EdgeMarc Configuration Guide

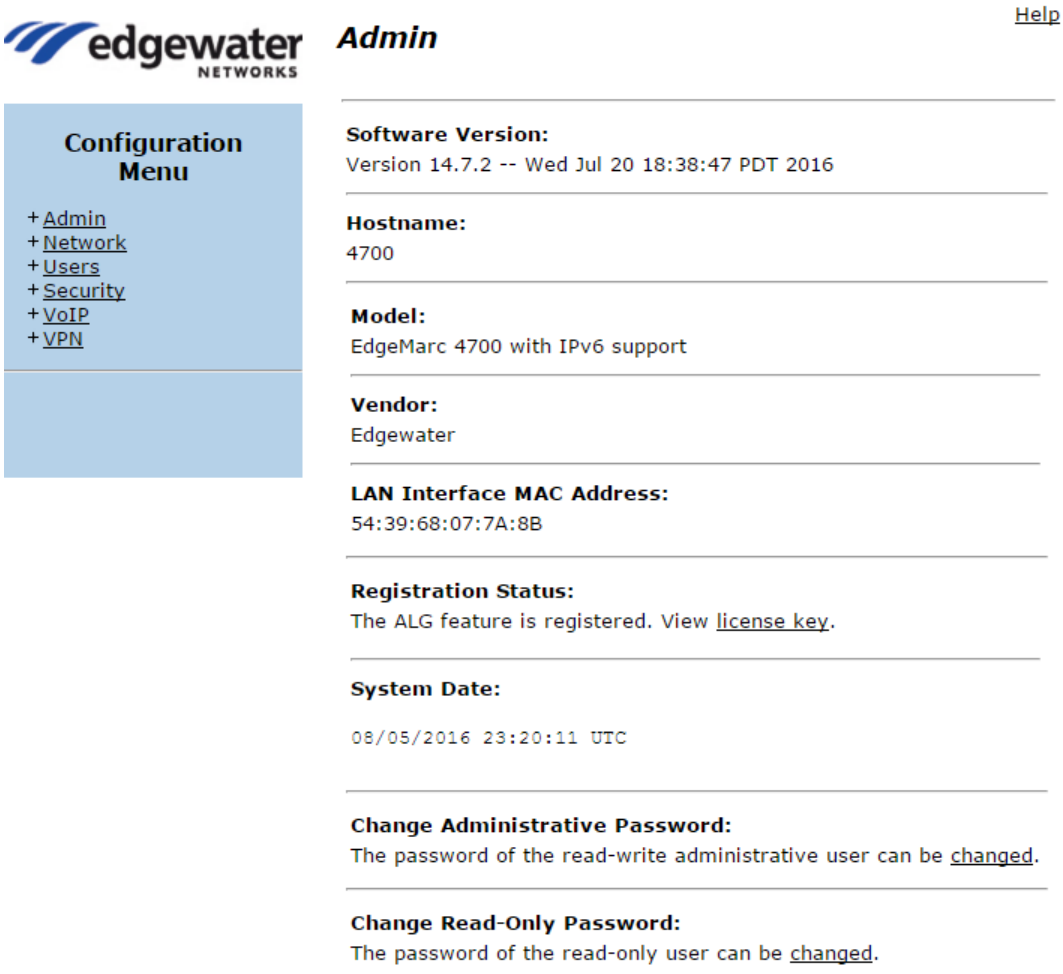
E-SBC Information

Manufacturer:	Edgewater Network, Inc.
Model:	4700
Software Version:	VOS 14.7.2
Date:	8/5/2016

This document describes the basic EdgeMarc configuration steps for a SIP Trunk offering. It is assumed that the reader is familiar with the EdgeMarc setup process. Items like LAN side IP setting, NAT, FW, Remote Management, DHCP Server, Services Configuration and many other EdgeMarc features are not covered in this document.

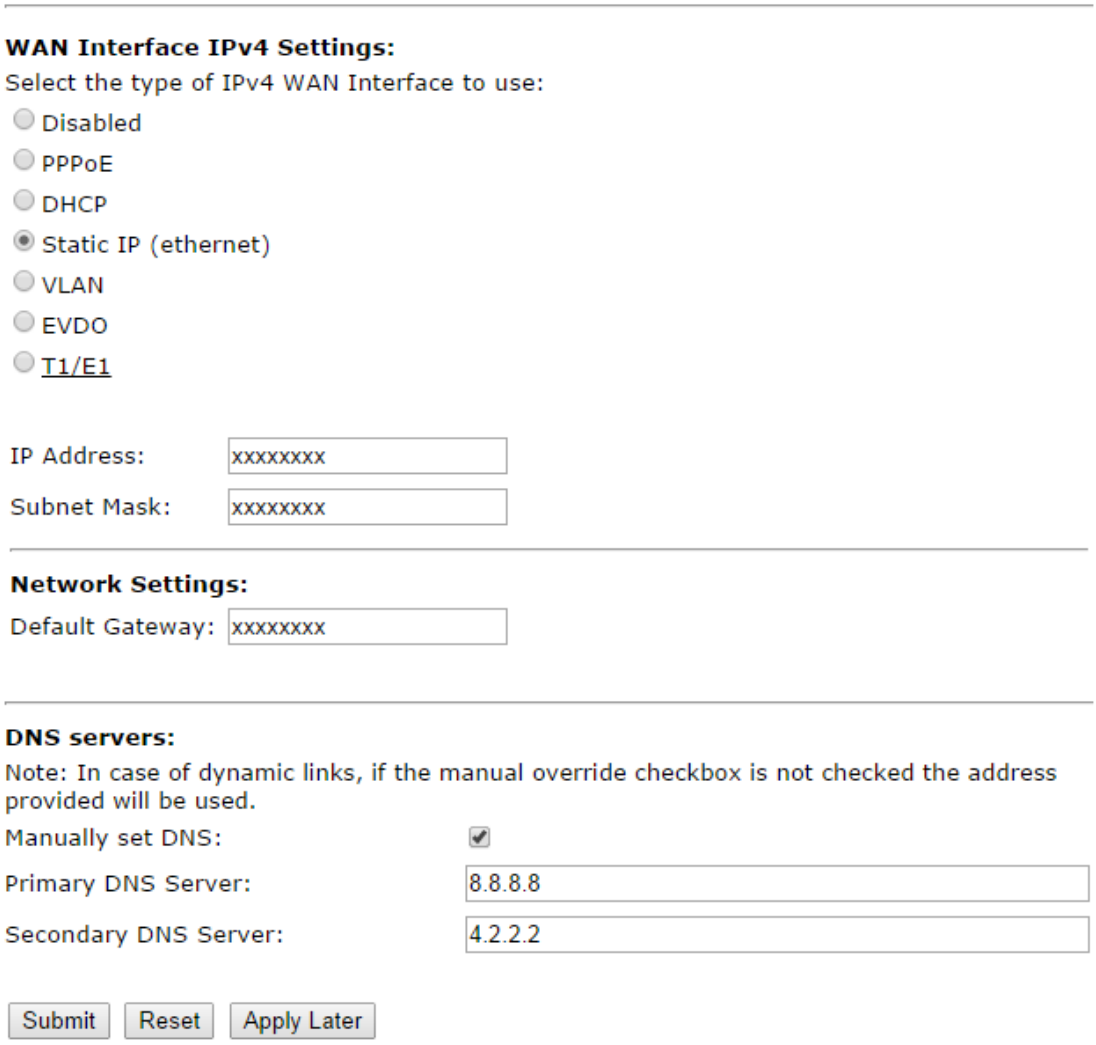
The EdgeMarc is shipped with the default LAN IP address of 192.168.1.1/24.
Go to the **Admin** page and verify that the VOS version loaded on the EdgeMarc is 14.7.2.

