

# Xcellis Application Director QuickStart Guide

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# Introduction to the QuickStart Guide

This guide was written to familiarize you with the Xcellis Application Director server, the expansion cards purchased with your order, and provide the steps and sequence necessary to properly install the product. (See the [Xcellis Application Director Installation](#) section.)

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**i Note:** The installation steps refer to specific areas of the product documentation for those steps. Make sure to download the documents that will need to in addition to our install steps before installing the hardware (see [Required documentation](#)).

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# Xcellis Application Director Components

The Xcellis Application Director is a server sold in conjunction with and Xcellis Workflow Director system, or QXS Hybrid Disk storage..

**i Note:** The type hardware you purchased is one of two server types – either an R530 or an R630.

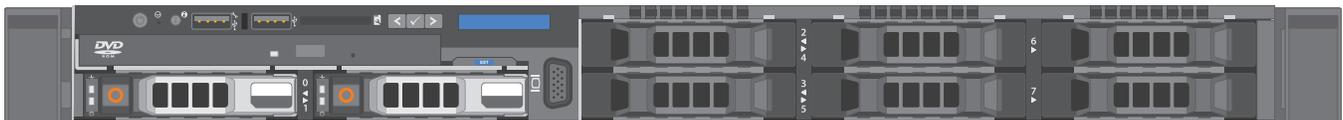
## Xcellis Application Director (with R630 server hardware)

The server ships with a 1U Quantum Xcellis bezel, and one of several RAM memory kit options. The base system includes 32 GB RAM (8 x 4GB RAM DIMMs), and can be expanded with 4, 8, 16 and 32 GB RAM DIMMs, depending on server requirements. Here is the front view of the server, with and without the bezel:

**Figure 1:** Front view - (with bezel)



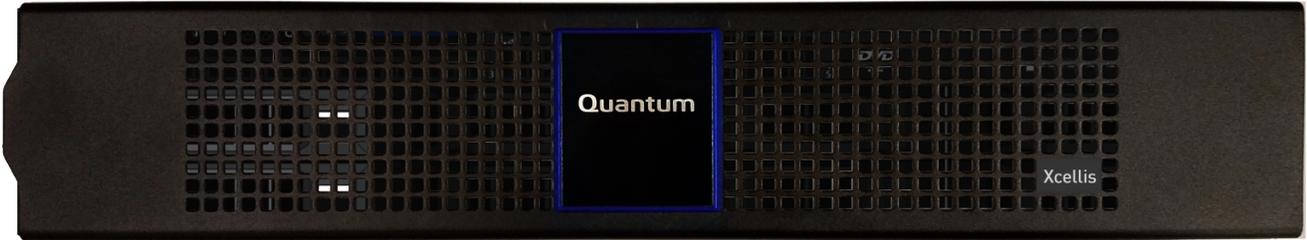
**Figure 2:** Front view - (without bezel)



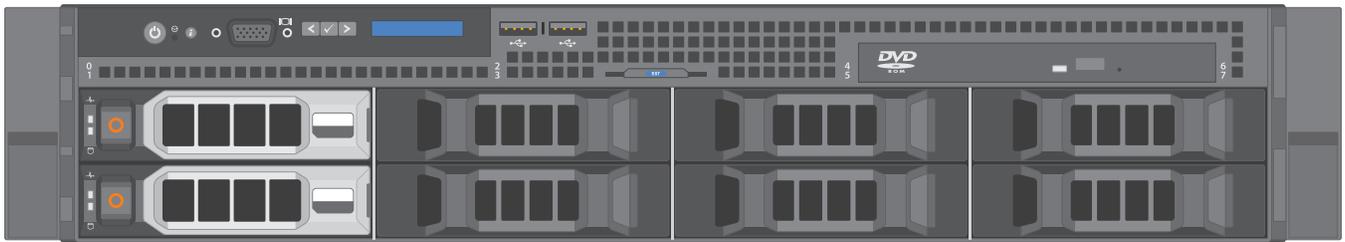
## Xcellis Application Director E (with R530 server hardware)

This 2U height server ships with a 2U Quantum Xcellis bezel. Here is the front view of the server, with and without the bezel:

