



Configuring the Siemens Gigaset
SE680 WiMAX Subscriber Station
for use with the GTX-102 ASN
Gateway R0 release

White Paper

Version: 1.0



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Configuring the Siemens Gigaset SE680 WiMAX Subscriber Station for use with the GTX-102 ASN Gateway R0 release White Paper, version 1.0



1 PREFACE

This section describes the objectives and audience of this White Paper.

1.1 Objectives

This document explains the steps for initial setup and basic configuration of the Siemens Gigaset SE680 WiMAX Subscriber Station to work in combination with the Gatix GTX-102 Compact Access Service Network Gateway.

1.2 Audience

This document is for the person installing and configuring the Siemens Gigaset SE680 for the first time. The installer should be familiar with network structures, terms, and concepts.

2 CONFIGURATION OF THE GIGASET SE680

In order to configure the Gigaset SE680 WiMAX Subscriber Station for use with the GTX-102 ASN Gateway R0 release, please refer to the "Configuring the WiNetworks Pico Base Station for use with the GTX-102 ASN Gateway R0 release" white paper. The setup detailed in that document is used as a base for configuring the Siemens Gigaset SE680 WiMAX Subscriber Station.

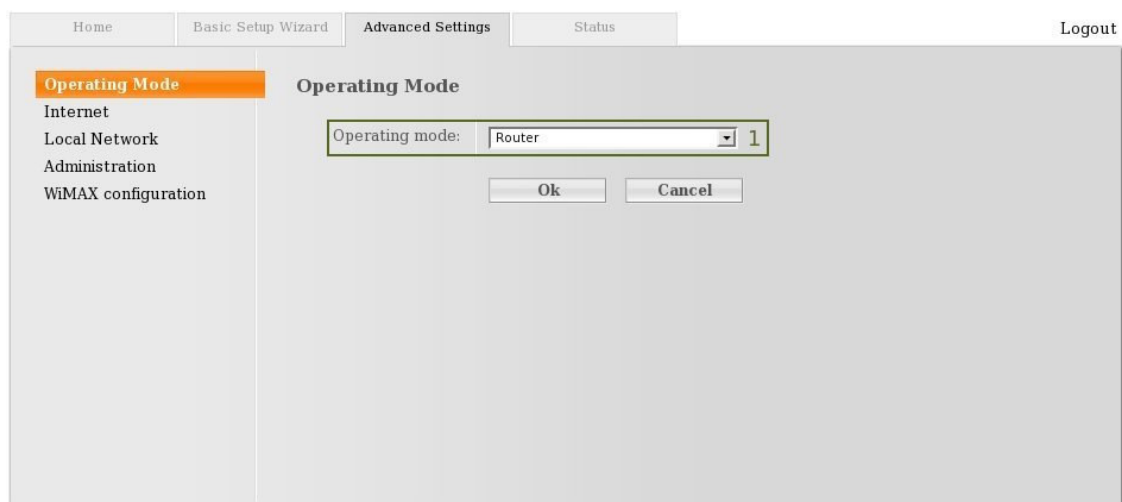
The unit will be configured as a router, much like DSL routers are configured for home networks.

2.1 Logging in to the Gigaset SE680

Log in to the **admin** webpage of the SS (<http://192.168.2.1/admin/> by default), by default the username is **'admin'** and the password is **'admin'**. The remaining part of this section assumes administrator-level access is available.

