plan to use, specify the exchange rate	[]
source and define exchange rates.		
Create all the required destinations for off-net calls.	[]
Network configuration		
Create a node for MVTS Pro.	[]
Rating configuration		
Create tariff A, which will apply to your customers (people who	[]
send traffic to you).		
Enter rates in tariff A for destinations your customers can call.	[]
Create tariff B, which describes the costs of one of your vendors	[]
(ensure that the Routing checkbox is ticked).		
Enter rates in tariff B as supplied by your vendor.	[]
Create a "Traffic exchange" product.	[]
Create one accessibility entry for this product, using the MVTS	[]
Pro node and tariff A.		
Create an off-net calls vendor.	[]
Create a connection for this vendor using tariff B.	[]
Account provisioning		
Create a retail customer to charge for use of your services.	[]
Create an account under this customer to use the "Traffic	[]
Exchange" product. The account ID is the customer's IP.		
Create a special tariff to pass all external traffic to MVTS Pro.	[]
Create an internal vendor and define a connection using the	[]
special tariff.		
Testing		
Make a test call.	[]

Enable H323-based Routing

Enable the protocol checkboxes in the porta-admin.conf file on the PortaBilling100 slave server (/home/porta-admin/etc/porta-admin.conf):

[AdvancedFeatures] ShowConnectionProtocol=Yes DefaultConnectionProtocol=sip

Initial PortaBilling Configuration

The following steps are normally performed only once, after the system has been installed:

- Visit **Company Info** from the main menu. Enter information about your company and set up a base currency. Of course, this does not limit your operations to this currency only. However, different currencies will be converted to the one you specify here on reports such as cost/revenue.
- From the main menu, choose **Users** and create login entries for users who will be working with the system. It is not recommended that the default PortaBilling root user (**pb-root**) be used for any operations other than initial setup.
- Make sure you are able to login as the newly-created user, and change the password for the **pb-root** user.

NOTE: It is possible that you will require assistance from PortaBilling support staff in the future. In order to provide support, they will need access to the web interface. Therefore, when submitting a problem report, please either provide them with the new password for the **pb-root** user, or create a special user for them.

• If you plan to do billing in more than one currency, define these in **Currencies** and specify the exchange rates in **Exchange Rates**.

Create Destinations

This step is only required if you have not previously defined the necessary destinations. There are two ways of entering new destinations into the system:

- One-by-one, using the 🖬 Add functionality on the web interface
- By bulk update, uploading the destinations from a file

NOTE: A file with the default destination set is supplied with PortaBilling. You can download it and then upload it to the server. However, it is possible that your business will require different types of prefixes, so please examine the data in the file before uploading.

Creating Destinations One-by-one

1. In the Management section of Admin-Index, choose **Destinations**.

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•	Add	属 Save	🛞 Close	👿 Download	👿 Get d	lefault set	🛃 Upload			💵 Logout	📘 Log
			Prefix	Country D	escription) 🕨 A B	CDEFG	ніјкі	LMNOPQ	RSTUVW	XYZ
Talit	Pr	efi×*		Country			Subdivision		Des	scription	Delete
	4202		CZECH RI	EPUBL IC	*	Not Appl	icable	~	Prague		×
	1201		UNITED ST	ATES OF AMERIC	CA				New Jersey		
	1202		UNITED ST	ATES OF AMERIC	CA				North Ameri	са	×

- 2. Click the 🖪 Add button.
- 3. Fill in the required information. This includes the phone prefix and country. The country subdivision is optional. You can use the **Description** column to store additional information about the destination (for example, if it is a mobile or fixed number).
- 4. Click **Save**.
- 5. Repeat steps 2-4 for each additional destination.

Uploading a Set of Destinations from a File

- 1. In the Management section of Admin-Index, choose **Destinations**.
- 2. Click on **Get default set** to download a set of destinations as a CSV (Comma-Separated Values) file.
- 3. Open this file in Microsoft Excel or any other suitable program. Edit the data if required.
- 4. Save the file and close it.
- 5. Switch back to the PortaBilling web interface, and click **Upload** on the Destinations screen.
- 6. Type in the filename for the file you have edited, or click on the **Browse...** button and select the file.
- 7. Click Save & Close.

Create Nodes

You need to create at least one node to represent your MVTS Pro server. If other gateways are part of your network (Cisco, Quintum), enter these as well. **NOTE:** Only your own gateways need to be entered as nodes. Remote gateways belonging to a partner/carrier, or those legally belonging to you but used solely by your customer(s), are not considered nodes.

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	Node ID IP	RADIUS C	lient lo ⊙All Sh US Client Delet	ow Nodes				
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🕨 🔒 Save 🔒 Sav	e & Close 🛞 Close			(آلا	Logout			
Node Name Mera MVTS Manufacturer Mera Type MUTS V	Pro :	×						
Node ID	mera.local.com	* RADIUS (Client	✓				
NAS-IP-Address	123.123.123.123	RADIUS I	Key	secret		Auto		
Auth. Transl. Rule 😨		RADIUS	Source IP	123.123.123.	123			
RTP Proxying	Optimal 💙	RADIUS I POD Serv	Dictionary	Cisco				
Submitted informa Default caching tin	Submitted information is being cached in the billing engine and will not take effect immediately. Default caching time is 10 minutes. Please contact your system administrator for more information.							
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Mera MVTS	<u>Pro</u> meraliocal.com 123.12	23.123.123 Mer	a MVIS	<u>•</u>	-			

- 1. In the Networking section of Admin-Index, choose Nodes.
- 2. In the Node Management window, click the **Add** icon.
- 3. Fill in the New Node form:
 - Node Name A short, descriptive name used in dropdown menus
 - Manufacturer Select Mera.
 - **Type** VoIP node type; select **MVTS**.
 - Node ID The IP or hostname of your MVTS Pro.
 - NAS-IP-Address IP address of the MVTS Pro server.
 - Auth. Transl. rule Leave blank.
 - **RTP Proxying** Leave **Optimal**.

- **Radius Client** Make sure this box is checked.
- **Radius Key** Use the same secret configured on MVTS Pro in the RADIUS server section.
- Radius Source IP IP address of the MVTS Pro server.
- 4. Click Save&Close.

NOTE: There is some propagation delay between the database and the Radius server configuration file, but no more than 15 minutes.

Create Tariffs

A tariff is a single price list for call services. A tariff contains universally applicable settings for all calls and rates, which are applied based on the destination. Normally, you will need a separate tariff for each of your products.

- 1. In the Billing section of Admin-Index, choose Tariffs.
- 2. On the Tariff Management page, choose **Add**.

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•	📓 Save 📓 Save 8	& Close	🛞 Close				💵 Logout	📕 Log
	Name	Wholesa	le Services	*	Currency	USD - U	3 Dollar	*
	Applied To	Custome	r	× *	Service	Voice Ca	alls	*
	Managed By	Adminis	trator on	ly 💙				

- 3. Fill in the **New Tariff** form. The most important fields are:
 - **Name** A short name for the tariff object. This is the name you will see later in the select menus.
 - **Currency** Indicates the currency in which pricing information is defined. All pricing information for a single tariff must be defined in the same currency.

NOTE: The currency for a tariff is chosen only once, and cannot be changed later.

- Applied To Choose Customer.
- Managed By Choose "Administrator Only" here (this option is only visible after you select Applied To: Customer above).

Please refer to the *Setting up Wholesale Traffic Exchange* chapter of **PortaSwitch Handbook: Advanced SIP Services** for a detailed description of the rest of the fields.

4. Click Save & Close.

Enter Rates

Rates are per-destination prices. Please refer to the *System Concepts* chapter of the **PortaBilling Administrator Guide** for more details on billing parameters.

Managing Rates Online

Managing rates online is very convenient for maintaining existing rate tables, as well as for reference purposes. In the case of new price lists or major updates, the offline method is better.

- On the Tariff Management page, you will see a list of available tariffs. Click the **Rates** icon in front of the name of the tariff. When you are in Tariff Management for a particular tariff, click on **Rates** in the toolbar.
- 2. In the Edit Rates screen, click 🗄 Add.



- 3. Fill in the required information:
 - Destination A destination prefix may be entered directly,
 e.g. 33 for France, or you can access the destinations directory
 by clicking the Destination link (in the column header). Here
 you can find the desired prefix by country name.

NOTE: The phone prefix you are trying to create a rate for must already exist in Destinations.

- Interval First first billing unit in seconds
- Interval Next next billing unit in seconds
- Price First per-minute price for first interval
- Price Next per-minute price for next interval
- **Off-peak Interval First** first billing unit in seconds for offpeak time
- Off-peak Interval Next next billing unit in seconds for offpeak time
- Off-peak Price First first interval per-minute price for offpeak time
- **Off-peak Price Next** next interval per-minute price for offpeak time

NOTE: Off-peak fields appear only if an **off-peak period** has been defined for the tariff.

