NETMAN TROUBLESHOOTING GUIDE

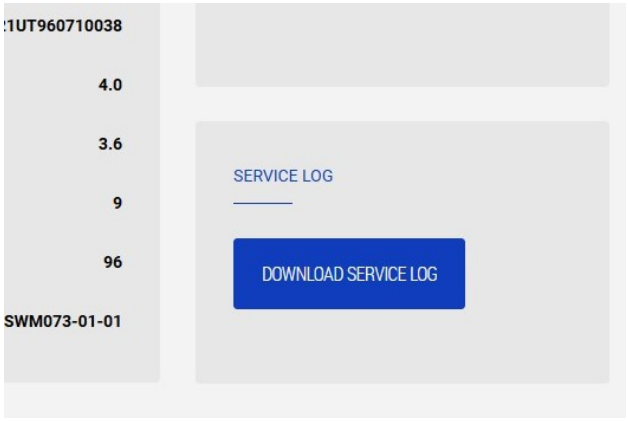
CONTENTS

Images shown in this document are for illustrative purposes only and may differ from the actual product

Please ensure the **Netman is updated** before proceeding.

If the Netman is already updated and the issue persists, provide the **service log** file and send it to your support contact.

You can find the service.log file **SYSTEM OVERVIEW** page:



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1. Why can't I see properly the webpage?
- Clear the cache:

It could happen that the webpage is not as expected, in this case **clear the cache** with **CTRL+F5 (or SHIFT+F5**)

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2. Why the browser redirects to https?
- HTTP and HTTPS on the browser:

If the Netman is set as HTTP (or you are in Maintenance Mode through the reset button in a Netman 208C) some browsers redirect automatically to **HTTPS** and it may be not able to detect the Netman webpage.
Pay attention, if the Netman is in HTTP you have to edit manually the url.

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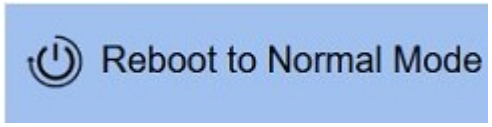
3. I cannot reach my Netman, how to recover?
- 3.1 Restore network from MAINTENANCE

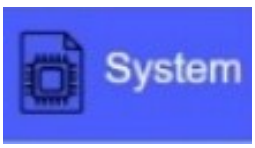
When in **Maintenance Mode**, it is always recommended to restore the network as the first action. This ensures that the HOSTNAME is set correctly in relation to the MAC address, making it easier to identify and connect to the Netman.
Once you have selected Restore network, it's suggested immediately after to reboot to normal mode.

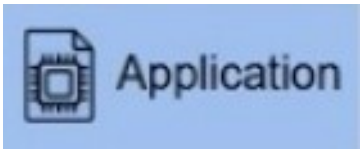


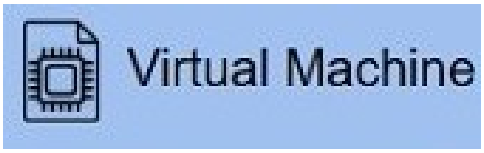
If necessary, it's possible to reset the board to default using the Reset to Default button available in Maintenance Mode:

When in normal mode, verify on System Overview page that the network parameters are correct. Then, boot the Netman into Maintenance Mode again.

When in Maintenance Mode and when the Restore network has been performed, it's always suggested to upgrade the System, the Application and the Virtual Machine.







- 3.2 Netman recovery procedure

This procedure applies to **Recovery version 1.2** or above and MAC address **00:02:63:09:4F:B9** or newer.

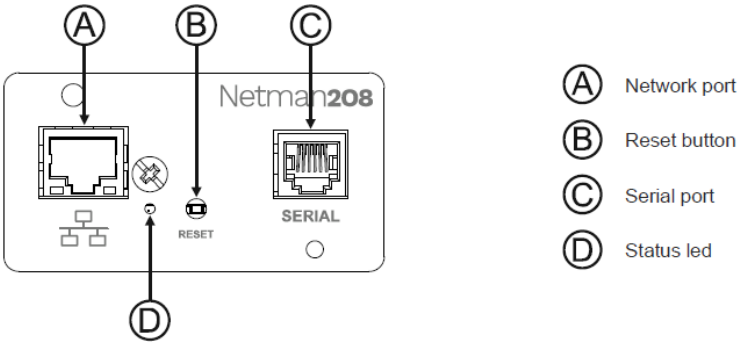
If the Recovery version is older or the MAC address is older, a DHCP server is mandatory to configure the Netman.

This procedure describes **how to recover a lost Netman**.
A Netman can be considered lost if:

- The **HOSTNAME** is unknown.
- The **IP** address is incompatible with the network and IPv6 is disabled.

Recovery Steps

- Take note of the **MAC** address of the Netman card.
- Install the Netman card in the UPS while keeping the **RESET** button (**B**) pressed.



While holding the RESET button, observe the status **LED** sequence (keep the RESET button pressed):

	NETMAN 208	**NETMAN 208C**
STATUS LED	- Steady green - Steady red - Flashing green - Off - Release the RESET button when the LED turns off	- Steady red - Flashing green - Steady green - Release the RESET button when the LED turns off
KEEP THE RESET BUTTON PRESSED FOR	Approximaltely 10 seconds	Approximaltely 13 seconds

After releasing the RESET button, the status LED will:

	NETMAN 208	**NETMAN 208C**
STATUS LED	- Turn steady red - Turn steady green - Start flashing green rapidly → This indicates Maintenance Mode is active	- Turn steady red - Turn steady green - Start flashing green rapidly → This indicates Maintenance Mode is active

Once in Maintenance Mode, the Netman provides the following network configuration:

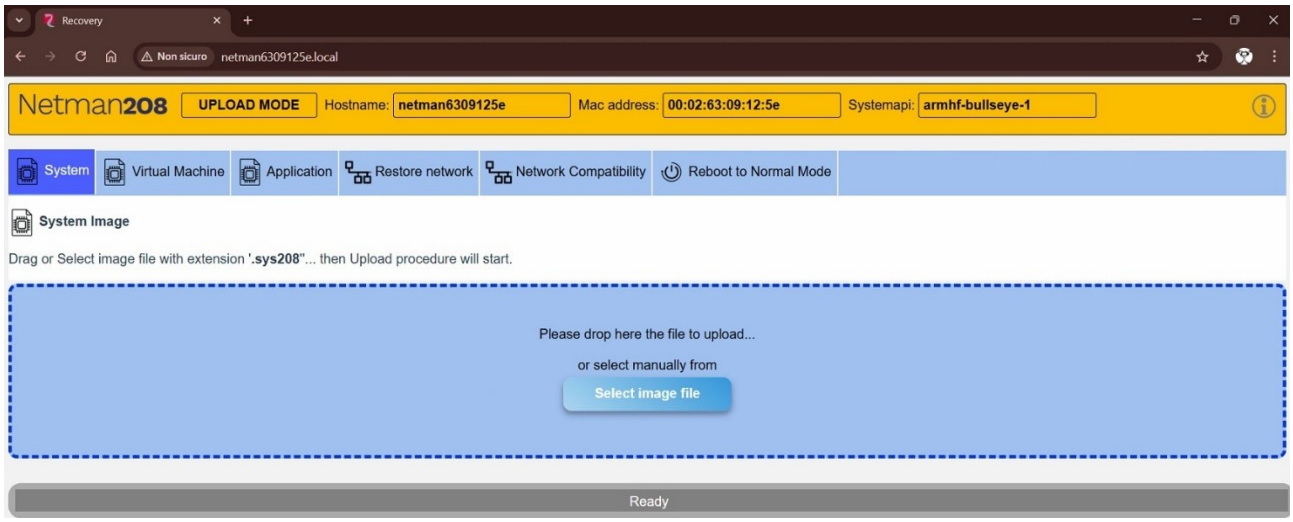
- **DHCP** service enabled
- **IPv6** available
- **fallback IP** available if a DHCP is not available: **169.254.1.208**

- 3.3 Condition one

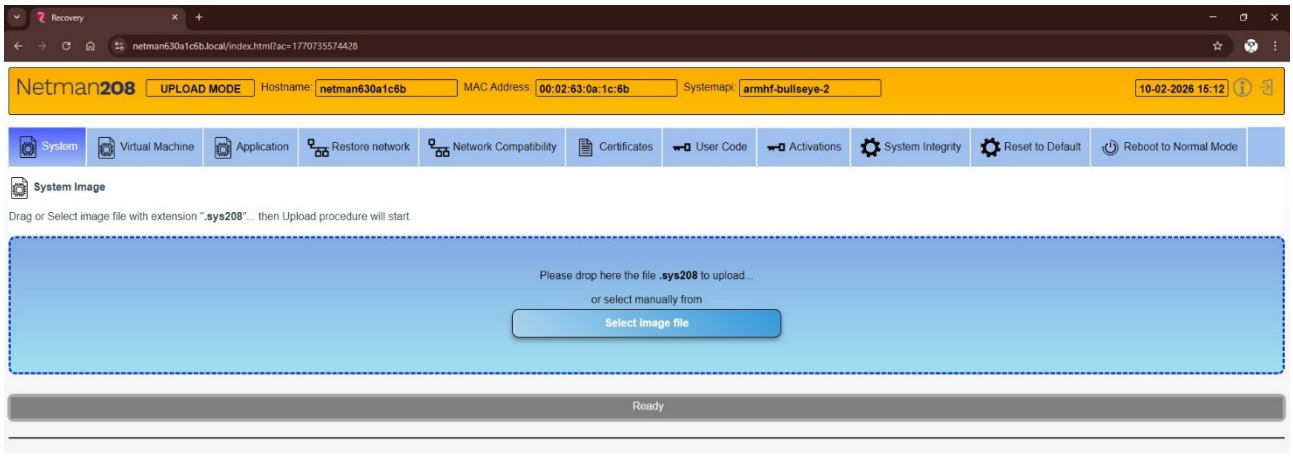
If:

- **DHCP** server available
- **HOSTNAME** is factory standard
- **IP** with wrong address or mask for the present network

you can open a browser and write the **zeroconf** address “**netman630xxxxx.local**” (example of a MAC address **00:02:63:09:12:5e**, example of zeroconf address **netman630912e5.local**):



(example of a MAC address **00:02:63:0a:1c:6b**, example of zeroconf address **netman630a1c6b.local**):



From this page you can **Restore network**
From this page you can upgrade the **System** and the **Application**

Then press reboot to normal mode.