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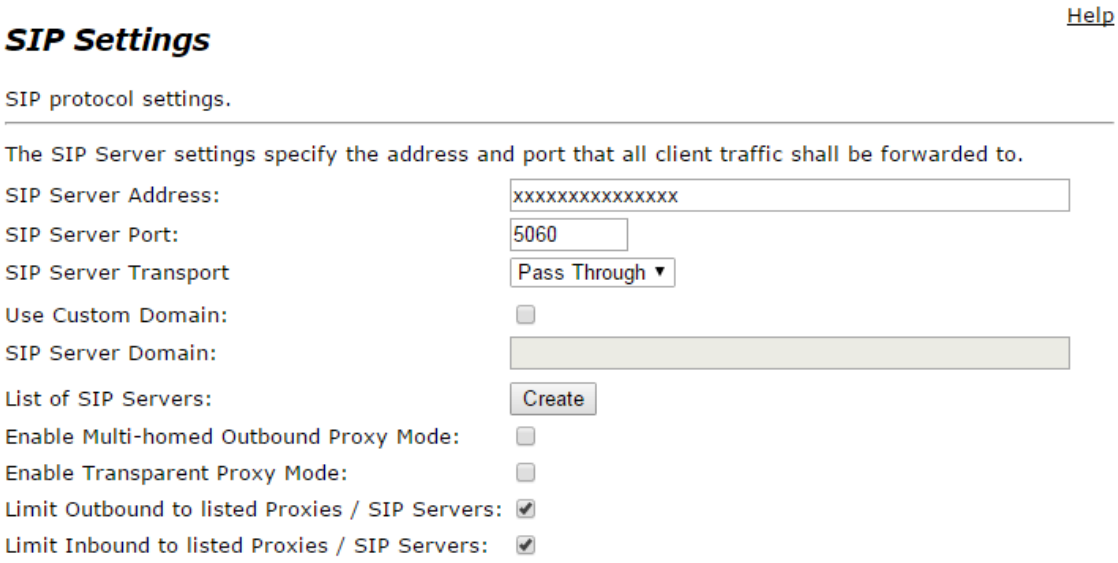
Navigate to the **Network page** and select the **Static IP** option under the **WAN Interface IPv4 Settings** section.



Navigate to **VoIP ALG**>**SIP** to configure the SIP server settings for the provider. Enter the WAN Server address next to the **SIP Server Address** field. Enter **5060** next to the **SIP Server Port** field. **Use Custom Domain** may be left unchecked. When done click the **Submit** button below.

NOTE: Make sure and check the **Limit Inbound to listed Proxies** and **Limit Outbound to listed Proxies** to help prevent fraudulent activity sourced from a LAN side PBX or a WAN side attack.