- Formula Launches the wizard for creating a custom rating formula.
- Effective from If you want this rate to take effect sometime in the future, you can either enter a date manually, or use the calendar (click on the DD-



MM-YYYY link). Click on the ^① Stop Watch icon to make the rate effective **immediately.**

NOTE: When using the calendar, you may specify a different time zone than the current one for the date you are entering. PortaBilling will then automatically adjust the time.

- The **Hidden**, **Forbidden** and **Discontinued** flags are optional.
- 4. Click the **Save** button in the toolbar, or the **s**icon at the left end of the row.
- 5. Repeat the preceding steps if you need to enter more rates.

Managing Rates Offline

NOTE: Templates are available in PortaBilling, a powerful tool for uploading rates from custom format data files. However, in this particular example we assume that you are preparing data in the default PortaBilling format.

The rates table may be prepared using a spreadsheet processor (i.e. Microsoft Excel) and then easily imported into PortaBilling. This is very convenient should you wish to make many changes. For example, you could increase all prices by 10%.

- 1. If you are not in Tariff Management for your tariff, go to the main menu, click on **Tariffs**, and then click on the tariff name.
- 2. In the Edit Tariff window, move the mouse pointer over the **Download** button and hold it there until a popup menu appears. Choose the **Now** menu item and click on it. This will download the current set of rates (empty), and will also provide you with an overview of the file structure.
- 3. You will see the **File Download** dialogue, and will be prompted to save the file or open it from its current location. We recommend that you first save the file to the folder you will be using to store tariff data files in the future, and then open it in Excel.
- 4. You should see something similar to the screenshot below:

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	Α	B	C	D	E	F	G	н		J	K	L	M	N	0	
1	Name	Currency	Descriptio	n												
2	(An) Term	USD	What we d	harge our	customer	s for the	ir calls v	ve terminat	е							
3																_
4	Off-peak F	Free Seconds	Post Call :	Login Fe	Connect I	ee										_
5		0	0	0	0											_
6																_
7	Destinatio	Country	Descriptio	r Interval 1	Interval N	Price 1	Price N	Off-peak I	n Off-peak Ir	n Off-peak I	FOff-peak F	P Forbidde	r Hidden	Disconti	n Effective From	_
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- 5. Edit the file by adding more rows with rate data, so that it looks similar to the screenshot below.
- 6. Note that the **Country** and **Description** columns are only for reference purposes, and are ignored during import. Also, when using the default template you must fill in the Off-peak columns even if your tariff does not have an off-peak period (use the clipboard to easily copy values to the four peak columns).
- 7. Also note that you may only use those phone prefixes which you have already defined as destinations (see **Create destinations** above).

8	Elle Edit View Insert Format Iools Data Window Help															
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	Α	В	C	D	E	F	G	Н		J	K	L	M	N	0	-
1	Name	Currency	Description	n												-
2	(An) Termi	USD	What we c	harge our d	ustomers f	or their call	s we termir	ate								
3																
4	Off-peak F	Free Seco	Post Call \$	Login Fee	Connect F	ee										
5		0	0	0	0											
6																
7	Destinatio	Country	Description	Interval 1	Interval N	Price 1	Price N	Off-peak Ir	i Off-peak In	Off-peak P	Off-peak P	Forbidden	Hidden	Discontinu	Effective F	1
8	420	CZECH RE	Proper	1	1	0.05	0.05	1	1	0.05	0.05					
9	420602		Mobile	1	1	0.09	0.09	1	1	0.09	0.09					
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8. Save the file in Excel. You will probably get a warning from Excel that your file "*may contain features that are not compatible with CSV*

(Comma delimited)". Ignore this, and choose **Yes** to retain CSV format.

- 9. Close the file in Excel. If you performed step 6, then disregard the message "*Do you want to save the changes you made*", as this only results from the fact that your format is not the native Excel XLS format.
- 10. Go back to the PortaBilling web interface and the **Edit Tariff** screen.
- 11. Click on the **Upload** button.
- 12. Either enter the name of your file manually, or click **Browse...** and choose the file.
- 13. Click Save & Close. You should return to the Edit Tariff screen, where a message will inform you of the status of the import. Also, you will receive email confirmation of the tariff upload. If any operation has failed, you will receive the portion of the data which was not uploaded as an attachment, so that you can try to import it later.

You can verify your work using the **Edit Rates** feature. After you have done this, go to the **Main** menu (by clicking on the **Home** icon).

Create All Required Tariffs



Repeat the *Create Tariff* and *Enter Rates* steps until you have created the following:

- A tariff for each type of service you provide to your customers (select **Customer** in the **Applied To** drop-down box). For instance, if you plan to provide a wholesale termination service as well as end-user VoIP calls, you will need two separate tariffs.
- A tariff with termination costs for each termination partner you have. Later you will learn how to define connections for two different vendors: one supporting the H323 protocol, the other, both the SIP and H323 protocols. Thus we are creating two different tariffs for these vendors. They are created as "Applied To: Vendor" with the **Routing** checkbox checked:

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٠	•	Add 🛞 Close	📵 xDI	R Re-rating						📲 Logou	t 🔳	Log
		Applied To	Se	Service Managed By					Search			
[Vendo	r	4	Voice Call	alls 💙 ANY					s	earch	
	Rates	Na	me		Currency	Applied To	Service	Managed By	Routing D	escription	Delete	
	:=	Globalcalls Termina	ation		USD	Vendor	Voice Calls		Yes			
	Termination to SPT Telecom			<u>m</u>	USD	Vendor	Voice Calls		Yes			

• If you have resellers, also create the tariffs you will use for charging each of them. Do not create tariffs which will apply to

your resellers' subscribers yet. First create your customers, and then return to this step.

Create Product

Each of the remote customer gateways will be represented as an account, and billed accordingly. Hence we need to create a product for the account in order to have a defined way of billing it. If you have specific per-customer rates/tariffs, then you will need a product for each customer.

- 1. In the Billing section of the Admin-Index page, choose Products.
- 2. On the Product Management page, click the **Add** icon.
- 3. Fill in "Add product" under the General Info tab:
 - **Product Name** Product object name.
 - **Currency** Product currency. Only tariffs which have the same currency are permitted in the accessibility list.
 - Managed By The default is Administrator only.
 - Breakage A leftover balance which is considered "useless" (for statistical purposes). Accounts with a balance below breakage are counted as *depleted*. This does not affect account authentication or authorization, so the account can still make calls if there is enough money left to cover at least the first interval.
 - Account Default ACL The access level assigned by default to new accounts created with this product. The ACL determines which operations may be performed by accounts on the self-care pages. The default is Account self-care (predefined ACL), which allows all possible operations.
 - **Default Discount Plan** The default value is **None**.
 - Info URL A URL where current product info is displayed.
 - **Description** A description of the intended use of this product.
- 4. Click **Save**.

Click on the Accessibility tab to edit this product's accessibility.

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Enter Node and Tariff in Product's Accessibility List

- 1. After selecting the Accessibility tab, click on the 🖸 Add icon.
- 2. Choose **MVTS Pro** as the node, and select the tariff you want to use to bill your customer.
- 3. Click Save&Close to save this accessibility entry and return to the Edit Product page.

NOTE: Routing plan selection does not work with MVTS Pro. That is why you cannot choose the option **Assign Tariff per Routing Plan** for the **Default Tariff** field.

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Create Vendors

This step is only required if you have not entered information about your vendors into the system before. Vendors are your termination partners or the providers of incoming toll-free lines.

- 1. In the Billing section of the Admin interface, choose Vendors.
- 2. On the Vendor Management page, choose 🖪 Add.

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3. Fill in the **New Vendor** form. Please note that there are three tabs available on the screen. The most important fields are:

Main form (top)

- Vendor Name Short name for the vendor object; this will be used on the web interface.
- **Currency** The currency in which this vendor charges you.
- **Opening Balance** Starting balance for the vendor; the default is zero.

Additional info

• Billing Period – Split period for vendor statistics.

User-Interface

- **Time Zone** The time zone which the vendor uses for his billing period. Statistics will be divided into periods according to this time zone.
- 4. Click Save & Close.
- 5. Repeat steps 2-4 to add all of your vendors. Since you are setting up a wholesale traffic exchange platform, you will probably have more than one vendor. Create all of your vendors according to the instructions given above. Every vendor will have his own termination tariff and set of connections.

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Connections

- 1. In the Management section of the Admin interface, choose **Vendors**.
- 2. Click on the **Connections** icon next to the vendor name.

