NEXINEO

MANUAL FOR INSTALLING AND OPERATING NEXI GO SYSTEMS

PRE-PREPARATION

A COMPUTER CLASSROOM MUST BE PREPARED AS FOLLOWS:

A double-ended Ethernet (network) cable of sufficient length must be run to each student's seat to the NEO Virtual Desktop Device (hereinafter referred to as the "NEO Device"). The NEO Device is most often placed on a VESA monitor mount. The NEO Device can be connected to a monitor or projector. To connect the projector and monitor at the same time, it is necessary to use an HDMI splitter (duplicate screen function; the monitor displays the same image as the projector).

The required number of sockets per NEO Device is 2 pcs (monitor 1 pc; NEO Device 1 pc) with sufficient distance for wiring (the length of the power supply for the NEO Device is 1.5 m).

The main and dimensionally largest component of the System is the NEXI GO Server (hereafter referred to as the "Server"), which acts as the central node of the entire System. It connects to all NEO Devices.

Space for a NEXI GO Server needs to be cleared next to the teacher's desk. The teacher's desk needs 2 pcs sockets (a monitor and the Server). The Server has standard monitor outputs (according to specification – DisplayPort, Mini DisplayPort).

NEXINEO supply 1 pc or 2 pcs switch (1 Gbps, 24 port, rack mountable) and a router. Space for these items needs to be cleared (ideally close to each other) and 2 pcs sockets and internet supply to the router provided. In the case of rack placement, physical access must be provided. Network cables will be routed from the switch to the NEO Devices and the Server.

There must be enough room around the System components for airflow. The ventilation openings on the individual components must not be covered. The components must not be placed in dusty or humid environments, near heating elements, in places where there is a risk of direct contact with water, gas, chemical substances, nor should they be within the range of magnetic fields.

To power the components, use a socket/extension cord/surge protector that meets all current standards and has an earth pin. The power element should meet all current standards.

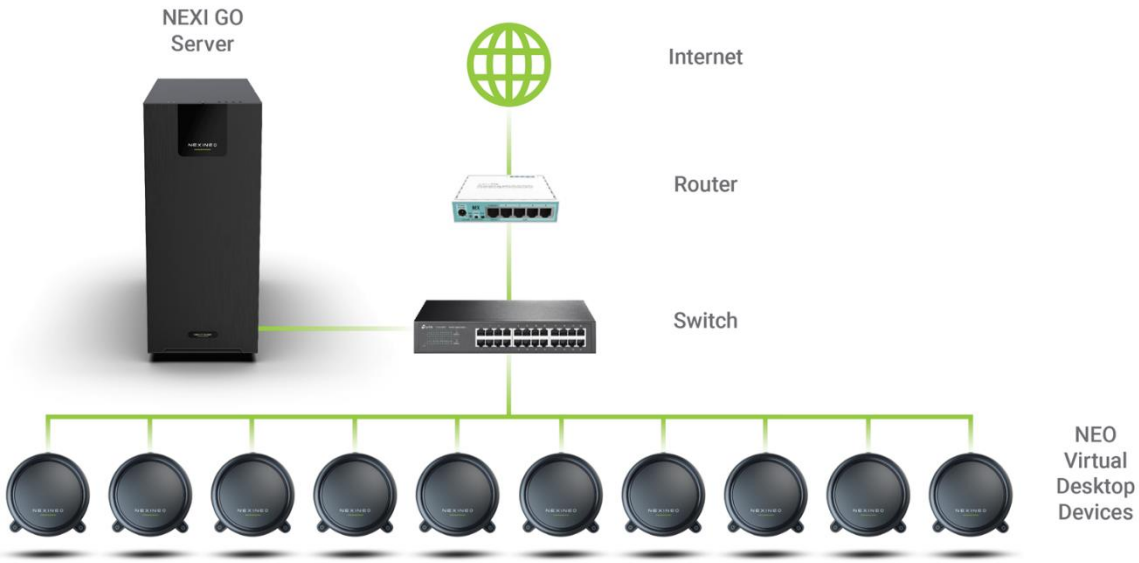
Ensure that the electrical circuit is stable and that it is not used by equipment with high consumption or increased instability (motors, transformers or heating units).

