



NoriGate Setup Guide

NORICAN

DiSA**SIMPSON****Monitizer**

wheelabrator

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Description

NoriGate is a flexible and secure IIoT gateway that connects you to your production data.

It plugs into almost any machine, PLC, sensor, or OPC-UA network and databases using a pre-installed interface library, making installation and retrofitting simple.

As the first touchpoint to the Monitizer platform, NoriGate time-stamps, standardises, and encrypts data at the edge before securely streaming it for reliable, scalable use - without data loss.



NoriGate preparation and initial setup

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1.0 Required tools and parts

Pos.	Description	Quantity	Notes
Tools			
T1	Screwdriver - 2.5mm diameter head	1	
T2	Crimping tool	1	
T3	Wire stripper	1	
T4	Laptop (optional)	1	Only required for Step 5 and Step 6
T5	USB stick with a minimum of 8 GB of disc space (optional)	1	Only required for Step 5 and Step 6
Parts			
4	Ethernet cable - 2m	2	Length of the cable can change depending on the location of the data source, routers and switches
5	Stranded hook-up wire for plus - blue, 2m	1	
6	Stranded hook-up wire minus - red, 2m	1	
7	Stranded hook-up wire for ground - yellow-green, 2m	1	



2.0 Physical installation

Unpack and verify contents

Unpack the NoriGate and check that all components are included.



Before continuing, verify that the **NIFE 106 series package** that you received is complete. Your package should contain:

Item	Part Number	Description	Qty
1	6012200052X00	PE Zipper Bag #8 170 x 240mm, W/China RoHS SYMBOL	1
2	6012200052X00	PE Zipper Bag #3 100 x 70mm, W/China RoHS SYMBOL	3
3	4NCPM00442X00	Terminal Blocks 4P Dinkle:0159-0104 ASSY 3.5mm H:22.55mm Male 90D Black	1
4	4NCPF01012X00	Terminal Blocks 10P Phoenix Contact:1821177 ASSY 2.54mm Female 90D Black	1
5	5061600245X00	Washer Kangyang: TW-320-01 10.4 x 6.4mm T=1mm Nylon Black	8
6	5061711760X00	Mini PCI-E Bracket for NISE 106 Series VER:A ASDA 30 x 29 x 2.1mm SPCC T=1.0mm	1
7	50344C0379X00	Copper Post for NISE53 Series VER:A Long FEI with Female/Male (Female) 6mm x (Male) 5mm	1
8	50311F0396X00	I Head Screw LONG FEI:I3 x 3 ISO+ Nylok Black I3 x 3 ISO+ Nylok Black	1
9	50311F0295X00	FLAT Head Screw LONG FEI:F2 x 4 Nylok NIGP F2 x 4 NIGP Nylock	1
10	50311F0330X00	ROUND Head Screw LONG FEI:P2 x 3 ISO+Nylon P2 x 3 NI Nylok	2
11	5060200007X0E	Msata & M.2 2242 devices Thermal Pad 30 x 20 x 5.5mm TP-H400 K=4w/mk	2

Fig. 1: Appearance and contents of **NoriGate V2** box



Before continuing, verify that the **NIFE 103 package** that you received is complete. Your package should contain:

Item	Part Number	Description	Qty
1	19J70010300X0	NIFE 103 ASSY	1
2	6012200052X00	PE Zipper Bag #8	1
3	5060900262X00	NISE 90 AL DIN Rail Clip VER:A SHYUNG SHUHN	1
4	6012200053X00	PE Zipper Bag #3	2
5	50311F0095X00	FLAT Head Screw LONG FEI:F6 #32Tx5 Nylok NIGP	4
6	50311F0330X00	ROUND Head Screw LONG FEI:P2 x 3 ISO+Nylon	3
7	4NCPF00316X00	Terminal Blocks 3P Phoenix Contact: 1834916	1
8	4NCPF01012X00	Terminal Blocks 10P Phoenix Contact: 1821177	1
9	50311F0574X00	P Head Screw w/Washer LONG FEI	1
10	60177A0572X00	NIFE 103 Quick Reference Guide VER:A Size: A4	1
11	602DCD1395X00	NIFE 103 DVD Driver VER:1.0	1

Fig. 2: Appearance and contents of **NoriGate V1** box



2.1 Choose a mounting method

Choose a mounting method

The NoriGate can be wall-mounted (fig. 3) or DIN rail-mounted (fig. 4).

If mounting on a DIN rail, first install the required DIN rail bracket.



Take a clear picture of the NoriGate label, as you will need this in the next steps.



