

# Installing the NVR Avigilon Video Archive Connectivity Kit

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The NVR5 and NVR4 Avigilon Video Archive Connectivity Kit provides all of the needed components to connect the Avigilon Video Archive to an NVR5 or NVR4(X) Standard or Premium recorder. Make sure that you use the connectivity kit that corresponds to your NVR model:

## NVR5

### Direct Attach Connectivity Kits

Includes a CNA card and a set of 2 transceivers with optical cables for directly connecting the NVR to the Avigilon Video Archive.

- **NVR5 PRM 252/288/360/432 TB:** AVA-HED1-NVR5-CONNECT-B
- **NVR5 STD** and **NVR5 PRM 96/128/160/192/224 TB:** AVA-HED1-NVR5-CONNECT-A

**Note:** The NVR5 Premium 192/224 TB models support connections to the Avigilon Video Archive out of the box and does not require installation of a CNA or SAN card. However, the Connectivity Kit is still required for the transceivers and optical cables used to make the connections.

## Storage Area Network (SAN) Connectivity Kits

- **NVR5 PRM 252/288/360/432 TB:** NVR5-AVA-SAN-CONNECT-B for a CNA card and a set of 2 transceivers with optical cables for connecting the NVR with SAN networking through network switches.
- **NVR5 STD** and **NVR5 PRM 96/128/160/192/224 TB:** NVR5-AVA-SAN-CONNECT-A for a CNA card and a set of 2 transceivers with optical cables for connecting the NVR with SAN networking through network switches.
- **Avigilon Video Archive:** AVA-SAN-CONNECT-1 or AVA-SAN-CONNECT-8 for a set of 1 or 8 transceivers with optical cables for connecting the Avigilon Video Archive with SAN networking through network switches.

## NVR4X

### Direct Attach or Storage Area Network Connectivity Kits

- **NVR4X PRM 64/96/128/157 TB:** AVA-HED1-NVR4X-PRM1-CONNECT
- **NVR4X PRM 192/217 TB:** AVA-HED1-NVR4X-PRM2-CONNECT
- **NVR4X STD:** AVA-HED1-NVR4X-STD-CONNECT

## NVR4

### Direct Attach or Storage Area Network Connectivity Kits

- **NVR4 PRM** and **NVR4 STD:** AVA-HED1-NVR4-CONNECT

## Overview

You must install the converged network adapter (CNA) card or storage area network (SAN) card provided in the connectivity kit in an NVR before you can connect it to an Avigilon Video Archive. The installation of the CNA/SAN card is similar for all recorders, but should be installed in the specific PCI slot defined for each recorder. Differences between the recorders are noted in the steps of the installation procedure. For more information, see *Install the CNA/SAN Card* on page 5.



**WARNING** — If the NVR is an operating part of your surveillance system, it must be shut down to complete this procedure.

## Prerequisites

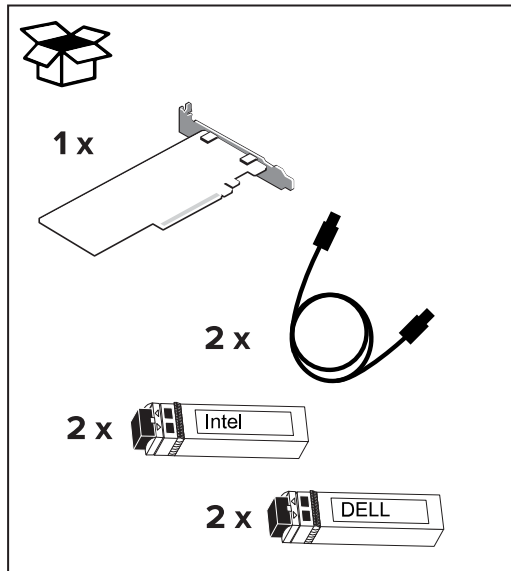
Before you can deploy an Avigilon Video Archive into your security network, you must install the 2nd CPU Kit in any of the following NVRs that you are connecting to an Avigilon Video Archive. NVRs not mentioned below do not require the 2nd CPU Kit.