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- 3. Press Add to add a new connection.
- 4. Fill in the connection information:
 - **Description** This field in mandatory for all connection types.
 - Type Select VoIP to Vendor.
 - Service Type Select Voice Calls.
 - Routing Criteria Leave None.
 - **Remote IP** Type in vendor's gateway IP and, optionally, a port.
 - **Routing Protocol** Select **H323** if the vendor supports only this kind of protocols.
 - **Capacity** This value is used for the load graph.
 - **Tariff** Select the tariff that corresponds to the termination costs for this connection/vendor.
 - **Translation Rule** Use this rule to convert from E.164 if the vendor requires a phone number in a different format (e.g. the E.164 number 4202111222 is sent to the vendor as 34562#4202111222).
- 5. Click **Save**.
- 6. Repeat steps 3-5 to add more connections to the same vendor, then click **Close** to exit to the **Vendor Management** screen.
- Repeat steps 2-7 to add connections for other vendors. The screenshot below shows the connection settings for the vendor who supports both the SIP and H323 protocols (both the SIP and H323 boxes are checked for the **Routing Protocol** field).

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Create Customer

A customer is an owner of accounts. The customer's contact information is used to distribute generated account data and account usage information.

- 1. In the Billing section of Admin-Index, choose **Customers**.
- 2. On the Customer Management page, choose **•** Add.
- 3. Fill in the **New Customer** form. Please note that there are several tabs with extra information available on the screen.

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The most important fields are:

Main Form (top)

- **Name** Short name for the customer object; this will be used on the web interface.
- **Currency** The currency in which this customer is to be billed.
- **Opening Balance** Starting balance for the customer; the default is zero.
- **Type** Define whether this is a reseller or a retail (direct) customer. (Normally, most of your customers will be retail customers. Only if a customer resells your services, while you provide services and billing to his subscribers, will he be created as a reseller.)

Address Info tab

- **Email** Email address for distribution of accounting information. When the billing period is over, a list of xDRs and other statistics will be sent to this address.
- **Bcc** Blind carbon copy in an email; this may be used for debug and archiving purposes.
- Send Statistics-summary only Distribute a summary only, and do not attach a details file; this might be useful in the case of a large amount of calls. Other options are full statistics or do not send.

User Interface

- **Time Zone** This parameter serves two purposes. First of all, it defines in which time zone the customer will see his xDRs. It also defines which time zone will be used to divide the customer's billing periods. For example, if you choose America/New York here, with a monthly billing period, the customer's invoice will cover the period starting at 00:00 EST on the 1st of every month.
- Web Interface Language The language to be used on the customer's self-care web interface.

Additional Info tab

- **Billing Period** The frequency of accounting information distribution. The available billing periods are:
 - **Daily** One day, from midnight to midnight; sent on the next day.
 - Weekly [Mon-Sun] inclusive; sent on Monday.

- **Bi-weekly** [1-15] inclusive, sent on the 16th day; and [16-last day] inclusive, sent on the 1st day day of the next month.
- Monthly [1-last day] inclusive; sent on the 1st day of the next month.

Payment Info tab

- **Credit Limit** If left empty, there is no credit limit for this customer.
- **Balance Warning Threshold** The customer can be notified by email when his balance is dangerously close to the credit limit and his service will soon be blocked. Here you can enter the value for the warning threshold, as follows:
 - As a percentage (e.g. 90%). A warning will be sent when the customer's balance exceeds this percentage of his credit limit. Thus, if his credit limit is \$1000.00 and the threshold is 90%, a warning will be sent as soon as the balance is over \$900.00. This is only applicable when the customer has a positive credit limit.
 - As an absolute value. A warning will be sent as soon as the balance exceeds the specified value.
- 4. Click Save & Close to save your work. See the PortaBilling Web Reference Guide for more information.

Create Accounts

- 1. Go to the **Customers** screen (the screen which contains a list of customers). It should look like the screenshot below.
- 2. Next to the customer name, click on the 🗊 icon (in the **Accounts** column), which will take you to the account management for that customer.



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- 3. Now click on 🖪 Add.
- 4. Fill in the "Add account" form:
 - Account ID Identification of the account (value to be sent in the User-Name attribute). For an account representing a remote gateway, this is normally an IP address.
 - **Product** Choose the product which you would like your accounts to use.
 - **Blocked** Check this if you want to create the account as initially blocked.
 - **Opening balance** The initial balance on the card. For credit accounts, the opening balance is normally zero.

Account Info tab

- Account type Account type; select "credit".
- Credit limit Maximum allowed credit.
- Service Password Password for authentication/authorization. If you are using the default Cisco remote_ip_authenticate script, enter cisco here.
- **Batch** A batch is a management unit for accounts. A batch name is alphanumeric. You can type a new name here, or use the existing name in order to generate more accounts for the same batch.

User Interface tab

• **Login** – The login name this account will use to access selfcare pages. This can be the same as the account ID, or a different name may be chosen for increased security. This field is mandatory.

- **Password** The password for self-care pages.
- **Time Zone** When an account owner accesses his web selfcare pages to see a list of his calls, the time will be shown in the time zone most appropriate for him.
- Web Interface Language The language to be used on the customer's self-care web interface.

Additional Info tab

- **IP phone –** Leave this field blank.
- **IP phone port –** The default value is **None**.
- **Discount Plan –** Enter the product's default or choose None.

Life Cycle tab

- Activation Date Account activation date.
- **Expiration Date** Account expiration date.
- **Life Time** Relative expiration date; the account will expire on "first usage date" + "lifetime" days. If you do not want to use this feature, leave the field blank.
- 5. Click Save & Close; a confirmation screen will indicate that the account has been created.
- 6. Repeat steps 3-5 if the customer has more than one remote gateway.

Routing PortaSIP Calls to MVTS Pro

To fully utilize PortaSwitch features, including Class5 services and direct termination to registered user agents, the routing role decision must be split. When UA originates a call via PortaSIP, PortaBilling100 provides information for local termination and pure SIP-based routing. Termination to H323 vendors can be accomplished by routing off-net calls to MVTS Pro. MVTS Pro will contact PortaBilling to perform the actual routing.

The *System Concepts* chapter of **PortaBilling100 Administrator Guide** provides a detailed description of the call routing feature and contains a routing configuration example.

Create Internal Tariff

To pass all external traffic to MVTS Pro, create a special tariff and connection. The system will consider termination to MVTS Pro along with other SIP vendors, so the prices in the tariff should roughly reflect the cost of terminating to the H323 vendors in your system. The routing tariff should cover all the destinations routed on MVTS Pro.

If you want MVTS Pro to always be used for termination, simply enter one rate as below. The high Preference and Huntstop settings will prevent other vendors from being attempted. The '|' destination covers all destinations.

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Create Internal Vendor and Connection

- 1. In the Billing section of the Admin interface, choose Vendors.
- 2. On the Vendor Management page, choose **Add**.
- 3. Fill in the **New Vendor** form. Enter **Internal** in the **Vendor Name** field and select a currency.
- 4. Click **Save**.
- 5. Click on the Connections button, and then choose 🖸 Add.

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- 6. Fill in the Add Connection form. The most important fields are:
 - $\circ \quad Type-\text{Select }PSTN \text{ to Vendor.}$
 - Service Type Select Voice Calls.
 - **Routing Protocol** Check the **SIP** box.
 - Node Select Mera MVTS Pro.
 - **Tariff** Select a vendor tariff which describes your termination to MVTS Pro costs (this tariff needs to be added to the system before creating the vendor connection).
- 7. Click Save & Close.

Advanced MVTS Pro Termination Features

So far we have been using several termination devices in the MVTS Pro configuration. PortaBilling is able to use these configured devices for routing to many vendors by changing the IP address. We can also perform per-vendor translations. However, MVTS Pro has some other termination options, and in order to utilize them for specific vendors we have to configure more termination devices.

Some of the available options are:

- Termination to a dynamic IP obtained through SIP REGISTER or an H323 gatekeeper.
- Various codec conversions and RTP proxying.
- 1. Create the termination device in MVTS Pro:

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	SIP Phone	Yes	SIP	Yes		195.138.219.12						
	PORTAONE	Yes	Same as for incoming leg									
	PortaBilling Routing	Yes	Same as for incoming leg									
	PB-SIP		SIP									
	Origination		SIP									
	MVTS Register		SIP									
	h323:PORTA_GK	Yes	H.323	Yes	123	99.99.99.99 🧹						
	h323:PORTAONE	Yes	H.323									

2. Create a connection for your H323 vendor and specify the termination device to use by prefixing the IP with the device's name. The steps are the same as for the connection you added before. The only difference is what you will enter under **Remote IP**:

🕼 🗹 📴 😰 🖻 🗹 🚺 Add	Connection For 'Globalcalls Inc.' Vendor O Europe/Kiev	admin	🕑 Help
🕨 🝙 Save 🔚 Save & Close 🛞 Close		💵 Logout	📕 Log
Description Gatek Service Type Voice	eeper ' Type UolP to Vendor V' t Calls V Routing Criteria Mone V		
General Info			
Routing Protocol	H323 LISP		
Remote IP	PORTA_GK/99.99.99.99		
RTP Proxying	Direct 🗸		
Tariff	Globalcalls Termination		
Capacity	100 *		
Hide CLI Mode	Clear caller info		
Vendor Account	None 💙		
Translation Rule	20		
Outgoing Rule	0		
CLI Translation Rule	20		
Additional SIP Settings			

The most important fields are:

- **Remote IP** Enter **PORTA_GK/<IP of Gatekeeper>** here.
- Routing Protocol Select H323.
- Type Select VoIP to Vendor.