**Figure 3:** Xcellis Application Director E front view - (with bezel)



**Figure 4:** Xcellis Application Director E front view - (without bezel)



The Xcellis Application Director E server also ships with one of several hard drive capacity options, as described here:

**Table 1:** Xcellis Application Director E – server-based storage options

Total Server Storage Capacity	Drives Supporting These Options
18 TBs	3 x 6 TB drives
24 TBs	4 x 6 TB drives
30 TBs	5 x 6 TB drives
36 TBs	6 x 6 TB drives
42 TBs	7 x 6 TB drives

<b>Total Server Storage Capacity</b>	<b>Drives Supporting These Options</b>
48 TBs	8 x 6 TB drives
24 TBs	3 x 8 TB drives
32 TBs	4 x 8 TB drives
40 TBs	5 x 8 TB drives
48 TBs	6 x 8 TB drives
56 TBs	7 x 8 TB drives
64 TBs	8 x 8 TB drives

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# Xcellis Application Director Installation

The following is a checklist of the steps needed to install the Xcellis Application Director system.

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**⚠ Caution:** Refer to the "Safety instructions" section of "Installing and removing system components" in the *Dell PowerEdge 630 Owner's Manual* or *Dell PowerEdge R530 Owner's Manual*. Many system components are static-sensitive, and require ESD precautions to be used so they are not damaged during installation.

## Required documentation

Note which server you purchased. These instructions refer to the appropriate Dell Owner's Manual for your server. Use only the instructions that pertain to the specific server type purchased.

**Xcellis Application Director documentation**([www.quantum.com/xcellisaddocs](http://www.quantum.com/xcellisaddocs))

- *Dell PowerEdge R630 Owner's Manual* – for **Xcellis Application Director** servers
- *Dell PowerEdge R530 Owner's Manual* – for **Xcellis Application Director E** servers

**QXS documentation**([www.quantum.com/qxshybriddocs](http://www.quantum.com/qxshybriddocs))

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**i Note:** Download this documentation only if QXS storage has not been installed.

- *QXS Setup Guide*
- *QXS 12- and 24-Drive Rackmount Bracket Kit Installation Guide*
- *QXS 48-Drive Rackmount Bracket Kit Installation Guide*
- *QXS 56-Drive Rackmount Bracket Kit Installation Guide*
- *QXS CLI Reference Guide*
- *QXS Disk Management Utility User Guide V3*
- *QXS Release Notes*

## Installation steps

Server Model	Done?	Steps
R630, R530 – E	<input type="checkbox"/>	<ol style="list-style-type: none"> <li>Configure and/or provision the following: <ul style="list-style-type: none"> <li>Network environment - includes Fibre Channel and zoning.</li> <li>Network, Fibre Channel, and iSCSI switches.</li> <li>Obtain IP addresses needed for components, including server, QXS chassis, and server network ports.</li> <li>Any necessary DNS entries.</li> <li>Determine NTP server(s) to be used for the components for consistent data timestamps.</li> </ul> </li> </ol>
R630, R530 – E	<input type="checkbox"/>	<ol style="list-style-type: none"> <li>Download the required documentation needed for your installation.</li> </ol>
R630, R530 – E	<input type="checkbox"/>	<ol style="list-style-type: none"> <li>Unbox all system components and verify all the shipped components match the packing list that came with your shipment. <ul style="list-style-type: none"> <li><b>Note:</b> If you unbox memory or card boxes, leave the components themselves inside their individual boxes until you get to the step to install that component.</li> </ul> </li> </ol>
R630, R530 – E	<input type="checkbox"/>	<ol style="list-style-type: none"> <li>Install server rails in your rack using instructions provided in the rail shipping box. <ul style="list-style-type: none"> <li><b>WARNING:</b> Before installing components in the rack, make sure the rack is securely mounted to the floor following rack installation standards in place at your facility.</li> <li><b>WARNING:</b> Install server and QXS chassis rails (<b>R630 only</b>) so that these components will be installed at the lowest point available in the rack. This ensures that the weight of the system remains near the bottom of the rack and prevents the rack from tipping over.</li> </ul> </li> </ol>
R630	<input type="checkbox"/>	<ol style="list-style-type: none"> <li>Install QXS rails in your rack using the instructions in the appropriate <i>QXS Rackmount Bracket Kit Installation Guide</i> for your QXS chassis type(s), if not previously installed. <ul style="list-style-type: none"> <li><b>Note:</b> Keep QXS chassis together, with QXS RAID at the top of the QXS chassis stack.</li> </ul> </li> </ol>
R630, R530 – E	<input type="checkbox"/>	<ol style="list-style-type: none"> <li>If you need to install expansion cards (or memory [<b>R630 only</b>]) in your server, remove the cover from the server. See <b>Installing and removing system components &gt; Removing the system cover</b> in the appropriate <i>Dell PowerEdge Owner's Manual</i> for your server. For <b>R530</b> servers, install the expansion cards in the server according to <b>Installing and removing system components &gt; Expansion cards and expansion-card riser (optional)</b> and continue to <a href="#">step 15</a>.</li> </ol>