- **NVR5-STD:** NVR5-STD-2NDCPU (ordered separately)
- **NVR4 STD:** HD-NVR4-STD-2NDCPU (ordered separately)
- **NVR4X PRM 64/96/128/157 TB:** 2nd CPU Kit included with AVA-HED1-NVR4X-PRM1-CONNECT
- **NVR4X STD:** 2nd CPU Kit included with AVA-HED1-NVR4X-STD-CONNECT

**Important:** Additional power is required in order to enable the 2nd CPU Kit in the NVR5 Standard systems. To achieve this, replace the 800W PSU with an 1100W PSU (NVR5-PSU-1100W-A1), add a second 800W PSU (NVR5-PSU-800W) and disable PSU redundancy support, or replace the 800W PSU with two 1100W PSUs (NVR5-PSU-1100W-A1) and enable PSU redundancy support.

# Confirm Package Contents

Confirm that the kit you are installing contain the following components:



- 1 x CNA card

**Note:** This card is not needed for the NVR5 PRM 192/224 TB installation.

- 2 x optical cables (orange)
- 2 x Intel® SFP+ transceivers
- 2 x Dell SFP+ transceivers

## Required Tools

The following tool is not supplied and is needed to complete the installation:

- Phillips #2 screwdriver — for removing and re-installing the NVR Premium hard drive tray (if necessary)

**Important:** It is recommended that you use a static mat or static strap to ground yourself against static shock.

# Install the CNA/SAN Card

The half-height converged network adapter (CNA) card or storage area network (SAN) card provides the two short-range optical transceiver receptacles needed to cable an NVR to an Avigilon Video Archive.

**Important:** The SAN connectivity kits do not include the optical cables and transceivers necessary for making the connections from the network switches to the Avigilon Video Archive. Sets of optical cables and transceivers are available in packs of one (AVA-SAN-CONNECT-1) or eight (AVA-SAN-CONNECT-8) and must be ordered separately.

- NVR5 Standard: Install the CNA/SAN card in PCI slot 5.
- NVR5 Premium 252/288/360/432 TB: Install the CNA/SAN card in PCI slot 1.
- NVR5 Premium 96/128/160 TB: Install the CNA/SAN card in PCI slot 4.
- NVR4 Standard and NVR4X Standard: Install the CNA card in PCI slot 4.
- NVR4 Premium and NVR4X Premium 64/96/128/157 TB: Install the CNA card in PCI slot 4.
- NVR4X Premium 192/217 TB: Install the CNA in PCI slot 2.

**Note:** The NVR5 Premium 192/224 TB models support connections to the Avigilon Video Archive out of the box and does not require installation of a CNA or SAN card. However, the Connectivity Kit is still required for the transceivers and optical cables used to make the connections.

1. Shut down the recorder.

You can skip this step if you are installing the kit on a new recorder that is not powered up.

- a. In the Avigilon Control Center (ACC) Admin Tool, click **Shut Down**.

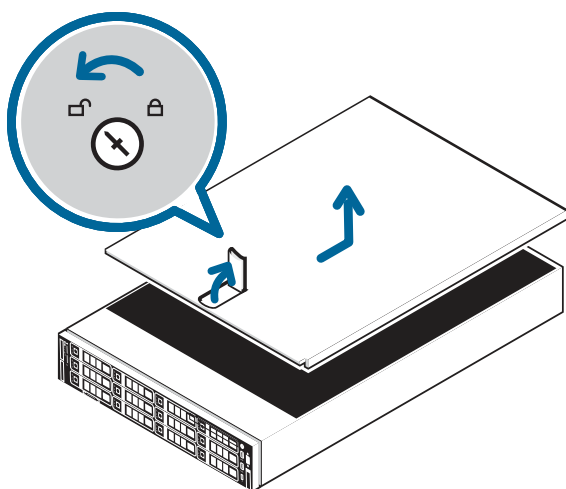
Wait for the application to display this message:

*The ACC Server is Not Running*

- b. Shut down Windows.

