



VisioNize[®] Lab Suite Setup Guide

All you need to know to get you and your lab connected.

Thank You for Your Interest in VisioNize!

To get the most of the VisioNize Lab Suite and its services, we recommend to get your lab devices connected. The lab devices need to be integrated into your local network to be able to send performance data to the platform. The following pages will explain you in detail what you need to do.

What is the VisioNize Lab Suite?

A cloud-based platform with a modular setup of services e.g. monitoring.
The VisioNize Lab Suite can be accessed via the web browser from any personal computer or mobile end devices.

Do I need any additional hardware for connecting lab devices?

The answer is yes and no. It depends on the lab devices you would like to connect.

VisioNize touch enabled devices

Devices equipped with the VisioNize touch interface can be connected via Ethernet cable to establish a connection to the VisioNize Lab Suite.

Eppendorf ULT Freezers

CryoCube® F740i
CryoCube® F740hi
CryoCube® F740iw
CryoCube® F740hiw

Eppendorf CO₂ Incubators

CellXpert® C170i

Eppendorf Shakers

Innova® S44i*

Eppendorf Centrifuges

Centrifuge 5910 Ri

*Only compatible after serial number S44IJH302546

Eppendorf Cyclers

Mastercycler® X40
Mastercycler® X50a
Mastercycler® X50s
Mastercycler® X50p
Mastercycler® X50h
Mastercycler® X50i
Mastercycler® X50l
Mastercycler® X50r
Mastercycler® X50t

Check the latest software version as devices out in the field may require a software update and/or service upgrade from Eppendorf service technician or 3rd party provider.

VisioNize box enabled devices

The VisioNize box acts as a hardware hub and works as a translation system enabling data collection of the device data in VisioNize Lab Suite. 4 devices can be connected to one VisioNize box. Depending on the device, additional service upgrades may be required. Please reach out to your local service representative.

Devices which are connectable via VisioNize box to the VisioNize Lab Suite

Eppendorf ULT Freezers	Eppendorf CO₂ Incubators	Eppendorf Thermomixer
CryoCube®	Galaxy® 48R	Eppendorf ThermoMixer® C, F0.5, F1.5, F2.0, FP
CryoCube® F570	New Brunswick™ S41i	Eppendorf ThermoStat™ C
CryoCube® F570h	CellXpert® C170	
CryoCube® F570hw		
CryoCube® FC660	Eppendorf Shakers	Eppendorf Cyclers
CryoCube® FC660h	Innova® 40	Mastercycler® Nexus
CryoCube® F101h	Innova® 42	Mastercycler® Nexus gradient
CryoCube® F440n	Innova® 43	Mastercycler® Nexus flat
CryoCube® F440h	Innova® 44	Mastercycler® Nexus X2
Innova® U101		Mastercycler® Nexus GX2
Innova® U535	Eppendorf Centrifuges	Mastercycler® Nexus SX1
Innova® U570	Centrifuge 5910 R	Mastercycler® Nexus GSX1
Innova® U570-G	Centrifuge 5424 R	
Innova® U725	Centrifuge 5425	
Innova® U725-G	Centrifuge 5425 R	
Innova® C760	Centrifuge 5427 R	
Innova® C585		
Premium U410		
Premium U570		
HEF U410		

VisioNize sense enabled devices

Non-Eppendorf devices are connectable via VisioNize sense, a temperature monitoring sensor system. The temperature sensor measures in a range of -90 °C to +50 °C.

Suitable for:	> Lab rooms
> Freezers	> Incubators
> 4 degrees, -20 degree refrigerators	> Shakers
> Environmental chambers	
> Water baths	