Server Model	Done?	Steps
R630	<input type="checkbox"/>	<p>7. Unbox any static-protective bags of memory DIMMs from their shipping box(es).</p> <p> <b>Caution:</b> Take ESD precautions while handling DIMMs.</p>
R630		<p> <b>Note:</b> For the following steps, refer to <b>Installing and Removing System Components &gt; System Memory &gt; General Memory module installation guidelines</b> in the <i>Dell PowerEdge R630 Owner's Manual</i> for memory installation instructions.</p>
R630	<input type="checkbox"/>	<p>8. Read the instructions in the Dell Owner's Manual</p> <p> <b>Note:</b> Pay particular attention to Table 2, in the "Sample memory configurations" section in the <i>Dell PowerEdge R630 Owner's Manual</i>. Refer to the "DIMM rank, organization and frequency" column of the table, with the type of DIMMs purchased for your system, and the "DIMM slot population" column for the RAM sockets to install the DIMMs into. (This column explains which DIMM sockets to populate, depending on the total RAM to be installed in the system.)</p>
R630	<input type="checkbox"/>	<p>9. <b>DO NOT</b> remove memory DIMMs that were already installed in the system, but remove the memory blanks from the sockets where the memory kit DIMMs need to be installed, according to the <i>Dell PowerEdge R630 Owner's Manual</i>.</p>
R630	<input type="checkbox"/>	<p>10. Install the memory DIMMs into the correct memory sockets in the server.</p> <p> <b>Note:</b> Ensure DIMMs are fully seated during installation. You will know they are fully-seated when the DIMM slot ejectors are in the up position. See <b>memory module socket ejector</b>, item 3 in "Figure 21. Installing the memory module" in the <i>Dell PowerEdge R630 Owner's Manual</i>.</p>
R630	<input type="checkbox"/>	<p>11. If cards are to be installed in Slot 1 and/or Slot 2, remove Riser Card 1 according to <b>Installing and removing system components &gt; Expansion cards and expansion-card risers &gt; Removing expansion-card risers</b> in the <i>Dell PowerEdge R630 Owner's Manual</i>.</p>
R630	<input type="checkbox"/>	<p>12. Unbox the PCIe expansion cards.</p> <p> <b>Caution:</b> Take ESD precautions while handling expansion cards.</p>
R630	<input type="checkbox"/>	<p>13. Identify the expansion cards you will install in the server. See <a href="#">Xcellis Application Director Cards/Connections (R630 only)</a> for cards purchased from Quantum.</p>