2. Remove all network, power and peripheral cables from the recorder.
3. At the top of the recorder, unlock the latch release then lift and rotate the latch towards the back of the recorder.

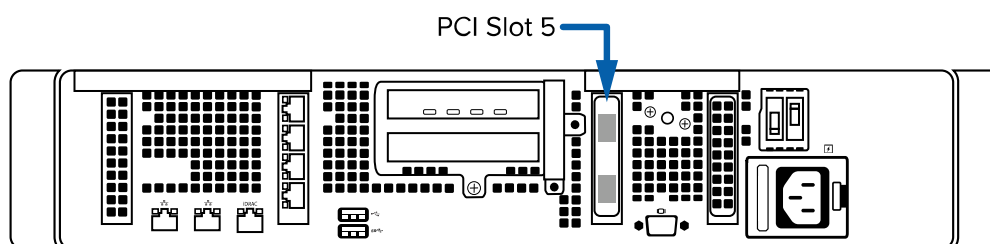
The cover slides back and is released from the recorder body.



4. Install the network card:

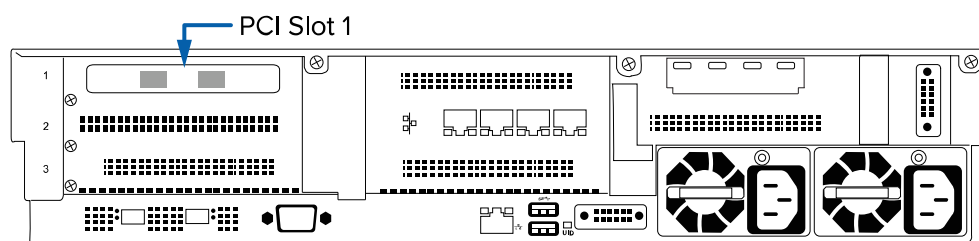
#### **NVR5 Standard**

- a. Remove the card blank from PCI slot 5.
- b. Insert and press the CNA/SAN card into slot 5. The card pins should be inserted all the way into the riser.



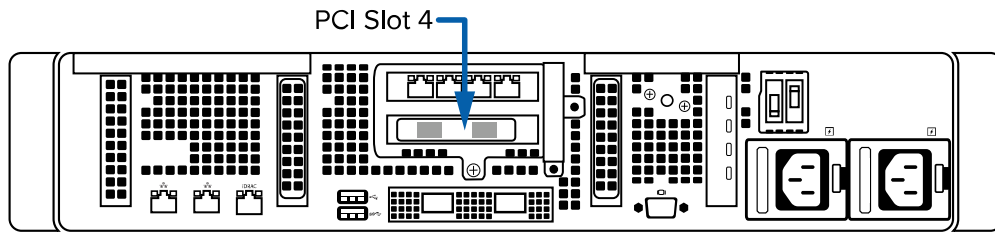
#### **NVR5 Premium 252/288/360/432 TB**

- a. Remove the card blank from PCI slot 1.
- b. Insert and press the CNA/SAN card into slot 1. The card pins should be inserted all the way into the riser.



#### **NVR5 Premium 96/128/160 TB**

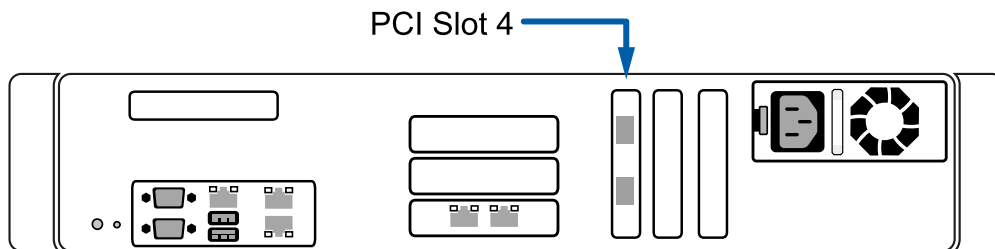
- a. Remove the card that is installed in PCI slot 3 so that you can access PCI slot 4.
- b. Remove the card blank from PCI slot 4.