Fig. 3: NoriGate V2 -
wall-mounted

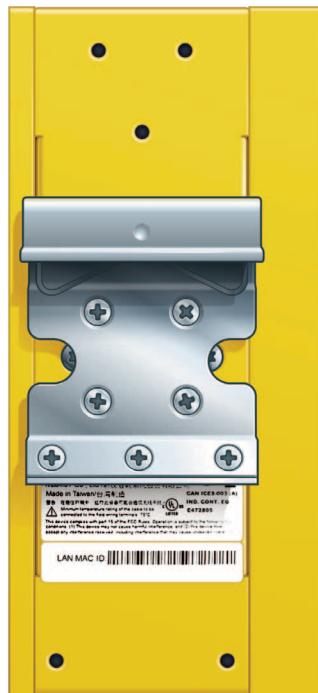


Fig. 4: NoriGate V2 -
DIN rail-mounted



2.2 Mount the NoriGate

Mount the NoriGate

Secure the NoriGate in your chosen location.

Ensure that the hardware LED lights are facing up.



Fig. 5: NoriGate positioned, as above, in your chosen location with LED lights facing upwards



2.3 Connect power

Connect power

Supply the NoriGate with a **24V DC** power supply.

Maximum load is 2.5A.

Terminals:

+ (positive)

- (negative)

GND (ground)

SW (switch)

see Fig. 6/7.



Important:

We recommend using an uninterrupted external power source to avoid affecting the machine control system.

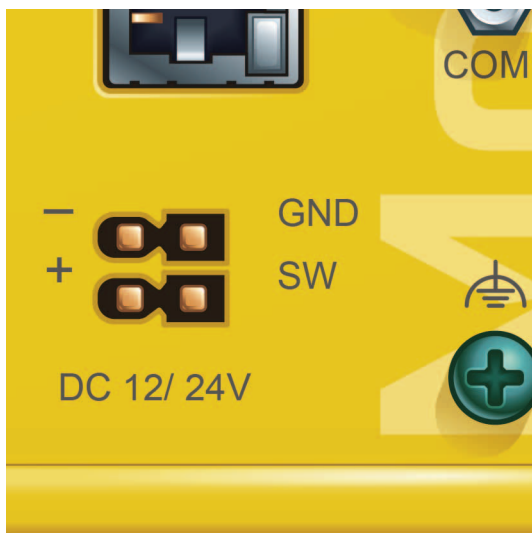


Fig. 6: Terminals of NoriGate V2

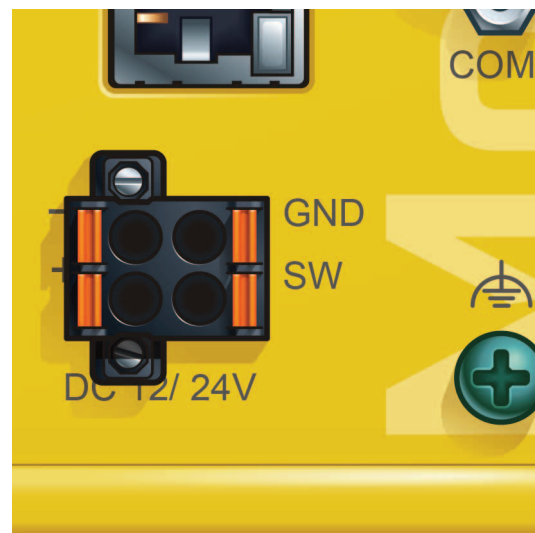


Fig. 7: Terminal pin adaptor NoriGate v2



2.4 Connect cables

Connect network cables

Port 1:

Connect the LAN cable for internet access.

Port 2:

Connect the LAN cable from your data source (PLC, database, sensor etc).



Important:

Make sure the cables are connected to the correct ports

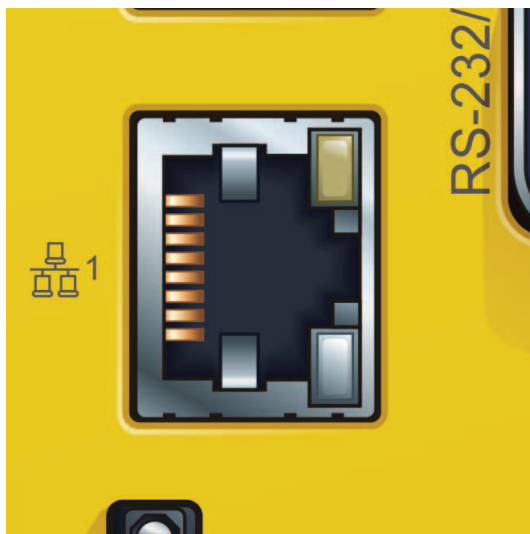


Fig. 8: Port 1 (Internet Port)

