Blackjack® CX™

PoE Servers Powered by DW Spectrum® IPVMS

State-of-the-art hyper-optimized video management platform designed for ease, speed and efficiency.

Blackjack® CX™ 16-channel PoE NVR with 8 virtual channels — Up to 80Mbps

DW-BJCX4T-LX	DW-BJCX8T-LX	DW-BJCX16T-LX	DW-BJCX24T-LX	DW-BJCX32T-LX	DW-BJCX40T-LX

Default Login Information for DW Spectrum® IPVMS		Default login information for the server's OS	
Username: **admin**	Password: **admin12345**	Username: **dwuser**	Password: **Dw5pectrum**

WHAT'S IN THE BOX					
Blackjack CX™ server		1	Keyboard and mouse		1 set
Quick start guide		1	Power cable		1
19" rack mount ears (DW-BJCXRM) + 8 mounting screws		1 set			

NOTE: Download all your support materials and tools in one place.

1. Go to: **http://www.digital-watchdog.com/support-download/.**
2. Search your product by entering the part number in the '**Search by Product**' search bar. Results for applicable part numbers will populate automatically based on the part number you enter.
3. Click '**Search**'. All supported materials, including manuals, Quick start guides (QSG), software and firmware will appear in the results.
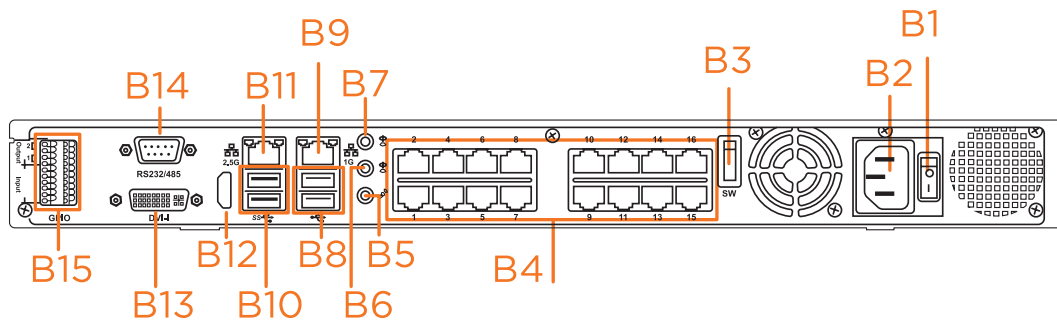
Attention: This document is intended to serve as a quick reference for initial setup. See the DW Spectrum® full manual for more information on features and functionality.

Blackjack®CX™

FRONT PANEL
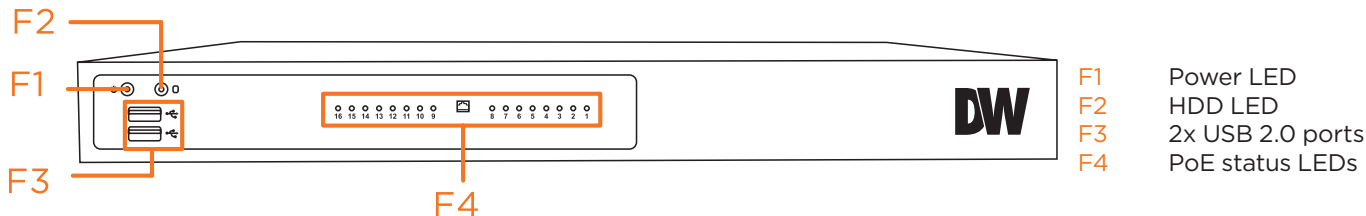
F1 — Power LED
F2 — HDD LED
F3 — 2x USB 2.0 ports
F4 — PoE status LEDs

REAR PANEL

B1 — Power supply on/off switch
B2 — Power AC input
B3 — Power on/off switch
B4 — PoE ports
B5 — Mic in
B6 — Speaker out
B7 — Line out
B8 — 2x USB 2.0 ports
B9 — 1Gb Ethernet port (PoE Uplink)
B10 — 2x USB 3.1 ports
B11 — 2.5Gb Ethernet port
B12 — True HD port
B13 — DVI-I port
B14 — RS232 Port (not used)
B15 — GPIO ports

Default Login Information for DW Spectrum® IPVMS	
Username: **admin**	Password: **admin12345**

Default login information for the server's OS	
Username: **dwuser**	Password: **Dw5pectrum**

WARNING For an optimal system configuration, it is recommended that a UPS (Uninterrupted Power Supply) be used to power the setup.

