



Quick reference guide
Activation, licensing and connection establishment
between Edge and moneo Cloud

GB

moneo IIoT Core Cloud

QCM100

QCM110

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1 Preliminary note

1.1 Legal and copyright information

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1.2 Purpose of the document

This quick reference guide describes the:

- Activation and licensing of a moneo Cloud instance
- Connection establishment between Edge and the moneo Cloud instance

1.3 Symbols used

✓ Requirement

► Instructions

▷ Reaction, result

[...] Designation of keys, buttons or indications

→ Cross-reference



Important note

Non-compliance may result in malfunction or interference.



Information

Supplementary note

2 Getting started

The basic procedure for connecting a moneo|edgeGateway to a moneo Cloud instance is as follows:

1. Order the edgeGateway (e.g. AE2100 or AE2400) and the moneo Cloud subscription (e.g. QCM100 or QCM110) through ifm.com or your contact at ifm.
2. Sign up to the mobile IoT Suite: [Creating an account for the mobile IoT Suite \(→ 5\)](#)
3. Activate the moneo Cloud instance via self-service in the mobile IoT Suite: [Registering a moneo Cloud instance \(→ 6\)](#)
4. Alternative 1: Set up the edgeGateway using the setup wizard and connect it to the moneo Cloud instance: [Configuring a moneo|edgeGateway and connecting it to the moneo Cloud instance \(→ 8\)](#)
5. Alternative 2: Set up and activate the io-key: [Adding and activating an io-key \(→ 11\)](#)

Then:

► Use the moneo Cloud.



All configuration steps can be viewed as a click demo at demo.moneo.ifm.



A connection of the edgeGateway to other target systems (e.g. MQTT, Azure, AWS, OPC-UA) can be configured in the basic set-up or in the AMS.

2.1 Creating an account for the mobile IoT Suite

The mobile IoT Suite is used to register a moneo Cloud instance: [Registering a moneo Cloud instance](#) (→ [6](#))

Before a moneo Cloud instance can be registered, an account must be created for the mobile IoT Suite.

► Skip this chapter if you already have an account for the mobile IoT Suite.

If you do not yet have an account for the mobile IoT Suite:

✓ The email with the licence activation code (LAC) for activating a moneo Cloud instance is available.

► Open the mobile IoT Suite in your browser: <https://suite.miot.ifm>

► Select the required language.

► Click on [Sign up] underneath the input boxes.

▷ The registration form appears.



The licence activation code (LAC) is required to verify whether you are authorised to sign up for the mobile IoT suite.

Enter your email address and phone number to be notified when your mobile IoT Suite account is ready for use.

► Enter the licence activation code (LAC).

► Enter your email address.

► Enter your phone number.

► Read the terms and conditions and the data protection regulations carefully, and then accept them.

► Click on [Send].

▷ Registration starts.

▷ Upon successful registration, an activation mail will be sent to the registered email address.

▷ The activation email will come from this email address: no-reply@miot.ifm

▷ Registration takes a maximum of 24 hours.

▷ The link in the activation email is valid for a maximum of 7 days.

► Click on [VERIFY MAIL ADDRESS] in the activation email.

▷ The page for assigning a password appears in the browser.

► Create a password for your mobile IoT Suite account and re-enter it to confirm.

► Confirm the password.

▷ The registration of your mobile IoT Suite account and password is complete.

▷ You will be automatically logged in to the mobile IoT Suite.

2.2 Registering a moneo Cloud instance

To use a moneo Cloud instance, you must first register it in the mobile IoT Suite via self-service.

- ✓ The email with the licence activation code (LAC) for activating a moneo Cloud instance is available.
- ✓ The access credentials for the mobile IoT Suite are available: [Creating an account for the mobile IoT Suite \(→ 5\)](#)
- ▶ Open the mobile IoT Suite in your browser: <https://suite.miot.ifm>
- ▶ Log in to the mobile IoT Suite.
- ▶ Open the [Home] page of the mobile IoT Suite.
- ▶ In the [Assets] area, click on the [moneo|cloud instances] tile.
 - ▷ The instances overview appears.
- ▶ Click on [+ Register instance].
 - ▷ The wizard for registering a new moneo Cloud instance appears.

Select the LAC in the left-hand area:

- ▶ Click on [Select product] in the left-hand area.
 - ▷ The licence activation code(s) (LAC) that were sent to you by email from info@ifm.com will be listed here.
- ▶ Select the required licence.