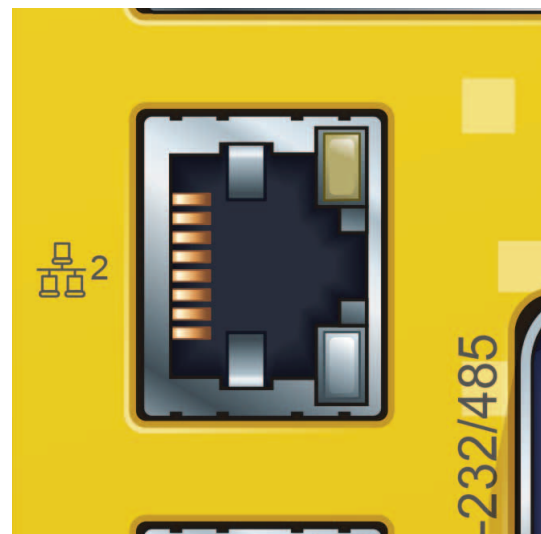


Fig. 9: Port 2 (Machine Network)



2.5 Power on and verify

Power on and verify

Turn on the power supply to the NoriGate.

Confirm that the power LED (POW) is illuminated.

In some cases, the device may power on automatically.



Fig. 10: NoriGate - power LED illuminated



3.0 Whitelist endpoint addresses in firewall rules

Contact your IT administrator

Contact your IT administrator and request that the following endpoint addresses be whitelisted to allow the NoriGate to connect to Monitizer servers:

Servers - Rest of the World (excluding China)	Port
edge.eu-west-1.connect.noricandigital.com	443 (TCP)
connect.noricandigital.com (optional)	443 (TCP)
api.clickup.com/api/v2 (optional)	443 (TCP)

Server China	Port
China only edge.cn-shanghai.connect.noricandigital.com	443 (TCP)
connect.noricandigital.com (optional)	443 (TCP)
api.clickup.com/api/v2 (optional)	443 (TCP)



4.0 Completing the installation

Following installation

After the device is installed and the endpoints are whitelisted, inform your Monitizer project contact person.

PROVIDE THE SERIAL ID OF YOUR NORIGATE DEVICE

so the Monitizer team can review its connectivity.

Once the device connects successfully, your installation is complete and your NoriGate is up and running.



Note:

If the device does not switch on or connect, follow the steps in:

Section 5.0 – Network connection troubleshooting

and

Section 6.0 – Change network settings

before contacting your Monitizer project contact.



5.0 Network connection troubleshooting

Troubleshooting

If the device does not connect as expected, root-cause troubleshooting is required.



You will need a USB stick with a special utility to perform troubleshooting.

5.1 Prepare USB stick and utility

Following installation

Use a USB stick with a minimum of **8 GB of disk space**.

Download the Balena Etcher software compatible with your operating system (see the provided link or instructions):

<https://etcher.balena.io/#download-etcher>

Open the software by **double-clicking the application**.

Select the option “**Flash from URL**” to start the troubleshooting procedure.

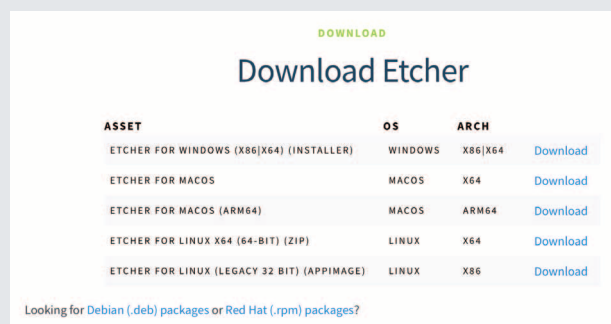
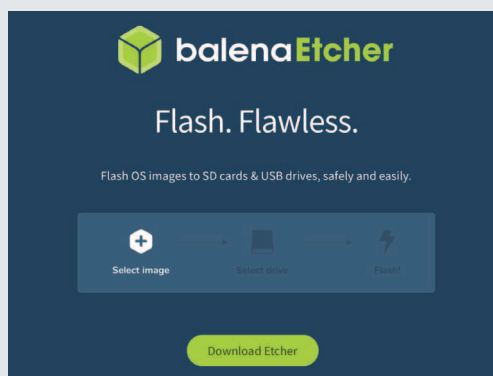


Fig. 11: Download the Balena Etcher software



5.2 Prepare USB image

Obtain the USB image link

You should have received a link from your Monitizer project contact person. Locate this link in your emails.



If you did not receive the link, contact your Monitizer project contact to request it.

Enter this link into the software interface.