Make sure the IP address matches the one in MVTS Pro.



4. Testing

Make NetMeeting Calls via MVTS Pro

1. Start NetMeeting, choose Tools in the main menu, then Options.

🥙 NetMeeting 🔲 🗆 🔀											
Call	View	Tools	Help		-						
		Vide Aud	o io Tuning Wizard		•						
	W	Sha Cha Whi File Whi	ring t teboard Transfer teboard (1.0 - 2.x)	Ctrl+S Ctrl+T Ctrl+W Ctrl+F							
		Remote Desktop Sharing Options									

2. On the **General** tab, click the **Advanced Calling** button.

Advanc	ed Calling Option	; ? 🛛
Gate	keeper settings	
28	🖕 🗹 Use a gatekeepe	er to place calls.
	Gatekeeper:	216.231.44.193
	🔽 Log on using my	account name
	Account name:	193.28.87.100 cisco
	📃 Log on using my	phone number
	Phone number:	

- Select the **Use a gatekeeper to place calls** checkbox.
- In the **Gatekeeper** field, enter the IP address of the MVTS Pro server.
- Select the **Log on using my account name** checkbox.
- In the Account name field, enter "ID | passwd", where "ID" is your account ID, and "passwd" is the VoIP password for this account; e.g. for account 12345 with password test123 you should enter "12345 | test123".
- 3. Click OK to save your changes.

If registration to the MVTS Pro gatekeeper is successful, you will see a blue computer icon with the popup text "Logged on to Gatekeeper" in the bottom right corner of your screen.

Test Dialplan

You can use the Test Dialplan feature of PortaOne to test routes that will be returned to MVTS Pro.

- 1. In the Routing section of the Admin interface, choose **Test Dialplan**.
- 2. Set the search criteria:
 - **Phone Number** A destination number you can terminate to.
 - **Protocol** Always select H323, even for returning SIP routes.
- 3. After you press **Search**, the system will show you the possible routes:

6	5 🗹	1 📴	\$. 🖂 🗉		Te	Test Dialplan 🛛 🕔) Europe/Kiev porta-		upport 🛛	Help	
	0) Clos	se 🗐 O	bjects								Mỹ Lo	ogout	
	Phone Number 44500						Routing F	Man Routes T	Protoco H323 SI	Protocol (*) Date and Time H325 SIP <u>YYYY-MM-DD</u> HH24:MI:SS			is Gearch	0
#	Destin	ation	Country	Description	Penalization	Route Category	Preference	Huntstop	Price, ALL	Route CLD	Route To	Vendor	Connection	Tariff
1	4	4	FRANCE	France Proper	N	Default	5	N	0.60000	44500	44.55.66.77	H323 Vendor	H323 Vendor	H323 Vendor

View PortaBilling Logs

After making a call, you can find logs reflecting the routing logic and billing by using the BE Log Viewer.

 In the Help Desk section of the Admin interface, choose BE Log Viewer.

₫	y 📰 💲 🏞 🖌 i	BE Log Viewer () Europe/Kiev			porta-suppor	t 🔋 Help		
•	🛞 Close						M Logout	
Trace a session			Browse sessions					
H32	3-Conf-ID CFEBD1B3 880911DE BEFF(0011 43CD1544	For last	📴 From	12-08-2009	DD-MM-YYYY	07:08 PM	HH12:Mi AM
			~	🧰 <u>To</u>	13-08-2009	DD-MM-YYYY	07:08 PM	HH12:Mi AM
View log			Show					

- 2. Insert the H323-Conf-ID of the call and click View log.
- 3. The log will be displayed in the lower part of the page:



Example Log:

```
request: Type: "Authorize/INVITE" NAS-IP-Address: "206.248.148.72" User-Name: "070" Called-
 Station-Id: "19093900003" Calling-Station-Id: "070"
Mar 20 06:48:20 [0]: Processing request (BE ver1.317.2.2,pid72518)...
Mar 20 06:48:20 [3]: Attributes:
NAS-IP-Address
                                  = '206.248.148.72'
                                 = 'Async'
NAS-Port-Type
User-Name
                                  = '070'
                                 = '19093900003'
Called-Station-Id
                                 = '070'
Calling-Station-Id
                                 = 'Login-User'
Service-Type
h323-gw-id
                                 = 'mera_test_IN-Clone-070'
                                 = 'DE46E951 597C6F01 A202D220 0000000'
h323-conf-id
Acct-Session-Id
                                 = '0000003-30899578-0'
Password
                      '\203\241n\155{\171\181\185\022\0161\155u\164\227\017'
                                 = '19093900003'
xpgk-dst-number-out
                                 = '1'
xpgk-route-retries
                                 = '1'
xpgk-routing-request
                                 = '070'
xpgk-src-number-out
xpgk-record-id
                                 = '0000003-30899578'
xpgk-request-type
                                 = 'route'
xpgk-src-number-in
                                 = '070'
                                 = 'DE46E951 597C6F01 A202D220 00000000'
h323-call-id
h323-gw-address
                                 = '192.168.1.217:2756'
xpgk-dst-number-in
                                 = '19093900003'
Mar 20 06:48:20 [3]: Mod(mvts): Setting up 'MVTS' routing for this request
Mar 20 06:48:20 [4]: fixup: h323-ivr-out=PortaBilling Seed:48406 generated from
                      'h323-conf-id' attribute
Mar 20 06:48:20 [5]: Setting up routing features: local-
                      lookup=1;cli=1;format=MVTS;h323=1;max-depth=0;cld=1
Mar 20 06:48:20 [0]: h323-conf-id=DE46E951 597C6F01 A202D220 0000000/34, call-
                      id=
Mar 20 06:48:20 [0]: session-id=DE46E951 597C6F01 A202D220 00000000/34
Mar 20 06:48:20 [4]: Registering new session
Mar 20 06:48:20 [4]: Checking if this call comes through a VoIP from vendor
                     connection
Mar 20 06:48:20 [5]: PrepareNexecute 'GetAllConnections'
Mar 20 06:48:20 [5]: SQL query 'GetAllConnections' executed in 0.007322 seconds
Mar 20 06:48:20 [5]: PrepareNexecute 'FindAccountById'
Mar 20 06:48:20 [5]: SQL query 'FindAccountById' executed in 0.001198 seconds
```