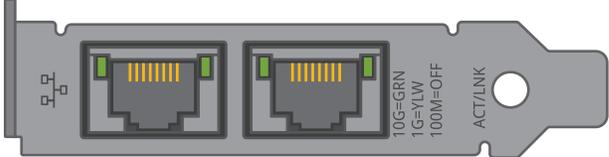
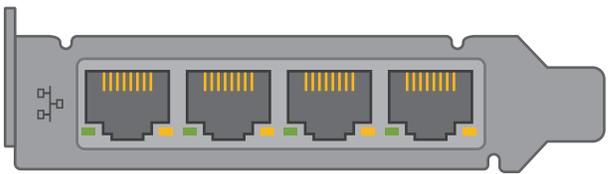
Server Model	Done?	Steps
R630	<input type="checkbox"/>	<p>14. Install expansion cards in the system, according to the instructions in <b>Installing and removing system components &gt; Expansion cards and expansion-card risers &gt; Installing an expansion cards</b> in the <i>Dell PowerEdge R630 Owner's Manual</i>.</p> <ul style="list-style-type: none"> <li><b>i Note:</b> For Dell R530 servers, expansion cards are not purchased or shipped with your system hardware.</li> <li><b>i Note:</b> Pay particular attention to the "Expansion card installation guidelines" table, which defines a priority for which expansion cards to install in which slots, depending on the type of card you are installing in the server.</li> <li><b>i Note:</b> Be sure to fully-seat all expansion cards in both expansion card risers. If the expansion cards are not fully-seated they will not operate properly. In addition, on Riser Card 1, if not properly seated, the riser card retention tabs will not close, and will prevent the riser card from being re-installed into the server.</li> </ul>
R630	<input type="checkbox"/>	<p>15. Install the server cover. See <b>Installing and removing system components &gt; Installing the system cover</b> in the <i>Dell PowerEdge R630 Owner's Manual</i>.</p>
R630, R530 – E	<input type="checkbox"/>	<p>16. Install QXS chassis using instructions provided in the correct <i>QXS Rack Mount Guide</i> for your QXS chassis, if not previously installed.</p>
R630, R530 – E	<input type="checkbox"/>	<p>17. Install drives in your QXS chassis using instructions provided in the appropriate <i>QXS Quick Setup Guide</i> for your QXS chassis, if not previously installed.</p> <ul style="list-style-type: none"> <li><b>i Note:</b> Do not install drives until all chassis are installed in the rack.</li> </ul>
R630, R530 – E	<input type="checkbox"/>	<p>18. Install bezels on the Xcellis Application Director (1U bezel for the R630 server; 2U bezel for the R530 server).</p>
R630, R530 – E	<input type="checkbox"/>	<p>19. Install the QXS chassis bezel(s) using instructions in the appropriate <i>QXS Bezel Installation Guide</i> for your QXS chassis, if not previously installed.</p>
R630, R530 – E	<input type="checkbox"/>	<p>20. Install any required SFPs into expansion card ports and QXS Chassis (<b>R630 only</b>), if not previously installed.</p> <ul style="list-style-type: none"> <li><b>i Note:</b> Only install SFPs designed for their particular expansion cards or QXS chassis. While SFPs may appear physically identical, they are unique, and are not interchangeable.</li> </ul>
R630, R530 – E	<input type="checkbox"/>	<p>21. Attach server cables, including cables that connect to the network and Fibre Channel <b>R630 only</b> switches.</p>

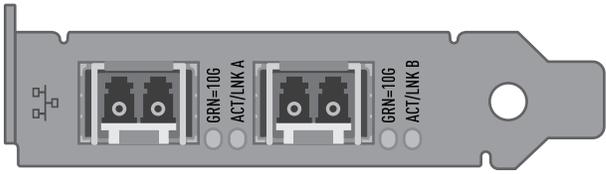
Server Model	Done?	Steps
R630	<input type="checkbox"/>	22. Attach cables between the QXS RAID chassis and the QXS Expansion chassis, if not previously installed. See the "Connecting the RAID Chassis and Expansion Chassis" section of <b>Chapter 2: Installing the Chassis</b> in the <i>QXS Setup Guide</i> .
R630	<input type="checkbox"/>	23. Attach cables between the server and the QXS RAID chassis, if not previously installed. See the <b>Connecting the Chassis to Hosts</b> and <b>Connecting a Management Host on the Network</b> sections of <b>Chapter 3: Connecting Hosts</b> in the <i>QXS Setup Guide</i> . If you intend to set up replication on your QXS system, see the <b>Connecting Two Storage Systems to Replicate Volumes</b> section later in Chapter 3.
R630	<input type="checkbox"/>	24. Power on the QXS RAID chassis, if not previously done. See the <b>Powering On/Powering Off</b> section of <b>Chapter 2: Installing the Chassis</b> in the <i>QXS Setup Guide</i> . (If a QXS firmware upgrade was not done previously, update the firmware according to steps in the current version of the <i>QXS Release Notes</i> .)
R630, R530 – E		25. Power on the Xcellis Application Director server by pressing the power button on the front of the server. See the <b>Front-panel features and indicators</b> section of <b>About your system</b> in the in the appropriate <i>Dell PowerEdge Owner's Manual</i> for your server.
R630, R530 – E	<input type="checkbox"/>	26. Configure the system components, expansion cards and ports, and install and configure software on the server.

