

Settings for IP addressing in the LAN

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Settings for IP addressing in the LAN

1.1. Need

You wish to alter the IP addressing in your network (LAN) to suit your requirements.

1.2 Description

When your Centro Business router is delivered to you (factory settings), the IP addressing for your network (LAN) for IPv4 and IPv6 is set in accordance with the standard concept. These settings can be altered by an expert.

1.3 Requirements/Limitations

Requirements:

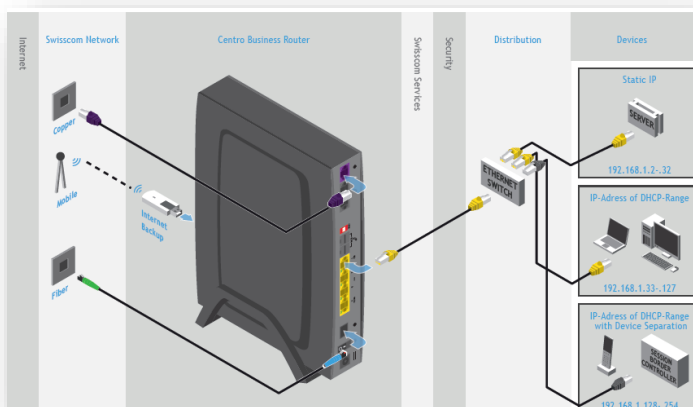
- Swisscom Contract: My SME Office, Business Internet Services, Business Internet Light, Enterprise Connect XS or Internet for private customers
- Centro Business 2.0 with current firmware version. You can find the firmware on the official Centro Business help page under [Update Firmware](#)
- Access to the router portal is established
- The IPv6 addresses must be activated for IPv6 settings

Limitations:

- You are using fixed public IPv4 addresses on all LAN ports
- BNS Service is activated in the bundle

1.4 Illustration*

(The diagram corresponds to the standard configuration.)



* The diagram is identical for Centro Business 1.0 and Centro Business 2.0

1.5 Settings for DHCP addressing

In the **Network/Basic Settings** menu, you can view the current **IPv4 and IPv6 Address Distribution** settings. A menu for Advanced DHCPv4 and DHCPv6 settings can be opened by clicking on the relevant button.

When delivered (factory settings), the IP addressing is set as follows.

The screenshot shows the 'Basic Settings' page in the router's web interface. The page is divided into three sections, each highlighted with a blue box and a number (1, 2, and 3 respectively).
Section 1: Router IP address. The Router IP address is 192.168.1.1 and the Subnet mask is 255.255.255.0.
Section 2: IPv4 address distribution (DHCP). The DHCP server is enabled. The DHCP range starts at 192.168.1.33 and ends at 192.168.1.127. The Gateway is 192.168.1.1. The DHCP lease time is 86400 seconds.
Section 3: IPv6 address distribution. The IPv6 autoconfiguration mode is SLAAC only. The LAN range starts at 2a02:1203:ecb1:c::1 and ends at 2a02:1203:ecb1:c::ffff. The IPv6 suffix is 0:0:1:1.
Buttons for 'Advanced DHCP settings', 'Advanced DHCPv6 settings', 'Cancel', and 'Save' are visible at the bottom.

1) Router IP address

- The IP address of the router is 192.168.1.1 and the subnet mask is 255.255.255.0. This means that the Centro Business router is part of a subnet with up to 253 devices. The router IP address and the subnet mask can be altered by a specialist.

2) IPv4 address distribution (DHCP)

- The DHCP server for the Centro Business router is activated.
 - The DHCPv4 server for the Centro Business router can be activated or deactivated.
- The IP addresses 192.168.1.2 to 192.168.1.32 are static IP addresses that are not assigned by the Centro Business DHCP server.
 - The address range can be altered by a specialist.
- The IPv4 addresses 192.168.1.33 to 192.168.1.127 are dynamic IPv4 addresses and are assigned by the DHCP server for the Centro Business router.
 - The address range can be altered by a specialist.
- The IPv4 addresses 192.168.1.128 to 192.168.1.254 are best used for IP phones (VoIP). See also Advanced DHCPv4 settings.
- The router IP address (gateway) for DHCP settings is 192.168.1.1
 - The gateway can be changed by a specialist.
- The address ranges 192.168.11.x and 192.168.13.x are not available for use in LAN. These addresses can, for example, be reserved for the guest WLAN.