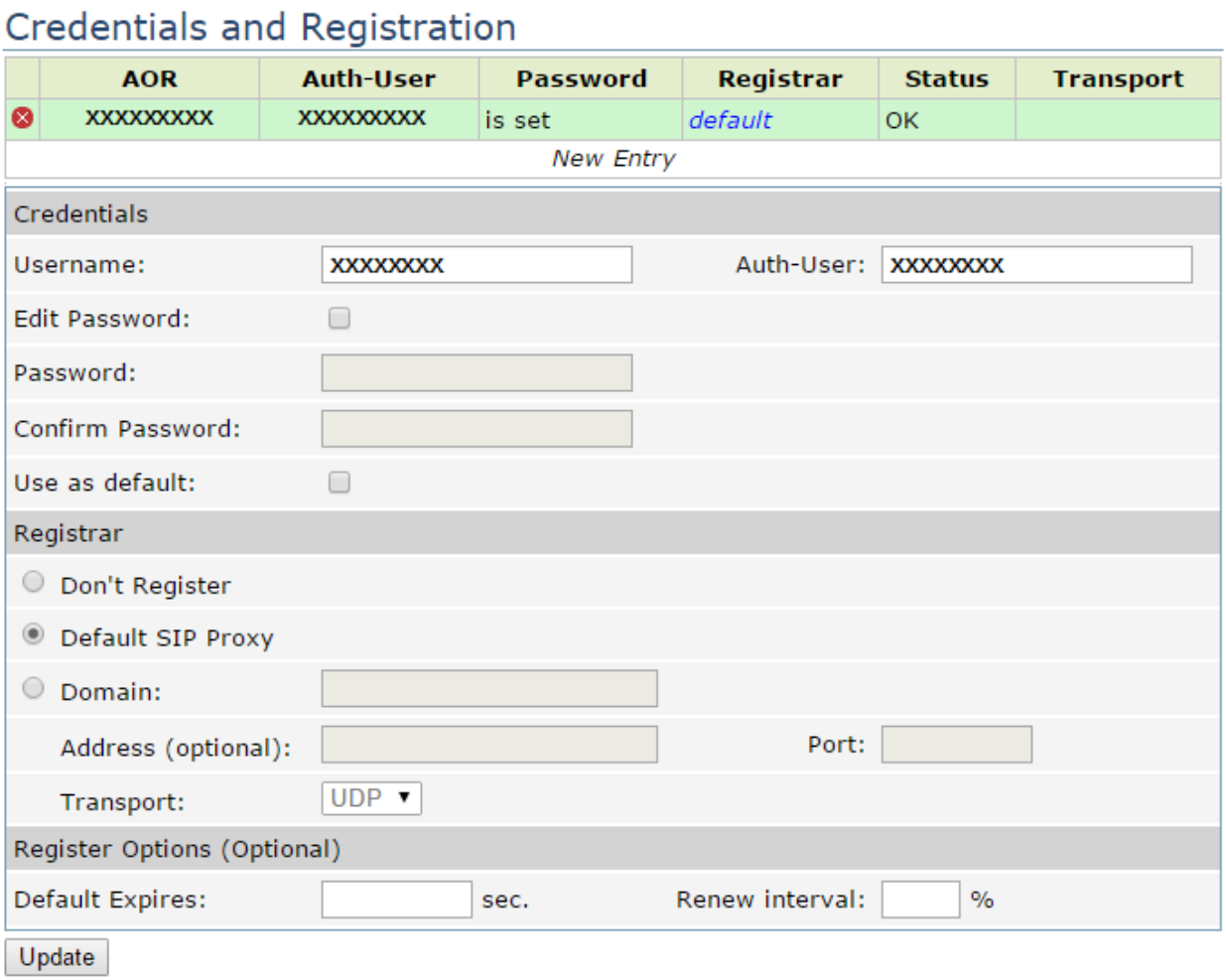
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Navigate to **VoIP ALG**>**B2BUA** to configure SIP Trunk registration with the soft-switch and the PBX and to create routing rules.

The first section is configuring the EdgeMarc for SIP Trunk registration with the soft-switch. From the **Trunk** section enter the **Username, Auth-User** and **Password** while leaving **Use as default** unchecked for this first line. Below click **Default SIP Proxy** then click **Update**.

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After the B2BUA configuration page is complete and **Submit** is clicked, the **Status** field will display **OK** if there was successful registration between the EdgeMarc and the soft-switch.

Now enter a new entry but this time check **Use as default** and only enter **Auth-User** and **Password**. This step will prevent the EdgeMarc from sending a 401 back to the PBX. Click **Update** then **Submit** at the bottom of the page to send the configuration to the EdgeMarc.

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Credentials and Registration

	AOR	Auth-User	Password	Registrar	Status	Transport
⊗	xxxxxxxx	xxxxxxxx	is set	*default*	OK	
⊗	*default*	xxxxxxxxx	is set			
			New Entry			

Credentials

Username: Auth-User: xxxxxxxx

Edit Password: ☐

Password:

Confirm Password:

Use as default: ☑

Registrar

◉ Don't Register

○ Default SIP Proxy

○ Domain:

Address (optional): Port:

Transport: UDP ▾

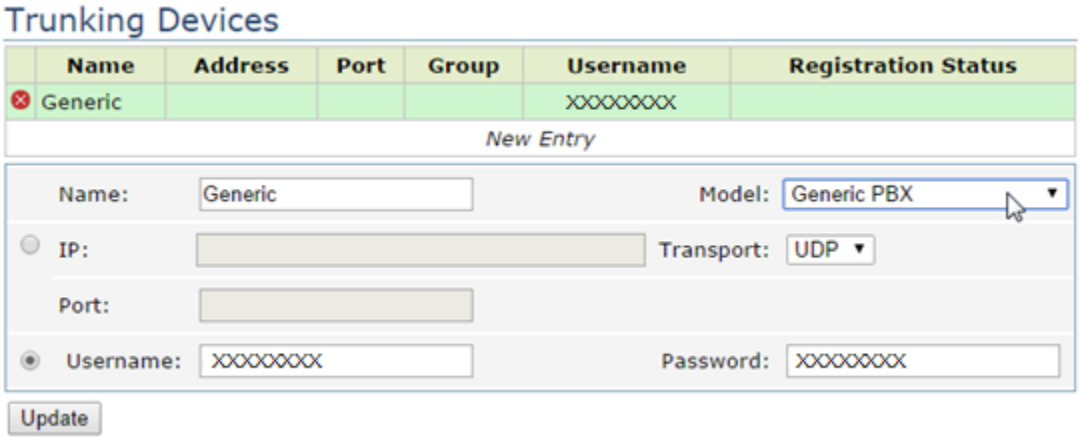
Register Options (Optional)

Default Expires: sec. Renew interval: %

Update

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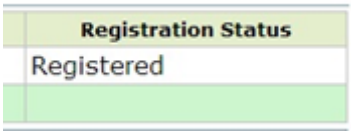
The next section is configuring SIP registration between the PBX and the EdgeMarc. From the **Trunking Devices** section click **New Entry** to get a new entry for a Trunking Device. Enter a PBX name in the **Name** field. Select the corresponding PBX from the drop-down list of the **Mode**l field or enter a name next to **Name**.



Select SIP Registration mode by selecting the radio button for using the **Username** field and **Password** field**.** Enter the pilot DID in the **Username** field. Enter the password in the **Password** field.