Enter the instance data in the right-hand area:

- ▶ Select the required data centre for the moneo Cloud instance from the [Region of data center] list.



The region of a data centre refers to the geographical location of the servers and the IT infrastructure of the moneo Cloud.
The choice of region affects the conformity of the services.
The data centre location cannot be changed once selected.

- ▶ Enter the instance name in the [Instance name] input field.



The instance name is a freely selectable unique name for the moneo Cloud instance.
Requirement for the instance name:
- Maximum length: 40 characters

- ▶ Enter the prefix for the instance address in the [Instance URL] input field.



The instance address is the unique address that can be used to access the Cloud in the browser.

Requirements for the instance address:
- Maximum length: 15 characters
- No special characters allowed, except ,-'
- Lower case only

The instance address cannot be changed once selected.

- ▶ In the [moneo user email] input field, enter the email address of your first moneo Cloud instance user.



Administrative information, such as access data, will be sent to the specified email address once the moneo Cloud instance is active.

The email recipient can log in to the moneo Cloud instance as an administrator and create further administrators and users.

- ▶ Ensure that the entered email address is correct.
- ▶ Ensure that the entered email address can receive emails.
- ▶ If you are having issues receiving the email: Contact ifm Support.

- ▶ Read and agree to the terms and conditions.
- ▶ Click on [Check].
 - ▷ Entries are checked for conformity, e.g. with regard to the use of special characters or compliance with password guidelines, etc.
-  Before clicking on [Close]:
 - ▶ Check that the entries are correct and amend them if necessary, as they cannot be changed afterwards.
- ▶ Once all entries have been checked for correctness and conformity, click on [Register].
 - ▷ The data summary appears.
 - ▷ Registration of the moneo Cloud instance starts.
 - ▷ The [moneo|cloud instances] overview appears.
 - ▷ The newly created moneo Cloud instance appears in the list.
 - ▷ The status of the newly created instance is [Initializing] as long as the instance registration is running in the background.
-  Instance registration can take up to 1 hour.
 - ▶ Refresh the page to see the current status of the instance.
 - ▷ The status changes to [Active] when the instance registration has been successfully completed.
 - ▷ The first moneo user will receive a confirmation email to the specified email address.
 - ▷ The email contains information on the instance name, the URL and the location of the data centre.
- ▶ Click on [Sign Up] in the email.
 - ▷ The moneo Cloud instance appears for initial login.
 - ▷ The email address is already pre-populated.

Creating the first user account in the moneo Cloud instance:

- ▶ Enter the first and last name.
- ▶ Create a password and confirm it.
- ▶ Read and accept the licensing terms.
- ▶ Click on [Register].
 - ▷ You can now log in to your moneo Cloud instance using the email address and previously set password.

Transferring sensor data to the moneo Cloud:

In order to transfer sensor data to the moneo Cloud instance, an edgeGateway (e.g. AE2100 or AE2400) or an io-key (AIK050), must be configured and connected.

- ▶ Connect a moneo|edgeGateway or io-key to the cloud:
 - [Configuring a moneo|edgeGateway and connecting it to the moneo Cloud instance \(→ !\[\]\(5774573cf757c446bb08af21f46b2969_img.jpg\) 8\)](#)
 - [Adding and activating an io-key \(→ !\[\]\(a502cb21d600ba28a5cdf414d68eef89_img.jpg\) 11\)](#)

2.3 Configuring a moneo|edgeGateway and connecting it to the moneo Cloud instance



All inputs can be changed at a later date via the AMS ([→ Glossary](#) [□ 13](#)).

- ▶ Keep the access data in a safe place for later use.

Connecting an edgeGateway

- ✓ The moneo Cloud instance has been registered: [Registering a moneo Cloud instance](#) ([→ □ 6](#))
- ✓ The login details for the mobile IoT suite are available.
- ▶ Connect the `ETH0` network port of the edgeGateway to the network connection of the PC that will be used for the initial set-up.



- ▶ Set the PC's network port to DHCP in order to be automatically provided with an IP address by the edge gateway.

- ▶ Connect the `ETH2` network port of the edgeGateway to the internet access (e.g. router, LTE modem, etc.).

▷ The network cables are connected as described.

- ▶ Switch on the edgeGateway.

Starting the setup wizard / AMS

- ▶ Start the setup wizard in the browser on the connected PC using the URL <https://10.0.0.1/setup>.
 - ▷ Depending on your browser, you may receive a warning that the connection is not secure or private.