MINIMUM NETWORK REQUIREMENTS

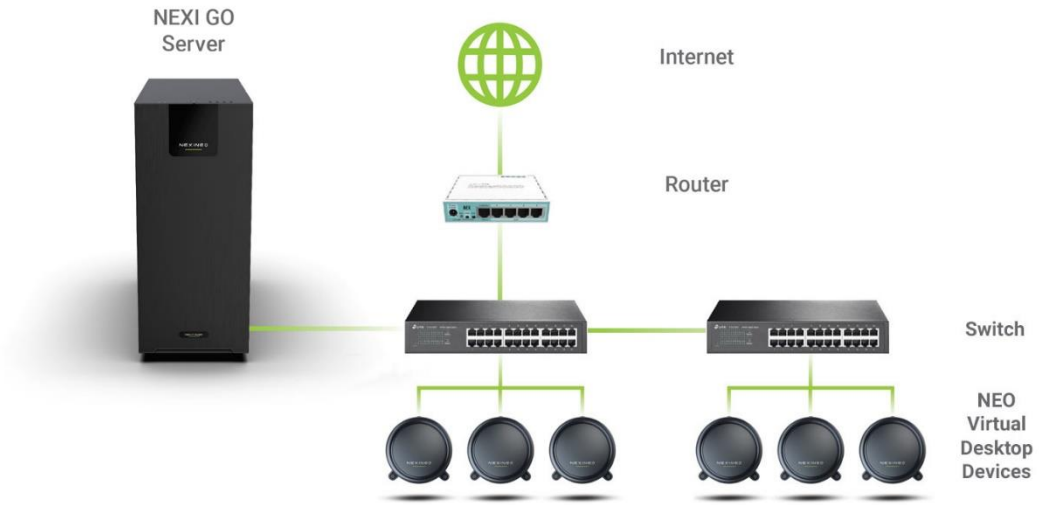
- Minimum 1Gbit/s transfer speed, delivered to the router
- The recommended cabling class in classrooms is at least Cat5e, ideally Cat6
- The maximum distance between the server and the classroom where the NEO devices are located is 100 meters
- The recommended shielding for feeds is at least FTP class, ideally STP, and in classroom at least UTP, ideally FTP

WIRING OF NETWORK ELEMENTS

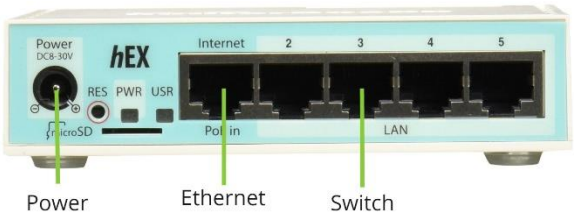
It is required that supplied network elements are used for proper system functionality. The network elements are connected according to the following diagram, for more information about the wiring see the sections Router and Switch.



If more than 22 NEO Devices are connected, the switches will be connected as follows:



CONNECTING TO THE ROUTER



A router is used to connect the entire System to the school network, to isolate its own subnet, to prevent interference and possible conflicts and restrictions on the network and while feeding the Internet connection into the System.

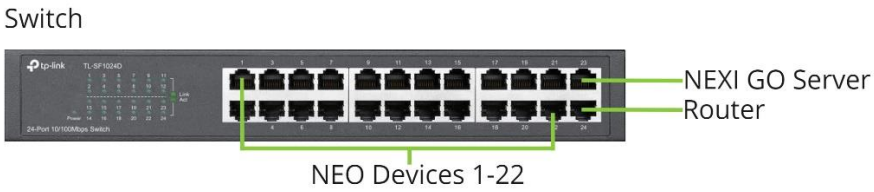
Plug the router into a socket with the included adapter. Plug the Internet cable into port 1 (labelled as Internet or PoE in). Then connect port 3 on the router to the switch with a network cable.

CONNECTING TO THE SWITCH

The switch is used to connect the Server and NEO Devices. A network cable from the Server and from each NEO Device is connected to it.

Network cables are connected as follows:

- Ports 1 – 22 – NEO Device
- Port 23 – NEXI GO Server
- Port 24 – Router



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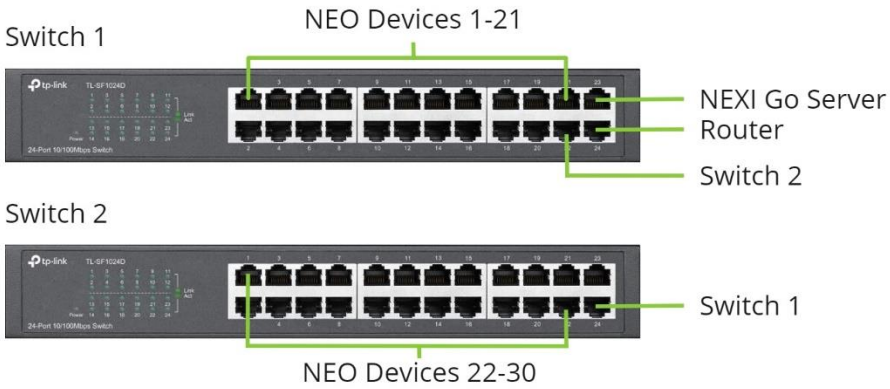


In the event of any non-standard wiring or use of network elements other than those approved by NEXINEO, approval from NEXINEO is required.