2.2 Changing Operating Mode to Router

Gigaset SE680 WiMAX

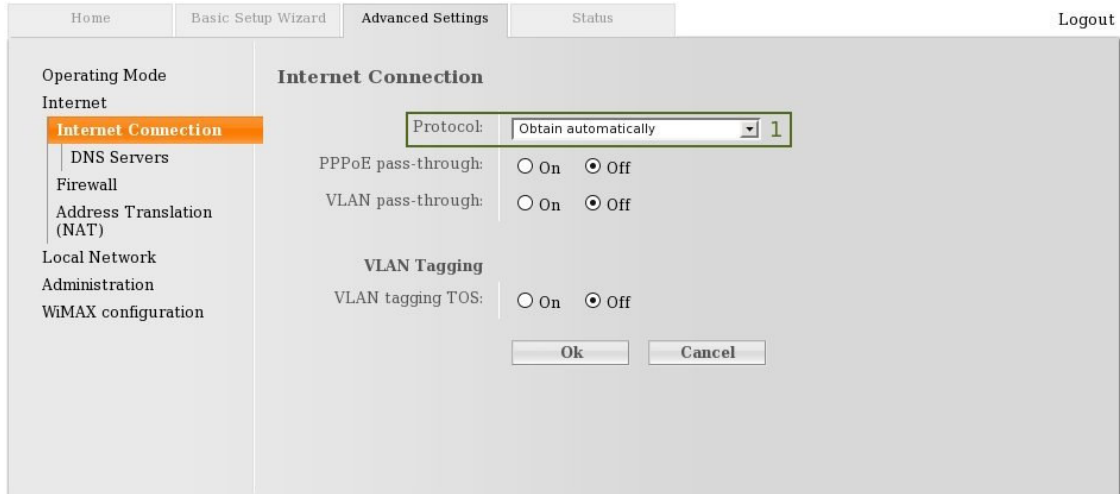


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Figure 1: Siemens Gigaset SE680 WiMAX Operating Mode

First, click on **'Advanced Settings'**, then on **'Operating Mode'**. Refer to *Figure 1*. Change the **'Operating Mode'** to **'Router'**, and then press **'Ok'**.

Gigaset SE680 WiMAX

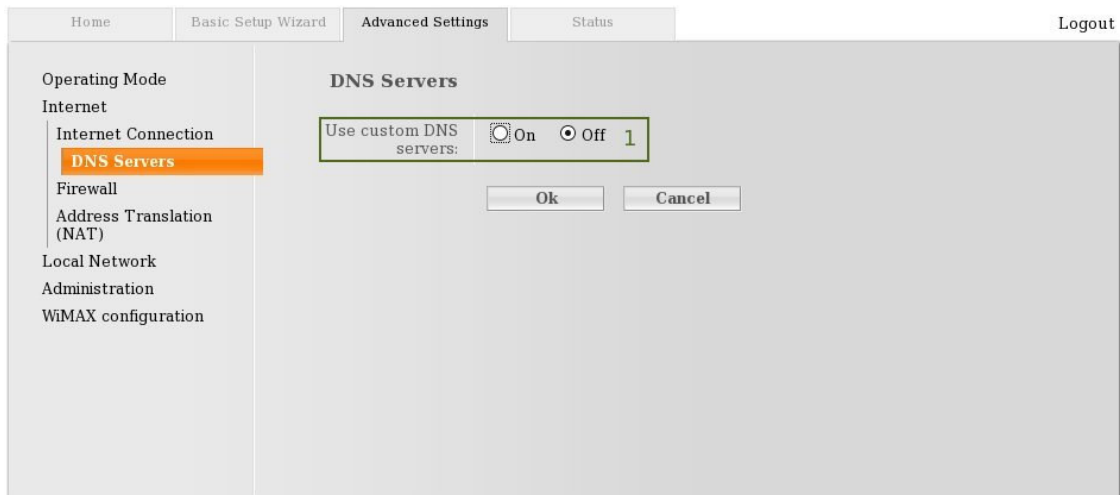


The screenshot shows the 'Advanced Settings' tab for 'Internet Connection'. The 'Protocol' dropdown menu is set to 'Obtain automatically' and is highlighted with a green box. Below it, there are radio buttons for 'PPPoE pass-through' and 'VLAN pass-through', both set to 'Off'. There is also a 'VLAN Tagging' section with a radio button for 'VLAN tagging TOS' set to 'Off'. 'Ok' and 'Cancel' buttons are at the bottom.