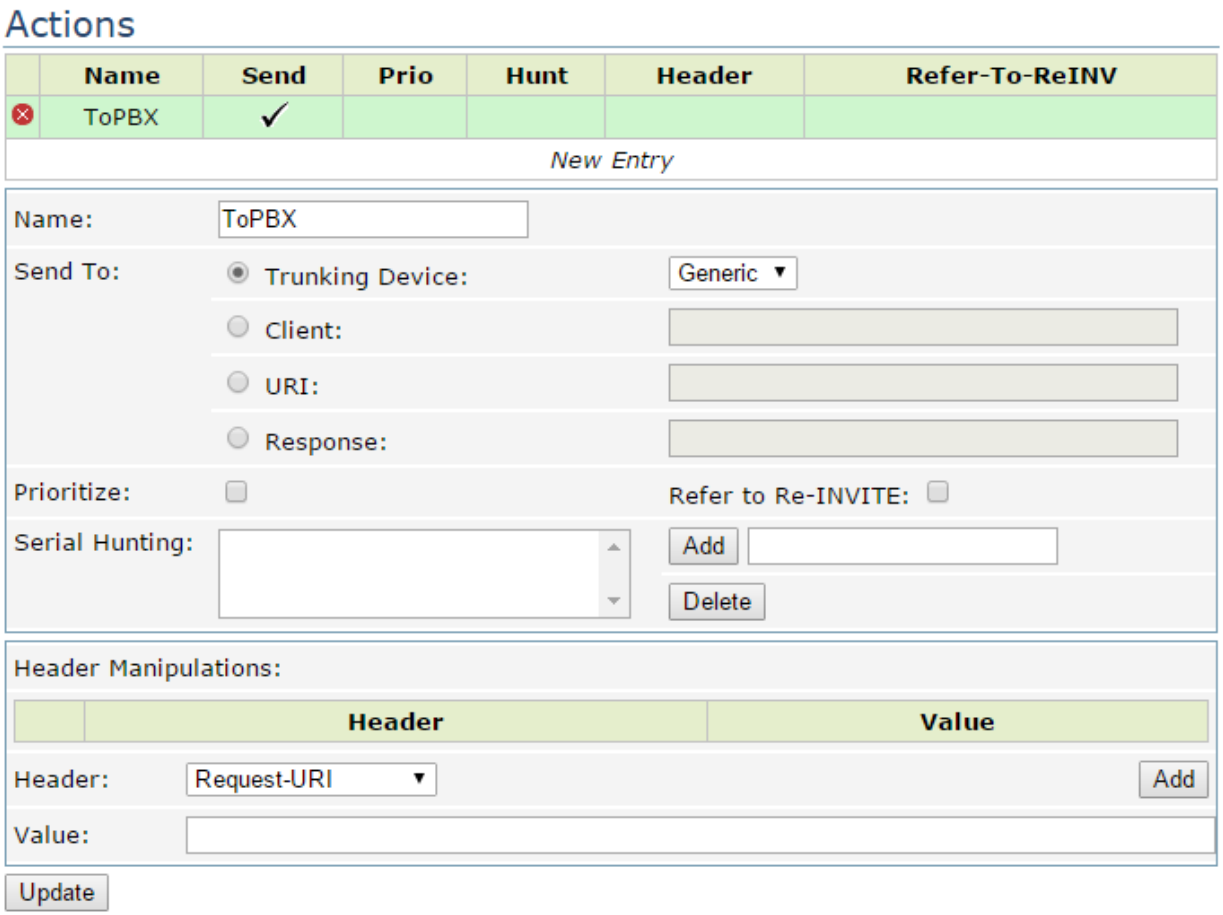
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Click **Update** then **Submit** at the bottom of the page to send the configuration to the EdgeMarc. The **Registration Status** field will display **Registered** if registration between the PBX and the EdgeMarc was successful.



The next section is for configuring an EdgeMarc inbound rule for sending the SIP messages from the EdgeMarc to the PBX.

From the **Actions** section click **New Entry** to get a new entry for creating an inbound action. Enter the action name in the **Name** field. Select the radio button of **Trunking Device** and select the configured PBX from the drop-down list. Click the **Update** button.

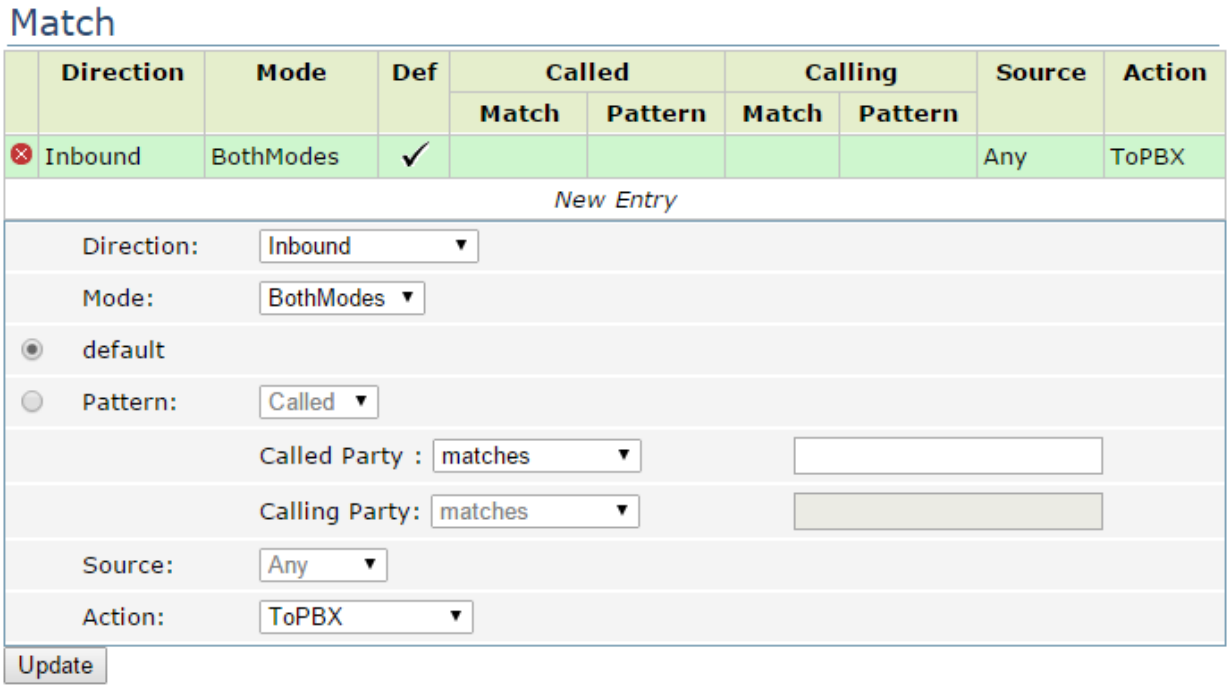


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As it relates to outbound action rules in this section, this is typically required when Header Manipulation rules are needed for interoperability with the WAN Server.