CONNECTION OF A NEO DEVICE

Complete wiring of the student station requires:

- Monitor
- NEO Device
- VESA mount
- Power Supply for the NEO Device
- HDMI–microHDMI cable, in case of a monitor without HDMI input VGA–microHDMI converter is used
- Network cable (Ethernet)
- Mouse and keyboard

NEO DEVICE

The NEO Device remotely connects to the Server. The Systems are sold in several versions for classrooms with different numbers of students (No. of NEO Devices). The NEO Device is attached to the back of the monitor.

Contents of the NEO device package:

- NEO virtual desktop device
- USB-C Power Supply
- VESA mount
- microHDMI – HDMI cable for connection to an HDMI monitor

Inputs and outputs of the NEO device:

1) 2x USB 2.0 port- black (for connecting keyboard and mouse)
2) 2x USB 3.0 high speed ports – blue (for connecting other peripherals)
3) Gigabit Ethernet port
4) Power supply 5 V 3A DC USB-C
5) micro-HDMI port
6) 1x 4-ring TRS ‘A/V’ jack 3.5 mm (audio output only)
7) Power button

NEO devices include 2 micro-HDMI inputs for monitor connection, however only one micro-HDMI input is active, located closer to the power supply.

CONNECTING THE NEO DEVICE

MICRO-HDMI

Connect the monitor to the NEO Device using the included microHDMI – HDMI cable for connection to an HDMI monitor. If using a monitor without an HDMI connector, please use a NEXINEO-approved converter. It is recommended that monitors with HDMI connector are used.

Plug the microHDMI cable into the microHDMI port that is closer to the power supply. (marked in the picture). This connector is not reversible; it needs to be rotated correctly when being plugged in to avoid damage.

USB-C POWER SUPPLY

Connect power to the NEO Device (marked in the picture). The USB-C connector is reversible.

MOUSE AND KEYBOARD

We recommend using wired keyboards and mice with USB connections. With a larger numbers of units, wireless keyboards and mice can interfere with each other. Bluetooth mice and keyboards are not supported.

The mouse and keyboard plug into the USB 2.0 ports- black. Leave the USB 3.0 high speed ports- blue free for other peripherals.

NETWORK

Plug the network cable into the RJ-45 port (marked in the picture). The connector is keyed, take care to connect the cable correctly and to let safety lock fall into place. When disconnecting the network cable, push the safety lock in the direction of the cable.

VESA MOUNT

Fix the VESA mount with two screws (M4x12) to the VESA mount on the back of the monitor. Mount the VESA mount in the bottom holes of the VESA mount on the back of the monitor.

Make sure that the monitor stand does not interfere with the cables plugged into the NEO Device.

MOUNTING THE NEO DEVICE ON THE MONITOR

Slide the NEO Device onto the VESA mount from the top, with the button face up. One NEO Device has just been fully connected. Then, organise the cables with zip ties or cable organiser.

UNPACKING AND CONNECTION NEXI GO SERVER

The Server is the basic component of the whole System. All NEO Devices connect to the Server and use its computing power.

Complete NEXI GO Server connection requires:

- Monitor
- NEXI GO Server
- Network cable
- Mouse and keyboard

UNPACKING THE SERVER

1. Store the box vertically, carefully cut the adhesive tape, open the box. Remove the marked filling material and the box with accessories from the box.

2. Once cut open, flip the box upside down. Grab the box and lift it carefully.

3 . Remove the protective polystyrene and the plastic bag.

4. Take the server out of the plastic bag.

REMOVING THE FOAM FROM INSIDE THE SERVER

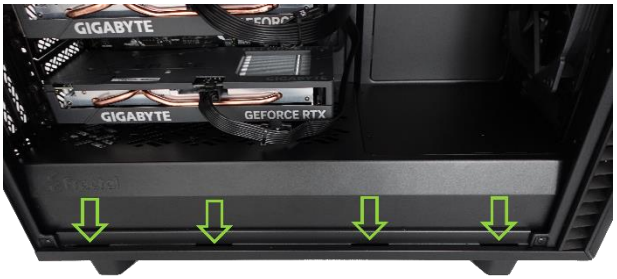
1. Place the NEXI GO server in a horizontal position, with the motherboard facing downwards.