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Figure 2: Siemens Gigaset SE680 WiMAX Internet Connection – Protocol

Gigaset SE680 WiMAX



The screenshot shows the 'Advanced Settings' tab for 'Internet Connection'. The 'DNS Servers' section is highlighted with an orange box. The 'Use custom DNS servers' option is set to 'Off' with a radio button. There are 'Ok' and 'Cancel' buttons at the bottom.

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Figure 3: Siemens Gigaset SE680 WiMAX Internet Connection – DNS

Gigaset SE680 WiMAX



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Figure 4: Siemens Gigaset SE680 WiMAX Internet Connection – NAT

Next, click on '**Advanced Settings**', then on '**Internet**' and on '**Internet Connection**'. Refer to *Figure 2, 3 and 4*.

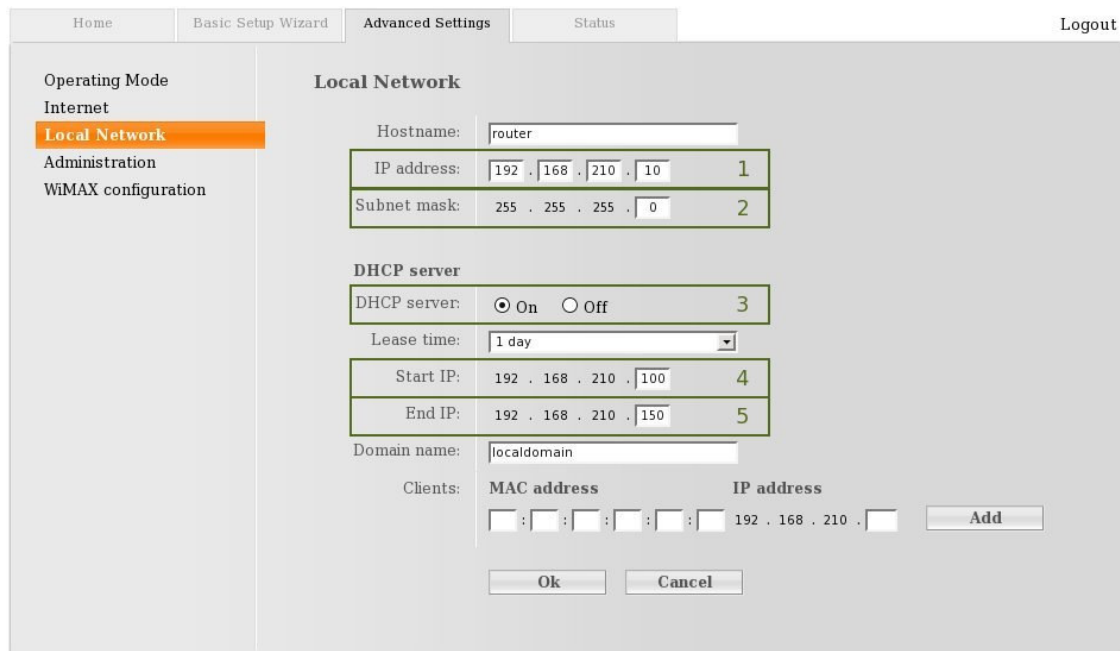
First, Change the '**Protocol**' to '**Obtain automatically**', then press '**Ok**'.

Next, click on '**DNS Servers**' and change '**Use custom DNS servers**' to '**Off**'. Again, press '**Ok**'.

Lastly, click on '**Address Translation (NAT)**' and change '**Network address translation**' to '**Off**'. Press '**Ok**'.