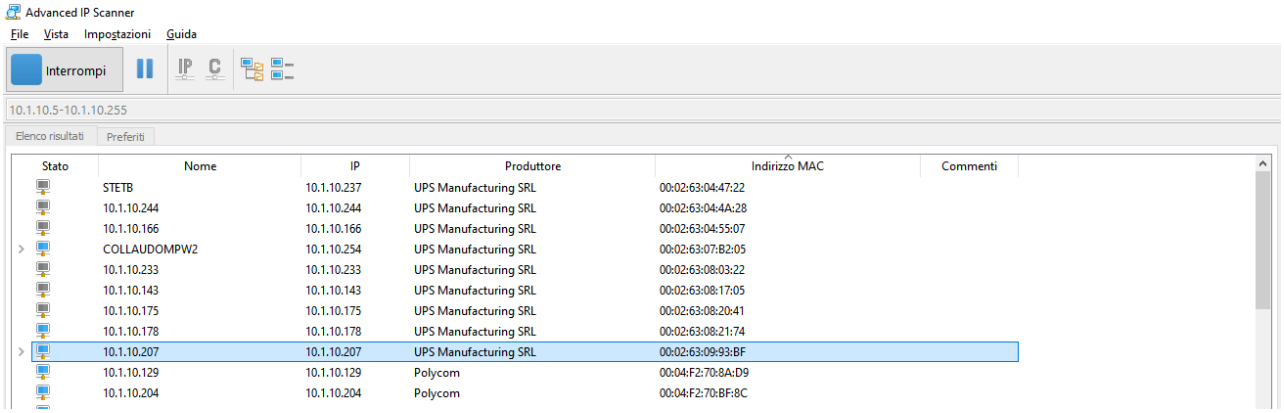
- 3.4 Condition two

If

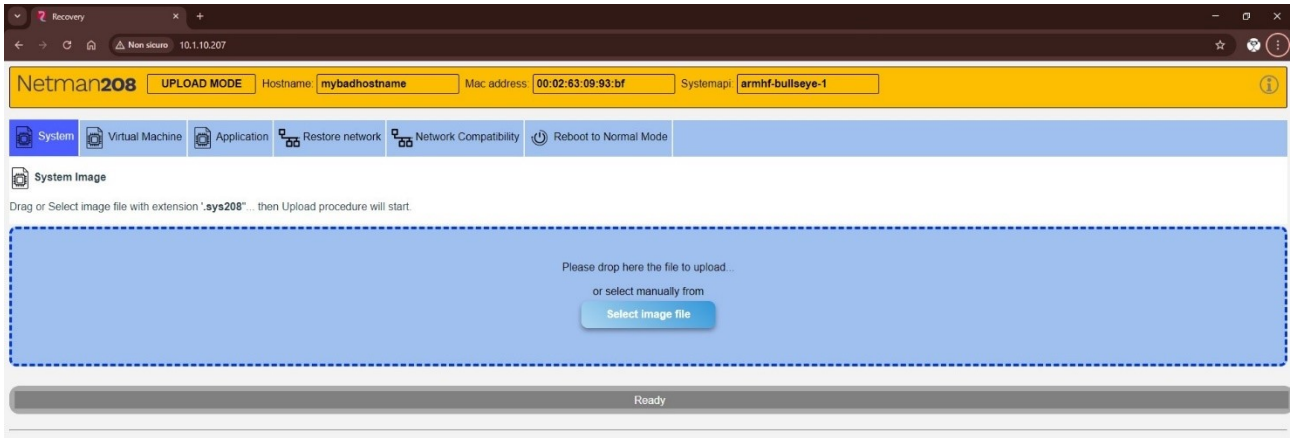
- **DHCP** server available
- **HOSTNAME** unknown
- **IP** with wrong address or mask for the present network

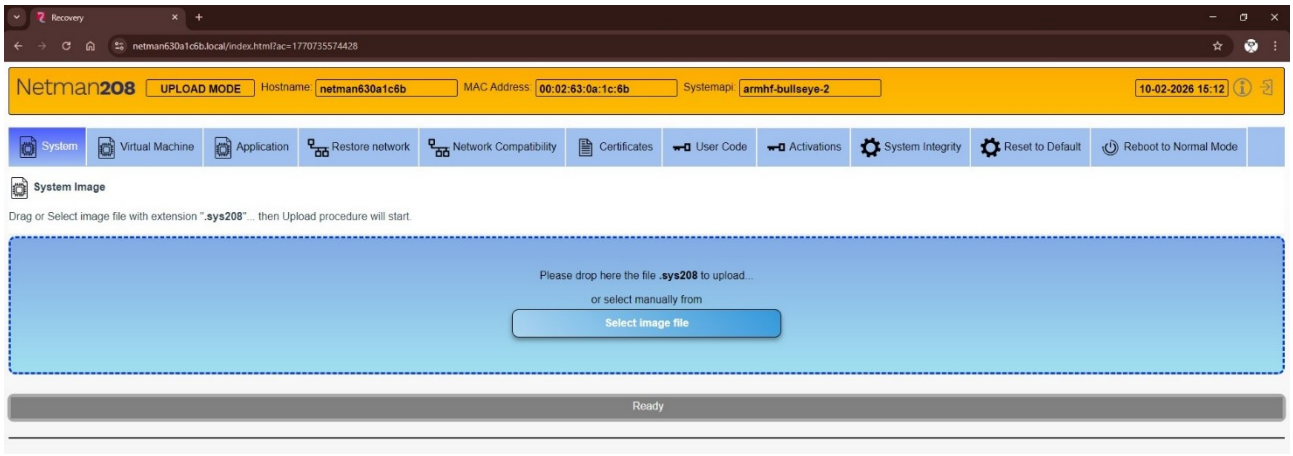
You need to perform a network scan to identify the IP address assigned to the known MAC address. This will allow you to locate the Netman on the network.

i.e. MAC addrdress **00:02:63:09:93:bf** (or **00:02:63:0a:1c:6b**)
Network scanner, look for the MAC address (**00:02:63:09:93:bf**) (or **00:02:63:0a:1c:6b**) to know the IP (**10.1.10.207**) (or **10.1.30.17**):

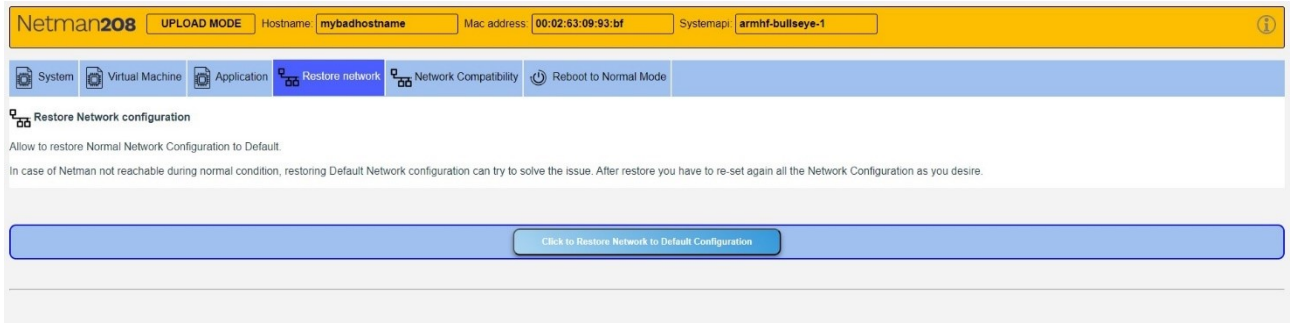


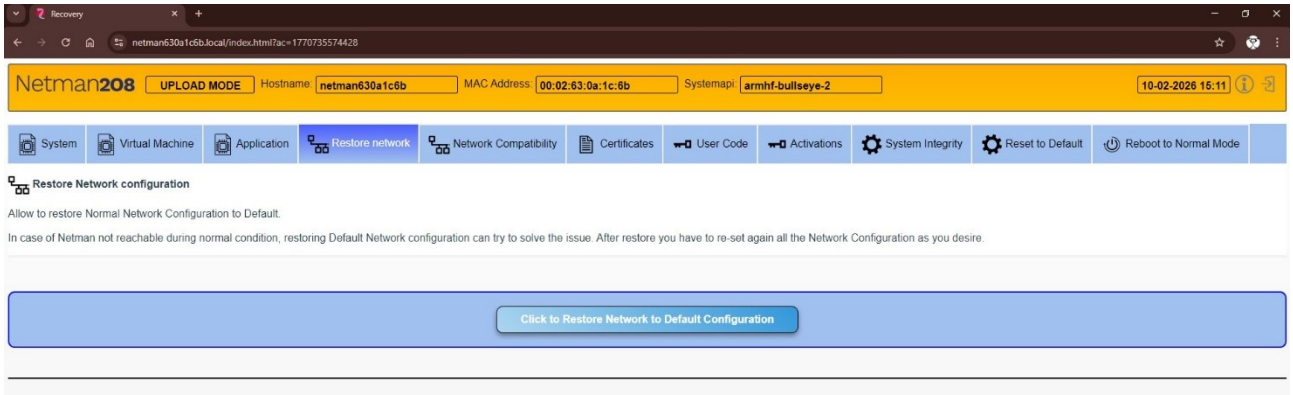
Knowing the IP (**10.1.10.207**) (or **10.1.30.17**):, you can open the webpage:





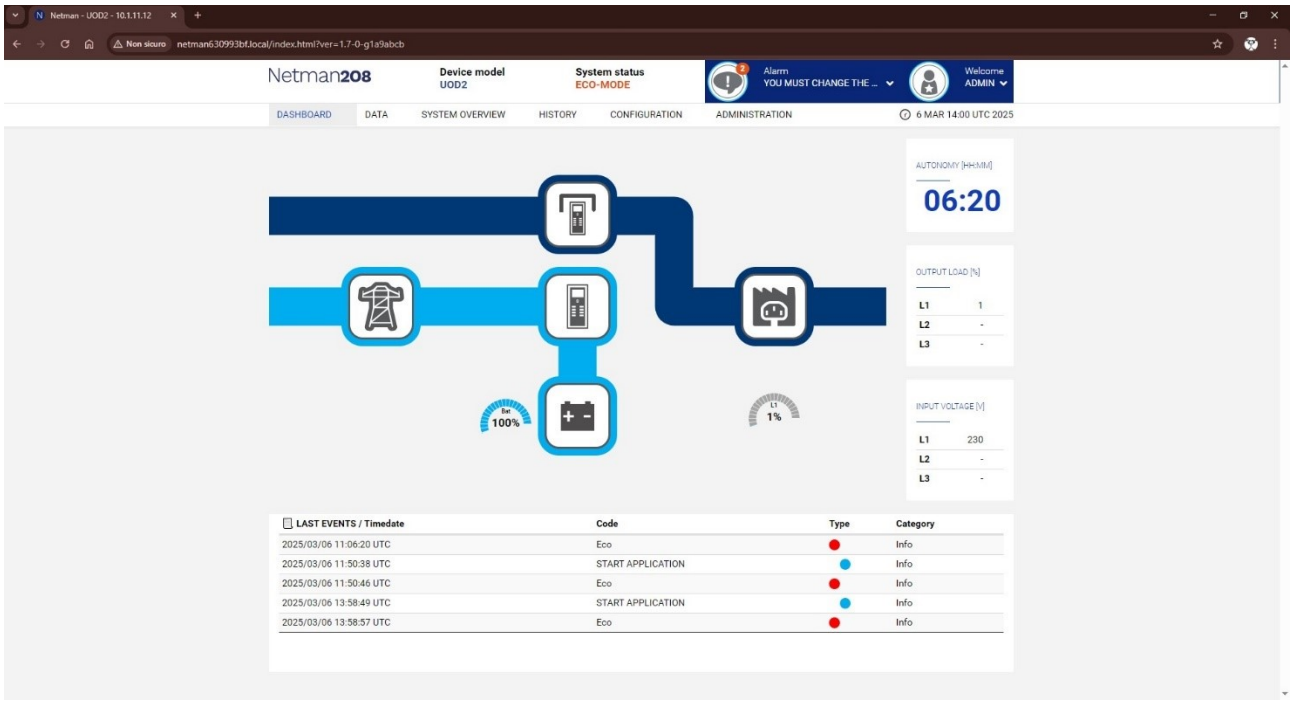
Now it’s possible to restore the network:





Then press reboot to normal mode.

You will get the factory standard HOSTNAME **Netman630993bf**.local (or **netman630a1c6b**.local) where it will be possible to log in using the zeroconf address :



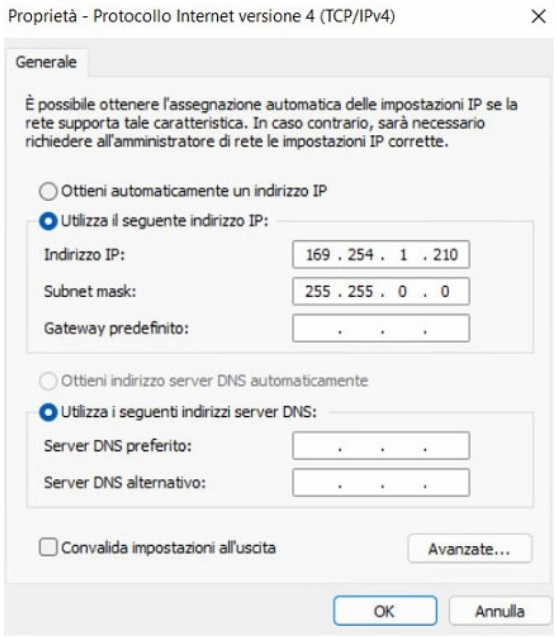
- 3.5 Condition three

If

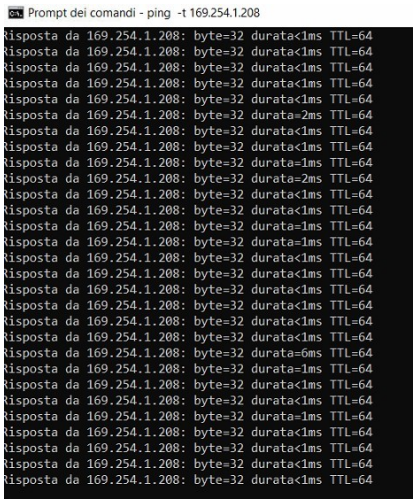
- **DHCP** server is not available
- **IP** with wrong address or mask for the present network

configure the network card of your laptop as follow:

- IP = **169.254.1.210**
- Mask = **255.255.0.0**



Perform a ping to check when the Netman becomes reachable on the network.
Note: If a DHCP server is not available, the **fallback IP** will become available in approximately 4 minutes.

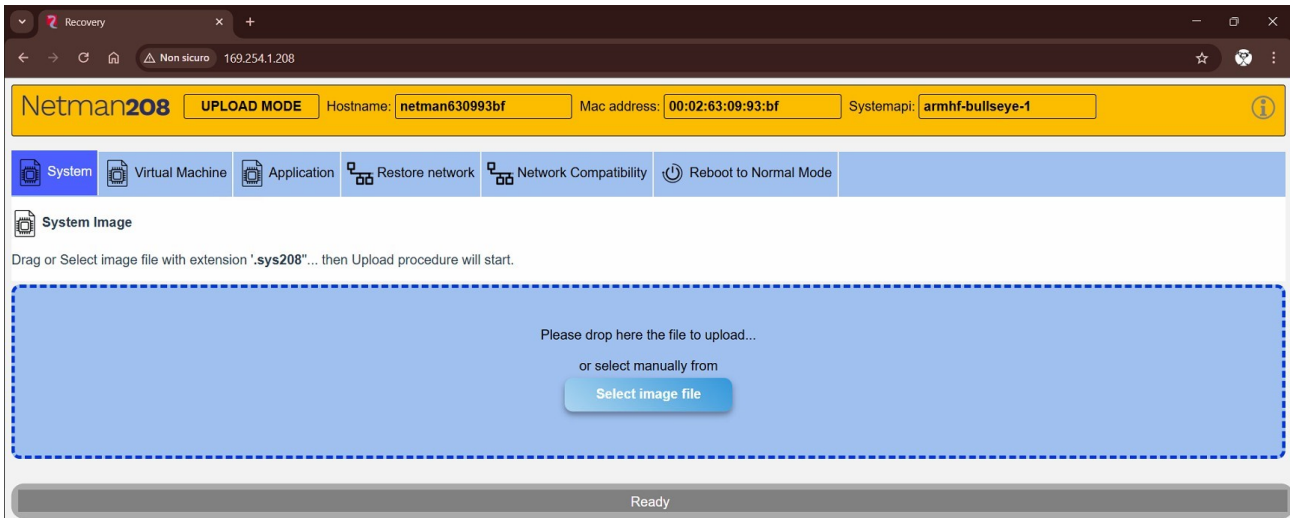


Install the Netman into the UPS without connecting the Ethernet cable, or by connecting the Ethernet cable directly to a laptop and wait approximately 4 minutes.

During the boot process, the status LED will be as follows:

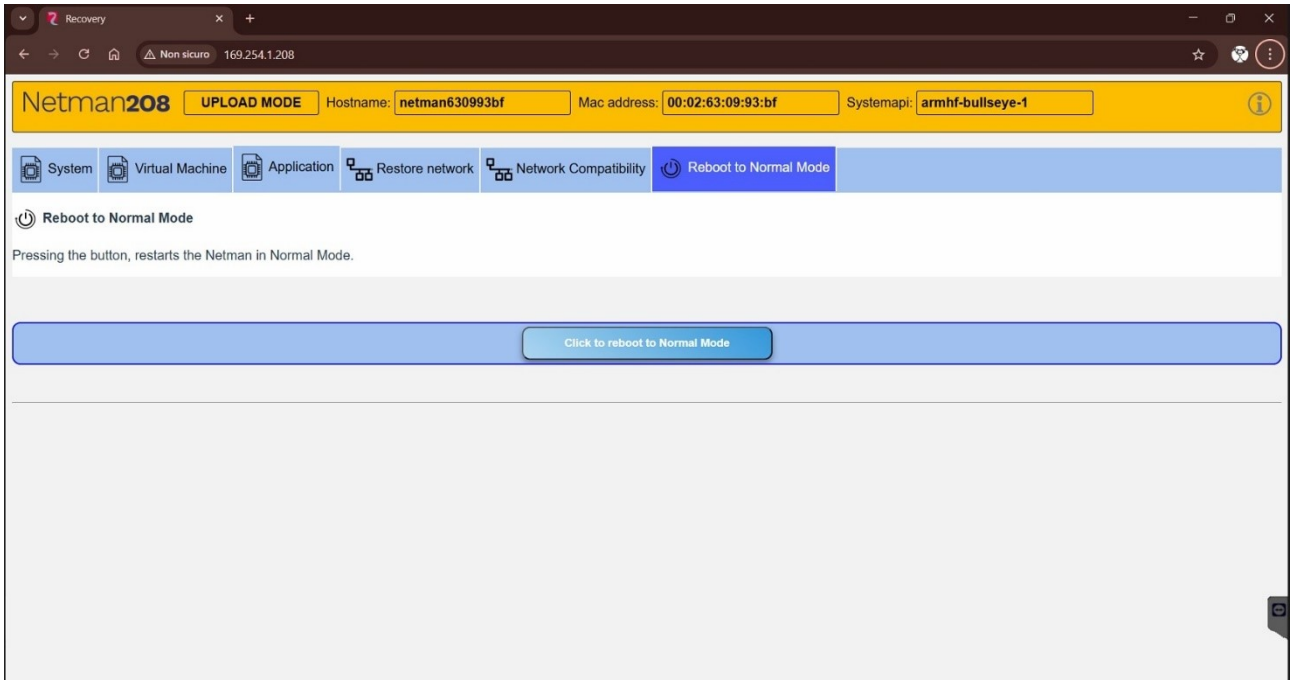
	NETMAN 208	NETMAN 208C
STATUS LED	- steady green for about 1 second - steady red for about 125 seconds - off for about 30 seconds - steady red for about 35 seconds - steady green -> now the Netman is booted with fallback ip ready	- Steady red for about 125 seconds - off for about 10 seconds - Steady red for abuot 65 seconds - steady green -> now the Netman is booted with fallback ip ready