Mar 20 06:48:20 [4]: Found account: <Account i="46693" id="070" model="debit" balance="100000.00000"/> of <Customer i="453" name="Main" balance="112.64867"/> Mar 20 06:48:20 [5]: PrepareNexecute 'FindAccessibility' Mar 20 06:48:20 [5]: SQL query 'FindAccessibility' executed in 0.000234 seconds Mar 20 06:48:20 [3]: Account 070 is not logged in yet Mar 20 06:48:20 [4]: Account has an empty password, skip the password check Mar 20 06:48:20 [4]: Mod(voice): Applying override translation rule on CLD ... Mar 20 06:48:20 [4]: Translation 's/^*3164*//;' applied: '19093900003' unchanged Mar 20 06:48:20 [5]: PrepareNexecute 'FindAccountById' Mar 20 06:48:20 [5]: SQL query 'FindAccountById' executed in 0.001041 seconds Mar 20 06:48:20 [4]: No account with id '19093900003' Mar 20 06:48:20 [5]: PrepareNexecute 'GetCallBarringRules' Mar 20 06:48:20 [5]: SQL query 'GetCallBarringRules' executed in 0.000173 seconds Mar 20 06:48:20 [4]: Setting up rating in Charge <Tariff i="437" name="cInterOps"/> of Account ... Mar 20 06:48:20 [4]: Using peak rate, since no off-peak is defined Mar 20 06:48:20 [3]: Looking up rate for '19093900003' in <Tariff i="437" name="cInterOps"/> Mar 20 06:48:20 [5]: PrepareNexecute 'GetPricePerDestination' Mar 20 06:48:20 [5]: SQL query 'GetPricePerDestination' executed in 0.002167 seconds Mar 20 06:48:20 [4]: Computing account allowed session-time by <Rate::Standard i="187479" pattern="19093900003" seed="48406" destination="1"/> ... Mar 20 06:48:20 [5]: Maximum session-time: unlimited announced as unlimited. History: +1x1x0.04+149999999x1x0.04. Using <Rate::Standard i="187479" pattern="19093900003" seed="48406" destination="1"/>. Mar 20 06:48:20 [4]: Looking up routes in <Route::PointList route-lookupcld="19093900003" cld="19093900003" h323="1"/> Mar 20 06:48:20 [5]: PrepareNexecute 'GetAdaptiveRoutingPerDestination' Mar 20 06:48:20 [5]: SQL query 'GetAdaptiveRoutingPerDestination' executed in 0.002757 seconds Mar 20 06:48:20 [5]: PrepareNexecute 'GetExchangeRate' Mar 20 06:48:20 [5]: SQL query 'GetExchangeRate' executed in 0.000167 seconds Mar 20 06:48:20 [5]: Applying route point CLD translation on '19093900003' ... Mar 20 06:48:20 [4]: Translation 's/0000\$/8647/' applied: '19093900003' unchanged Mar 20 06:48:20 [4]: Routing result: <Route::PointList route-lookup-cld="19093900003" cld="19093900003" h323="1"> <Route::Point p="195.138.219.146" cld="19093900003" gwname="302" prio="9" penalty="0" cost="0.60000" description="Fake Mera Route"/> <Route::Point p="195.138.219.146:5060" cld="19093900003" gwname="303" prio="5" penalty="0" cost="0.02000" description="PortaSIP-146"/> </Route::PointList> Mar 20 06:48:20 [3]: Logging in account '070'(46693) to 'DE46E951 597C6F01 A202D220 0000000' Mar 20 06:48:20 [3]: Call lifetime in cache enhanced with 1800s to Fri Mar 20 07:18:20 2009 (1680s) Mar 20 06:48:20 [4]: Updating account usage of '070' with 'Fri Mar 20 06:48:20 2009' Mar 20 06:48:20 [5]: PrepareNexecute 'UpdateAccountUsage' Mar 20 06:48:20 [5]: SQL query 'UpdateAccountUsage' executed in 0.002235 seconds Mar 20 06:48:20 [3]: Authentication acknowledge response, attributes: h323-billing-model = 1 h323-ivr-in = Tariff:cInterOps h323-ivr-in = PortaBilling CompleteNumber:19093900003

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h323-ivr-in = PortaBilling Auth CLD:19093900003 h323-ivr-in = PortaBilling CLI:070 h323-return-code = 13 xpgk-routing-reply = 302/1/070/19093900003/070/19093900003/195.138.219.146:1720 xpgk-routing-reply 303/1/070/19093900003/070/19093900003/195.138.219.146:5060 h323-currency = USD h323-preferred-lang = en Mar 20 06:48:20 [0]: ...Done Authorize/INVITE in 0.105643 seconds, 0.017294 spent in SQL queries. request: Type: "Accounting/Start/answer/VoIP" NAS-IP-Address: "206.248.148.72" User-Name: "070" Called-Station-Id: "19093900003" Calling-Station-Id: "070" Mar 20 06:48:20 [0]: Processing request (BE ver1.317.2.2,pid72518)... Mar 20 06:48:20 [3]: Attributes: NAS-IP-Address = '206.248.148.72' NAS-Port-Type = 'Async' = '070' User-Name = '19093900003' Called-Station-Id = '070' Calling-Station-Id Acct-Status-Type = 'Start' Service-Type = 'Login-User' h323-gw-id = '302' = 'answer' h323-call-origin h323-call-origin- answerh323-call-type= 'VoIP'h323-setup-time= '13:47:48.612 UTC Fri Mar 20 2009'h323-connect-time= '13:47:48.612 UTC Fri Mar 20 2009'h323-conf-id= 'DE46E951 597C6F01 A202D220 00000000'Acct-Session-Id= '00000003-30899578-AV1' Acct-Session-Id Acct-Delay-Time = '0' xpgk-src-number-out = '070' = '0000003-30899578' xpgk-record-id = '195.138.219.146' h323-gw-address h323-remote-id = 'mera test IN-Clone-070' = 'PCMU ilbc-13k3 PCMA GSM-FR G.729 G.729A xpgk-src-codec G.729AB G.723.1 SPEEX iLBC-15k2 G.729B T.38 RFC2833' = 'DE46E951 597C6F01 A202D220 00000000' h323-call-id xpgk-dst-number-in = '19093900003'

 xpgk-dst-codec
 = 'PCMU PCMA G.725 G.725h G.729h

 FR SPEEX iLBC-13k3 iLBC-15k2 T.38 RFC2833 G.729B'

 '10003000003'

 = 'PCMU PCMA G.729 G.729A G.729AB G.723.1 GSM-= '19093900003' = '192.168.1.217' h323-remote-address xpgk-route-retries = '1' = '070' xpgk-src-number-in = 'porta-billing.pl' Exec-Program-Log Mar 20 06:48:20 [4]: fixup: h323-ivr-out=PortaBilling Seed:48406 generated from 'h323-conf-id' attribute Mar 20 06:48:20 [0]: h323-conf-id=DE46E951 597C6F01 A202D220 0000000/34, callid= Mar 20 06:48:20 [0]: session-id=DE46E951 597C6F01 A202D220 0000000/34 Mar 20 06:48:20 [4]: The session already exists in cache, last activity at Fri Mar 20 06:48:20 2009 Mar 20 06:48:20 [3]: Copied account: <Account i="46693" id="070" model="debit" balance="100000.00000"/> of <Customer i="453" name="Main" balance="112.64867"/> and charge info found on Authorize/INVITE@206.248.148.72/Mar 20 06:48:20 into current request Mar 20 06:48:20 [3]: Fixing time with duration 0 seconds from connect time Mar 20 06:48:20 [5]: PrepareNexecute 'GetActiveLegIdBvAcct' Mar 20 06:48:20 [5]: SQL query 'GetActiveLegIdByAcct' executed in 0.000583 seconds Mar 20 06:48:20 [3]: Looking for a connection 3/VoIP/answer

Mar 20 06:48:20 [5]: PrepareNexecute 'InsertActiveLeg' Mar 20 06:48:20 [5]: SQL query 'InsertActiveLeg' executed in 0.001452 seconds Mar 20 06:48:20 [3]: Accounting response, no attributes. Mar 20 06:48:20 [0]: ...Done Accounting/Start/answer/VoIP in 0.013859 seconds, 0.002035 spent in SQL queries. request: Type: "Accounting/Start/originate/VoIP" NAS-IP-Address: "206.248.148.72" User-Name: "070" Called-Station-Id: "19093900003" Calling-Station-Id: "070" Mar 20 06:48:20 [0]: Processing request (BE ver1.317.2.2,pid72518)... Mar 20 06:48:20 [3]: Attributes: NAS-IP-Address = '206.248.148.72'= 'Async' NAS-Port-Type = '070' User-Name = '19093900003' Called-Station-Id = '070' Calling-Station-Id Acct-Status-Type = 'Start' Service-Type = 'Login-User' h323-gw-id = 'mera test IN-Clone-070' h323-call-origin = 'originate' h323-call-type h323-setup-time = 'VoIP' h323-connect-time h323-conf-id Acct-Session-Id Acct-Delay-Time xpgk-src-number-out = '070' xpgk-record-id = '0000003-30899578' h323-gw-address = '192.168.1.217' h323-remote-id = '302' xpgk-src-codec = 'PCMU iLBC-13k3 PCMA GSM-FR G.729 G.729A G.729AB G.723.1 SPEEX iLBC-15k2 G.729B T.38 RFC2833' h323-call-id = 'DE46E951 597C6F01 A202D220 00000000' xpgk-dst-number-in = '19093900003' xpgk-dst-codec = 'PCMU PCMA G.729 G.729A G.729AB G.723.1 GSM-FR SPEEX iLBC-13k3 iLBC-15k2 T.38 RFC2833 G.729B' xpgk-dst-number-out = '19093900003' h323-remote-address = '195.138.219.146' xpgk-route-retries = '1' xpgk-src-number-in = '070' = 'porta-billing.pl' Exec-Program-Log Mar 20 06:48:20 [4]: fixup: Use CLD '19093900003' found in xpgk-dst-number-out for connection matching Mar 20 06:48:20 [4]: fixup: h323-ivr-out=PortaBilling Seed:48406 generated from 'h323-conf-id' attribute Mar 20 06:48:20 [0]: h323-conf-id=DE46E951 597C6F01 A202D220 00000000/34, callid= Mar 20 06:48:20 [0]: session-id=DE46E951 597C6F01 A202D220 0000000/34 Mar 20 06:48:20 [4]: The session already exists in cache, last activity at Fri Mar 20 06:48:20 2009 Mar 20 06:48:20 [3]: Copied account: <Account i="46693" id="070" model="debit" balance="100000.00000"/> of <Customer i="453" name="Main" balance="112.64867"/> and charge info found on Authorize/INVITE@206.248.148.72/Mar 20 06:48:20 into current request Mar 20 06:48:20 [3]: Fixing time with duration 0 seconds from connect time Mar 20 06:48:20 [5]: PrepareNexecute 'GetActiveLegIdByAcct' Mar 20 06:48:20 [5]: SQL query 'GetActiveLegIdByAcct' executed in 0.000619 seconds Mar 20 06:48:20 [3]: Looking for a connection 3/VoIP/originate Mar 20 06:48:20 [3]: Found connection with remote IP address '195.138.219.146' and GW name '302': <Connection i="282" name="Fake Mera Route"/> Mar 20 06:48:20 [3]: Found vendor: <Vendor i="225" name="Internal"/>