2.3 Configuring Local Network

Gigaset SE680 WiMAX



The screenshot shows the 'Local Network' configuration page. The 'Local Network' tab is selected in the left sidebar. The main content area contains the following settings:

- Hostname: router
- IP address: 192 . 168 . 210 . 10 (1)
- Subnet mask: 255 . 255 . 255 . 0 (2)
- DHCP server: On Off (3)
- Lease time: 1 day
- Start IP: 192 . 168 . 210 . 100 (4)
- End IP: 192 . 168 . 210 . 150 (5)
- Domain name: localdomain
- Clients table:

MAC address	IP address
: : : : : :	192 . 168 . 210 .

Buttons for 'Ok' and 'Cancel' are at the bottom.

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Figure 5: Siemens Gigaset SE680 WiMAX Local Network

Click on 'Advanced Settings', then on 'Local Network'. Refer to Figure 5. The following settings must be changed:

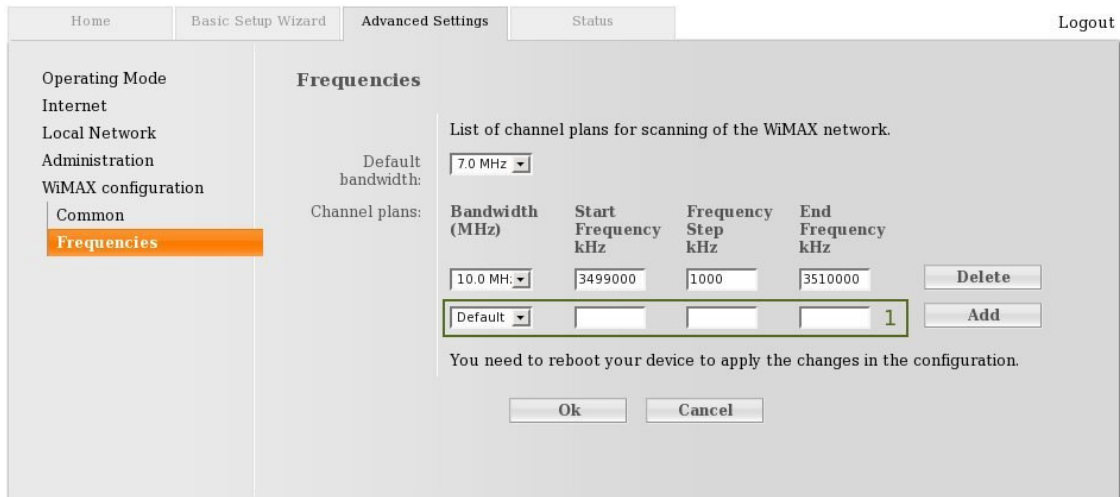
1. Change '**IP address**' to match your preferred settings for the local network. In this example '**192.168.210.10**' is chosen as an arbitrary value.
2. Change '**Subnet mask**' to match your preferred settings for the local network. In this example '**255.255.255.0**' is chosen as an arbitrary value
3. Change '**DHCPserver**' to '**On**'
4. Change '**Start IP**' to match your preferred settings for the local network. Note that the choices will be limited based on the choices that were made for the '**IP address**' and '**Subnet mask**' values. In this example '**100**' is chosen as an arbitrary value
5. Change '**End IP**' to match your preferred settings for the local network. Note that the choices will be limited based on the choices that were made for the '**IP address**' and '**Subnet mask**' values. Make sure that there is enough IP address space available for all the devices in your network. In this example '**150**' is chosen as an arbitrary value

Then, press '**Ok**'.

! Warning: To prevent address conflicts, do not choose the same IP range for the Local Network as will be assigned to subscriber stations by the DHCP server.

2.4 Configuring Frequency Plan

Gigaset SE680 WiMAX



The screenshot shows the 'Advanced Settings' tab for the Gigaset SE680 WiMAX configuration. The 'Frequencies' section is active, displaying a table for channel plans. The 'Default bandwidth' is set to 7.0 MHz. The table has columns for Bandwidth (MHz), Start Frequency (kHz), Frequency Step (kHz), and End Frequency (kHz). A row is highlighted with a green border, showing a 'Default' bandwidth, a start frequency of 3499000 kHz, a frequency step of 1000 kHz, and an end frequency of 3510000 kHz. The table also includes 'Delete' and 'Add' buttons. A message at the bottom states: 'You need to reboot your device to apply the changes in the configuration.' Below this message are 'Ok' and 'Cancel' buttons.