Once the Netman responds to the ping, you can open the HTTP page:

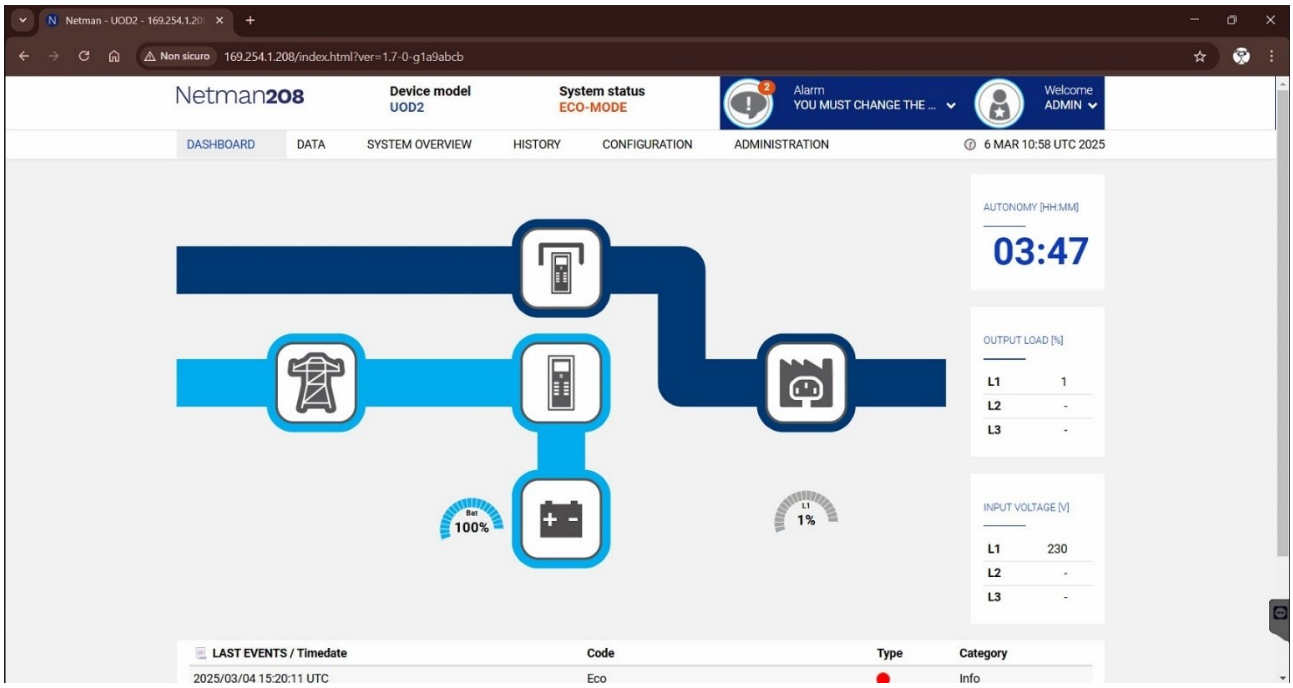


Now it’s possible to restore the network:

From this page, you can reboot the Netman to normal mode:



and you can connect to it through the webpage:



Note: If you are redirected back to this webpage (pink banner without information) after selecting "Reboot to Normal Mode":

press Ctrl + F5 to clear the cache.

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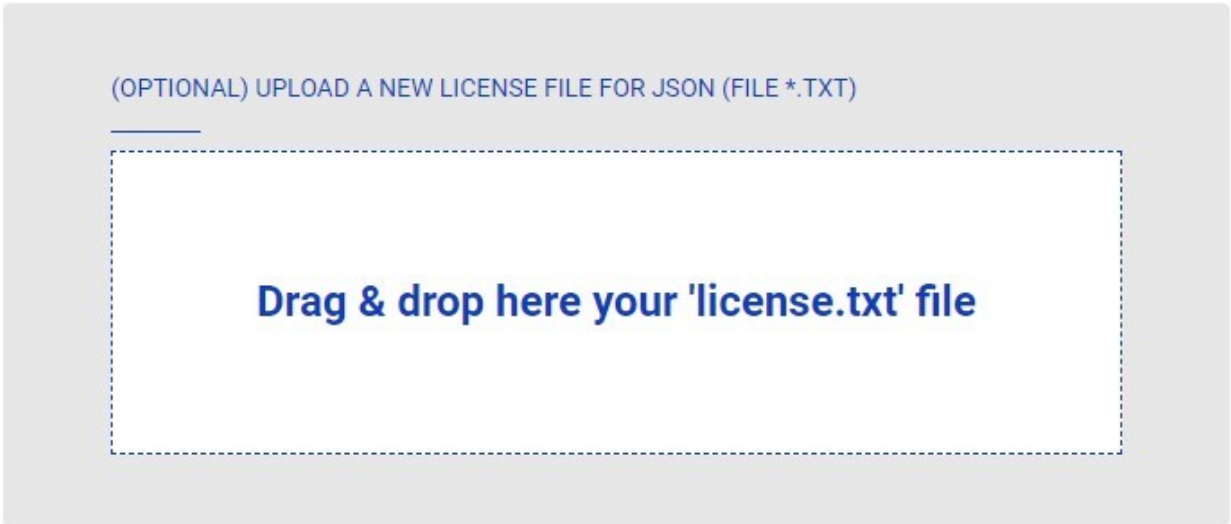
4. How to set JSON?
- 4.1 Licences.txt

In the CONFIGURATION -> YOUR NETMAN - > JSON page, Json may require, for customization, a license.txt file to be uploaded.
Create a license.txt file and write the string:

no licence

Upload it on the Netman:



Example output:

{ "timestamp": 1727271949,
"model": "RT1K06",
"license": "no license",
"name": "Netman 208",
"location": "Italy",
"contact": "Riello UPS",
"partnumber": " CSEP1K0AA3",
"serialnumber": "MU41VOD20017813",
"status": [0, 0, 0, 6, 0, 0],
"measures": { "vin1": 230, "vin2": 0, "vin3": 0, "fin": 49.9, "vbyp1": 230, "vbyp2": 0, "vbyp3": 0,
"fbyp": 49.9, "vout1": 0, "vout2": 0, "vout3": 0, "fout": 0.0, "load1": 0, "load2": 0, "load3": 0,
"vbat": 204.4, "autonomy": 262, "batcap": 100, "tsys": 39 }
}

Description:

"timestamp" The number of non-leap seconds which have passed since 00:00:00 UTC on Thursday, 1 January 1970 (Unix time).
"model" UPS model
"license" no license
"name" Name (field in *"General device configuration"*)
"location" Location (field in *"General device configuration"*)
"contact" Contact (field in *"General device configuration"*)
"partnumber" Part Number P/N of the UPS
"serialnumber" Serial Number S/N of the UPS

"status": [byte_1, byte_2, byte_3, byte_4, byte_5, byte_6]

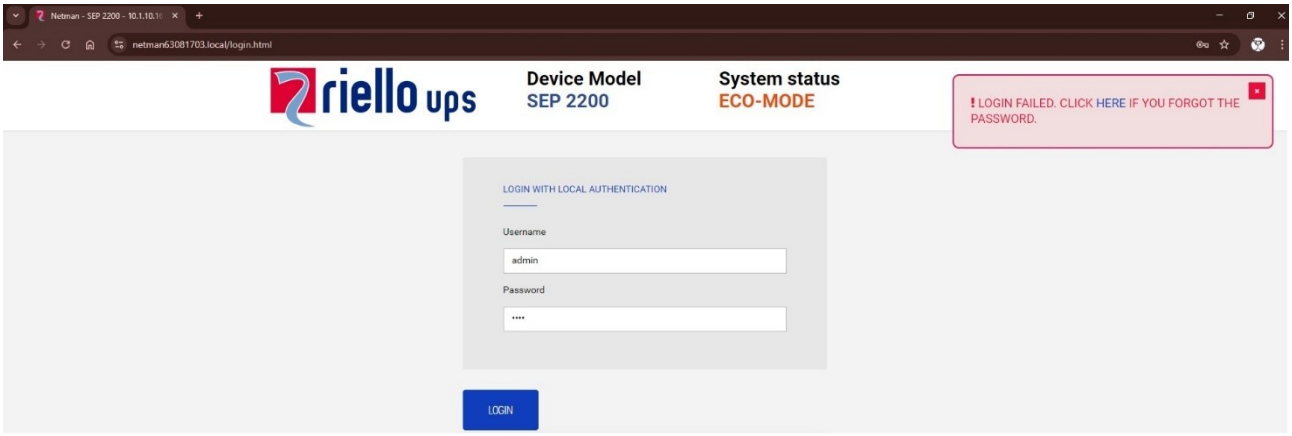
byte_1	0x80 = internal alarm OR lock 0x40 = overload 0x20 = ups fail 0x10 = on bypass 0x08 = on battery 0x04 = battery low 0x02 = comm lost 0x01 = RESERVED
byte_2	0x80 = RESERVED 0x40 = RESERVED 0x20 = RESERVED 0x10 = RESERVED 0x08 = output powered 0x04 = RESERVED 0x02 = RESERVED 0x01 = RESERVED
byte_3	0x80 = RESERVED 0x40 = RESERVED 0x20 = RESERVED 0x10 = RESERVED 0x08 = RESERVED 0x04 = ECO mode 0x02 = RESERVED 0x01 = RESERVED
byte_4	0x80 = RESERVED 0x40 = RESERVED 0x20 = RESERVED 0x10 = RESERVED 0x08 = bypass out of range 0x04 = battery charging 0x02 = battery charged 0x01 = replace battery
byte_5	0x80 = RESERVED 0x40 = RESERVED 0x20 = RESERVED 0x10 = RESERVED 0x08 = shutdown active 0x04 = shutdown imminent 0x02 = test in progress 0x01 = RESERVED
byte_6	0x80 = RESERVED 0x40 = RESERVED 0x20 = RESERVED 0x10 = RESERVED 0x08 = RESERVED 0x04 = alarm overload 0x02 = alarm overtemperature 0x01 = RESERVED

