

Instruction

INSYS SCR L200



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Initial Setup

Default IP-Address of SCR L200:

192.168.1.1 Port configuration interface: **8080**

Default web server and mwce login data:

User: maxx

Password: 6299

The SCR L200 is already preconfigured with **mwce 6.17**.

Following explained are the required minimum settings for establishing a cellular or a network connection.

If you want to test the function of your router first, you can use the address **192.168.1.10** in your browser. You then should get the **mwce interface**.

First you have to open the configuration interface of the router. To do this, a computer must be connected to the ETH1 port (inner socket, RJ45) of the SCR L200- and the address **192.168.1.1:8080** must be used in the browser. To access all settings, we recommend using the "classic" interface.

If you have a device with a built-in LAN socket, you must ensure that it is connected to the ETH2 port. For configuration, you must open the control housing to connect to ETH1.

Login

Username: *maxx*

Password: 6299

After logging in, the overview page of the of the router should be displayed.
Now you can start with the setup.

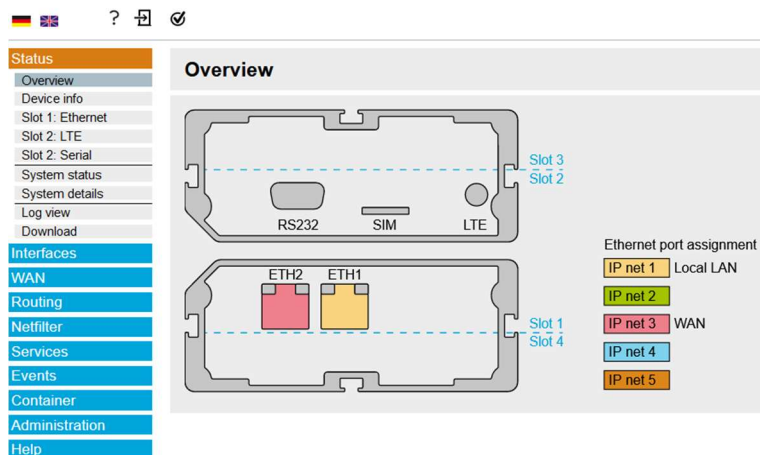


Figure 1: Overview configuration interface

Basic Information:

All settings can be saved using the "**Save settings**" button. In order to apply the settings, click on the flashing cogwheel in the upper left corner. Activating the profile can be done at the very end. Saving the settings is necessary on every page, if changes have been made.

Via the question mark, also in the upper left corner, help texts for the different settings can be displayed.

Establishing a mobile connection

A **fixed-IP SIM card** is required to establish a mobile connection. The required access data should be attached to it. In the "Interfaces" → "Slot 2: LTE", the user name, password and access point name must be entered.

Slot 2: LTE

Description: Mobilfunk

PIN:

SMS center:

SMS character set: ☒ GSM (up to 140 characters) ☐ UCS2 (up to 70 characters)

MTU (Maximum Transmission Unit): 1500

Maximal wait time to establish connection: 60 (in seconds)

☒ Log into the strongest net automatically

☐ Preferred provider:

☐ Only log in to this provider:

Authentication: ☒ PAP ☐ CHAP ☐ PAP or CHAP

User name: mdex@mdex.de

Password:

Access Point Name: mdex.ic.t-mobile ?

Save settings

Figure 2: Adding a mobile connection

Then the route "lte2" must be activated under "Routing" → "Static routes". To do this, set the check mark in the "active" column. The route "net3" must **not** be activated!

Static routes

active	Interface	Type of the route	Gateway	Description	
<input type="checkbox"/>	net3	default route	static 10.10.10.250	Default route	
<input checked="" type="checkbox"/>	lte2	default route	dynamic		

+

Save settings

Figure 3: Activate Route "lte2"

In the menu "WAN → WAN chains" the WAN chain "wan2" must be at the top position. The chains can be moved using the arrow icons.

The screenshot shows the 'WAN chains' configuration interface. On the left, a sidebar menu lists various system settings, with 'WAN' currently selected, showing sub-options 'WAN chains' and 'WAN groups'. The main content area is titled 'WAN chains' and features a toggle for 'Activate WAN chains' which is checked. Below this, two WAN chain configurations are listed. The first chain, 'wan1', has a description of 'Network' and is associated with interfaces 'net3 - WAN' and 'wan2'. The second chain, 'wan2', has a description of 'Cellular' and is associated with interfaces 'lte2 - Mobilfunk' and 'wan1'. For each chain, there are up and down arrow icons (highlighted with red boxes in the original image) to adjust their priority. At the bottom of the configuration area, there is an 'Add WAN chain +' button and a 'Save settings' button.