2. By pulling the handle in the top left corner, open and remove the side panel.

3. After opening the server, carefully remove the filling material.

4. This is what the NEXI GO Server looks like after removing the filling materials.

5. Install the bottom hooks of the side panel at the marked place.



6. Then, by pressing the side panel at the top, close the server and return it to an upright position. The server is ready for use.

CONNECTING THE NEXI GO SERVER

Connect the monitor to the Server using a standard video cable (according to the specification). Use a suitable Display Port, Mini DisplayPort, or suitable converter.

Connect a mouse, keyboard, network cable, monitor, power cable, or other required peripherals (e. g. printer, projector, etc.) to the Server.

Both the front and back panels of the Server may differ from those described above, depending on the enclosure and motherboard used. The exact technical parameters of the NEXI GO servers are specified in the datasheet of each NEXI GO server.

THE FRONT SIDE OF THE SERVER INCLUDES:

- A switch (button) for turning the Server off and on. If the Server is switched on and the button is pressed for approx. 5 seconds, it will shut down (such shutdown is called "hard restart" and can help in cases when the Server freezes).
- USB connectors to which you can connect various peripherals with a USB connector. Usually, there are 2 to 4 USB connectors.
- LEDs indicating the server is on.

THE BACK SIDE OF THE SERVER INCLUDES:

- The power connector that connects the Server to electricity. The power cord has one end for the socket, and the other end for the Server. When connecting, the plug is connected first to the server, and then the other end to the socket. After connecting the power supply, turn the I/O switch to the I position.
- USB connectors used to connect various devices such as a mouse, keyboard, printer, USB flash drive, external drive.
- Network cable connector, which is used to connect the RJ-45 network cable and connect the Server to the switch.
- Graphics card connectors (DisplayPort, Mini DisplayPort). These connectors are available on the graphics card. The connectors are used to connect a cable that allows the image to be transferred between the Server and the monitor.
- 3.5 mm sound card jack that makes it possible to connect various audio devices such as headphones, speakers, a microphone. The 3.5 mm jack for output audio device (headphones, speakers) is usually green, and the 3.5 mm jack for the input audio device (microphone) is usually pink.

The Server and the monitor connected to it only require to be switched on for full functionality. The Server should only be shut down in rare cases. The Servers are adapted for operation 24/7. Monitor may be turned off as needed. When looking at the Server, the login screen should be displayed on the monitor. If not displayed, move the mouse to see it.

OTHER PERIPHERALS:

PROJECTOR

Connect the projector in the same way as the monitor. If you need to connect a monitor and a projector to the NEO Device at the same time, use the HDMI Splitter.

INTERACTIVE WHITEBOARD

Connect the interactive whiteboard in the same way as the projector + connect the USB cable for touch control. If connected to the Server, the interactive whiteboard needs to be set as the main screen for the touch to work properly. (Screen settings -> select interactive whiteboard -> check "Set this screen as the main screen").

HEADPHONES (NO MICROPHONE)

Only headphones with 3.5 mm jack connection or headphones with a USB connection can be used on the NEO Device.

HEADSET WITH A MICROPHONE

Only headsets with USB connection can be used on the NEO Device.

USB MEMORY STICKS

They work on all devices.

PRINTERS

The NEO Devices can use a printer connected on the same network. A printer with Windows Server 2022 support needs to be used.

BASIC INSTRUCTIONS FOR SYSTEM OPERATION:

It is recommended that you regularly archive all valuable data in case of disk failure.

It is recommended that you use a backup power supply for the Server. The backup power supply can protect the Server in case of overvoltage and undervoltage, and at the same time, it can run for some time after a power outage, so you can save unfinished work or shut it down properly.

NEXINEO is not responsible for the malfunction of software and for errors in software developed by third parties.

A poor-quality power supply and unstable electrical circuitry can cause shutdowns and System failures, and in extreme cases, even damage to the System.

Tampering with network elements such as the router, switch, and network cables that connect the NEO Devices to the Server, or connecting other network elements to the System, is not recommended under any circumstances.

NEXT STEPS

After the physical installation of the NEXINEO system, you can complete the software configuration according to the SOFTWARE INSTALLATION INSTRUCTIONS manual found on the website shop.nexineo.com under the "Support" section.

CONTACT INFORMATION

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