"measures": { "vin1": , "vin2": , "vin3": , "fin": , "vbyp1": , "vbyp2": , "vbyp3": , "fbyp": , "vout1": , "vout2": , "vout3": , "fout": , "load1": , "load2": , "load3": , "vbat": , "autonomy": , "batcap": , "tsys": }

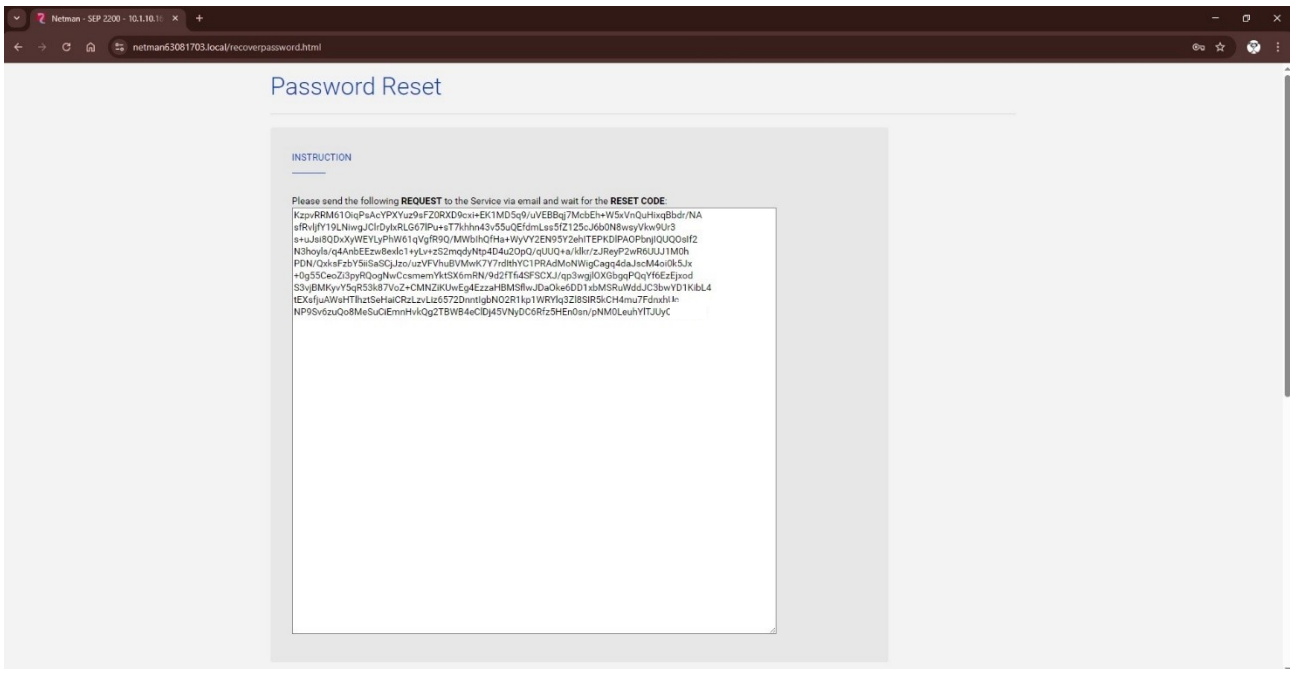
"vin1"	Input voltage (Ph-N) V1	[V]
"vin2"	Input voltage (Ph-N) V2	[V]
"vin3"	Input voltage (Ph-N) V3	[V]
"fin"	Input frequency	[Hz]
"vbyp1"	Bypass voltage (Ph-N) V1	[V]
"vbyp2"	Bypass voltage (Ph-N) V2	[V]
"vbyp3"	Bypass voltage (Ph-N) V3	[V]
"fbyp"	Bypass frequency	[Hz]
"vout1"	Output voltage (Ph-N) V1	[V]
"vout2"	Output voltage (Ph-N) V2	[V]
"vout3"	Output voltage (Ph-N) V3	[V]
"fout"	Output frequency	[Hz]
"load1"	Load phase L1	[%]
"load2"	Load phase L2	[%]
"load3"	Load phase L3	[%]
"vbat"	Battery voltage	[V]
"autonomy"	Autonomy time	[minutes]
"batcap"	Battery charge	[%]
"tsys"	System temperature	[°C]

5. How to reset the password?
- 5.1 Password reset

If the **ADMIN** password you enter is incorrect, this window will appear:

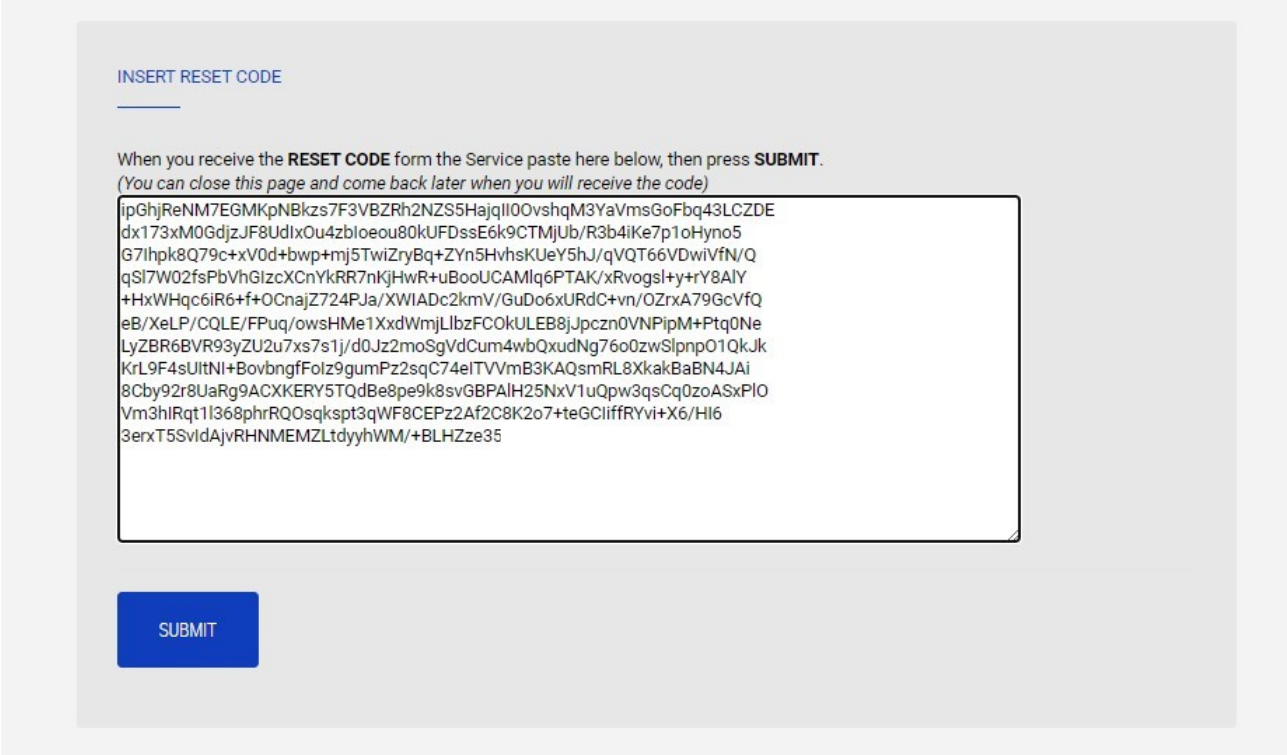


To restore the password, click on the top right corner to be redirected to the password recovery page:



Manually copy the entire text within the box and send it to your support contact.

You will receive the reset code to be pasted in the same webpage:



Press submit and the password is reset.

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6. How to name the vCenter server?
- 6.1 Naming the vCenter

The vCenter must be named as “**VMware vCenter Server Appliance**” to allow the Netman to manage the System correctly. If you name the vCenter in a different way, the Netman will be not able to shutdown the System correctly.

7. How to shutdown a Cluster?

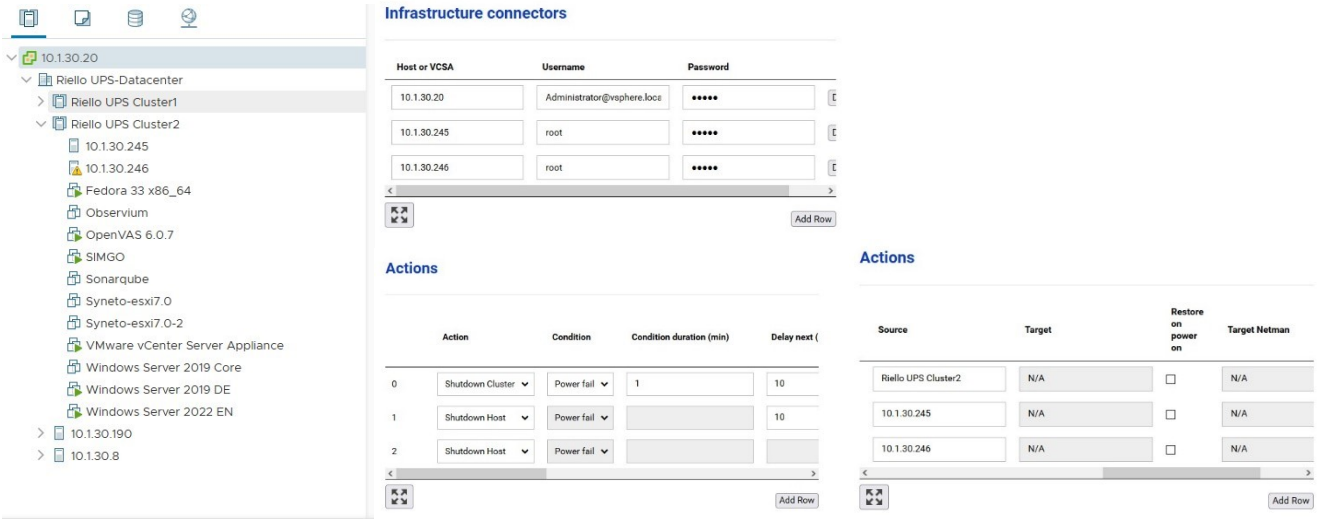
Field	Parameters to be inserted
Action	**Shutdown Cluster** will shutdown all the active VM on the specified cluster and all hosts part of the cluster

Note: In case the **VMware vCenter Server Appliance** is included in the cluster, a particular configuration must be performed.