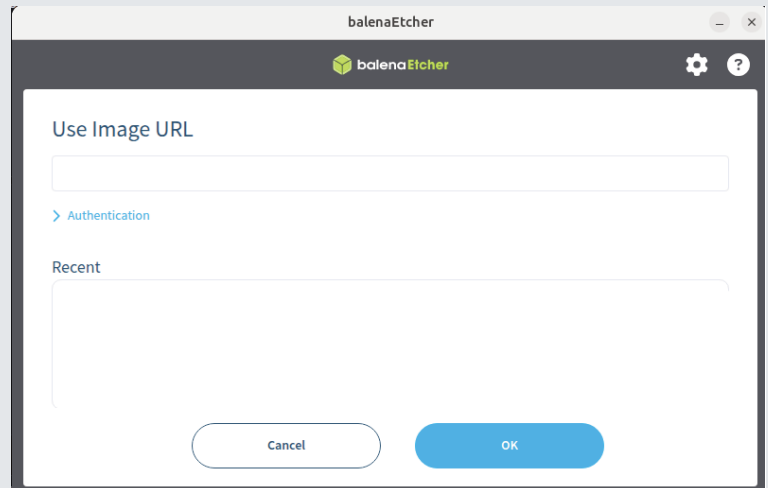


Fig. 12: USB image link

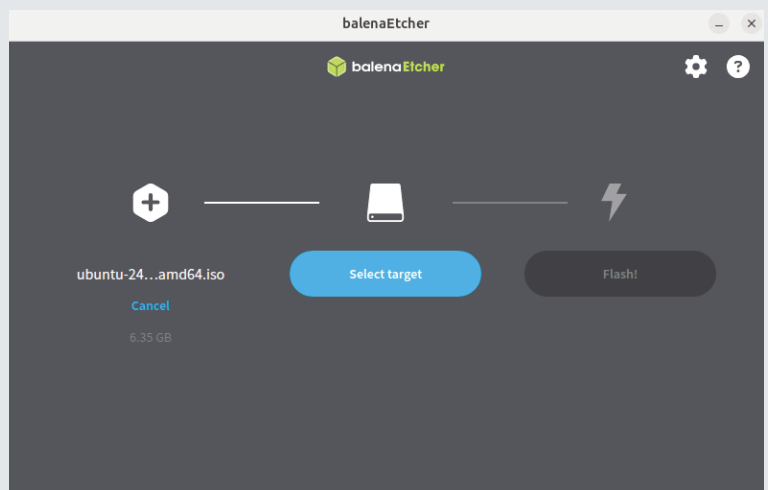
Connect USB stick and flash image

Connect the USB stick to your computer. Click **“Select Target”** in the software.

Choose the connected USB stick as the target device. Click **“Flash”**.



This process takes approximately 5 minutes – please be patient.



5.3 Connect USB stick to NoriGate and access utility

Connect USB stick to NoriGate and access utility

Insert the prepared USB stick into **any USB port on the NoriGate device**. **Reboot the device** as shown in the reference image below. Change your laptop's IP address to access the **NoriGate (IP 192.168.1.249)**.

Open your preferred web browser and navigate to the specified interface address: **<http://192.168.1.249:5000/>**