Dual monitors are not recommended due to CPU performance. To connect two monitors to the server, go to the display setup to activate the second monitor.

SPECIFICATIONS

DESCRIPTION		DW-BJCX
Included IP licenses		4
Form factor		PoE standalone NVR
Operating system		Linux Ubuntu®
OS on SSD		Yes
CPU		Intel® processor
Memory		8GB
Ethernet port		2x gigabit Ethernet ports (RJ45)
Local PoE ports		802.3af support 16 ports x 10/100 PoE, 15W per port (240W max PSE)
Alarm in/out		4x alarm inputs / 2 alarm outputs via terminal block
Audio in/out		1x line-in / 1x line-out / 1 microphone input
Max supported cameras		16 PoE/PoE+ ports, 8 virtual channels, total 24 cameras
Max video storage rate (Mbps)		80 Mbps
Storage	Maximum HDD	2x 3.5" SATA HDD, up to 40TB models
	USB interface	2x USB 3.1 ports, 4x USB 2.0 ports
Video-out	Outputs	1x true HD, 1x DVI-I for system configuration. 1 display output at a time.
Pre-loaded VMS software		DW Spectrum® IPVMS Server
Keyboard and mouse		Included
Rail kit		DW-BJCXRM 19" rack mount ears included. Wall mount rack available. Sold separately
Power supply		AC 100V-240V 410W**
Operating temperature		32°F~104°F (0°C-40°C)
Operating humidity		10-90% RH
Dimension (WxDxH)		16.92" (W) x 1.75" (H) x 13.7" (D) (430mm (W) x 44.5mm (H) x 348mm (D))
Other certification		NDAA, TAA
Warranty		5 year limited

* UPS recommended

Specifications and components mentioned are subject to change without notice.

SETTING UP THE SERVER

**STEP 1:** **Connect external devices, power and network.**

1. Connect a monitor, USB keyboard, USB mouse and the LAN side of the network cable to one 2.5Gb Ethernet port (B11 on the diagram). Connect the cameras to the PoE ports when the unit is fully booted to the OS.

   NOTE See page 2 for detailed back panel breakdown for each model.

2. Connect the server to an appropriate power source. It is recommended to use a 750VA or higher UPS system.
3. Power up the server if the server does not turn on automatically by pressing the power button on the back of the server. (B3 on the diagram).
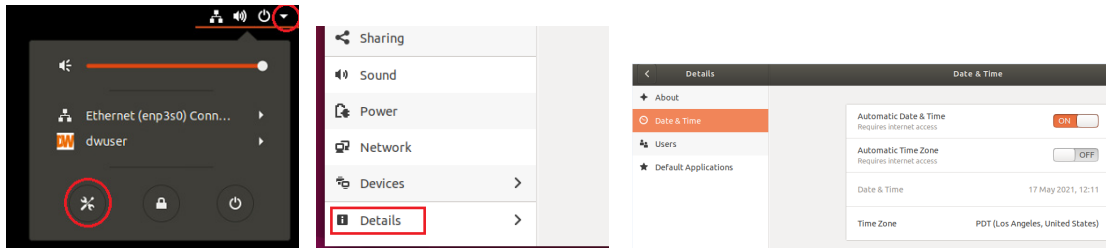   * Connecting the power cable to the live power source may turn on the server automatically.
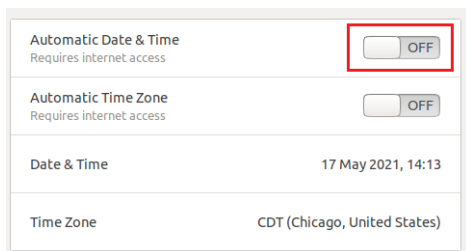   ** If the power does not turn on, verify the power supply switch is on.