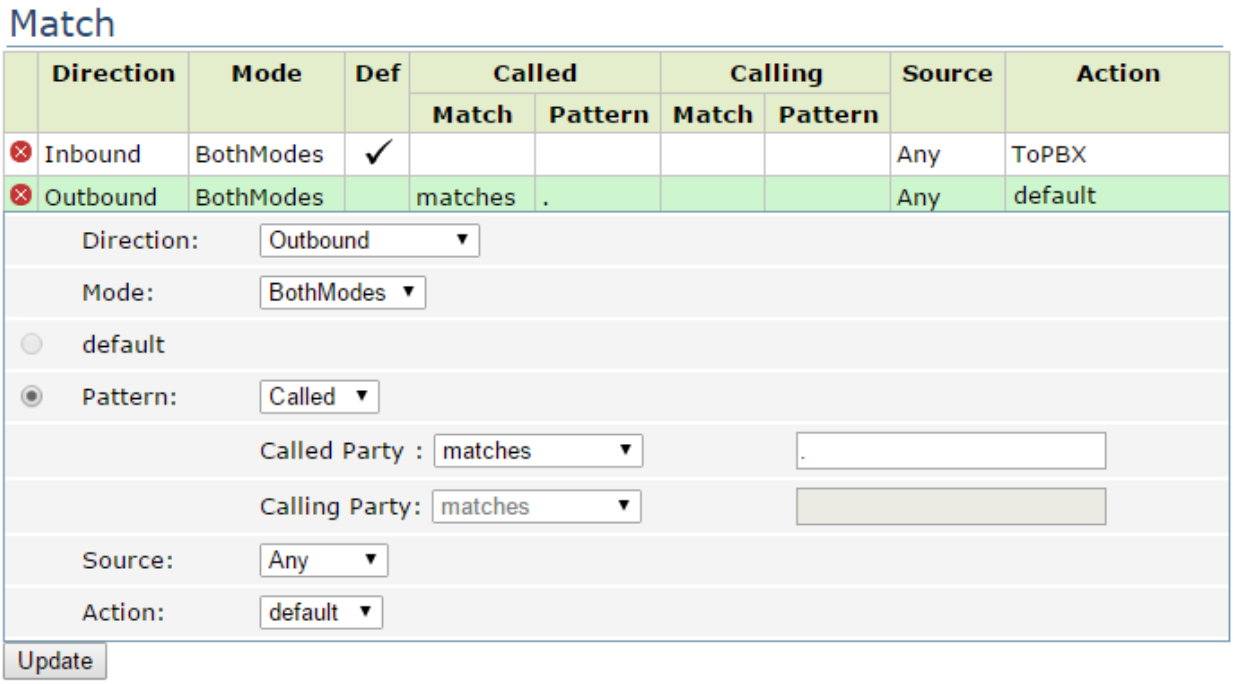
When done click **Add** then **Update**. Click **Submit** at the bottom of the page to send the configuration to the EdgeMarc.

Now from the **Match** section click **New Entry** to get a new entry for an inbound match rule. Select **Inbound** in the **Direction** field. Select the radio button of **default**. Select **ToPBX** from the drop-down list of the **Action** field.
Click the **Update** button.



Now click **New Entry** again to start a new entry for an outbound match rule. Select **Outbound** in the **Direction** field. Select the radio button of **Pattern** followed by **Called** from the drop-down list and enter a "**.**" to match everything. To match specific numbers instead, simply click the **Help** button above for instructions. Select **Any** from the **Source** field. Select **default** from the drop-down list of the **Action** field. Click the **Update** button.

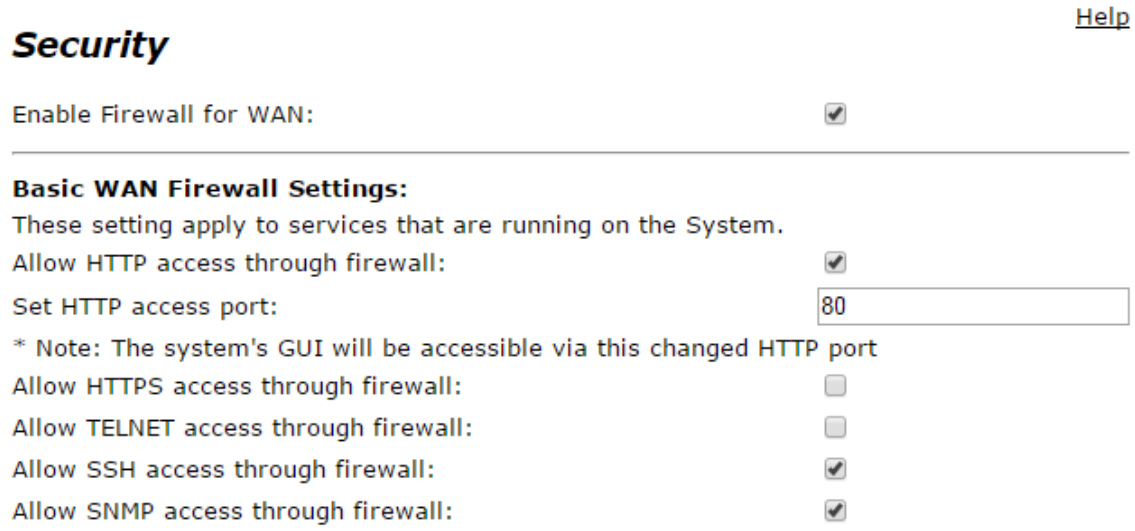
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Click **Submit** at the bottom of the page to send final configurations to the EdgeMarc.