As the edgeGateway is a trustworthy device in your local network:

- ▶ Edge/Chrome: Ignore this message and click [ADVANCED] > [Proceed to 10.0.0.1] .
- ▶ Firefox: Ignore this message and click [ADVANCED] > [Accept the Risk and Continue].
- ▶ Optional: Later, import a certificate via the AMS so that the message is no longer displayed. (The certificate is not required for the functionality of the system.)

▷ The window for assigning the device password appears.

- ▶ Create and re-enter the password for the administrator of the device: [Password requirements](#) ([→ □ 9](#))



The password is valid for the administrator of moneo installed locally on the edgeGateway and for the setup wizard.

- ▶ Click on [CONFIRM PASSWORD].
 - ▷ The page for selecting the target system appears.
- ▶ To connect to the moneo Cloud, click on [CONNECT TO MONEO CLOUD].
 - ▷ The setup wizard starts.

Step 1 - Device name

- ✓ The setup wizard has been started.
- ▶ If required: Create a unique host name for the edgeGateway.



The default host name is made up of "edge-" and the serial number of the edgeGateway and is thus unique.

The host name must not contain any special characters or spaces.

The host name must be unique within the network segment.

- ▶ In case of need, contact your system administrator.

- ▶ Click on [>].

Step 2 - Time zone

- ▶ Set the local time zone in order to be able to calculate the local time correctly during operation.
- ▶ Click on [>].

Step 3 - Network

- ▶ Configure the network settings for the ETH2 network port.



The ETH2 network port is used to connect the edgeGateway to the internet, e.g. via a router, an LTE modem, etc.

- ▶ Recommendation for a simple network configuration: Use [DHCP] where technically feasible.
 - ▷ The network settings are automatically assigned to the ETH2 interface.
- ▶ For experienced users and after consultation with the responsible IT department: Configure the IP address, subnet mask, gateway and DNS manually if required. To do this, select the [Static IP] option.
- ▶ Optional: Configure the IP settings for ETH1 (OT network) here as well.
- ▶ Click on [>].



- ▶ Do not switch off the device during the test.
- ▶ Ensure power supply of the device.
 - ▷ The connection to the moneo cloud service is established.
 - ▷ If the connection could be established: Continue with step 4.
 - ▷ If the connection could not be established: Troubleshooting information appears: [Troubleshooting \(→ 10\)](#)

Step 4 - Summary

- ▶ Check the settings.
- ▶ If required: Click on ✎ to change the settings.
- ▶ Recommended: Click on [Save as PDF] to save the summary of the settings as a PDF for the purpose of documentation.
- ▶ Click on [>].

Step 5 - Connection to the cloud

- ▶ Enter the login credentials for the mobile IoT Suite.
- ▶ Click on [Login].
 - ▷ The moneo Cloud instances available in your account are displayed.
- ▶ Select the moneo Cloud instance to be fed with data by the edgeGateway.
- ▶ Click on [FINISH].
 - ▷ The connection between the edgeGateway and the moneo Cloud instance is established.
 - ▷ A success message appears. The connection has been established successfully. The edgeGateway can now be put into operation in the system or machine and connected to IO-Link masters / sensors.
- ▶ Click on [GO TO MONEO CLOUD] to access the moneo Cloud login.

2.3.1 Password requirements

- Minimum length: 8 characters

- Must contain:
 - at least one upper case letter
 - at least one lower case letter
 - At least one number
 - At least one special character

2.3.2 Troubleshooting

If the connection to moneo cannot be established, this may be due to one of the following reasons:



- ▶ Try the solutions in the order listed below.
- ▶ If the problem cannot be solved with the proposed solutions, please reach out to your contact person at ifm or contact the ifm service centre for help.

1. Check the cabling

- ▶ Check the connection of the network cables on the device and on the network connection.
- ▶ Retry to establish a connection.

2. Check the network settings

- ▶ Check the settings of the network adapter in step 3.
- ▶ Make sure the device has been assigned a configuration via DHCP.

If the settings were made manually (= without DHCP):

- ▶ Make sure that no other device in the network uses the same settings.
- ▶ Make sure that the device is in the correct subnet.

3. Check the company requirements

There may be additional requirements for integrating a device into the company network. The AMS provides advanced network settings, such as the configuration of the OT network via the **ETH1** network port.