5.4 NoriGate connection diagram

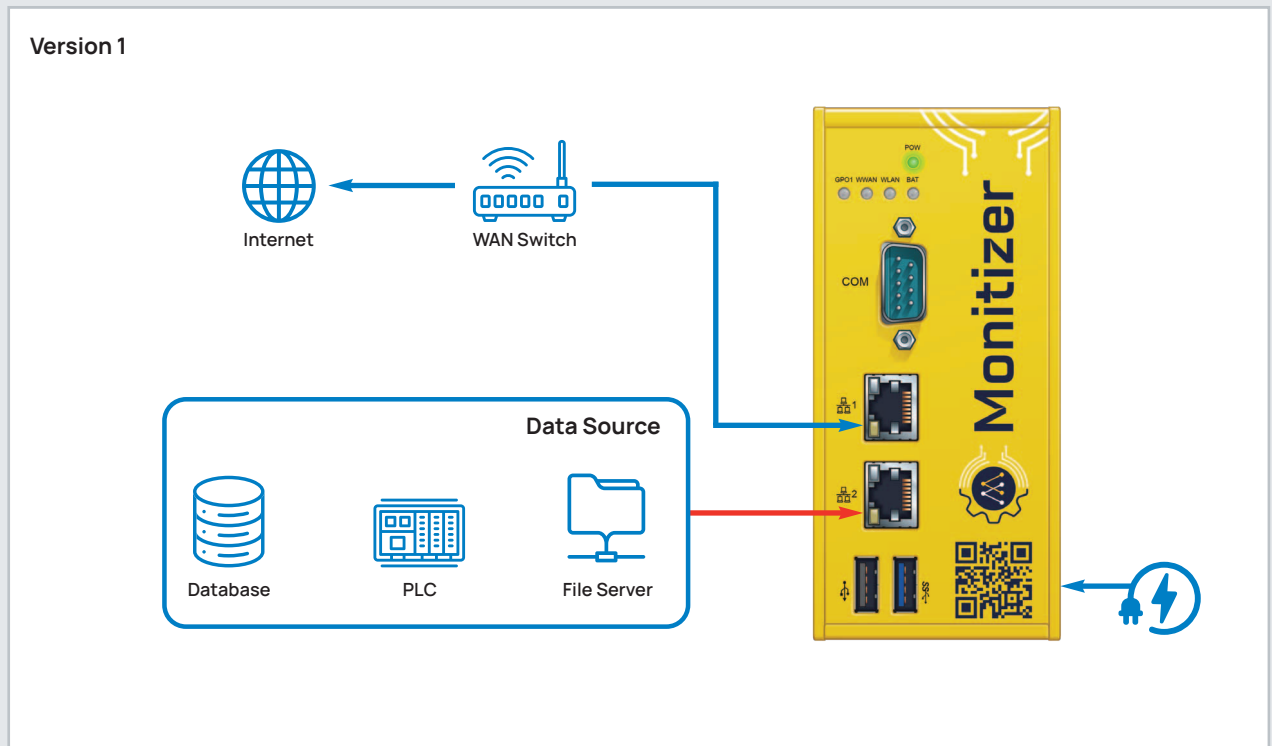


Fig. 15: NoriGate V1 : Initial connection without further troubleshooting

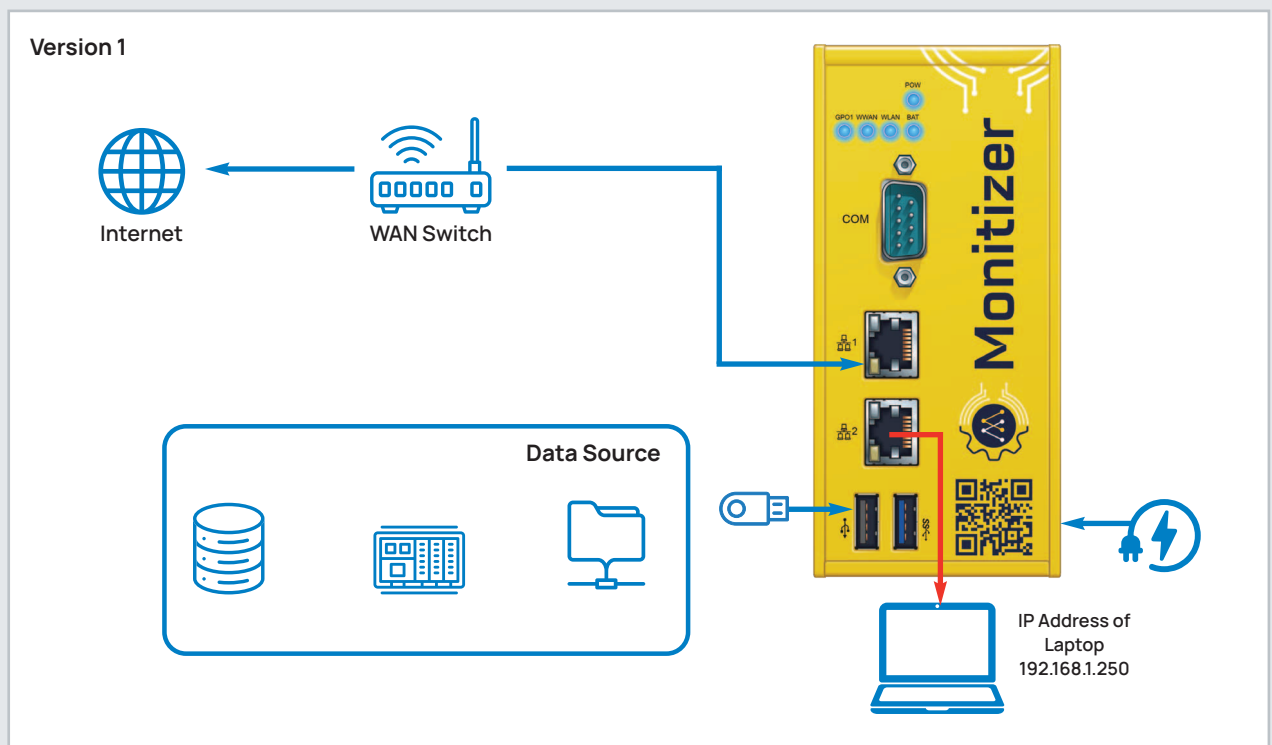


Fig. 16: NoriGate V1 : Connection for further troubleshooting



Version 2

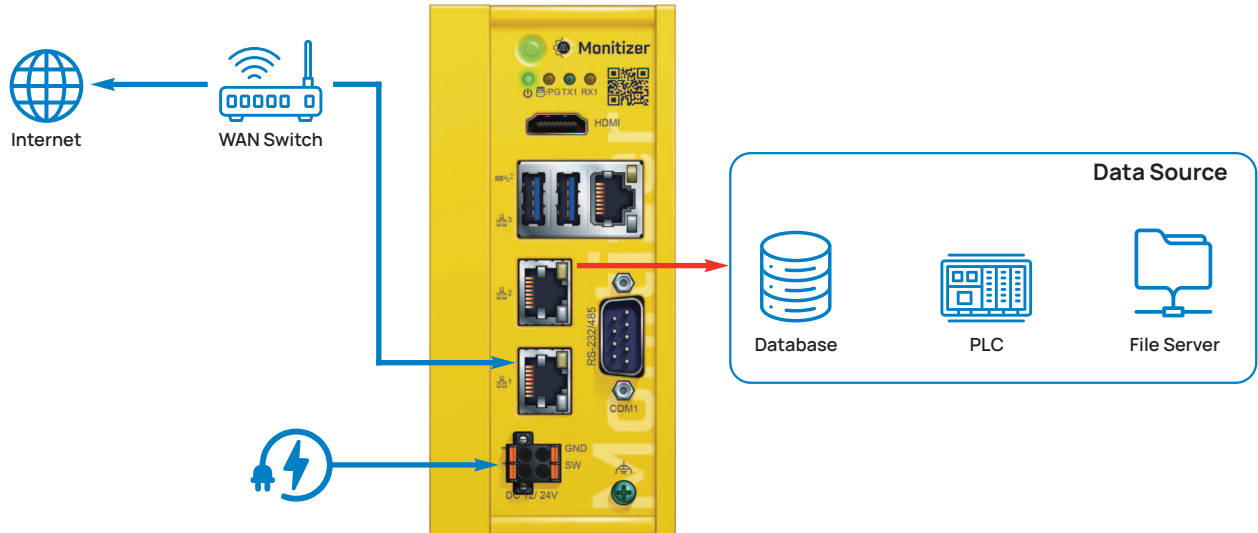


Fig. 17: NoriGate V2 : Initial connection without further troubleshooting

Version 2

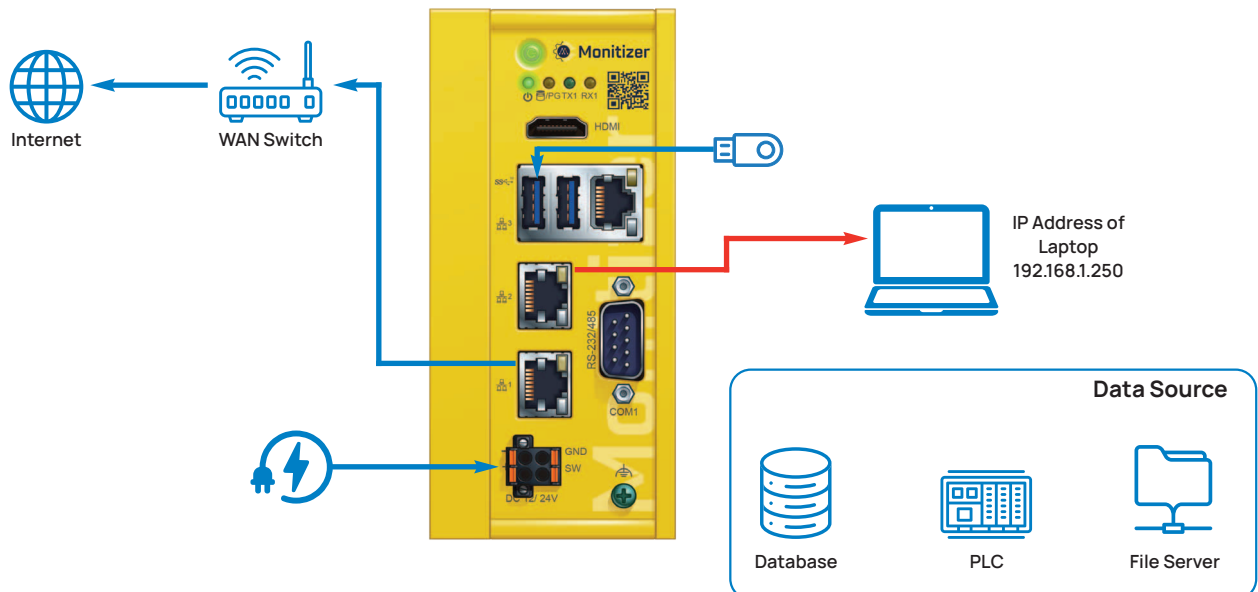


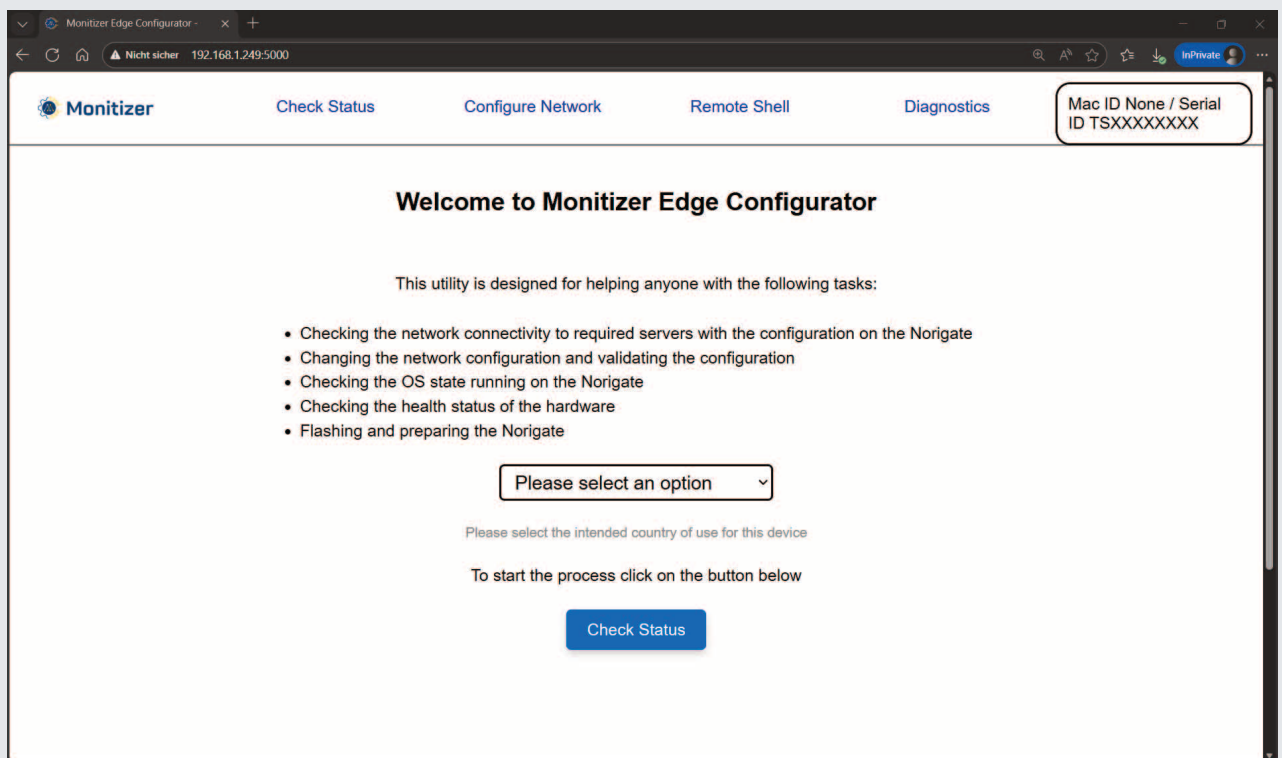
Fig. 18: NoriGate V2 : Connection for further troubleshooting



5.5 Check device status

Select the region

1. On the page, **select the region** where this device will be used:
China
or
Rest of the World (excluding China).
2. Click **“Check Status”**
This action will initiate a health check for the NoriGate device.





5.6 Identify and resolve issues

Interpret the results

