



User Guide

Avigilon NVR4X Workstation

NVR4X-WKS-8TB and NVR4X-WKS-4TB

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20210907

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Introduction

The Avigilon Network Video Recorder (NVR) 4X Workstation is preloaded with Avigilon Control Center (ACC) software and is configured for exceptional performance and reliability. The NVR4X Workstation offered in small form factor can be easily integrated into any existing Avigilon surveillance system or act as the base of a new site.

Before You Start

Avigilon recommends:

- The use of an uninterruptible power supply (UPS) system to protect your video surveillance system hardware. A UPS system is used to protect critical equipment from mains supply problems, including spikes, voltage dips, fluctuations and complete power failures using a dedicated battery. It can also be used to power equipment during the time it takes for a standby generator to be started and synchronized.

If possible, the UPS connection should include configuration to shut down the operating system on the appliance when battery power is low or there is 15 minutes of power remaining.

- Cameras should not be connected to the appliance until after the appropriate network configuration has been set up.

Overview

Front View

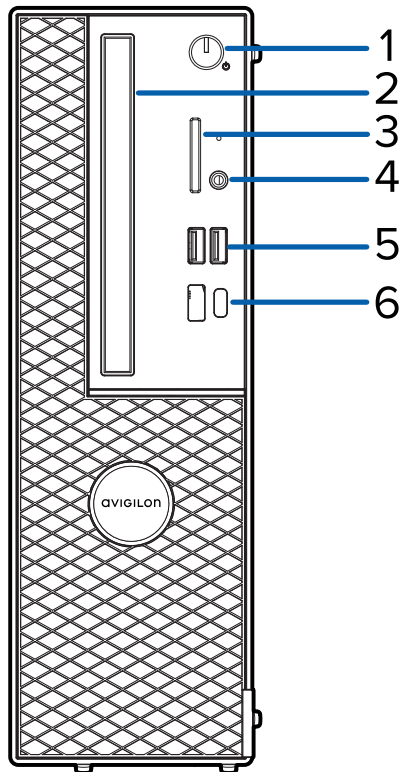


Figure 1: Front view of NVR4X workstation (shown with dust filter accessory)

1. **Power button**
Controls the power supply to the recorder. For more information, see *Power Status Indicator* on page 13.
2. **Optical drive**
Accepts a CD or DVD.
3. **SD card slot**
Accepts an SD card.
4. **Headset port**
Accepts a headset connector.
5. **USB 2.0 ports**
Accepts USB connectors to external devices.
6. **USB 3.2 Gen 2 port and USB 3.2 Gen 2 Type-C port**
Accepts USB connectors to external devices.

Back View

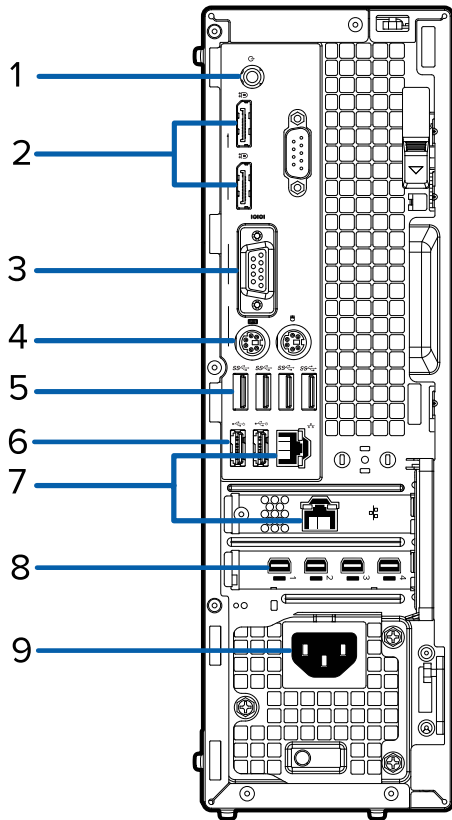


Figure 2: Rear view of NVR4X workstation

1. **Audio port**
Accepts a connector to an audio system — line in or line out.
2. **DisplayPorts**
Accepts DisplayPort connectors to display monitors.
To ensure optimal performance, use the mDP ports instead of these ports.
3. **Serial connector**
Accepts connections to serial devices.
4. **Keyboard port and mouse port**
Accepts connectors to a keyboard and mouse.
5. **USB 3.2 Gen 2 ports**
Accepts USB connectors to external devices.
6. **USB 2.0 ports**
Accepts USB connectors to external devices.
7. **1 Gigabit Ethernet ports**
Accepts Ethernet connections to the network.
8. **mDP connectors**
Accepts miniDisplayPort connections to display monitors.