3) IPv6 address distribution (for activated IPv6 only)

- The first subnet of the distributed IPv6 addresses is available in the customer LAN.
 - The subnet depends on the Internet connection, and cannot be changed.
- The router IP address is xxxx:xxxx:xxxx:0::1.
 - The router IPv6 address can be viewed by selecting **Overview** and then **Router**.
 - The router IPv6 address cannot be altered.
- The second subnet for the distributed IPv6 addresses is available in the DMZ.
 - The subnet cannot be changed.
- The IPv6 auto-configuration mode is set to “SLAAC only”.
 - Possible settings: SLAAC only; DHCPv6 only; SLAAC and DHCPv6; non
- The DHCPv6 address range from xxxx:xxxx:xxxx:xxxx:0:0:1:1 to xxxx:xxxx:xxxx:xxxx:0:0:1:ffff is valid for the LAN and DMZ subnet.
 - Please note that the IPv6 address range for the DMZ is only shown when “Public IP on LAN Port 1 (Used as DMZ)” is activated.
 - The address range can be altered by a specialist.

When you have altered the settings, complete the process using the **Save** button. Swisscom recommends leaving the standard settings as they are, if possible.

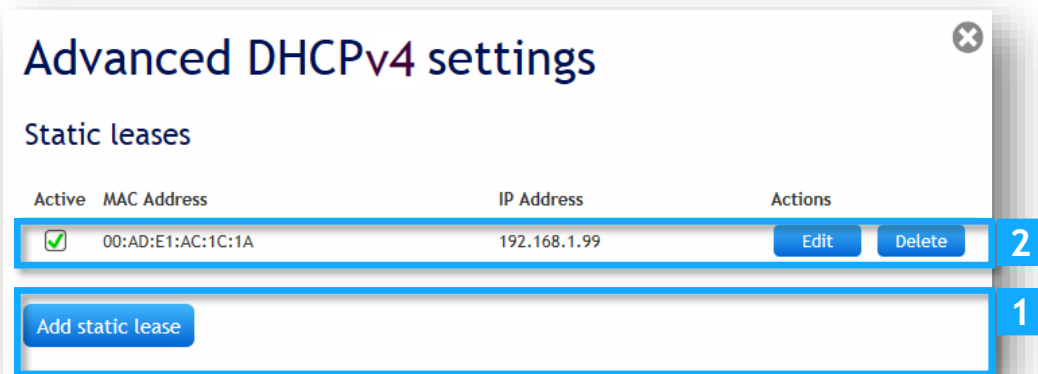
1.6 Advanced DHCPv4 settings

In the **Advanced DHCPv4 settings** menu, you can assign fixed IPv4 addresses from the DHCP range to a MAC address or define IPv4 addresses for VoIP devices.

1.6.1 Static IPv4 address distribution

In the **Network/Basic Settings** menu, select **Advanced DHCPv4 settings**. You can assign a fixed IP address from the dynamic IP address range of the DHCP server to a device, for example your printer, by clicking on **Add static lease (1)**. To do so, enter the MAC address of your device and the preferred IP address. Save the setting using the **Save** button. As soon as the device logs into the network (LAN), the IP address defined beforehand will be assigned to this device.

Existing static leases can be disabled, edited or deleted at any time (2).



The screenshot shows the 'Advanced DHCPv4 settings' window. The title bar includes a close button (X). Below the title is the section 'Static leases'. A table displays the current static leases:

Active	MAC Address	IP Address	Actions
<input checked="" type="checkbox"/>	00:AD:E1:AC:1C:1A	192.168.1.99	Edit Delete

Below the table is a blue button labeled 'Add static lease'. The interface is annotated with blue boxes and numbers: a box around the 'Add static lease' button is labeled '1', and a box around the 'Edit' and 'Delete' buttons in the table row is labeled '2'.

