



# Service Managed Gateway™

## How to Configure a Default Route

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<b>1</b>	<b>About this document .....</b>	<b>3</b>
<b>1.1</b>	<b>Scope .....</b>	<b>3</b>
<b>1.2</b>	<b>Readership .....</b>	<b>3</b>
<b>1.3</b>	<b>More information.....</b>	<b>3</b>
<b>2</b>	<b>Introduction .....</b>	<b>4</b>
<b>3</b>	<b>Configuring the SMG.....</b>	<b>5</b>
<b>3.1</b>	<b>Configuring a default route on the SMG.....</b>	<b>5</b>
3.1.1	Configure an IP default route .....	6
<b>4</b>	<b>Diagnostics.....</b>	<b>9</b>
4.1.1	Default route diagnostics .....	9

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# 1 About this document

This document describes how to set up default route on a Service Managed Gateway (SMG).

## 1.1 Scope

This document explains how to:

- configure a default route; and
- utilise the diagnostics tool on the SMG.

## 1.2 Readership

This document is for engineers who have previous experience configuring and managing networks.

## 1.3 More information

For more information about managing the SMG, read the Service Managed Gateway documentation. The current documentation is available online at <http://virtualaccess.com/smgdocs/>

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## 2 Introduction

When IP is enabled, the router can be configured to use a default route when it cannot determine a route based on the IP datagram's destination address. When the router is used as an access router, the default route is normally set to a router at the remote end of a PPP link. The IP Default Route form is used to enable a default route and specify the next hop or location to send the datagrams.

A default route can be:

- Numbered: the route is targeted to a particular IP address.
- Unnumbered: the route is targeted to an interface for example, pp-1.

**Note:** you cannot use unnumbered default routes for Ethernet or bridged interfaces.

## 3 Configuring the SMG

The Service Managed Gateway (SMG) contains an internal web server that is used to configure the SMG. Before you can access the internal web server and start the SMG configuration, you must ensure that your PC has the correct networking set up.

To enable and configure connections on your SMG, the gateway must be correctly installed, and a valid service must be configured on it.

When your Service Managed Gateway is correctly connected to your PC, type `fast.start` into the URL line of your browser to display the Start page.



**Figure 1: The SMG start page**

If a login page appears type in the login password you received from your administrator.

If you have not received a password, contact the Virtual Access Support team.

Access the Fast Start Wizard by clicking the Fast.Start icon on the Start page of the embedded web.

The Fast Start Wizard will guide you through a series of forms that you must complete to configure your SMG.

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## 3.1 Configuring a default route on the SMG

To configure a default route on the SMG, click **Advanced** on the SMG start page. The Advanced menu appears.

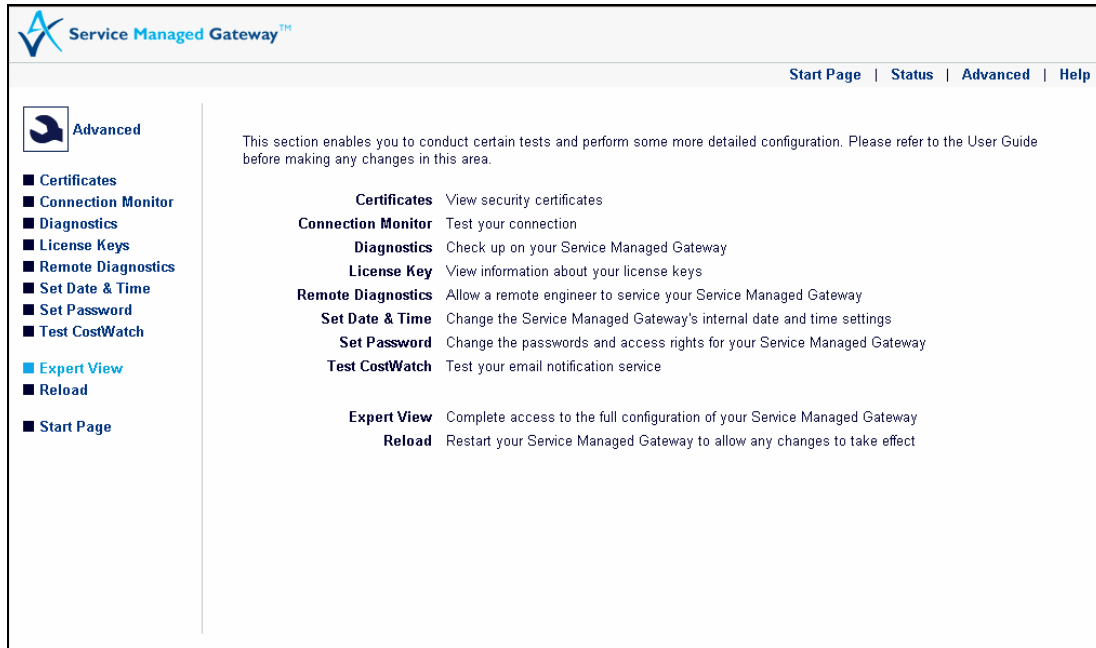


Figure 2: The advanced menu showing expert view

In the Advanced menu, click **Expert View**.

### 3.1.1 Configure an IP default route

In the Expert View menu, select **system -> ip -> default route**. The IP Default Route page appears.