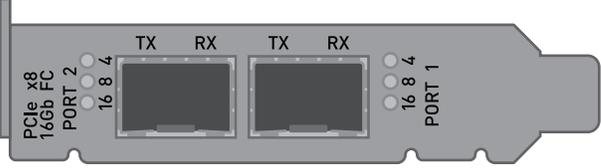
## Xcellis Application Director Cards/Connections

The server supports different network, SAS and Fibre Channel connection options.

**Table 2:** Server Ingest - Connection Options

Use Case/ Scenario	Xcellis Application Director Expansion Card Description	Full Card/ Port View - Expansion Card (cards supported in all 3 PCIe card slots)
10 GbE BASE-T environments.	Intel Ethernet X540 Dual Port 10 GbE BASE-T, Low Profile.	 <p>Quantum Part #: <b>9-05319-01</b></p> <p>Quantum Generic Description/Description (on card box): <b>XCELLIS APPLICATION DIRECTOR,ETHERNET X540 DUAL PORT 10GBASE-T,LOW PROFILE</b></p> <p>Manufacturer Model Number: <b>Intel X540</b></p>
1 Gb Ethernet environments.	Intel Ethernet i350 Quad Port 1Gb Ethernet, Low Profile.	 <p>Quantum Part #: <b>9-05322-01</b></p> <p>Quantum Generic Description/Description (on card box): <b>Xcellis Application Director, Ethernet i350 Quad Port 1Gb Low Profile</b></p> <p>Manufacturer Part # (label on card and anti-static bag): <b>09YD6K</b></p> <p>Manufacturer Model Number: <b>i350</b></p>

Use Case/ Scenario	Xcellis Application Director Expansion Card Description	Full Card/ Port View - Expansion Card (cards supported in all 3 PCIe card slots)
<p>Typical 10 GbE environments/QXS iSCSI Connection</p>	<p>Intel Ethernet X520 Dual Port 10Gb Ethernet, Low Profile.</p> <p><b>i Note:</b> Can be used with Twinax cables or optical SFP+.</p>	 <p>Quantum Part #: <b>9-03869-01</b></p> <p>Quantum Generic Description/Description (on card box): <b>Host Bus Adapter and Cables/StorNext M661 to M662 Optical Conversion Kit</b></p> <p>Manufacturer Part # (label on card): <b>0942V6</b></p> <p>Manufacturer Model Number: <b>Intel X520</b></p>
<p>QXS SAS Connection</p>	<p>12Gbps mini-SAS HD HBA External Controller, Dual Port, Low Profile.</p>	 <p>Quantum Part #: <b>9-05318-01</b></p> <p>Manufacturer Part #: <b>Dell 405-AAES</b></p>

Use Case/ Scenario	Xcellis Application Director Expansion Card Description	Full Card/ Port View - Expansion Card (cards supported in all 3 PCIe card slots)
QXS Fibre Channel Connection	QLogic QLE2662L Dual Port 16Gb Fibre Channel, Low Profile.	 <p>Quantum Part #: <b>9-05317-01</b></p> <p>Quantum Generic Description/Description (on card box): <b>Xcellis Application Director, HBA, 16Gb, FC, Dual Port, Low Profile</b></p> <p>Manufacturer Part # (label on card): <b>HD8310405-26</b></p> <p>Manufacturer Model Number: <b>QLE2662L</b></p>

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## Contacting Quantum

### Contacts

For information about contacting Quantum, including Quantum office locations, go to:

<http://www.quantum.com/aboutus/contactus/index.aspx>

### Getting More Information or Help

For further assistance, or if training is desired, contact the Quantum Customer Support Center:

Region	Support Contact
North America	1-800-284-5101 (toll free) +1-720-249-5700
EMEA	+800-7826-8888 (toll free) +49 6131 324 185
Asia Pacific	+800-7826-8887 (toll free) +603-7953-3010

For worldwide support:  
<http://www.quantum.com/serviceandsupport/get-help/index.aspx#contact-support>

## Comments

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[doc-comments@quantum.com](mailto:doc-comments@quantum.com)