Monitor   Keyboard   Mouse   UPS System
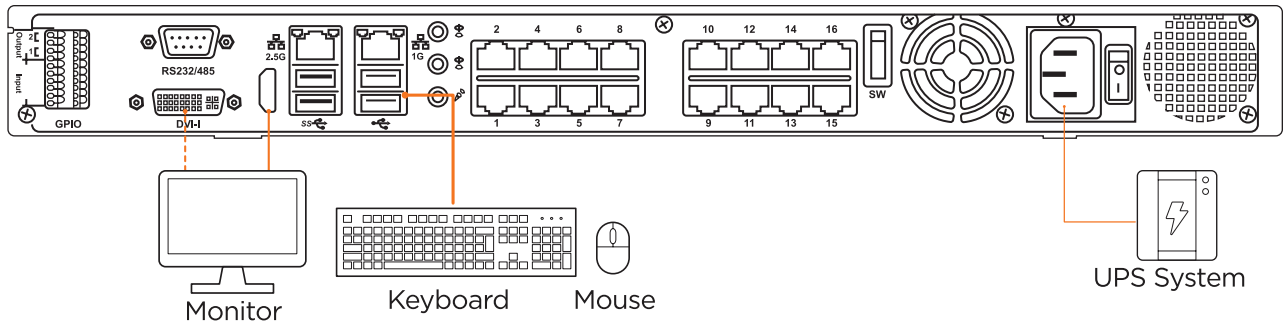
STEP 2: **Configure the date and time**

1. Open Settings > Details.

2. Click Date &Time.

3. Turn OFF Automatic Date & Time and Automatic Time Zone.

Blackjack® CX™

STEP 2: **Configure date and time (cont.)**

4. Click Date & Time and set the correct date and time.

5. Click Time Zone and set it to the correct Time Zone (type one of the largest cities in the time zone).

Automatic Date & Time Requires internet access	OFF
Automatic Time Zone Requires internet access	OFF
Date & Time	17 May 2021, 14:13
Time Zone	CDT (Chicago, United States)
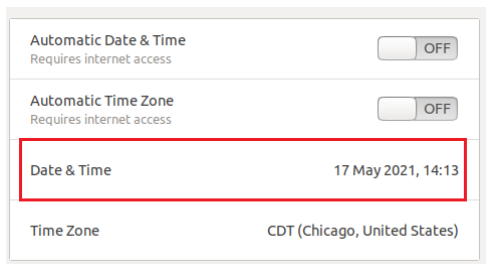
7. Close Settings.

STEP 3: **Configure the network settings**

Please have the following information ready before starting the network configuration.

	Camera network	Local network (enp5s0)
IP address	Auto assign from DHCP range 10.110.210.101 to 10.110.210.150	
Subnet mask / Netmask	255.255.255.0	
Default gateway / Gateway	Not applicable	
DNS servers	Not applicable	

* Camera network and local network cannot be on the same network.

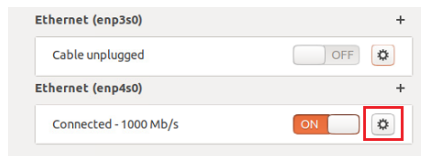* Cameras connected to the PoE ports before boot-up may not need to power cycle the get IP assigned.

> **NOTE** The Blackjack® server's network settings are set to DHCP as default.

> **NOTE** If you are not sure what information to enter, contact your Network Administrator or Internet Service Provider for the information.
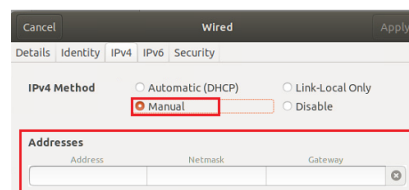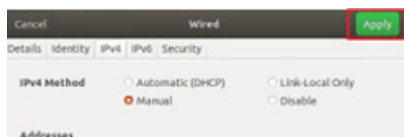
1. Open Settings > Network
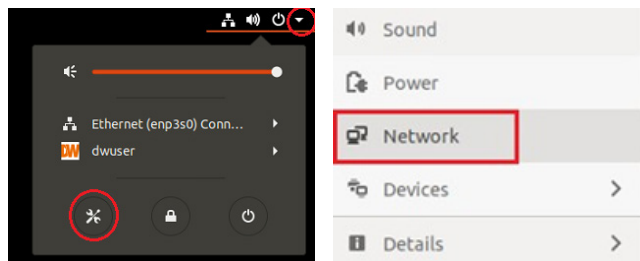
2. Click Setting of the Ethernet that is Connected.

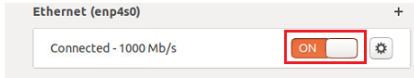| Ethernet (enp3s0)	+
Cable unplugged	OFF ⚙
Ethernet (enp4s0)	+
Connected - 1000 Mb/s	ON ⚙

3. Change to Manual, then enter Address, Netmask and Gateway.
  * Do not enter Gateway information if there is no Gateway in this network.