## IP Default Route

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**Configured** Yes ▾

**Route Type** unnumbered ▾

**Next Hop For Numbered Interfaces** 0 0 0 0

**Next Hop For Unnumbered Interfaces** ppp-1 ▾

**Metric** 1

Figure 3: The IP default route window

Field	Description	Command Line				
<b>Configured</b>	<p>A default route can be configured and then activated or deactivated.</p> <p>Activates or deactivates the default route.</p> <table border="1"> <tr> <td><b>yes</b></td> <td>Configure the default route.</td> </tr> <tr> <td><b>no</b></td> <td>Do not configure the default route.</td> </tr> </table>	<b>yes</b>	Configure the default route.	<b>no</b>	Do not configure the default route.	<pre>Set IP route default Configured</pre>
<b>yes</b>	Configure the default route.					
<b>no</b>	Do not configure the default route.					
<b>Route Type</b>	<p>Indicates whether the route type is over a numbered or unnumbered link. A numbered link is a link that has been assigned an IP address.</p> <table border="1"> <tr> <td><b>Unnumbered</b></td> <td>Set the default IP route type as unnumbered.</td> </tr> <tr> <td><b>Numbered</b></td> <td>Set the default IP route type as numbered.</td> </tr> </table>	<b>Unnumbered</b>	Set the default IP route type as unnumbered.	<b>Numbered</b>	Set the default IP route type as numbered.	<pre>Set IP route default Numbered</pre>
<b>Unnumbered</b>	Set the default IP route type as unnumbered.					
<b>Numbered</b>	Set the default IP route type as numbered.					
<b>Next Hop For Numbered Interfaces</b>	<p>When a route type is set to numbered, enter the IP address, in dotted-decimal notation, of an adjacent router.</p>	<pre>Set IP route default Next Hop IP</pre>				
<b>Next Hop For Unnumbered Interfaces</b>	<p>When a route type is set to unnumbered, select the interface that provides a connection to the next hop router.</p> <p>Set the Next Hop Interface to one of the options from the drop down list.</p>	<pre>Set IP route default Next Hop interface</pre>				
<b>Metric</b>	<p>Enter the number of hops the datagram must take before it reaches the default router specified in the Next Hop for Numbered Interfaces</p> <table border="1"> <tr> <td><b>Minimum Value</b></td> <td><b>1</b></td> </tr> <tr> <td><b>Default Value</b></td> <td><b>1</b></td> </tr> </table>	<b>Minimum Value</b>	<b>1</b>	<b>Default Value</b>	<b>1</b>	<pre>Set IP route default Metric</pre>
<b>Minimum Value</b>	<b>1</b>					
<b>Default Value</b>	<b>1</b>					

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	<b>Maximum Value</b>	<b>15</b>	
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**Table 1: The default route options table**

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## 4 Diagnostics

The Service Managed Gateway supports extensive remote diagnostics, status and Service Level Agreement (SLA) monitoring capabilities.

The status and diagnostics tools are provided as a series of Java applets.

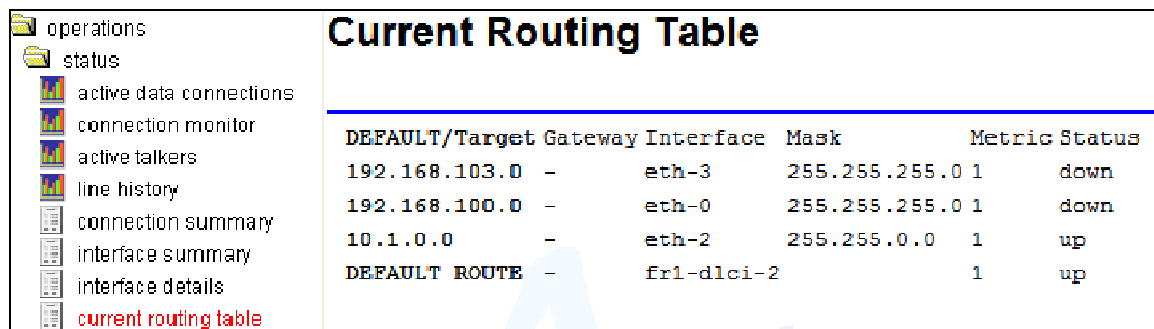
### 4.1 Default route diagnostics

To view default route diagnostics, from the SMG Start page, click **Advanced**.

In the Advanced menu, click **Expert View**.

In the top menu bar, click **Operations**.

In the Operations menu, click **status -> current routing table**.



DEFAULT/Target	Gateway	Interface	Mask	Metric	Status
192.168.103.0	-	eth-3	255.255.255.0	1	down
192.168.100.0	-	eth-0	255.255.255.0	1	down
10.1.0.0	-	eth-2	255.255.0.0	1	up
DEFAULT ROUTE	-	fr1-dlci-2		1	up

Figure 4: The current routing table page

Command line: `show ip route`

```
super> sh ip route

DEFAULT/Target  Gateway      Interface    Mask          Metric  Status
192.168.103.0   -            eth-3        255.255.255.0  1       down
192.168.100.0   -            eth-0        255.255.255.0  1       down
10.1.0.0        -            eth-2        255.255.0.0    1       up
DEFAULT ROUTE   -            fr1-dlci-2                   1       up
```

Figure 4: Output of the command line showing IP route

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