In the section “**Infrastructure connectors”** the credentials of the **VMware vCenter Server Appliance** must be set and the credentials of all the hosts included in the cluster must be set as well.
In the section “**Actions**” it must be set the “**Shutdown cluster**” as first action and the “**Shutdown host**” for all the hosts present in the cluster as the other actions

Here an example:

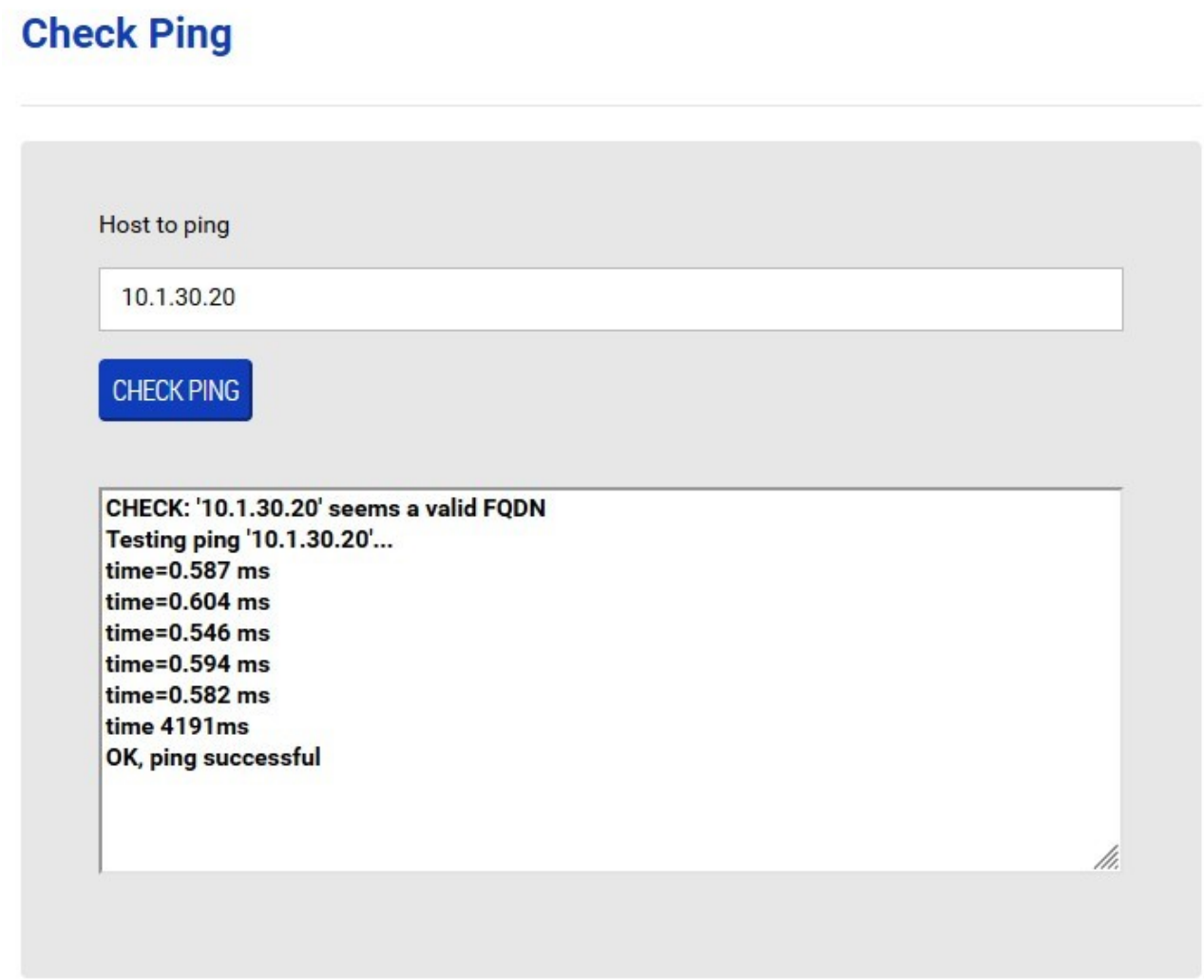
VMware vCenter Server Appliance is included in the cluster “Riello UPS Cluster2”.
There are two hosts, “10.1.30.245” and “10.1.30.246”.



With this configuration the Netman will shutdown all the VMs, the host where the VMware vCenter Server Appliance is not running, the VMware vCenter Server Appliance and the host where the VMware vCenter Server Appliance is running.

8. I can’t validate my VMWare credentials, why?
- 8.1 Check ping

In the Netman with APP version 1.8 or higher, in the webpage “CONFIGURATION -> YOUR NETMAN -> CONNECTIVITY” there’s the possibility to check the ping. It’s usefu to know if the Netman is able to reach a device (i.e. an VMWare host with IP 10.1.30.20):



9. What could be the conditions of the VMWare tools?

There are different conditions inside the VMWare about the tools. The conditions could be:

toolsOk
toolsOld
toolsNotRunning
toolsNotInstalled

The Netman can detect all the conditions, and in case the tools are not installed or not running the Netman doesn't stop the shutdown procedure.

NOTE: In a Windows VM if the screensaver is enabled, once it's activated it may shut the virtual disk off and consequently the Vmware tools condition is changed from "toolsOK" to "toolsNotRunning".
If the status of the tools is "toolsNotRunning" then the automatic restart of the VM will be not possible.

10. How to syncrhonize the date and time on an UPS using NTP?

The Netman can provide the clock and time to some UPS models, only if the NTP is properly set and running.The synchronization is performed once a day at 00:30
The UPS's who supports the time synchronization are:

- All the UPS's with PRTK: SENTR
- The ups model: SENTRYUM

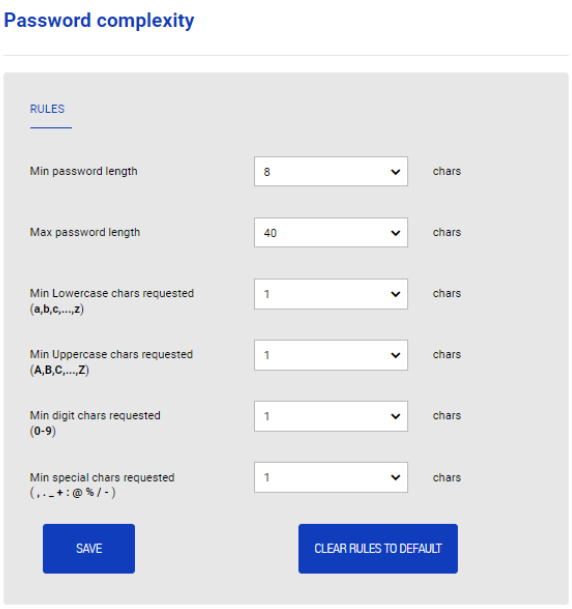
11. How to define the password complexity?

From APP version **1.6**:

It's possible to define the password complexity from the menu:

ADMINISTRATION → **ADMINISTRATION** → **Change local password**

Custom definition for Password Complexity for the "**admin**", "**power**" and "**view**" users:
By default, the complexity requirements are set to strict with the following settings (customizable):



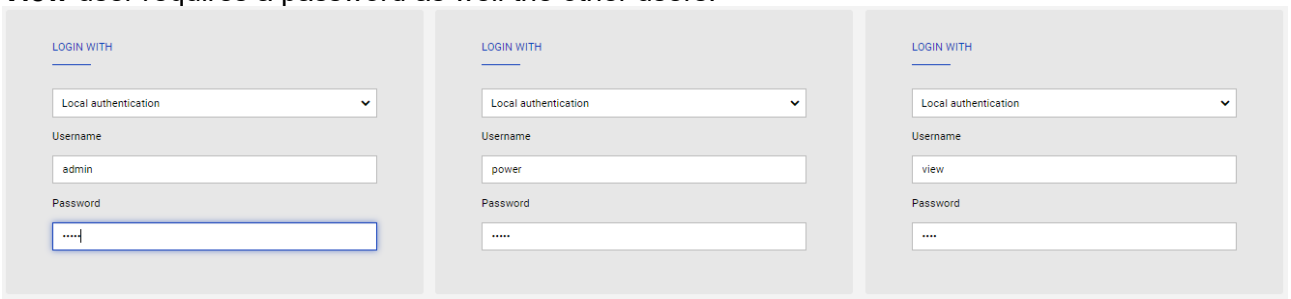
12. Why the “view” user requires a password?

From APP version **1.6**:

the “view” user requires a password.
The local users are as before:

- admin
- power
- view

By default only “admin” user is active, “power” and “view” user must be activated.
View user requires a password as well the other users:



Username: **admin** Password: **admin** (default)	Username: **power** Password: **<the password set>**	Username: **view** Password: **<the password set>**

The previous “**View**” button (accessing without password) in the Login page has been removed indeed.