Figure 4: Configure WAN chains

To reach the mwce interface via mobile communication, the correct port must be called. The SCR L200 is preconfigured so that a call to port **47234** opens the mwce interface.

The configuration interface of the router can also be opened via the mobile connection using port **8080**.

It is also possible to get access to the device via **Modbus TCP**.

The Modbus port is **502**.

An overview of all Modbus registers can be downloaded from the mwce interface (in the Modbus tab).

Network Connection

In order to integrate the SCR L200 into a network, it must first be assigned an IP address. This is done in the "Interfaces" → "IP network 3 (net3)" tab. The IP address **10.10.10.129** is preset and can be overwritten with the desired address.

🇩🇪 🇬🇧 ? 📄 ✓

Status

Interfaces

Slot 1: Ethernet

Slot 2: LTE

IP net 1 (net1)

IP net 2 (net2)

IP net 3 (net3)

IP net 4 (net4)

IP net 5 (net5)

OpenVPN

IPsec

GRE

DMVPN

PPTP

PPPoE

WAN

Routing

Netfilter

Services

Events

Container

Administration

Help

IP net 3 (net3)

Activate network ☒

Description

Mode

☐ local net, interface will be started immediately

☒ Ethernet, interface will only be started within a WAN chain

☐ PPPoE, interface will only be started within a WAN chain

Start SLAAC ☒

Start DHCPv4 client ☐

Start DHCPv6 client ☐ Get IPv6 prefix and delegate to

DHCP client Vendor ID

VLAN tag

Static IP addresses

active	IP address	Description
<input checked="" type="checkbox"/>	<input type="text" value="10.10.10.129"/> / <input type="text" value="24"/>	<input type="text"/>

+

Save settings

Figure 5: setting of IP-Address

The route for net3 must first be activated under "Routing" → "Static routes". To do this, click the "active" column. The route "lte2" must not be activated!

Status

Interfaces

WAN

Routing

Static routes

OpenVPN routes

Dynamic routing

Netfilter

Services

Events

Static routes

active	Interface	Type of the route	Gateway	Description
<input checked="" type="checkbox"/>	net3	default route	static 10.10.10.250	Default route
<input type="checkbox"/>	lte2	default route	dynamic	

+

Save settings

Figure 6: activate Route "net3"

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In the "WAN → WAN chains" menu, the WAN chain "wan1" (network) must be at the top. The chains can be moved using the arrow symbols.

WAN chains

Activate WAN chains ☒

Name: wan1
Description: Network
Limit lifetime: ☐

Interfaces in WAN-chain: **Interface** **start in case of failure**
net3 - WAN wan2

Name: wan2
Description: Cellular
Limit lifetime: ☐

Interfaces in WAN-chain: **Interface** **start in case of failure**
lte2 - Mobilfunk wan1

Add WAN chain +

Save settings

Figure 7: Configure WAN-chains

Then edit the route "net3" using the pencil icon and enter the gateway.

Static route

Description: Default route
Set after start of: net3 - WAN
Type of the route: ☒ default route
Gateway: ☒ static IP address 10.10.10.250
Priority:

Save settings

Figure 8: setting of the net3-Route

Addendum: configuration: Portforwards

If the preconfigured ports are not to be used, port forwards can be configured. These are to set up under "Network filter" → "NAT" → "Destination-NAT". A new rule can be created via the plus symbol. The type "**portforward**" with protocol "TCP" must be selected. In the "Incoming Interface" area, "lte2" must be selected for a mobile connection or "net3-WAN" for an Ethernet connection. If the rule is also to function via the connected computer, "net1-LAN" must also be selected.

The destination port restricts the rule to a specific called port (range). For example, forwarding to mwce is activated by default only for port 47234 (see Figure 9).

Destination-NAT on address specifies the destination address of the data packet. If the destination is the mwce container, its IP address must be entered here (192.168.1.10 by default). This can also be looked up in the "Container" tab after clicking "Edit".

Finally, the field "Destination NAT on port" must be filled in. The mwce interface can be reached with port 80 or port 47234.

The screenshot shows the 'Destination NAT rule' configuration page. On the left is a sidebar menu with items: Status, Interfaces, WAN, Routing, Netfilter (highlighted), IP filter, NAT, MAC filter, Services, Events, Container, Administration, and Help. The main content area has a title 'Destination NAT rule'. Below the title are several configuration fields: 'Description' (empty text box), 'Type' (dropdown menu set to 'portforward'), 'Protocol' (dropdown menu set to 'TCP'), 'Input interface' (dropdown menu with 'lte2 - Mobilfunk' selected, and a note 'over which the packet reaches the router'), 'Destination port' (47234), 'Destination NAT to address' (192.168.1.10), and 'Destination NAT to port' (80). At the bottom is a 'Save settings' button.