- c. Insert and press the CNA/SAN card into slot 4. The card pins should be inserted all the way into the riser.
- d. Re-install the card into PCI slot 3 that was removed in step a. The card pins should be inserted all the way into the riser.

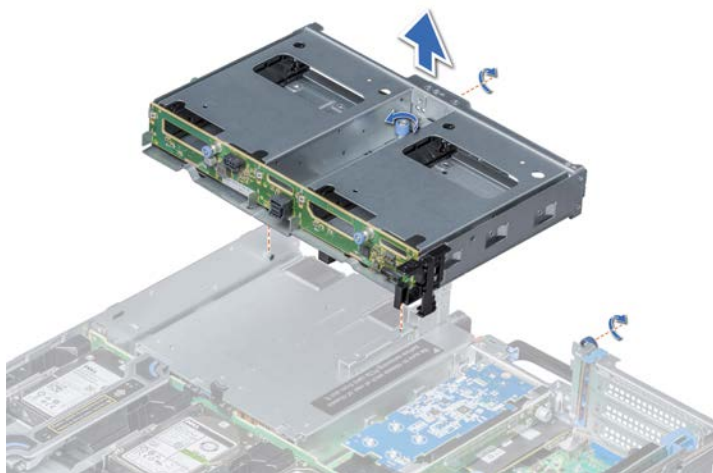
#### **NVR4 Standard, NVR4X Standard, and NVR4X Premium 64/96/128/157 TB**

- a. Remove the card blank from PCI slot 4.
- b. Insert and press the CNA card into slot 4. The card pins should be inserted all the way into the riser.



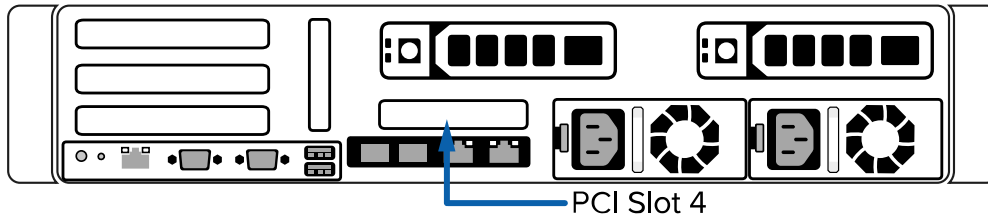
#### **NVR4 Premium**

- a. Using a Phillips #2 screwdriver, loosen the screws that secure the drive cage to the system. Hold the drive cage by its sides and lift it away from the system.

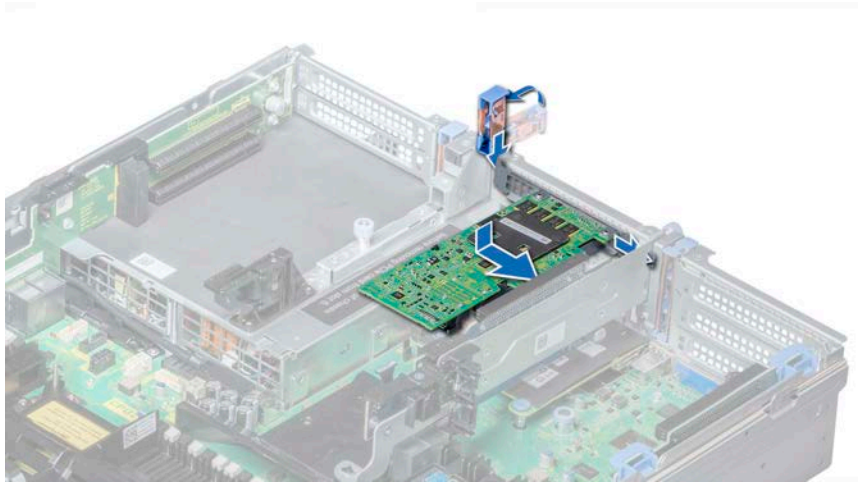


- b. Remove the card blank from PCI slot 4.