13. How to define the user roles?

From APP version **1.6**:

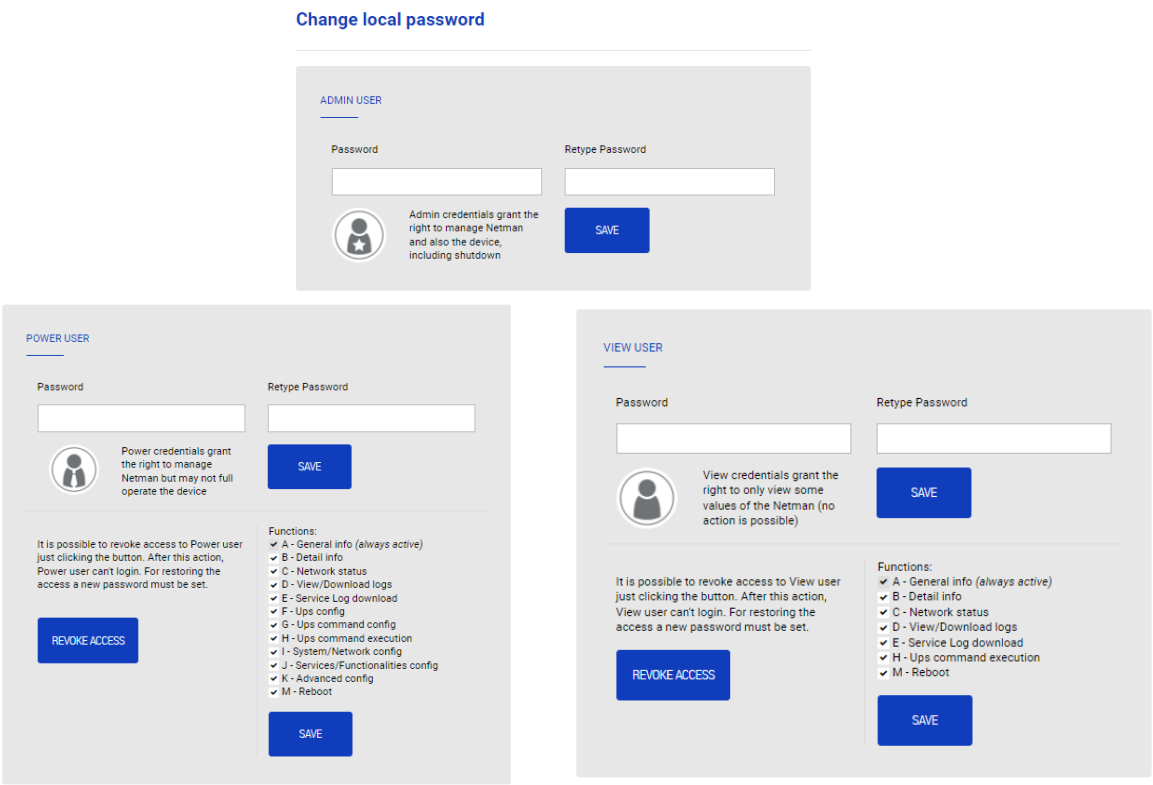
User “**admin**” has full functionalities by default and it is always available.

Users “**power**” and “**view**” are NOT activate by default and they must be enabled in the configuration.

All the users “**admin**”, “**power**” and “**view**” needs a password.

The roles for these users now can be configured only from the “**admin**” user and allows to select multiple specific functions in a more flexible way.
E.g.: the “**view**” user may be able to reboot the Netman with “M-reboot” function flagged.

Only the **“admin”** user has full power with all the functions enabled.

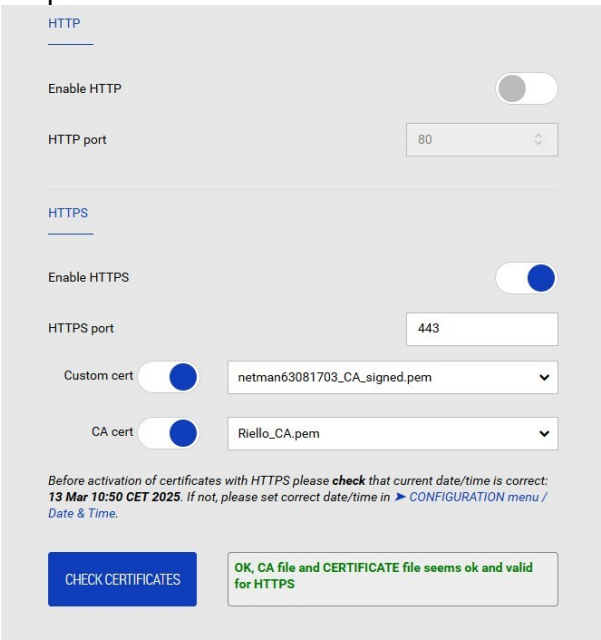


14. How to test a HTTPS certificate?

From APP version **1.7**:

ADMINISTRATION → **ADMINISTRATION** → **Login access**

It's possible to test the HTTPS certificate before saving:



15. Is it possible to receive an email when the external environmental sensor detects a value out of range?

From APP version **1.6**:

It is possible to receive an email notification when the external environmental sensor detects a value out of range. Additionally, an email can be sent when the input contact is activated.

16. Is it possible to retrieve SNMP values and traps using SNMPv1 and SNMPv3 for the external environmental sensor readings?

Yes, it’s possible to retrieve SNMP values and traps using SNMPv1 and SNMPv3 for the external environmental sensor readings. Anyway, due to security reasons, it’s always suggested to use the protocol SNMPv3.

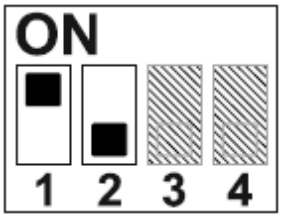
17. I can’t get the external environmental sensor (P/N YSKCSE8A) working what should I do?

Remember that the led conditions on the external environmental sensor are as follows:

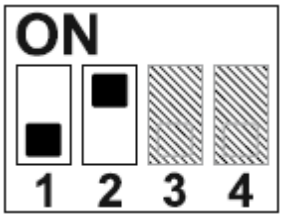
INDICATION	MEANING
Off	**No power**
Green, flashing	**Running and connection ok with the Netman 208.**
Red	**Netman 208 not configured OR communication error.**
Red, flashing	**Wrong address configuration.**

In case the led is red flashing, check if the dip switches of the external enviromental sensor are properly set.

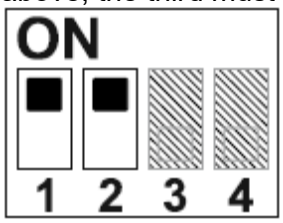
If you have one sensor, they must be configured as follows:



If you have two sensors, the first sensor must be configured as described above, the second must be configured as follows:



If you have three sensors, the first sensor and the second sensor must be configured as described above, the third must be configured as follows:



Please refer to the external environmental sensor user manual for more information.

18. Is it possible to retrieve BACNET values for the external environmental sensor readings??

Yes, it's possible to retrieve BACNET values for the external environmental sensor readings.

Values: here is an example of the first rows of a table with BACNET registry entries. They may vary depending on the app version.:

ANALOG_INPUT:0	Input voltage line 1
ANALOG_INPUT:1	Input voltage line 2
ANALOG_INPUT:2	Input voltage line 3
ANALOG_INPUT:3	Input current line 1
ANALOG_INPUT:4	Input current line 2
ANALOG_INPUT:5	Input current line 3
ANALOG_INPUT:6	Input frequency
ANALOG_INPUT:7	Bypass voltage line 1
ANALOG_INPUT:8	Bypass voltage line 2
ANALOG_INPUT:9	Bypass voltage line 3
ANALOG_INPUT:10	Bypass frequency
ANALOG_INPUT:11	Output voltage line 1
ANALOG_INPUT:12	Output voltage line 2
ANALOG_INPUT:13	Output voltage line 3
ANALOG_INPUT:14	Output current line 1
ANALOG_INPUT:15	Output current line 2
ANALOG_INPUT:16	Output current line 3
ANALOG_INPUT:XY	...
ANALOG_INPUT:XZ	.....

19. How to upgrade SYSTEM and APPLICATION and VIRTUAL MACHINE?

Upgrading the card is user-friendly, but there are specific conditions to be considered.

You can upgrade:
- SYSTEM
- VIRTUAL MACHINE
- APPLICATION

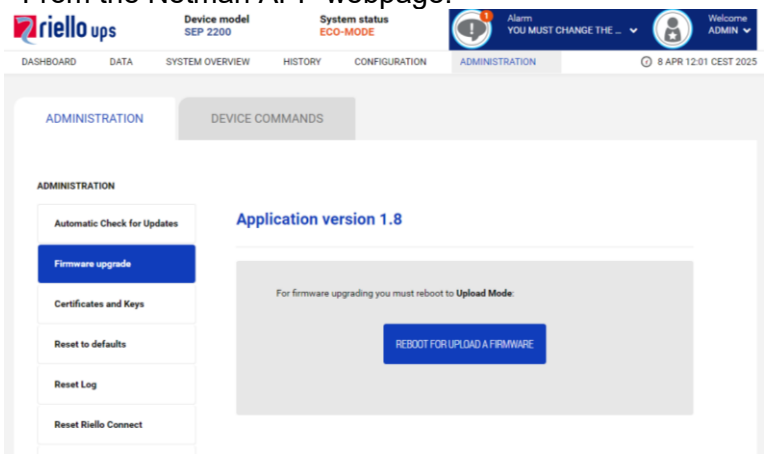
To upgrade the Netman you need these files:
- FW109-VVRR.**sys208** (SYS file)
- FW109-VVRR-JSON.**json** (json for SYS file)
- FW108-VVRR.**app208** (APP file)
- FW108-VVRR -JSON.**json** (json for APP file)
- FW107-VVRR.**jvm208** (JVM file)
- FW107-VVRR-JSON.**json** (json for JVM file)

VV= Version
RR= Release

ATTENTION: Please ensure that you use the correct upgrade file for your specific Netman model. Netman 208 and Netman 208C require different firmware versions and file formats. Ensure you select the appropriate firmware file corresponding to the device you are upgrading.