Mar 20 06:48:20 [5]: PrepareNexecute 'InsertActiveLeg' Mar 20 06:48:20 [5]: SQL query 'InsertActiveLeg' executed in 0.001525 seconds Mar 20 06:48:20 [3]: Accounting response, no attributes. Mar 20 06:48:20 [0]: ... Done Accounting/Start/originate/VoIP in 0.015364 seconds, 0.002144 spent in SQL queries. request: Type: "Accounting/Stop/originate/VoIP" NAS-IP-Address: "206.248.148.72" User-Name: "070" Called-Station-Id: "19093900003" Calling-Station-Id: "070" Mar 20 06:48:55 [0]: Processing request (BE ver1.317.2.2,pid72518)... Mar 20 06:48:55 [3]: Attributes: NAS-IP-Address = '206.248.148.72'= 'Async' NAS-Port-Type = '070' User-Name = '19093900003' Called-Station-Id = '070' Calling-Station-Id Acct-Status-Type = 'Stop' Service-Type h323-gw-id = 'Login-User'

 h323-gw-id
 = 'mera_test_IN-CLORE-0.0

 h323-call-origin
 = 'originate'

 h323-call-type
 = 'VoIP'

 h323-setup-time
 = '13:47:48.294 UTC Fri Mar 20 2009'

 h323-connect-time
 = '13:47:48.780 UTC Fri Mar 20 2009'

 h323-disconnect-time
 = '13:47:48.780 UTC Fri Mar 20 2009'

 h323-disconnect-cause
 = '10'

 h323-conf-id
 = 'DE46E951 597C6F01 A202D220 0000000'

 = 'mera test IN-Clone-070' h323-conf-id Acct-Session-Id = '00000003-30899578-0V1' = '0' Acct-Session-Time Acct-Delay-Time = '0'

 xpgk-src-number-out
 = '070'

 xpgk-record-id
 = '00000003-30899578'

 b222
 av address

 = '102
 162

 mpgk record-1d
 = '0000003-30899578'

 h323-gw-address
 = '192.168.1.217'

 xpgk-pdd-time
 = '-14324 days, 10:12:11.705687'

 h323-remote-id
 = '302'

 h323-call-id
 = 'DE46E951 597C6F01 A202D220 00000000'

 xpgk-dst-number-in
 = '19093900003'

 xpgk-dst-number-out
 = '195.138.219.146'

 xpgk-scd-time
 = '0:00:00.486047'

 xpgk-route-retries
 = '1'

 xpgk-src-number-in
 = '070'

 xpgk-src-number-in = 'porta-billing.pl' Exec-Program-Log Mar 20 06:48:55 [4]: fixup: Use CLD '19093900003' found in xpgk-dst-number-out for connection matching Mar 20 06:48:55 [4]: fixup: h323-ivr-out=PortaBilling Seed:48406 generated from 'h323-conf-id' attribute Mar 20 06:48:55 [0]: h323-conf-id=DE46E951 597C6F01 A202D220 00000000/34, callid= Mar 20 06:48:55 [0]: session-id=DE46E951 597C6F01 A202D220 00000000/34 Mar 20 06:48:55 [4]: The session already exists in cache, last activity at Fri Mar 20 06:48:20 2009 Mar 20 06:48:55 [3]: Copied account: <Account i="46693" id="070" model="debit" balance="100000.00000"/> of <Customer i="453" name="Main" balance="112.64867"/> and charge info found on Authorize/INVITE@206.248.148.72/Mar 20 06:48:20 into current request Mar 20 06:48:55 [3]: Looking for a connection 3/VoIP/originate Mar 20 06:48:55 [3]: Found connection with remote IP address '195.138.219.146' and GW name '302': <Connection i="282" name="Fake Mera Route"/> Mar 20 06:48:55 [3]: Found vendor: <Vendor i="225" name="Internal"/> Mar 20 06:48:55 [4]: End of the failed outgoing session for logged in account, waiting another outgoing session or hang up

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Mar 20 06:48:55 [3]: This request isn't marked as billable, hold on till cleanup time Mar 20 06:48:55 [5]: PrepareNexecute 'GetActiveLegIdByAcct' Mar 20 06:48:55 [5]: SQL query 'GetActiveLegIdByAcct' executed in 0.000685 seconds Mar 20 06:48:55 [5]: PrepareNexecute 'UpdateActiveLeg' Mar 20 06:48:55 [5]: SQL query 'UpdateActiveLeg' executed in 0.001614 seconds Mar 20 06:48:55 [3]: Accounting response, no attributes. Mar 20 06:48:55 [0]: ...Done Accounting/Stop/originate/VoIP in 0.016218 seconds, 0.002299 spent in SQL queries. request: Type: "Accounting/Start/originate/VoIP" NAS-IP-Address: "206.248.148.72" User-Name: "070" Called-Station-Id: "19093900003" Calling-Station-Id: "070" Mar 20 06:48:55 [0]: Processing request (BE ver1.317.2.2,pid72518)... Mar 20 06:48:55 [3]: Attributes: NAS-IP-Address = '206.248.148.72' NAS-Port-Type = 'Async' = '070' User-Name = '19093900003' Called-Station-Id = '070' Calling-Station-Id = 'Start' Acct-Status-Type Service-Type h323-gw-id = 'Login-User' = 'mera_test_IN-Clone-070' - 'Nefa_test_IN-Clone=070' = 'originate' = 'VoIP' = '13:47:48.294 UTC Fri Mar 20 2009' = 'DE46E951 597C6F01 A202D220 00000000' = '00000003-30899578-0V2' = '0' h323-call-origin h323-call-type h323-setup-time h323-conf-id Acct-Session-Id Acct-Delay-Time Acct-belay-limexpgk-src-number-out= '070'xpgk-record-id= '00000003-30899578' xpgk-record-id h323-gw-address h323-remote-id = '192.168.1.217' = '192.168.1.217'
= '303'
= 'DE46E951 597C6F01 A202D220 00000000'
= '19093900003'
= '19093900003'
= '195.138.219.146'
- '1' xpgk-dst-number-in xpgk-dst-number-out h323-remote-address xpgk-route-retries = '1' xpgk-route-retries xpgk-src-number-in = '070' Exec-Program-Log = 'porta-billing.pl' Mar 20 06:48:55 [4]: fixup: Use CLD '19093900003' found in xpgk-dst-number-out for connection matching Mar 20 06:48:55 [4]: fixup: h323-ivr-out=PortaBilling_Seed:48406 generated from 'h323-conf-id' attribute Mar 20 06:48:55 [4]: fixup: Using value '13:47:48.294 UTC Fri Mar 20 2009' to supply missing h323-connect-time attribute in Start accounting Mar 20 06:48:55 [0]: h323-conf-id=DE46E951 597C6F01 A202D220 00000000/34, callid= Mar 20 06:48:55 [0]: session-id=DE46E951 597C6F01 A202D220 0000000/34 Mar 20 06:48:55 [4]: The session already exists in cache, last activity at Fri Mar 20 06:48:55 2009 Mar 20 06:48:55 [3]: Copied account: <Account i="46693" id="070" model="debit" balance="100000.00000"/> of <Customer i="453" name="Main" balance="112.64867"/> and charge info found on Accounting/Stop/originate/VoIP0206.248.148.72/Mar 20 06:48:55 into current request Mar 20 06:48:55 [3]: Fixing time with duration 0 seconds from connect time Mar 20 06:48:55 [5]: PrepareNexecute 'GetActiveLegIdByAcct' Mar 20 06:48:55 [5]: SQL query 'GetActiveLegIdByAcct' executed in 0.000629 seconds Mar 20 06:48:55 [5]: PrepareNexecute 'UpdateActiveLeg' Mar 20 06:48:55 [5]: SQL query 'UpdateActiveLeg' executed in 0.000451 seconds