3. If **all indicators are green**, the device is ready, and the connection can be established.



If **any indicator is not green**, contact your Monitizer project contact for support.

4. **Once all indicators are green:**

- i. Power off the device either by pressing the power button or disconnecting the power source, and wait 15 seconds.
- ii. Remove the USB Stick from the USB Port.
- iii. Power on the device again.

The screenshot shows the Monitizer Edge Configurator web interface. The browser address bar displays '192.168.1.249:5000/status'. The interface has a navigation bar with 'Monitizer', 'Check Status', 'Configure Network', 'Remote Shell', and 'Diagnostics'. A status box in the top right corner shows 'Mac ID 00:00:00:00 / Serial ID TTTT123456'. The main content area is titled 'Device Status' and is divided into two columns. The left column contains four sections: 'Hardware & Operating System(OS) Status' with 'OS Name' set to 'ubuntu_22'; 'Network Connection Status' with three green checkmarks for 'edge.eu-west-1.connect.noricanigital.com on Port 443', 'connect.noricanigital.com on Port 443', and 'https://api.clickup.com/api/v2 on port 443'; 'Infrastructure Status' with two green checkmarks for 'Device added to inventory' and 'Device Bootstrapped'; and 'Services Status' with two green checkmarks for 'Device Management Application' and 'VPN Application'. A 'Click here to Refresh Status' button is at the bottom of this column. The right column is titled 'Next Step' and contains the text: 'Everything is fully functional now and the device can be onboarded. In order to facilitate a fast device onboarding, please provide the following information.' Below this text are input fields for 'Email Address' and 'Data Source Name/ID', followed by a blue 'Send Request' button.