9. Power supply connector

Accepts a power supply connection.

Package Contents

Ensure the package contains the following:

- Avigilon NVR4X Workstation
 - Power cable
 - Keyboard and mouse
 - 2 x mDP to DP adapters
 - 2 x mDP to HDMI adapters

Installation

Connecting Cables

Refer to the diagrams in *Overview* on page 5 for the location of the different connectors. Make any of the following connections as required:

1. Connect the keyboard and mouse to the USB connectors on the recorder.
2. Connect the monitors to the dedicated graphics processor on the recorder.
3. Connect the recorder to your network using an Ethernet network cable.
4. Connect the power cable to the power supply at the back of the recorder.
5. Press the power button on the front of the recorder.

The NVR4X Workstation turns on and loads the Windows operating system.

Logging into Windows 10 for the First Time

After the workstation starts, you will need to configure the Windows operating system for the first time.

1. On the first screen, the MICROSOFT SOFTWARE LICENSE TERMS and AVIGILON CONTROL CENTER™ SOFTWARE END USER LICENSE AGREEMENT are displayed. Review the terms and click **Accept**.
2. Select **Join a local Active Directory domain**.

Note: This prompt appears only if an Active Directory is present on the network. See the *Windows Help and Support* files for more information.

3. Enter a user name for the Windows administrator account.
4. Enter a password and password hint for the Windows administrator account and click **Next**.

Note: Remember the Windows Administrator password. If the Windows Administrator credentials are lost, you may need to reinstall the operating system again. It is highly recommended to create a second Administrator user as a backup.

5. Once logged in, the recorder will go through initial system setup, and ask to select the version of Avigilon Control Center to use:

- **Use ACC 7.x.x (recommended).** Select this option to use the latest version of the ACC software.
- **Downgrade to ACC 6.x.x.** Select this option to downgrade your NVR to version 6.x.x. This older version of the ACC software will not support newer features such as facial recognition and the Focus of Attention interface.

You are logged in to the Windows environment. The Avigilon Control Center Admin Tool and the ACC Client automatically start up.

Note: If you are performing operating system recovery, the ACC Client does not automatically start up. For more information about running the local ACC installer, see *Operating System Recovery By Avigilon Recovery Partition* on page 11.

Proceed to activate the license for the Avigilon Control Center software on your Network Video Recorder Workstation.

Activate the ACC Software and Connect to Avigilon Cloud Services

After you have deployed your NVR4X Workstation, activate your ACC software and feature licenses and connect to Avigilon Cloud Services.

Activate ACC Software and Feature Licenses

You can activate, deactivate, and reactivate product or feature licenses. Licenses are called Product Keys in the ACC system, and Activation IDs in the licensing portal.

Important: When a new server is added to or removed from a multi-server site, the existing site licenses become inactive and must be reactivated to confirm system changes. See *Reactivating a License* on the next page

- [Initial ACC™ System Setup and Workflow Guide](#)
- [ACC 7 Help Center](#)

Printable versions of these guides are available on the Avigilon website: [avigilon.com/support/software/](https://www.avigilon.com/support/software/).

Once your license is activated, you can immediately use the new licensed features.

Connect to Avigilon Cloud Services

After activating your ACC software, you can connect your ACC site to the cloud, which may require a subscription, and take advantage of the capabilities and features that provide centralized access across distributed systems.

To connect your site to Avigilon Cloud Services, see help.avigilon.com/cloud.

For information about the cloud services, see [Avigilon Cloud Services Support](#).



You can start to back up the system settings for your new site in the ACC Client software after it is configured. These settings include the ACC password, and the settings for the camera connections. For more information on backing up the site and server configurations, see the *Avigilon ACC Client User Guide*.

Reactivating a License

FOR ENTERPRISE EDITION

When servers are added to or removed from a site, the site licenses become inactive and must be reactivated to confirm system changes.

If you do not reactivate the affected licenses, the site will stop normal operations.