Mar 20 06:48:55 [3]: Accounting response, no attributes. Mar 20 06:48:55 [0]: ... Done Accounting/Start/originate/VoIP in 0.012705 seconds, 0.001080 spent in SQL queries. request: Type: "Accounting/Stop/originate/VoIP" NAS-IP-Address: "206.248.148.72" User-Name: "070" Called-Station-Id: "19093900003" Calling-Station-Id: "070" Mar 20 06:49:28 [0]: Processing request (BE ver1.317.2.2,pid72518)... Mar 20 06:49:28 [3]: Attributes: NAS-IP-Address = '206.248.148.72' NAS-Port-Type = 'Async' User-Name = '070' = '19093900003' Called-Station-Id Calling-Station-Id = '070' = 'Stop' Acct-Status-Type

 Service-Type
 = 'Login-User'

 h323-gw-id
 = 'mera_test_IN-Clone-070'

 h323-call-origin
 = 'originate'

 h323-call-type
 = 'VoIP'

 h323-connect-time
 = '13:47:48.294 UTC Fri Mar 20 2009'

 h323-connect-time
 = '13:47:48.294 UTC Fri Mar 20 2009'

 h323-disconnect-time
 = '13:47:48.294 UTC Fri Mar 20 2009'

 h323-disconnect-time
 = '13:48:56.313 UTC Fri Mar 20 2009'

 h323-disconnect-cause
 = '10'

 h323-disconnect-cause
 = '10'

 h323-conf-id
 = 'DE46E951 597C6F01 A202D20 0000000'

 Acct-Session-Id
 = '00000003-30899578-0V2'

 Acct-Session-Time
 = '33'

 Acct-Delay-Time
 = '0'

 xpgk-scrcnumber-out
 = '070'

 xpgk-scrcnumber-out
 = '00000003-30899578'

 h323-gw-address
 = '192.168.1.217'

 xpgk-gdd-time
 = '0:00034.308592'

 h323-call-id
 = 'DE46E951 597C6F01 A202D220 0000000'

 xpgk-scrcodec
 = 'PCMU PCMU'

 h323-call-id
 = '1993900003'

 xpgk-dest-rup-address
 = '195.138.219.146:35148'

 xpgk-dst-codec
 = 'PCMU PCMU'

 xpgk-source-rtp-addre Service-Type = 'Login-User' = '0' xpgk-local-disconnect-cause xpgk-src-number-in = '070' = 'porta-billing.pl' Exec-Program-Log Mar 20 06:49:28 [4]: fixup: Use CLD '19093900003' found in xpgk-dst-number-out for connection matching Mar 20 06:49:28 [4]: fixup: h323-ivr-out=PortaBilling Seed:48406 generated from 'h323-conf-id' attribute Mar 20 06:49:28 [0]: h323-conf-id=DE46E951 597C6F01 A202D220 0000000/34, callid= Mar 20 06:49:28 [0]: session-id=DE46E951 597C6F01 A202D220 0000000/34 Mar 20 06:49:28 [4]: The session already exists in cache, last activity at Fri Mar 20 06:48:55 2009 Mar 20 06:49:28 [3]: Copied account: <Account i="46693" id="070" model="debit" balance="100000.00000"/> of <Customer i="453" name="Main" balance="112.64867"/> and charge info found on Accounting/Stop/originate/VoIP@206.248.148.72/Mar 20 06:48:55 into current request Mar 20 06:49:28 [3]: Looking for a connection 3/VoIP/originate Mar 20 06:49:28 [3]: Found connection with remote IP address '195.138.219.146' and GW name '303': <Connection i="281" name="PortaSIP-146"/>

```
Mar 20 06:49:28 [3]: Found vendor: <Vendor i="225" name="Internal"/>
Mar 20 06:49:28 [3]: End of the outgoing session for logged in account, waiting
                     another outgoing session or hang up
Mar 20 06:49:28 [3]: Call lifetime in cache set with 15s to Fri Mar 20 06:49:43
                     2009 (-1717s)
Mar 20 06:49:28 [4]: Applying connection translation rule on CLD ...
Mar 20 06:49:28 [4]: Translation 's/8647$/0000/' applied: '19093900003'
                     unchanged
Mar 20 06:49:28 [5]: PrepareNexecute 'FindNumberPortability'
Mar 20 06:49:28 [5]: SQL query 'FindNumberPortability' executed in 0.007919
                     seconds
Mar 20 06:49:28 [3]: Charge <Tariff i="437" name="cInterOps"/> of Account.
                     Building XDR ...
Mar 20 06:49:28 [4]: Using peak rate, since no off-peak is defined
Mar 20 06:49:28 [5]: Reusing existing <Rate::Standard i="187479"
                     pattern="19093900003" seed="48406" destination="1"/>
Mar 20 06:49:28 [3]: Charge built: <XDR::Account pay="0.022 USD" use="33
                     second" history="+1x1x0.04+32x1x0.04" more=""/> by
                     <Rate::Standard i="187479" pattern="19093900003"
                     seed="48406" destination="1"/>
Mar 20 06:49:28 [3]: Charge <Tariff i="436" name="vPortaOne Termination"/> of
                     Vendor. Building XDR ...
Mar 20 06:49:28 [4]: Using peak rate, since no off-peak is defined
Mar 20 06:49:28 [3]: Looking up rate for '19093900003' in <Tariff i="436"
                     name="vPortaOne Termination"/>
Mar 20 06:49:28 [5]: PrepareNexecute 'GetPricePerDestination'
Mar 20 06:49:28 [5]: SQL query 'GetPricePerDestination' executed in 0.004231
                     seconds
Mar 20 06:49:28 [3]: Charge built: <XDR::Vendor pay="0.011 USD" use="33 second"
                     history="+1x1x0.02+32x1x0.02" more=""/> by <Rate::Standard
                     i="187476" pattern="19093900003" seed="0"
                     destination="1"/>
Mar 20 06:49:28 [5]: PrepareNexecute 'InsertAccountCDR'
Mar 20 06:49:28 [5]: SQL query 'InsertAccountCDR' executed in 0.001861 seconds
Mar 20 06:49:28 [5]: PrepareNexecute 'UpdateAccountBalance'
Mar 20 06:49:28 [5]: SQL query 'UpdateAccountBalance' executed in 0.006028
                     seconds
Mar 20 06:49:28 [5]: PrepareNexecute 'InsertVendorCDR'
Mar 20 06:49:28 [5]: SQL query 'InsertVendorCDR' executed in 0.001836 seconds
Mar 20 06:49:28 [5]: PrepareNexecute 'UpdateVendorBalance'
Mar 20 06:49:28 [5]: SQL query 'UpdateVendorBalance' executed in 0.001504
                     seconds
Mar 20 06:49:28 [5]: PrepareNexecute 'GetActiveLegIdByAcct'
Mar 20 06:49:28 [5]: SQL query 'GetActiveLegIdByAcct' executed in 0.002985
                     seconds
Mar 20 06:49:28 [3]: Accounting response, no attributes.
Mar 20 06:49:28 [0]: ...Done Accounting/Stop/originate/VoIP in 0.140650
                     seconds, 0.026364 spent in SQL queries.
 request: Type: "Accounting/Stop/answer/VoIP" NAS-IP-Address: "206.248.148.72" User-
 Name: "070" Called-Station-Id: "19093900003" Calling-Station-Id: "070"
Mar 20 06:49:28 [0]: Processing request (BE ver1.317.2.2,pid72518)...
Mar 20 06:49:28 [3]: Attributes:
NAS-IP-Address
                                 = '206.248.148.72'
                                 = 'Async'
NAS-Port-Type
                                 = '070'
User-Name
                                = '19093900003'
Called-Station-Id
                                = '070'
Calling-Station-Id
                                = 'Stop'
Acct-Status-Type
                                = 'Login-User'
Service-Type
h323-gw-id
                                = '303'
h323-call-origin
                                = 'answer'
                                 = 'VoIP'
h323-call-type
```