6.0 Change network settings

Change network settings as follows

1. Set static IPs (Optional)

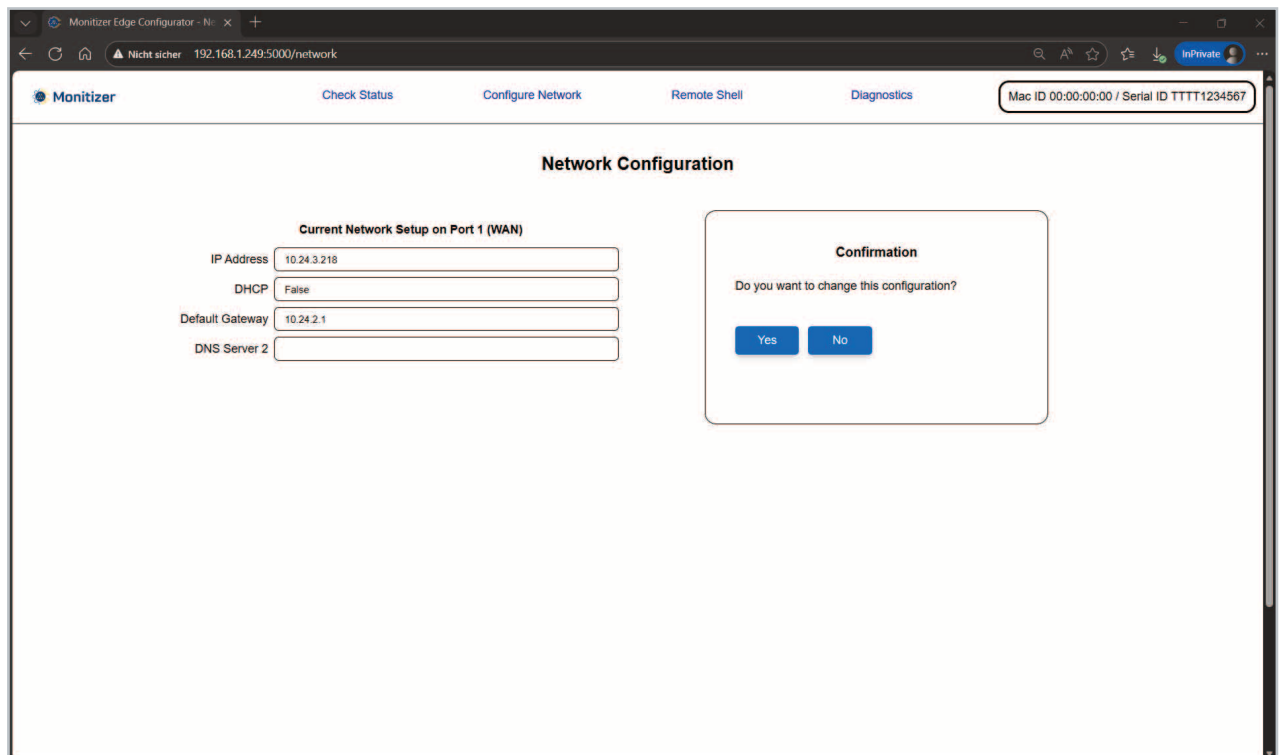
If you want to assign **static IPs** on the **Port 1**, you can use the **Monitzer Edge Configurator**.

2. Open network configuration

Launch the Monitzer Edge Configurator.

On the Welcome screen, click **“Configure Network”** at the top of the screen.

A new page will open showing requirements for internet connectivity.





Interpret the results

3. **Configure network options**, the device is ready,
Click the **“Network Configuration”** button.

On this page, you can:

Switch between DHCP mode or static IP mode using the toggle.

Enter additional network details as required.

Monitzer Edge Configurator - N... x +

Nicht sicher 192.168.1.249:5000/new_network

Monitzer Check Status Configure Network Remote Shell Diagnostics Mac ID 00:00:00:00 / Serial ID TTTT1234567

Network Configuration Interface

DHCP ☐

Note: If DHCP option is enabled, the input to the fields below is not needed except dns.

IP Address

Please use xx.xx.xx.xx/xx in CIDR standard notation
e.g. 192.168.1.10/24 for the IP address 192.168.1.10 with the subnet mask 255.255.255.0

Default Gateway

use xx.xx.xx.xx format your gateway

Primary DNS Server

Please use xx.xx.xx.xx

Secondary DNS Server

Please use xx.xx.xx.xx

After the network settings are successfully changed, the utility will return to the home page and run another round of checks. If the network is connected successfully, all checks will appear with green indicators under the Network section.



Monitizer

Need help?

For support with your NoriGate
or Monitizer platform:

Email: **IOT-support@norican.com**

Website: **monitizer.com**

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