Figure 9: Set up port forwarding

Addendum: Change the IP address of the mwce container

The IP address of the mwce container can be changed in the "Container" tab. To do this, the installed container must be edited using the pencil icon.

Status
Interfaces
WAN
Routing
Netfilter
Services
Events
Container
Container
Administration
Help

Container

Forward SMS to containers ☒ to MCIP-OID
Forward input events to containers ☒ to MCIP-OID

active	Designator	Name	licence
<input checked="" type="checkbox"/>	container_mwce	container1	---

Create new container and add it to profile

Save settings

Import container:
Durchsuchen... Keine Datei ausgewählt.
Import container

Figure 10: Change IP Address

The IP address can be entered in the next window.

Status
Interfaces
WAN
Routing
Netfilter
Services
Events
Container
Container
Administration
Help

Container

Name container1
Designator container_mwce
Log console output ☐
Add content of /data/etc as archive to profile ☐
User group for CLI without authentication none

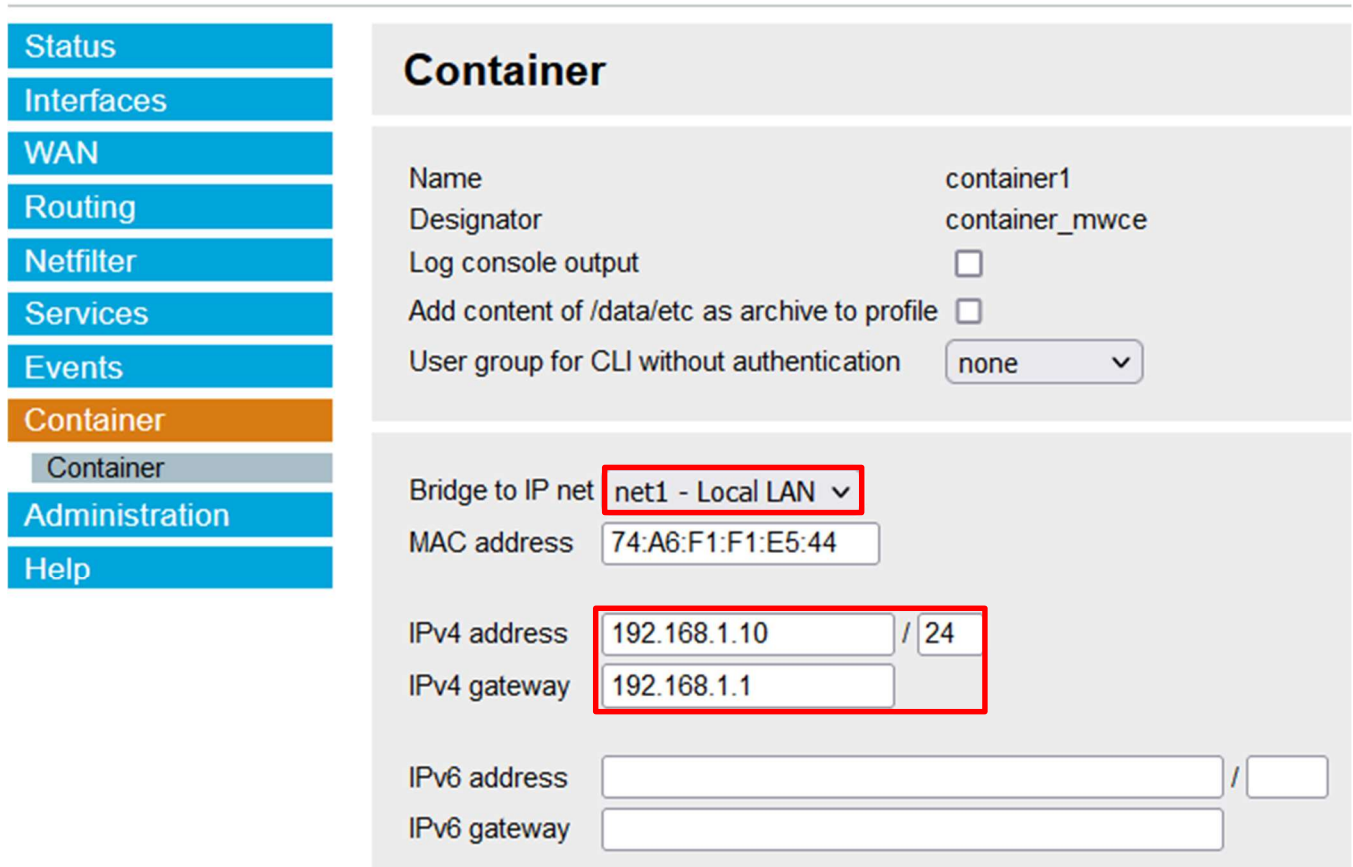
Bridge to IP net net1 - Local LAN
MAC address 74:A6:F1:F1:E5:44
IPv4 address 192.168.1.10 / 24
IPv4 gateway 192.168.1.1