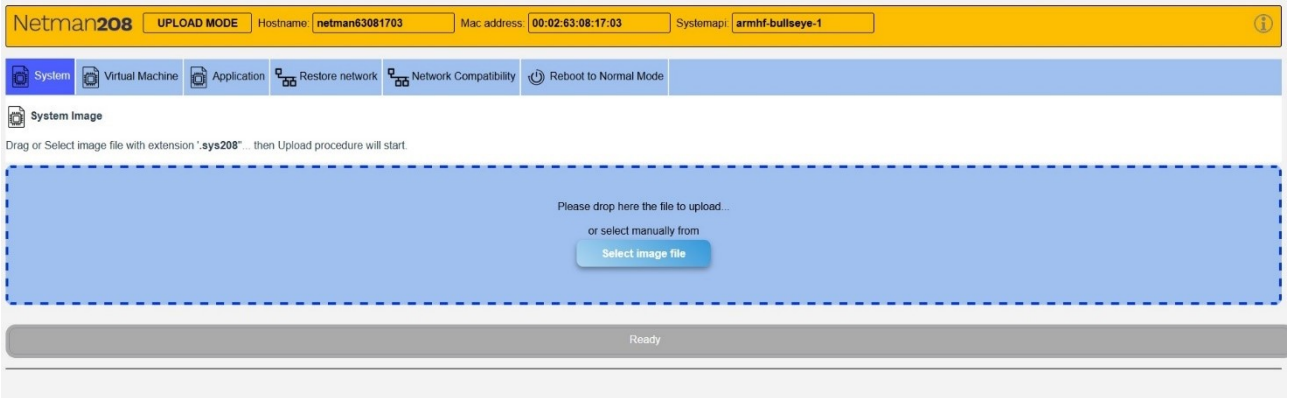
There are two methods to set the Netman into upload mode for the upgrade procedure:

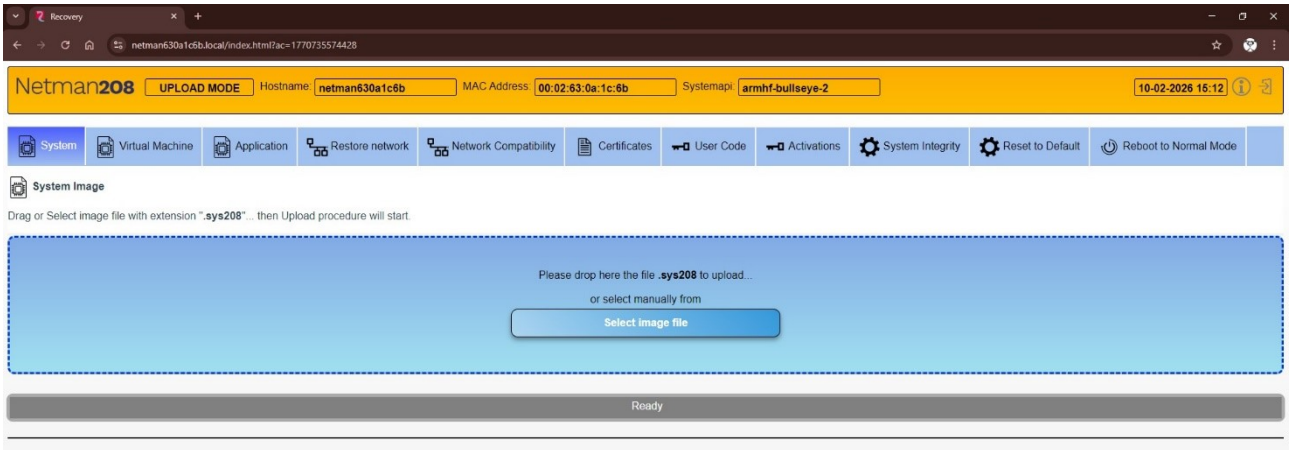
- From the Netman APP webpage:



- From the Recovery (chapter 3.2)

Both methods lead to the same Netman upload mode webpage:





- 19.1 Upgrade with an available internet connection

Drag and drop, or select the image file, in the proper tab section the file:

- .sys208 for the SYSTEM and wait for the installation process to complete
- .jvm208 for the VIRTUAL MACHINE and wait for the installation process to complete
- .app208 for the APPLICATION and wait for the installation process to complete

Once the upgrade is complete, press REBOOT TO NORMAL MODE button

NOTE: If you are going to upgrade the SYS, it's mandatory to perform the upgrade of the APP and the VIRTUAL MACHINE also.

- 19.2 Upgrade without an available internet connection

Drag and drop, or select the image file, in the proper tab section the file:

- .sys208 and .json for the SYSTEM and wait for the installation process to complete
- .jvm208 and .json for the VIRTUAL MACHINE and wait for the installation process to complete
- .app208 and .json for the APPLICATION and wait for the installation process to complete

Once the upgrade is complete, press REBOOT TO NORMAL MODE button

NOTE: If you need to upgrade both SYS and APP, start by upgrading the SYS and wait for the installation process to complete. Once finished, proceed with the APP upgrade and wait until the installation is fully completed. Finally, press the 'Reboot to Normal Mode' button.

NOTE: If you are going to upgrade the SYS, it's mandatory to perform the upgrade of the APP and the VIRTUAL MACHINE also.

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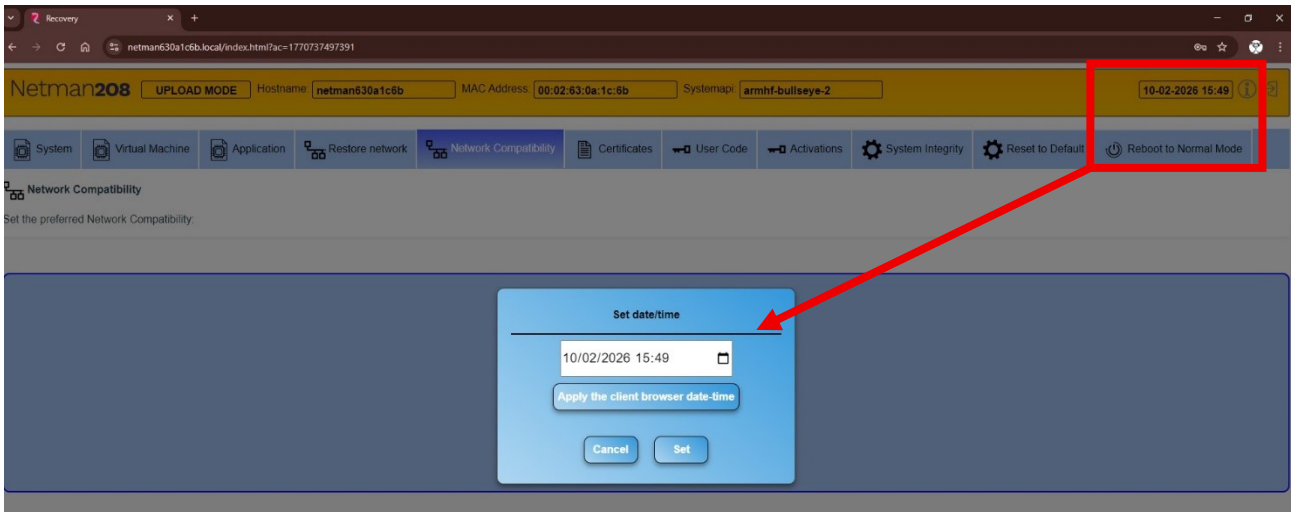
20. HTTPS and MAINTENANCE: Why is it necessary to configure the correct date and time on the Netman?

Date and time are important because they may affect HTTPS and Maintence Mode:

HTTPS: This protocol continuously verifies the trust relationship between your computer and the Netman.
If either device reports an incorrect date or time, the trust is compromised and an HTTPS connection cannot be established.
In case of issues, the user can run the recovery process to reset the network to its default configuration and restore the default NTP server.
In any case, **HTTPS requires that the date and time settings** of both the browser and the Netman 208C **are correct**.

Maintenance Mode: For certain operations in Maintenance Mode, accurate date and time settings are required for certificate verification. On the Maintenance Mode page, the user can manually set the date and time to ensure proper operation by clicking the clock on the upper right corner:



21. What are the default NTP servers?

By default, Netman uses its standard Linux NTP servers. The customer can enable the NTP service on the Netman so that it is used instead of the default Linux NTP servers.
The default Linux NTP servers are:

0.debian.pool.ntp.org
1.debian.pool.ntp.org
2.debian.pool.ntp.org
3.debian.pool.ntp.org

22. Where can I find the CA certificate file for Netman 208C?

The CA certificate file for the Netman 208C is available on our website under the Support section.
The CA certificate file name for the Netman 208C is: **Netman208C_HTTPS_RIELLO_CA.pem**.
Once uploaded to each browser or system, it enables users to verify the HTTPS connection.
In any case, **HTTPS requires that the date and time settings** of both the browser and the Netman 208C **are correct**.

Changelog

DocRev	*Data*	*Change*
rev00	13/03/2025	First release
rev01	14/03/2025	Added an information about the Netman updating on page 3 Added status LED descritption about the fallbackip chapter 3.5 Corrected the MASK of the laptop on chapter 3.5
Rev02	17/03/2025	Added chapter 15 and 16
Rev03	28/03/2025	Added chapter 17
Rev04	17/08/2025	Added chapter 18 and 19 Chapter 3.2, added image showing the reset button Chapter 3.2 added status led table Chapter 3.5 added status led table
Rev05	28/01/2026	Chapter 3.2, added two tables to distinguish Netman 208 and Netman 208C status led behaviour Chapter 3.5, added two tables to distinguish Netman 208 and Netman 208C status led behaviour
Rev06	11/02/2026	Chapter 2, added text Chapter 3.1, added reset button Chapter 3.4, added Maintenance webpage of the Netman 208C Chapter 3.5, added Maintenance webpage of the Netman 208C Chapter 19.1, added text Chapter 19.2, added text Added chapters 20 and 21
Rev07	03/03/2026	Added chapter 22
Rev08	08/04/2026	Edited chapter 20