### NVR4 Premium



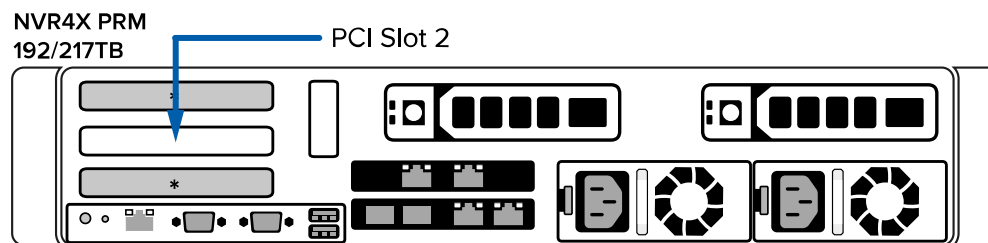
- c. Insert and press the CNA card into slot 4. The card pins should be inserted all the way into the riser.



- d. Use a Phillips #2 screwdriver to reinstall the drive cage to the system.

### NVR4X Premium 192/217 TB

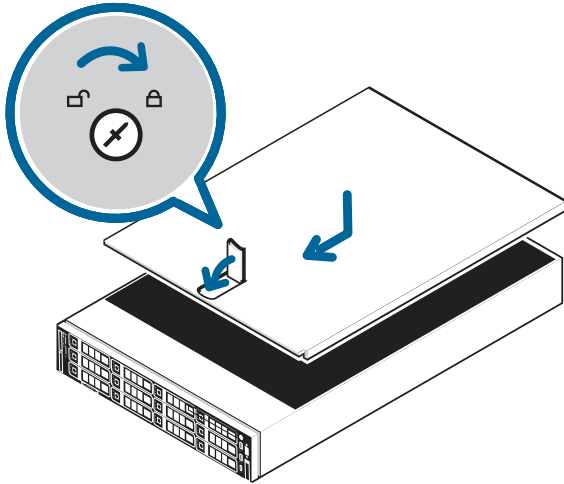
- a. Remove the card that is installed in PCI slot 1 so that you can access PCI slot 2.
- b. Remove the card blank from PCI slot 2.



- c. Insert and press the CNA card into slot 2. The card pins should be inserted all the way into the riser.
  - d. Re-install the card into PCI slot 1 that was removed in step a. The card pins should be inserted all the way into the riser.
5. Secure the CNA/SAN card in the chassis.