Bandwidth (MHz)	Start Frequency (kHz)	Frequency Step (kHz)	End Frequency (kHz)
10.0 MHz	3499000	1000	3510000
Default			1

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Figure 6: Siemens Gigaset SE680 WiMAX Frequency Configuration

The last change that needs to be made concern the radio settings. Click on '**Advanced Settings**', then on '**WiMAX configuration**', and on '**Frequencies**'. Refer to *Figure 6*.

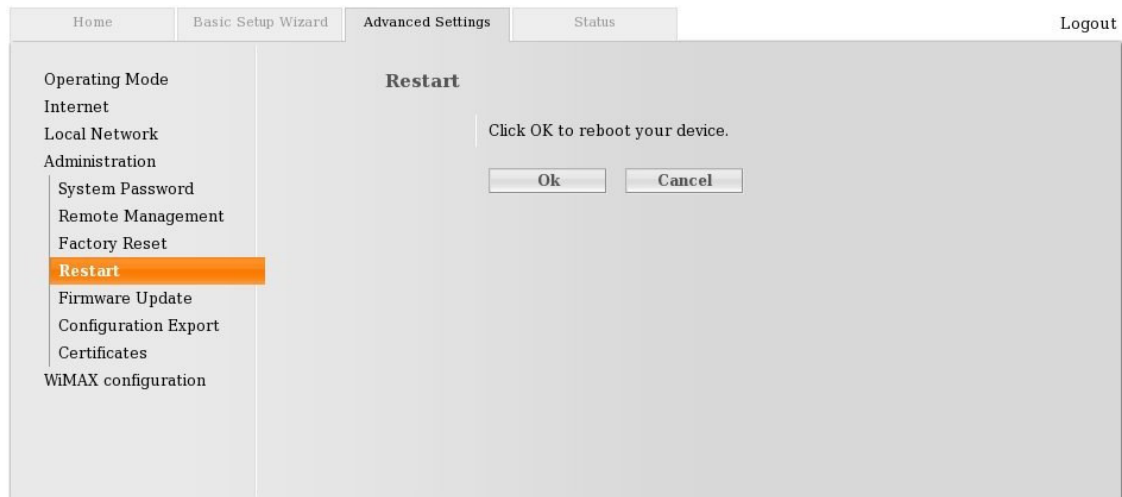
The '**Bandwidth (MHz)**' needs to be set to match the value configured for the Base Station radio in the "Configuring the Wi Networks Pico BS for use with the GTX-102 ASN Gateway R0 release" white paper. The '**Start Frequency kHz**' needs to be set to the *lowest* frequency assigned to you by the regulatory agency for your country. The '**End Frequency kHz**' needs to be set to the *highest* frequency assigned to you by the regulatory agency for your country. The '**Frequency Step kHz**' parameter depends on the frequency plan chosen for your network and should be chosen carefully.

! Warning: If the '**Frequency Step kHz**' parameter is set too low, the Siemens Gigaset SE680 WiMAX will take a long time to scan the network.

After changing the settings, press '**Ok**'.

2.5 Rebooting the Gigaset SE680

Gigaset SE680 WiMAX



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Figure 7: Siemens Gigaset SE680 WiMAX Reboot

To activate the changes made, click on 'Advanced Settings', then 'Administration' and 'Restart'. Press 'Ok'.

After reboot, the Siemens Gigaset SE680 should be configured to connect to the BaseStation. Please refer to the GTX-102 ASN Gateway R0 release manual for configuring the ASN gateway to accept connections from Subscriber Stations.