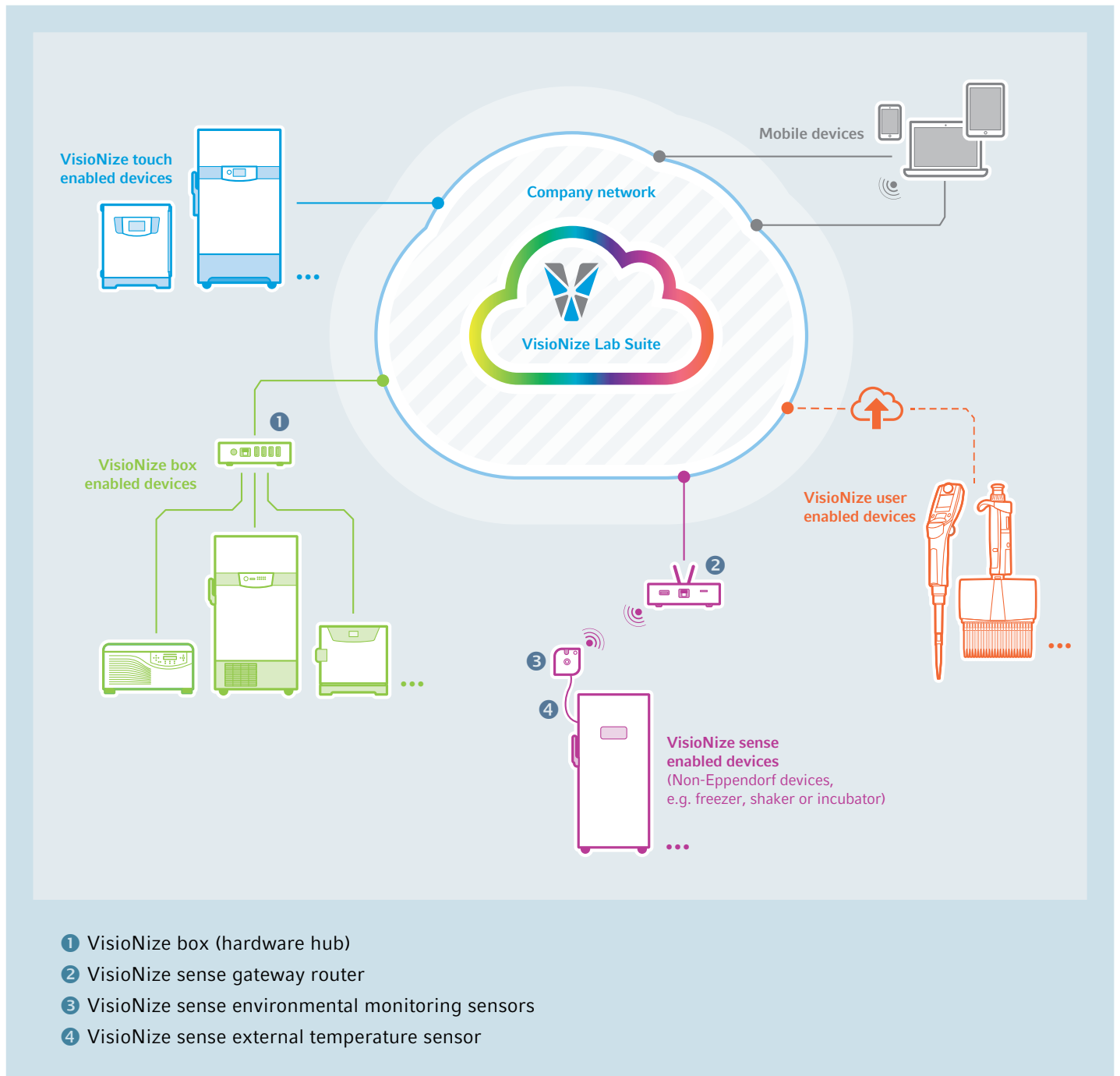
VisioNize user enabled devices

Devices can be added manually to the VisioNize Lab Suite to manage and maintain the overall device asset data.

Instrument/device examples:

- > Pipettes
- > Microscopes

How Devices Can Be Connected



All devices need to be integrated into your local network and need to have the port open to the following URL: (please ask your IT department for assistance)

URL	Port	Protocol
*.eppendorf.com	443 TCP	MQTT via web sockets

Important: Please make sure that date, time and time-zone is set correctly at the device. We recommend using an automatic date and time server. If your firewall includes deep packet inspection (DPI) or heuristic traffic blocking methods, please ensure to unblock the corresponding devices since IoT data is in rare occasions rated as unusual network traffic and therefore blocked.

Connecting VisioNize touch enabled devices

Check the software version of your device:

Tab Menu > Settings > About this: scroll down to „Software version“.

Lab Device	Required software version*	Directly connectable from serial number
Innova® S44i	2.1.6.366	S44IKI002880
CryoCube® F740i, hi, hiw	2.1.6	F740KI87252
CellXpert® C170i	2.3.7	6731KG715834
Eppendorf Centrifuge 5910 Ri	1.3.2	all
Mastercycler® X50	3.0.2	6311KO924308
Mastercycler® X40	all	all

*To get the latest device software please contact your Eppendorf service representative.

1. Preparation: Please ask your IT department for assistance! Your IT-department may ask for the “MAC address” of each individual device. This information can be found in the network setting of the device itself:

Tab Menu > Settings > System Settings > Network

2. Add your devices to IT network: Only one cable is needed. Connect the Ethernet interface at the rear side of the device to a patched wall port on the network with a standard Ethernet cable. Did it work?

Tab **Menu > Settings > System Settings > Network** and check if your device gets an IP address assigned;

If you are using DHCP as network protocol (recommended) switch on DHCP or switch off Enable DHCP and tab “Manual Setup” and enter the network settings manually (Please ask your IT department for assistance).

To check if your device is correctly configured to connect to VisioNize Lab Suite, use the function “Check Cloud Connectivity Prerequisites” in **Menu > Contacts & Support > Diagnostics**.

3. Add the device to your device list, navigate to the “device management”, click “add device”, select “A VisioNize touch enabled device” and enter the serial number in the next step.

Just navigate to **Menu > Settings > About** this device at the device display to check the serial number.

4. Confirm the next step by clicking “Submit”

5. Please navigate to the “Requests” tab in the device management app, select the device you want to add and click “Accept devices” ones you have connected the device to your local network. If the “Accept device” button is greyed out, please check if your device is connected to the local network.