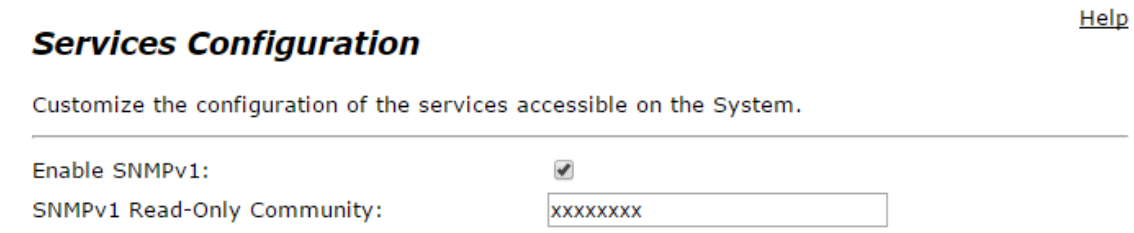
The following section applies to the Edgeview monitoring system & guides how to add an EdgeMarc, verify call quality, & generate or import templates.

To add an EdgeMarc to the EdgeView its important first to perform configuration from the EdgeMarc SBC. From the EdgeMarc navigate to **Security** and ensure that **SNMP** and **SSH** are checked.

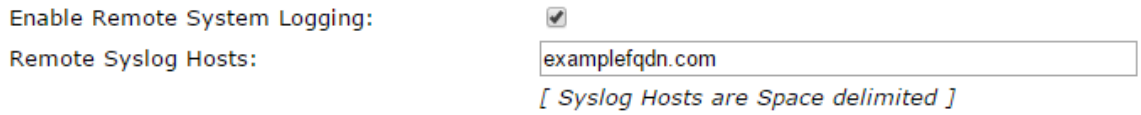


Then navigate to **Services Configuration**. From the top check **Enable SNMPv1**. Enter a community value next to **SNMPv1 Read-Only Community**.

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Down below check **Enable Remote System Logging** then enter the fqdn of the EdgeView system next to **Remote Syslog Hosts**.



Click **Submit**.

From the Edgeview system click on the aprropriate group from the left.



Now click **Add EdgeMarc**.

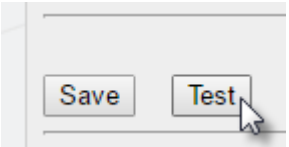


Now enter a name for the EdgeMarc. Enter the WAN IP address of the EdgeMarc being added next to **Primary IP Address or FQDN**. Verify the Group that the EdgeMarc is being added to next to **Group**. The **SNMP Port** can remain **161**. Enter the **SNMP Community** value & ensure it matches the value that exists by the EdgeMarc being added. Enter the **SSH Password** of the EdgeMarc & again ensure it matches the value of the EdgeMarc being added.

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Name:	EdgeMarc
Created Date:	2017-01-11 10:26:39 (YYYY-MM-DD hh:mm:ss)
Description:	
Primary IP Address or FQDN:	xxxxxxxxx
MAC Address:	
Group:	QuickConnect
SNMP Port:	161
SNMP Community: (leave blank to use default, if any)	••••••
SSH Root:	root
SSH Password: (leave blank to use default, if any)	••••••
SSH Port:	22

When done click **Save** below. To verify connectivity to the EdgeMarc click **Test**.

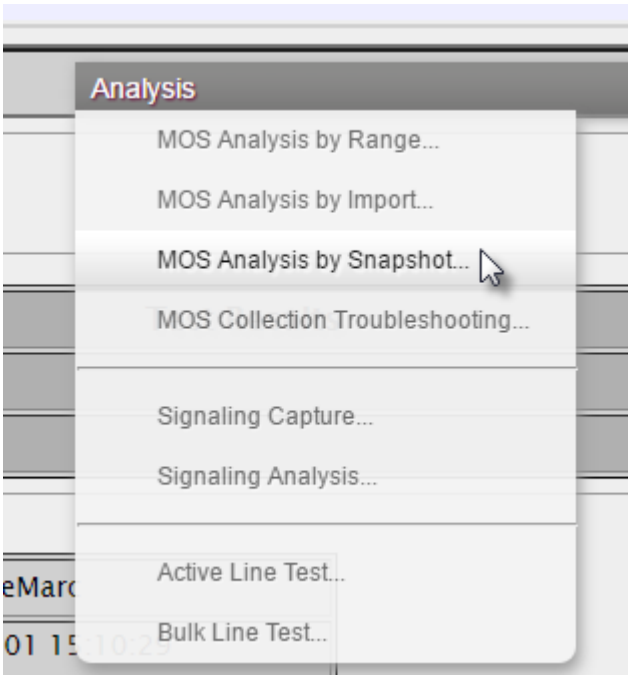


If the configuration was successful a result of **OK** will be displayed for both the **SSH Test** and the **SNMP Test**.

Test Results	
SSH Test	OK
SNMP Test	OK

To test audio quality of a call from an EdgeView first click on the EdgeMarc from the left hand column. Then navigate to **Analysis** and click on **MOS Analysis by Snapshot**.

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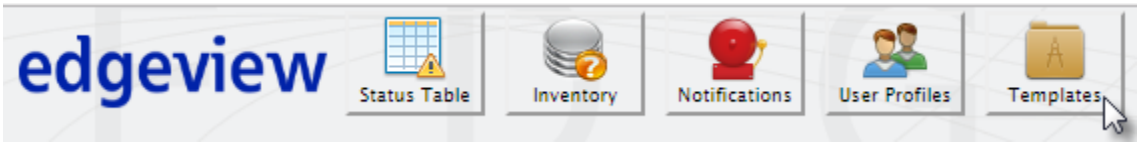


Thereafter a screen will appear displaying MOS Analysis for different call legs. Refer to the MOS column for evaluation. Below is an example for illustrative purposes.