- ▶ Check with a network administrator whether further requirements exist and configure them in the AMS if necessary.
- ▶ Information on the required network shares can be found in the → IT Security Whitepaper document in the download section of the articles AE2100 and AE2400 at www.ifm.com.

4. Check the internet communication

- ▶ Check whether there are restrictions to access internet resources in the company network.

2.4 Adding and activating an io-key

✓ A moneo Cloud instance has been registered: [Registering a moneo Cloud instance \(→ 6\)](#)

- ▶ Open the [Home] page of the mobile IoT Suite.
- ▶ In the [Assets] area, click on the [Gateways] tile.
 - ▷ The Gateway overview appears.
- ▶ Click on [+ Add io-key gateway].
 - ▷ The wizard to add io-keys appears (step 1).
- ▶ Enter a name for the io-key in the [Name] input field.
- ▶ In the [Gateway type] list, select the type of io-key.
- ▶ In the [Country] list, select the country in which the io-key is to be operated.
- ▶ Enter the IMEI of the io-key in the [IMEI] input field.



▷ The 15-digit IMEI of the io-key can be found on the type label on the device.

- ▶ Click on [Next].
 - ▷ The view to select the moneo Cloud instance appears. (Step 2)
- ▶ Select the required instance.
- ▶ Click on [Next].
 - ▷ The data tariff view appears. (Step 3)
- ▶ Click on [Select product].
 - ▷ All previously purchased data tariffs are displayed.
- ▶ Select the required data tariff.



The overview displays the unused data tariffs only.

- ▶ Read and agree to the terms and conditions.
- ▶ Click on [Check].
 - ▷ Entries are checked for conformity, e.g. with regard to the use of special characters or compliance with password guidelines, etc.



Before clicking on [Close]:

- ▶ Check that the entries are correct and amend them if necessary, as they cannot be changed afterwards.
- ▶ Once all entries have been checked for correctness and conformity, click on [Close].
 - ▷ The io-key is connected.
 - ▷ The data summary appears.
 - ▷ Set-up is completed.



The io-key activation can take up to 30 minutes.

- ▷ The status will change to [Active] when the io-key activation has been successfully completed.
- ▷ The io-key owner will receive a confirmation email to the email address provided during the self-service portal registration when the io-key activation has been successfully completed.

3 Function

3.1 moneo Cloud instance

3.1.1 Showing the registered instances

- ✓ The [Home] page of the mobile IoT Suite is open.
- ▶ In the [Assets] area, click on the [moneo|cloud instances] tile.
 - ▷ The instances overview appears.

3.1.2 Showing the properties of an instance

- ✓ The [Home] page of the mobile IoT Suite is open.
- ▶ In the [Assets] area, click on the [moneo|cloud instances] tile.
 - ▷ The instances overview appears.
- ▶ Click on the line of the required instance.
 - ▷ The [Instance properties] window appears.

3.1.3 Adding a new licence to an instance

- ✓ The [Home] page of the mobile IoT Suite is open.
- ✓ Another moneo Cloud subscription (e.g. QCM001 or QCM500) has been purchased. The licence activation code (LAC) has been sent by email and is available.
- ▶ In the [Assets] area, click on the [moneo|cloud instances] tile.
 - ▷ The instances overview appears.
- ▶ Click on [+ Add licences] in the row of the required instance.
 - ▷ A window with details of the instance and all available licences appears.
- ▶ Click on the required licence.
- ▶ Read and agree to the terms and conditions.
- ▶ Click on [Add licences].
 - ▷ The licence is added.
- ▶ Close the window by clicking on [X].

4 Glossary

AMS

The moneo|appliance management system (AMS) is used for maintenance and configuration of the edgeGateway. It is used for the following purposes in particular:

- Installation of updates
- Backup configuration
- Network configuration

LAC

Following the order of a moneo Cloud product, the licence activation code (LAC) is sent to the customer. A LAC is required for each product, e.g. a moneo Cloud subscription, an io-key data tariff, etc.

Using a LAC, the purchased moneo Cloud products can be activated in the mobile IoT Suite via self-service.

Local moneo installation

The moneo software installed locally on the edgeGateway can be used to configure Calculated Values.

mobile IoT Suite

Self-service portal for registering new moneo Cloud instances.

moneo Cloud instance

A closed area in the moneo Cloud to which only one customer has access.

Gateways (e.g. edgeGateway, io-key) can be added to the moneo Cloud instance to visualise process data.

Customers have the choice in which region (e.g. Europe, USA) the respective instance is provided. This applies in particular to the location where the data is stored.