1.6.2 Separation of VoIP devices

A logical separation (separate IP range) of VoIP and Internet traffic can help reduce jitter (phase noise) and therefore improve the voice quality.

In the **Network/Basic Settings** menu, select **Advanced DHCPv4 settings**. Under **VoIP Address Distribution**, enter the first 6 digits of the MAC address of your VoIP phone, for example Aastra phones, in the **OUI (1)** field. Each manufacturer has a different MAC address. Define the distribution range, **Range Starts at IP Address (2)** and **Range Ends at IP Address (3)**, for each MAC address in accordance with the number of VoIP devices. Save the setting using the **Save** button (4).

Advanced DHCPv4 settings ✕

[Add static lease](#)

VoIP IP address distribution

OUI	<input type="text" value="00:44:7D"/>	OUI, e.g. 00:11:22,00:22:33,00:33:44	1
DHCP range starts at IP address	<input type="text" value="192.168.1.129"/>	IP address, e.g. 192.168.1.129	2
DHCP range ends at IP address	<input type="text" value="192.168.1.232"/>	IP address, e.g. 192.168.1.229	3
Router	192.168.1.1		
DNS	192.168.1.1		
DHCP lease time of IP addresses	86400		

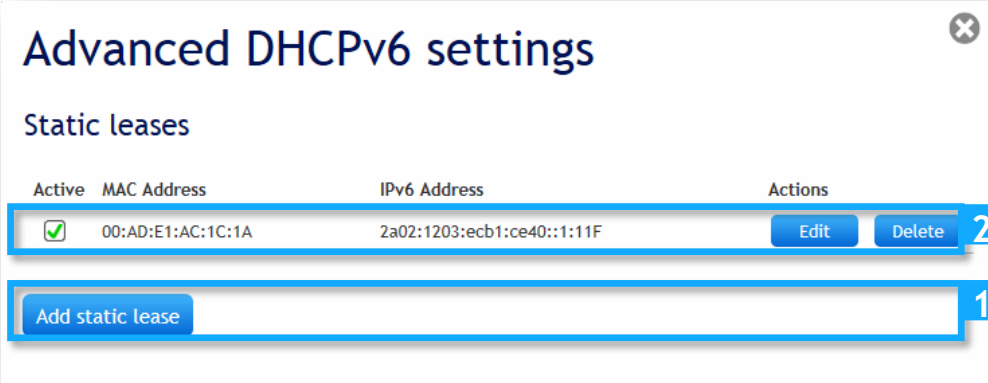
Cancel
Save
4

If you now connect a VoIP phone made by the supplier defined within your network (LAN), a corresponding IP address will be assigned to the device.

1.7 Static IPv6 address distribution

In the **Network/Basic Settings** menu, select **Advanced DHCPv6 settings** to open the submenu. This is where you can assign an IPv6 address from the LAN DHCP IPv6 address range to a device, for example your printer. To do so, click on **Add static lease (1)**, enter the MAC address of your device and the preferred IPv6 address, and **save** the setting. Under **Network/Basic Settings > IPv6 Address Distribution**, activate the auto-configuration mode “DHCPv6 only” or “SLAAC and DHCPv6”. As soon as the device logs into the network (LAN), the IP address defined beforehand will be assigned to this device.

Existing static leases can be disabled, edited or deleted at any time (2).



The screenshot shows the 'Advanced DHCPv6 settings' window. At the top, there is a title bar with a close button. Below the title, the section is labeled 'Static leases'. A table with the following columns is displayed: 'Active', 'MAC Address', 'IPv6 Address', and 'Actions'. The table contains one row with a checked checkbox, the MAC address '00:AD:E1:AC:1C:1A', the IPv6 address '2a02:1203:ecb1:ce40::1:11F', and 'Edit' and 'Delete' buttons. Below the table is a blue button labeled 'Add static lease'. Red callout boxes with numbers '1' and '2' highlight the 'Add static lease' button and the 'Edit'/'Delete' buttons respectively.

Active	MAC Address	IPv6 Address	Actions
<input checked="" type="checkbox"/>	00:AD:E1:AC:1C:1A	2a02:1203:ecb1:ce40::1:11F	<button>Edit</button> <button>Delete</button>

Add static lease