6. Close and lock the recorder cover.

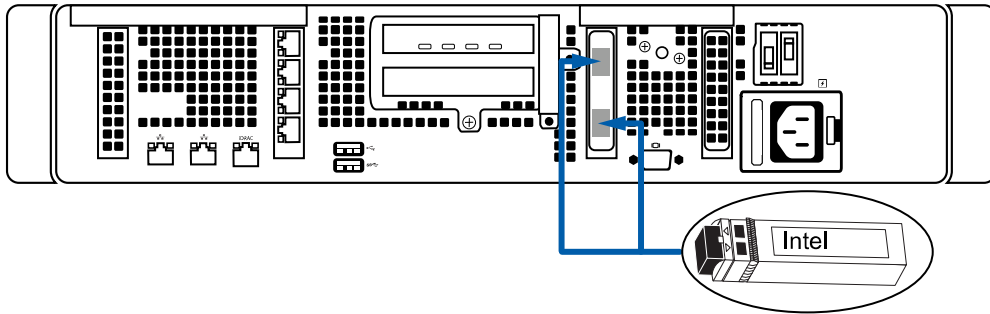


7. Reconnect all the cables to the recorder.
8. Power the recorder and log in to confirm the system is running properly.

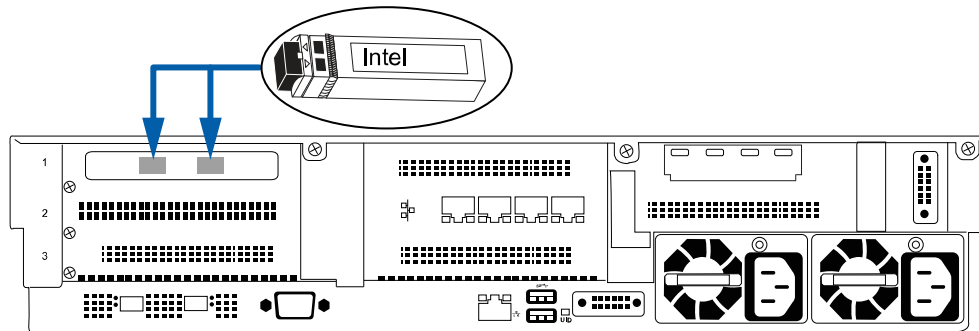
# Insert the SFP+ Transceivers in the Optical Transceiver Slots

To connect an NVR recorder to the cables in the NVR Avigilon Video Archive Connectivity Kit, Intel® SFP+ transceivers must be installed in each of the two short-range optical transceiver receptacles:

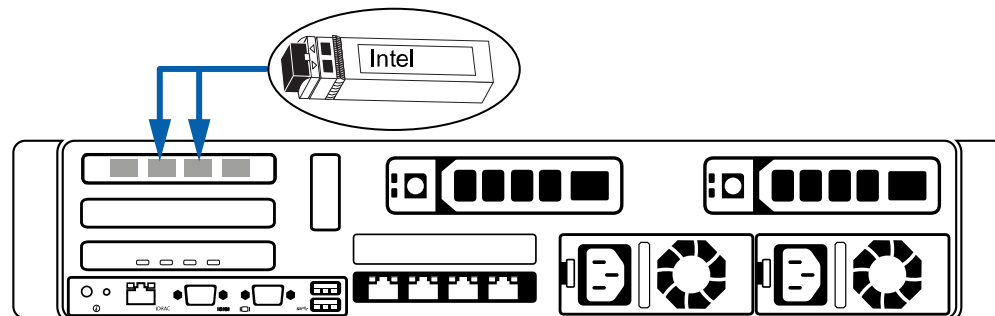
- On the NVR5 Standard recorders, plug the Intel® SFP+ transceivers into the receptacles in the CNA/SAN card installed in PCI slot 5.



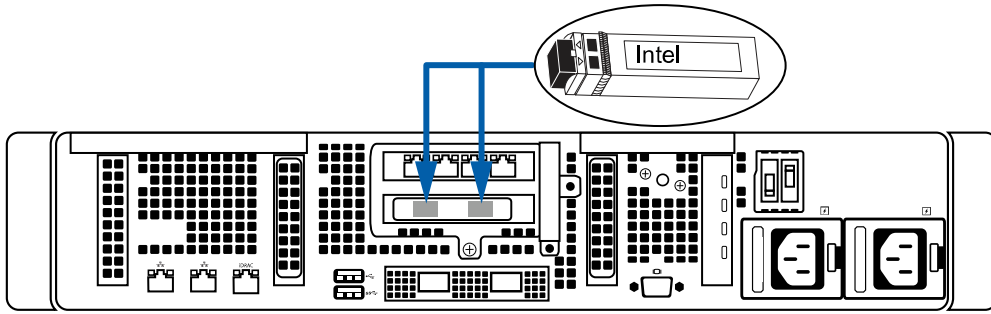
- On the NVR5 Premium 252/288/360/432 TB recorders, plug the Intel® SFP+ transceivers into the receptacles in the CNA/SAN card installed in PCI slot 1.