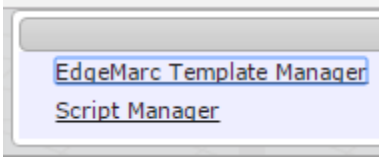
MOS	CMOS	BTC	PJ	PPL	LP	RR	SRE	OOP	PD	MPJ	PLB	IFACE	R_LQ	R_CQ	R_G107	R_NOM	R_BURST	R_GAP	EXCESS_BURST
4.41	4.41	0	0.00	0.00	0	115	115	0	0.19	0.25	0.00	eth0	93	93	92	93	93	93	0
4.41	4.41	0	0.00	0.00	0	70	70	0	0.13	0.13	0.00	eth1	93	93	92	93	93	93	0

MOS	CMOS	BTC	PJ	PPL	LP	RR	SRE	OOP	PD	MPJ	PLB	IFACE	R_LQ	R_CQ	R_G107	R_NOM	R_BURST	R_GAP	EXCESS_BURST
4.41	4.41	0	0.00	0.00	0	115	115	0	0.19	0.25	0.00	eth0	93	93	92	93	93	93	0
4.41	4.41	0	0.00	0.00	0	70	70	0	0.13	0.13	0.00	eth1	93	93	92	93	93	93	0
4.41	4.41	0	0.00	0.00	0	4686	4686	0	0.19	0.38	0.00	eth0	93	93	92	93	93	93	0
1.49	1.49	3	0.00	100.00	1902	1974	3876	0	0.06	0.25	2536.00	eth1	27	27	36	93	15	93	756

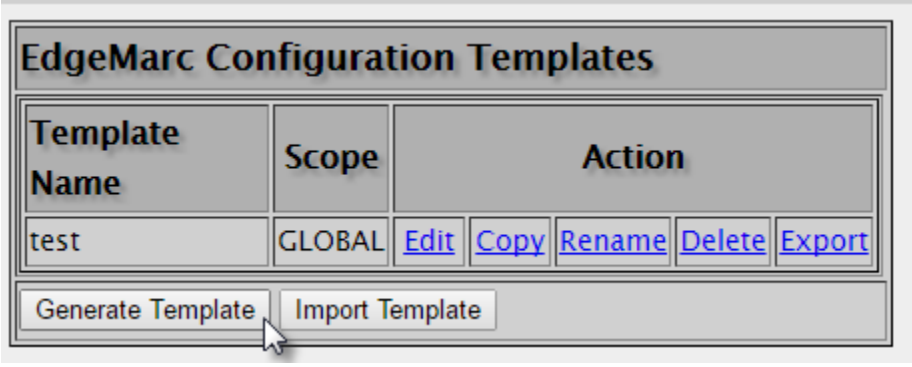
To generate a template from the Edgeview click **Templates** from above then click **EdgeMarc Template Manager**.



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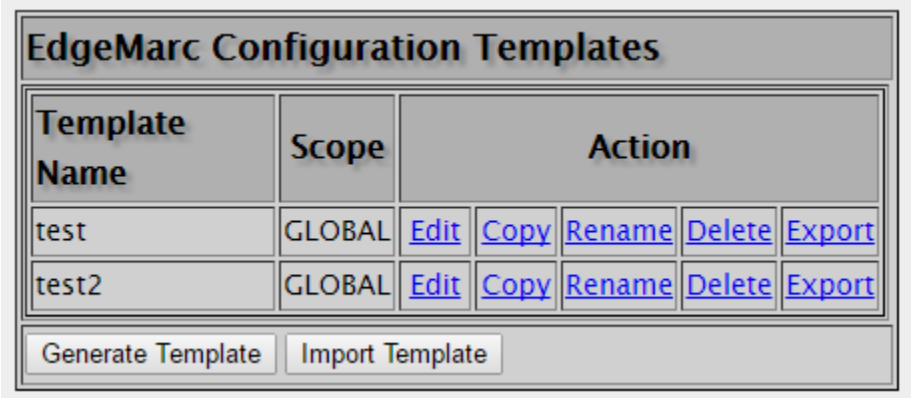
Under the **EdgeMarc Configuration Templates** page click **Generate Template**.



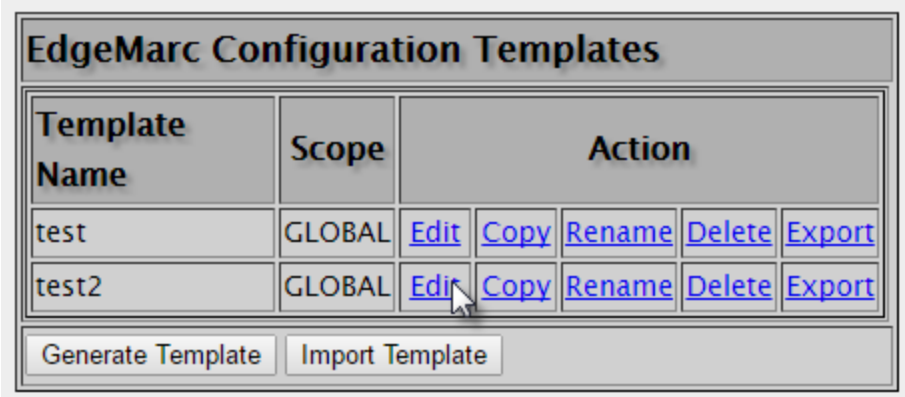
Enter the name of the EdgeMarc the template should be generated from then enter a name next to **Template Name**. It's important that the name of the EdgeMarc exactly matches the name under the device tree. Click **Submit**.