Connecting VisioNize box enabled devices

1. Please connect the Eppendorf devices to the VisioNize box with the appropriate adapter cable. One VisioNize box can manage up to 4 devices in close proximity. For additional information, please have a look into the VisioNize box manual.

➔ www.eppendorf.com/visionize-box-manual

2. Update the VisioNize box: The VisioNize box requires an update to the latest software version. Check the following website <https://www.eppendorf.com/service-support/knowledge-base/software-downloads/> and download the latest software version of the VisioNize box. Unpack the ZIP file on an empty USB stick and connect the USB stick to the VisioNize box. The update process is finished when the left LED lights up in blue again.

Please also have a look into the VisioNize box manual for more assistance regarding the update.

➔ www.eppendorf.com/visionize-box-manual

3. Prepare IT environment: Please ask your IT department for assistance! Your IT department may ask for the “MAC address” of each VisioNize box. This information can be found on the sticker at the bottom of the VisioNize box.

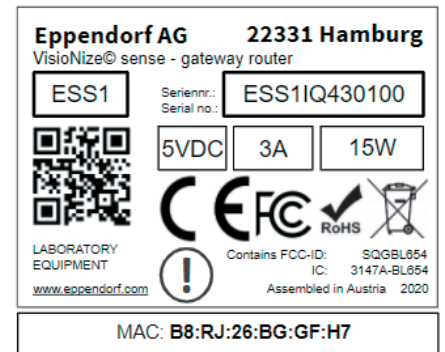
4. Add VisioNize box to IT network: Only one cable is needed. Connect the Ethernet interface at the rear site of the VisioNize box to a patched network socket with a standard Ethernet cable. Connect the VisioNize box to your local IT network with an Ethernet cable.

5. Did it work? To check if your device is correctly configured to connect to VisioNize Lab Suite, please plug a USB stick into one of the USB ports and wait 2 seconds. A logfile will be automatically exported to the USB stick and can be checked at the PC. In case of a connectivity problem, please share the information with your local IT department.

6. Add VisioNize box to your device list: Navigate to the “device management app”, click “add device”, select “VisioNize box or VisioNize sense gateway router” and enter the serial number of the VisioNize box in the next step. You will find the serial number of the VisioNize box on the sticker at the bottom of the VisioNize box.

7. Confirm the next step by clicking “Submit”.

8. Please navigate to the “Requests” tab in the device management app, select the VisioNize box you want to add and click “Accept devices” ones you have connected the device to your local network. If the “Accept device” button is greyed out, please check if your device is connected to the local network. The Eppendorf device which is connected to the VisioNize box will automatically appear in the devices list ones the VisioNize box is connected.



Connecting VisioNize sense enabled devices

- 1. Preparation:** Please ask your IT department for assistance!
Your IT department may ask for the “MAC address” of each gateway router. This information can be found on the sticker at the bottom of the gateway router.
- 2. Add the VisioNize sense gateway router to your local IT network:**
Only one cable is needed. Connect the Ethernet interface at the rear site of the VisioNize sense gateway router to a patched network with a standard Ethernet cable.
- 3. Add the device to your device list.** Navigate to the “device management app”, click “add device”, select “VisioNize box or VisioNize sense gateway router” and enter the serial number in the next step. You will find the serial number on the sticker of the VisioNize sense gateway router. Once you turn on the VisioNize sense environmental monitoring sensor, it will automatically connect to the VisioNize sense gateway router and appear in the device list. Further information can be found in the operating manual for VisioNize sense.
[➔ www.eppendorf.com/visionize-sense-manual](http://www.eppendorf.com/visionize-sense-manual)
- 4. Confirm the next step by clicking “Submit”.**
- 5. Please navigate to the “Requests” tab in the device management app,** select the router you want to add and click “Accept devices” once you have connected the device to your local network. If the “Accept device” button is greyed out, please check if your device is connected to the local network.
- 6. Did it work?** To check if your device is correctly configured to connect to VisioNize Lab Suite, please plug a USB stick into the USB ports and wait 2 seconds. A logfile will be automatically exported to the USB stick and can be checked at the PC. In case of a connectivity problem, please share the information with your local IT department.
- 7. Make sure that the VisioNize sense gateway router is always running the latest software version.** For that purpose please navigate in VisioNize Lab Suite to “Device Management” and check if a green icon is displayed in the device list. If a green icon is displayed, please start the update process by clicking on “Schedule Device Update” and confirm the next step by selecting “Update now” and click “Confirm”.
- 8. Toreceive notifications** for VisioNize sense enabled devices, limit ranges need to be set in the software. As soon as the sensors are connected, please navigate to the “Monitoring” view and select the sensor in the device list. Just click on the parameter, e.g., temperature, and define the limit range. After setting up the limit ranges please create a notification in the “Notification” settings and select the sensor. We recommend adding the notification categories “Errors”, “Warnings” and “Alarms”.



Customer Name	Company	Date and Signature

More information

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