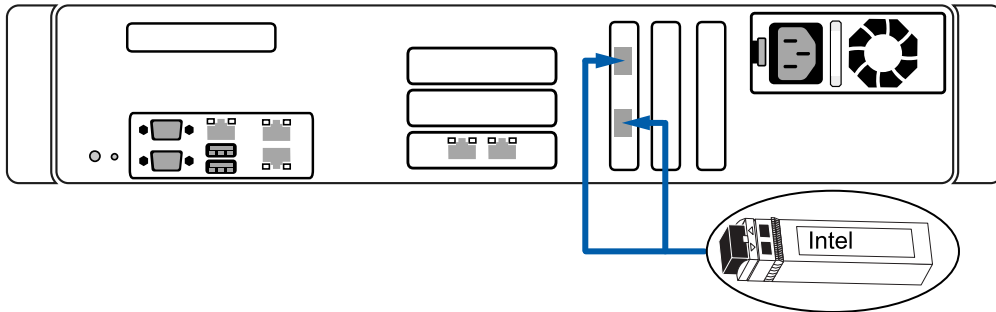
- On the NVR5 Premium 192/224 TB recorders, plug the Intel® SFP+ transceivers into the built-in 10G network card receptacles in PCI slot 1.



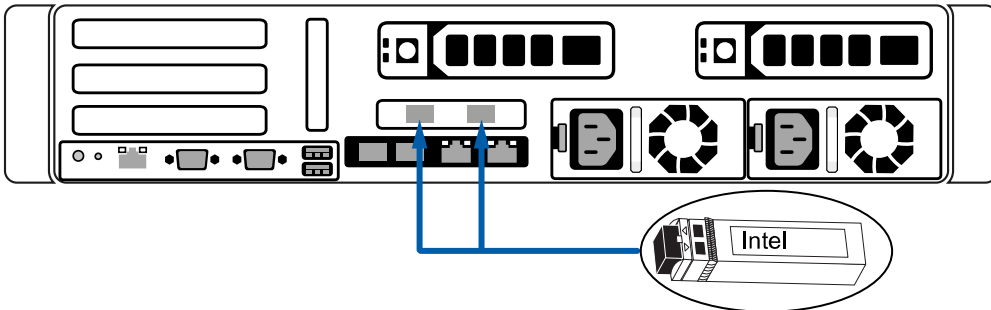
- On the NVR5 Premium 96/128/160 TB recorders, plug the Intel® SFP+ transceivers into the receptacles in the CNA/SAN card installed in PCI slot 4.



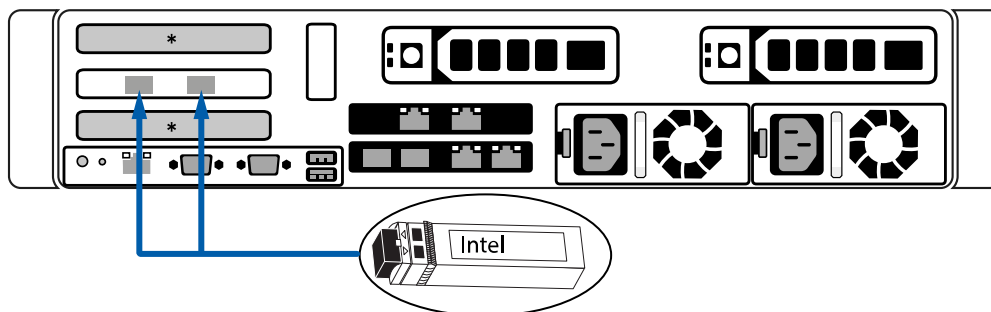
- On the NVR4 Standard, NVR4X Standard, and NVR4X Premium 64/96/128/157 TB recorders, plug the Intel® SFP+ transceivers into the receptacles in the CNA card installed in PCI slot 4.



- On the NVR4 Premium recorder, plug the Intel® SFP+ transceivers into the receptacles in the CNA card installed in PCI slot 4.



- On the NVR4X Premium 192/217 TB recorder, plug the Intel® SFP+ transceivers into the receptacles in the CNA card installed in PCI slot 2.



The NVR is now ready to be connected to the Avigilon Video Archive controller unit with the orange optical cables provided in the NVR Avigilon Video Archive Connectivity Kit.

Refer to the [Avigilon Video Archive Installation and Setup guide](#) for instructions to connect the NVR to the Avigilon Video Archive controller unit. This guide is also available at [avigilon.com/products/video-infrastructure/video-archive](https://www.avigilon.com/products/video-infrastructure/video-archive).

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