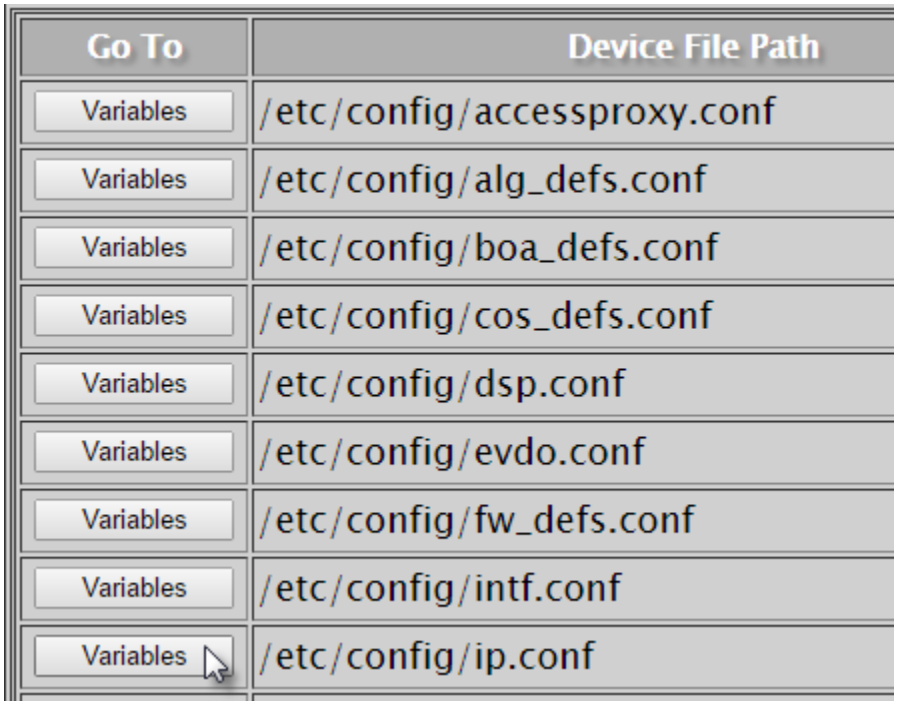
The **EdgeMarc Configuration Templates** page will show **Pending** until the template is generated. Thereafter the template will be available as displayed.



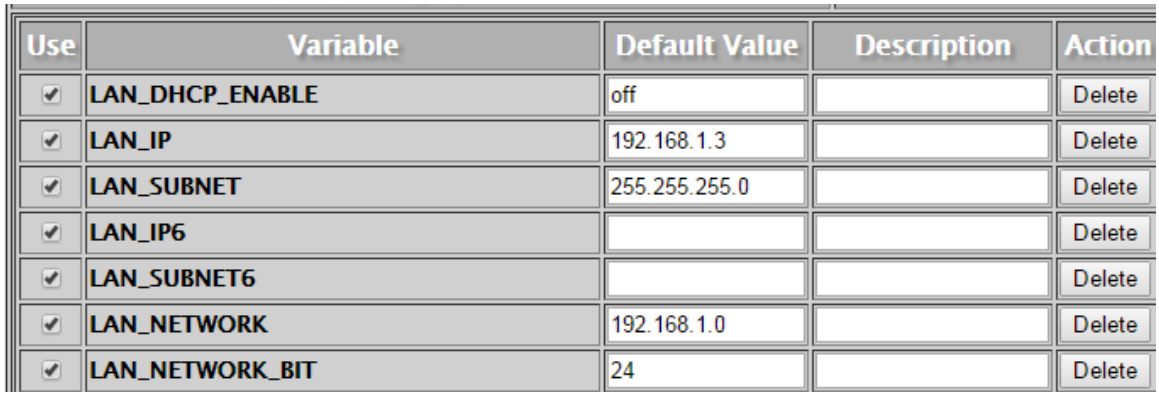
You may also access the **EdgeMarc Configuration Template Editor** to edit an existing template & redeploy it to an indivudual EdgeMarc or a group of EdgeMarcs. Choose the appropriate template & click **Edit** as shown.



Variables of the configuration file will be displayed, you may click a variable you would like to change.

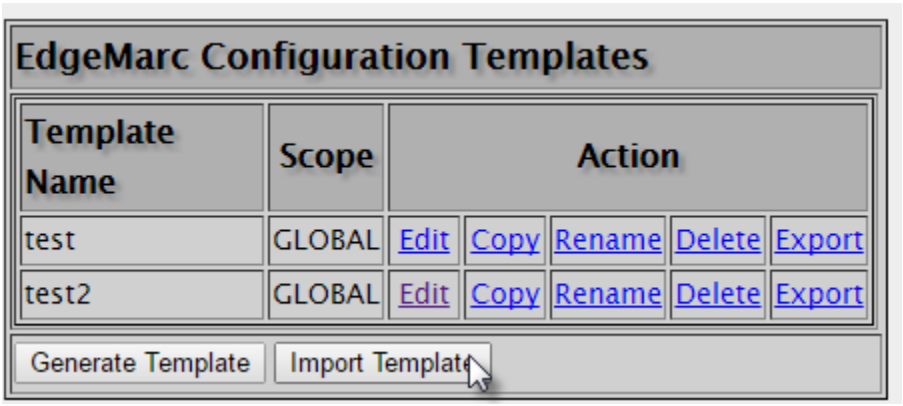


Values may be changed or deleted as needed. To save changes click **Submit**.

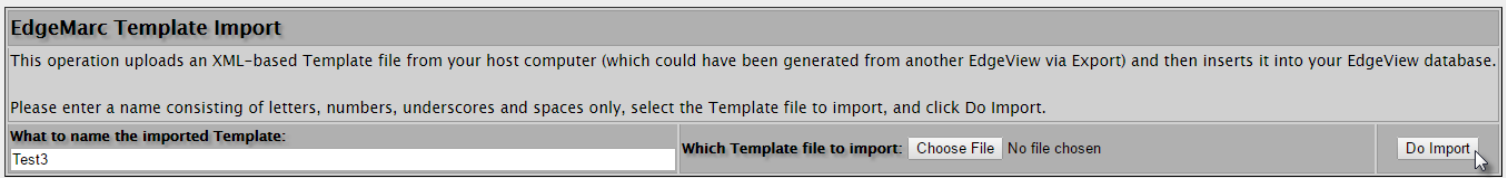


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To import a template simply click **Import Template** under **EdgeMarc Configuration Templates**.



Assign a unique name next to **What to name the imported Template** then click **Choose File** to locate and import a file from your local drive. Click **Do Import** when finished.



Once the import function completes, the template will be added to the **EdgeMarc Configuration Templates** page.

For advanced configurations and support please contact the Edgewater Technical Assistance Center support@edgewaternetworks.com or call 408.351.7255.