1. In the New Task menu , click **Site Setup**.
2. Click the site name, then click .
3. Click **Reactivate Licenses...**

If you have Internet access:

1. Click **Reactivate Licenses**.
2. Click **OK** to confirm your changes.

If you do not have Internet access:

1. Select the **Manual** tab.
2. Click **Save File...** and choose where you want to save the `.key` files.
3. Copy the `.key` files to a computer with internet access:
 1. Go to activate.avigilon.com.
 2. Click **Choose File** and select the `.key` file.
 3. Click **Upload**. A `capabilityResponse.bin` file should download automatically. If not, allow the download to occur when you are prompted.
 4. Complete the product registration page to receive product updates from Avigilon.
 5. Copy the `.bin` file to a computer running the ACC Client software.
4. In the License Management dialog box, click **Apply....**
5. Select the `.bin` file and click **Open**.
6. Click **OK** to confirm your changes.

Troubleshooting

Network Configuration

By default, the NVR4X Workstation acquires an IP address on the network through DHCP. If you need to set up the workstation to use a static IP address or any specific network configuration, see the *Windows Help and Support* files for more information.

Monitoring System Health



You can monitor the health of the system components in the Site Health in the ACC Client software. See the Help files provided with the ACC Client software, or the *Avigilon ACC Client User Guide* available from the Avigilon website for more information.

Operating System Recovery By Avigilon Recovery Partition

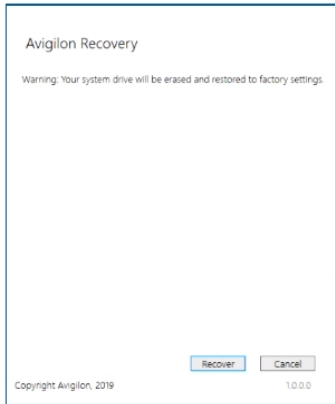
If you need to recover the Windows operating system, the NVR4X Workstation includes an onboard Avigilon recovery partition that is separate from the operating system partition. The advantage of using the Avigilon recovery partition is that you do not need an internet connection to download the recovery image and you do not need to create a bootable USB recovery device.

Important: Your operating system drive will be erased and restored to factory settings. Before you proceed with operating system recovery, complete any necessary backups of custom ACC configuration and video recordings. For more information about ACC software backups, see avigilon.com/recovery.

Note: After operating system recovery, you need to reinstall the previously installed ACC software. Depending on when your NVR4X Workstation was shipped, it is recommended that you connect to the network when possible to install updates for Windows and ACC Client software after system recovery is completed. For more information about ACC software installations, see avigilon.com/recovery.

1. Start operating system recovery in one of the following ways:
 - On your Windows desktop, select  and then hold down the Shift key and select **Restart**.
 - On your locked Windows screen, select  and then hold down the Shift key and select **Restart**.
 - During direct boot of the operating system, repeatedly press the down-arrow key and select the partition.
2. On the **Choose an option** screen, select **Use another operating system**.
3. Select the **OS Recovery** partition.

4. On the **Avigilon Recovery** window, select **Recover**.



Allow up to half an hour for the recovery to complete.

5. After system reboot, complete the Windows setup process.
6. Navigate to `C:\Avigilon\Control Center Installation Files`, and run the ACC installer for the version of ACC software in use at your site.

If needed, connect to the internet and download the required ACC installers.

7. After reinstalling the ACC software, reactivate the ACC licenses.

For more information about reinstalling and reactivating the ACC software, see [avigilon.com/recovery](https://www.avigilon.com/recovery).

LED Indicators

The following table describes what the LEDs on the recorder indicate. For more information on the location of the indicators, see *Overview* on page 5.

Power Status Indicator

The power button indicator on the front of the recorder provides power and system state information. The following table describes what the power button LED indicates:

LED Indicator	Description
Off	Power supply is not connected or the recorder is off.
Flashing white	Power is being supplied and the recorder is in sleep state.
Flashing green	There is a known problem with the power supply unit.
Steady green	There is an unknown problem with the power supply unit.
Steady white	The power supply unit is working and the recorder is powered on.

Hard Drive Activity Indicator

The hard drive activity indicator on the front of the recorder functions to provide information on the status of the hard drive. The following table describes what the hard drive activity LED indicates:

LED Indicator	Description
Off	Hard drive is not being used.
Flashing white	Data is being read or written.

Limited Warranty

Avigilon warranty terms for this product are provided at avigilon.com/warranty.

For More Information

For additional product documentation and software and firmware upgrades, visit avigilon.com/support.

Technical Support

Contact Avigilon Technical Support at avigilon.com/contact.