Figure 11: Change IP Address

Changing the IP address also requires adjusting the "port forwarding". In addition, the gateway may have to be adjusted as well. (Compare addendum: **Setting up containers**)

Addendum: Create new configuration

If a new mwce version has to be installed, a new "container" must be loaded onto the device. To do this, the installed container should first be deleted using the trash-bin icon in the "Container" tab. The new container must be selected using the "Browse..." button. It is a **.tar** file (e.g. mwce_scr_X_XX.tar). Then import the "container" and create it new, using the magic wand icon. The container can be configured by clicking on the pencil symbol. In addition the IP address, the bridge to the IP network (default = "net1") and the gateway must be entered.



Container	
Name	container1
Designator	container_mwce
Log console output	<input type="checkbox"/>
Add content of /data/etc as archive to profile	<input type="checkbox"/>
User group for CLI without authentication	none

Bridge to IP net	net1 - Local LAN
MAC address	74:A6:F1:F1:E5:44
IPv4 address	192.168.1.10 / 24
IPv4 gateway	192.168.1.1
IPv6 address	
IPv6 gateway	

Figure 12: Containerconfiguration

After the settings have been saved and the profile has been activated, the container setup is complete. If the mwce interface can be called via the entered IP address, the container has been configured correctly.

Addendum: Create new configuration

If a new user with a completely new configuration has to be created, or if connections are to be adjusted, the use of wizards offers an easy way of making the desired settings.

These can be found under **"Help" → "Wizards"**.

Caution: If a new profile is created, the container (mwce) must also be reinstalled.

Make sure you have the required file (e.g. mwce_scr_X_XX.tar) available!

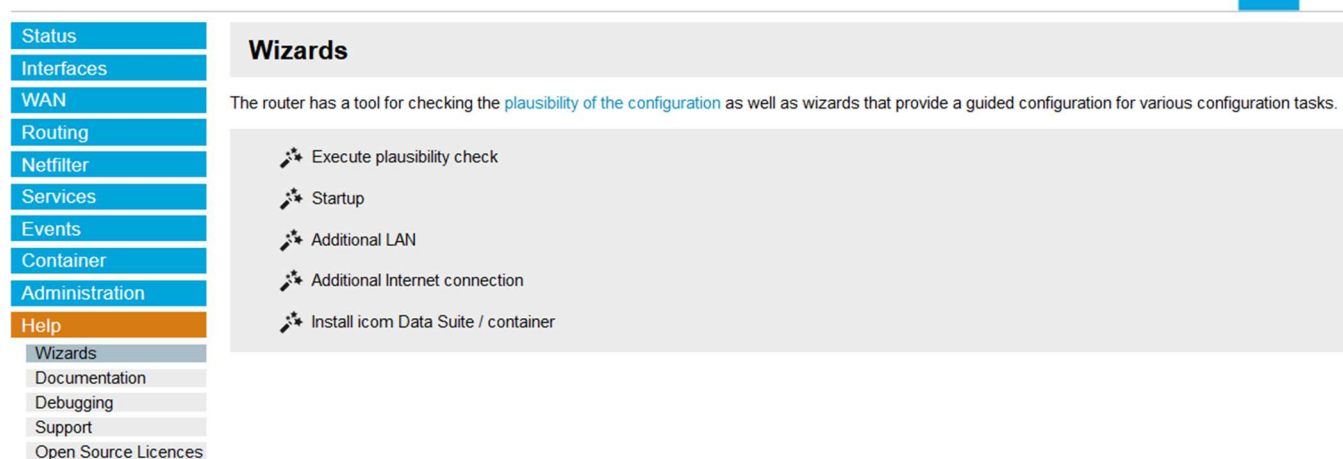


Figure 13: Wizards for further setup

For more information on configuring the SCR-L200 see:

<https://www.insys-icom.com/en/support/documentation-and-downloads/>