= '13:47:48.294 UTC Fri Mar 20 2009' h323-setup-time = '13:48:22.854 UTC Fri Mar 20 2009' = '13:48:56.313 UTC Fri Mar 20 2009' = '10' = 'DE46E951 59766E01 2202D220 000000 h323-connect-time h323-disconnect-time h323-disconnect-cause = 'DE46E951 597C6F01 A202D220 00000000' h323-conf-id Acct-Session-Id = '0000003-30899578-AV2' = '00000003-30899578-. = '33' = '0' = '00000003-30899578' = '195.138.219.146' = '0:00:34.308592' = '070' = 'DCMU DCMU! Acct-Session-Time Acct-Delay-Time xpgk-record-id h323-gw-address xpgk-pdd-time xpgk-src-number-out xpgk-src-codec h323-remote-id h323-call-id = 'PCMU PCMU' = 'mera test IN-Clone-070' = 'DE46E951 597C6F01 A202D220 00000000' = '0' xpgk-source-faststart = '19093900003' = '195.138.219.146:35148' xpgk-dst-number-in xpgk-dest-rtp-address xpgk-dst-codec = 'PCMU PCMU' xpgk-dst-number-out = '19093900003' xpgk-source-rtp-address = '192.168.1.217:11418' h323-remote-address = '192.168.1.217' xpgk-destination-faststart = '0' = '0:01:08.019071' = '0' xpgk-dest-rtp-address xpgk-scd-time - xpgk-local-disconnect-cause = '0' = '070' Mar 20 06:49:28 [4]: fixup: h323-ivr-out=PortaBilling_Seed:48406 generated from 'h323-conf-id' attribute Mar 20 06:49:28 [0]: h323-conf-id=DE46E951 597C6F01 A202D220 0000000/34, callid= Mar 20 06:49:28 [0]: session-id=DE46E951 597C6F01 A202D220 0000000/34 Mar 20 06:49:28 [4]: The session already exists in cache, last activity at Fri Mar 20 06:49:28 2009 Mar 20 06:49:28 [3]: Copied account: <Account i="46693" id="070" model="debit" balance="99999.978"/> of <Customer i="453" name="Main" balance="112.64867"/> and charge info found on Accounting/Stop/originate/VoIP@206.248.148.72/Mar 20 06:49:28 into current request Mar 20 06:49:28 [3]: Looking for a connection 3/VoIP/answer Mar 20 06:49:28 [4]: End of session on access node Mar 20 06:49:28 [3]: Scheduling 070 for logout Mar 20 06:49:28 [3]: Logging out account '070'(46693) from 'DE46E951 597C6F01 A202D220 0000000' Mar 20 06:49:28 [4]: Incoming access leg with no vendor connection, no charging Mar 20 06:49:28 [5]: PrepareNexecute 'GetActiveLegIdByAcct' Mar 20 06:49:28 [5]: SQL query 'GetActiveLeqIdByAcct' executed in 0.005028 seconds Mar 20 06:49:28 [5]: PrepareNexecute 'UpdateActiveLeg' Mar 20 06:49:28 [5]: SQL query 'UpdateActiveLeg' executed in 0.001606 seconds Mar 20 06:49:28 [3]: Accounting response, no attributes. Mar 20 06:49:28 [0]: ... Done Accounting/Stop/answer/VoIP in 0.038245 seconds, 0.006634 spent in SQL queries. call: Type: "Cleanup" Mar 20 06:50:03 [0]: Removing session DE46E951 597C6F01 A202D220 0000000/34, scheduled for cleanup at Fri Mar 20 06:49:43 2009 Mar 20 06:50:03 [3]: Scheduling 070 for logout Mar 20 06:50:03 [3]: Call lifetime in cache set with 15s to Fri Mar 20 06:50:18 2009 (35s) Mar 20 06:50:03 [3]: Cleaning up the call

```
Mar 20 06:50:03 [3]: Processing
                     Accounting/Stop/originate/VoIP@206.248.148.72/Mar 20
                     06:49:28
Mar 20 06:50:03 [5]: PrepareNexecute 'FindNumberPortability'
Mar 20 06:50:03 [5]: SQL query 'FindNumberPortability' executed in 0.000207
                     seconds
Mar 20 06:50:03 [4]: Account charge already processed
Mar 20 06:50:03 [4]: Vendor charge already processed
Mar 20 06:50:03 [3]: Charged 1 of 1 found outgoing sessions
Mar 20 06:50:03 [3]: Processing
                     Accounting/Stop/originate/VoIP@206.248.148.72/Mar 20
                     06:48:55
Mar 20 06:50:03 [5]: PrepareNexecute 'FindNumberPortability'
Mar 20 06:50:03 [5]: SQL query 'FindNumberPortability' executed in 0.000181
                     seconds
Mar 20 06:50:03 [3]: Charge <Tariff i="560" name="Fake High Priority"/> of
                     Vendor. Building XDR ...
Mar 20 06:50:03 [4]: Using peak rate, since no off-peak is defined
Mar 20 06:50:03 [3]: Looking up rate for '19093900003' in <Tariff i="560"
                     name="Fake High Priority"/>
Mar 20 06:50:03 [5]: PrepareNexecute 'GetPricePerDestination'
Mar 20 06:50:03 [5]: SQL query 'GetPricePerDestination' executed in 0.001809
                     seconds
Mar 20 06:50:03 [3]: Charge built: <XDR::Vendor pay="0 USD" use="0 second"
                     history="0s<1s" more=""/> by <Rate::Standard i="2096572"
                     pattern="19093900003" seed="0" destination="1"/>
Mar 20 06:50:03 [5]: PrepareNexecute 'InsertVendorCDRFail'
Mar 20 06:50:03 [5]: SQL query 'InsertVendorCDRFail' executed in 0.001578
                     seconds
Mar 20 06:50:03 [3]: Processed 1 of 1 found failed outgoing sessions
Mar 20 06:50:03 [5]: Session DE46E951 597C6F01 A202D220 0000000/34 deleted
                     from the cache
```

```
Mar 20 06:50:03 [0]: Session DE46E951 597C6F01 A202D220 0000000/34 removed
```

View MVTS Pro Debug Logs

- 1. In the MVTS Pro web interface, go to **Debugging**, then select **Debug calls**.
- 2. Filter the calls by h323-conf-id. To do this, left-click a row, then choose **Filter**. In a new browser window, set the required filter criteria and press **Apply**.

× (∑→ MVTS Pro							
MVTS Pro	<u> </u>)ebu	g calls				
Administration	Rows: 11-88						
- Geuipment		2.4 - 1	Incomi	na SRC	Incoming DSI	Outroir	0.0
Zones		ID	num	iber	number	num	be
Codec groups		1	88880000	_	C120C402222		
Codec group setup		-	0000000	🔍 Vie	w	1	
E 🔁 Termination		2	0000000	🗋 Del	ete		
Pre-routing translations		3	88880000				
Dial peers		4	88880000	🕠 Del	ete marked		
Routing policies		5	88880000		and the second		
Call simulation		6	000000		ete all filtered		
-Debug calls		-	0000000	W Filt	er 🔹		
Debug registrations		1	88880000	Arra	ange columns		
Real-time information		8	88880000		-		
		9	88880000	😵 Exp	ort data	000	
Global settings		10	55551111		-		
System global settings				Spe	ciar function:		
- 🕒 Web settings			55551111	Get	call log (marked or	selected)	
Disconnect codes		12	55551111	Get	call log (all filtered)		
RADIUS servers ENUM servers		13	55551111		61288888888	55551111	
					.		
Apply Disable					•		
😑 💿 * AND *							
Conference ID			49%				
		Lik	e				
Save filters: Apply De	lete	Sav	e				
🚞 Debug calls 🖾							
ID Incoming Incoming Outgoing Outgoing SRC DST SRC DST number number number number	g Remote signa addr	e orig. Iling vess	Remote term. signaling address	Setup time	Confer	ence ID	
83 61288888888 Rows: < 1.1 Nows: < 1.1	60.241.236	5.28:5060	200	9-July-22 00:08:5	494128BFF6ED4639B6A8/	0D3C90CAAFD0xc0a80)106

3. Left-click the row with the selected call and choose **Get call log** (marked or selected) from the drop-down menu:

💳 Debug calls 🖼 🕰								
	ID	↓ ¹ Incoming SRC number	Incoming DST number	Outgoing SRC number				
Rows: I I I I Delete								
	Get call log (all filtered)							

Debug call/registration log

Print										
Call: @60.241.236.28:5060> 61288888888										
ID		83								
Incoming SRC number										
Incoming DST number			8888888							
Outgo	oing SRC number									
Outgoing DST number										
Remo	te orig. signaling address	60.2	41.236.28:5	060						
Remote term. signaling address										
Setup time			2009-07-22 00:08:55							
Confe	erence ID	494128BFF6ED4639B6A8A0D3C90CAAFD0xc0a80106								
Collap	Collanse all Exnand all									
	Security of an and an									
ID	Packet timestamp		Direction	Packet type	Protocol	Orig. IP address	Term. IP address			
838	2009-07-22 00:08:54.748571		IN	INVITE	SIP	60.241.236.28:5060	210.50.6.229:5061			
839	2009-07-22 00:08:54.748681		OUT	RESPONSE: 100	SIP	210.50.6.229:5061	60.241.236.28:5060			
840	2009-07-22 00:08:54.749011		OUT	VoipCallBegin	VOIP	signaling-1	scripting-1			
841	2009-07-22 00:08:55.443378		IN	VoipCallReject	VOIP	scripting-1	signaling-1			
842	2009-07-22 00:08:55.443647		OUT	RESPONSE: 404	SIP	210.50.6.229:5061	60.241.236.28:5060			
843	2009-07-22 00:08:55.561709		IN	ACK	SIP	60.241.236.28:5060	210.50.6.229:5061			
Ten										