4. Click Apply to save.

4

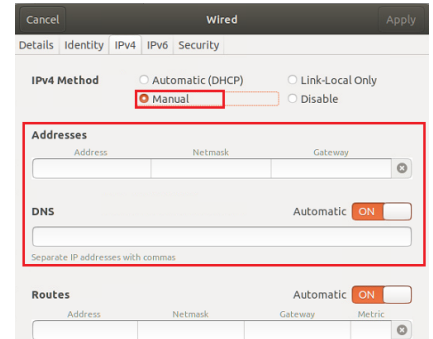5. Restart the connection by switching OFF, then turn it ON.

6. Click Settings of the Ethernet not connected.

7. Change to Manual, then enter Address, Netmask, Gateway and DNS.

8. Click Apply to save.

9. Connect the network cable and verify the connection.

NOTE If you are not connecting to the Blackjack® from the same network, you may be required to perform port forwarding on your router to access the server. Contact your Network Administrator or Installer for additional information

SETTING UP THE DW SPECTRUM® MEDIA SERVER

Login: **admin**
Password: **admin12345**

STEP 1: **Initial run from the Blackjack server**

1. Open the DW Spectrum client by double click on the DW Spectrum icon.

2. Click on the pre-configured server.

3. If the pre-configured server does not automatically log in, enter the password and click Connect. *Default password: admin12345 (case sensitive).
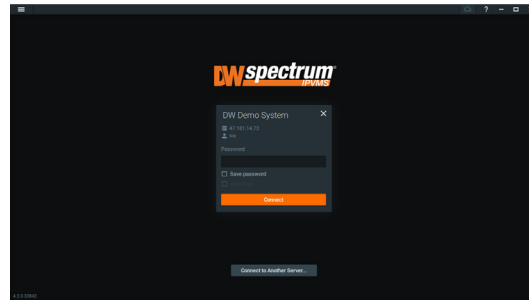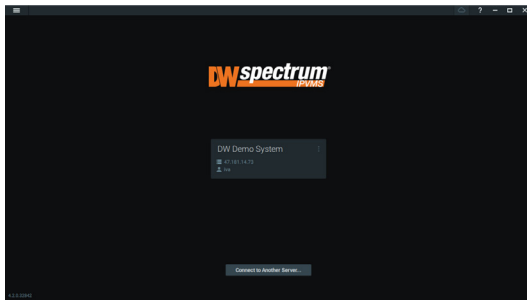

STEP 2: **To rename the server**

1. Right-click on the server name listed on the resources, then click server settings.
2. Go to the general tab and enter the new server name in the name field. Click OK.
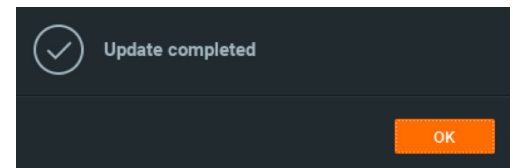
Blackjack®CX™
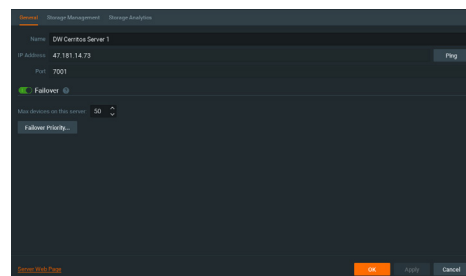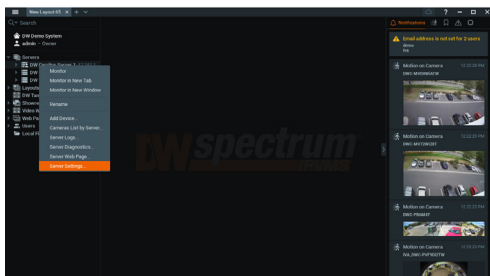
STEP 3: **To check for updates**

1. Click on the menu ▤ then click "System Administration."
2. Go to the updates tab. If the system requires updating, click on the update system button.
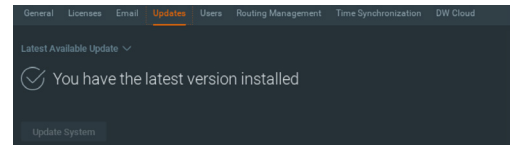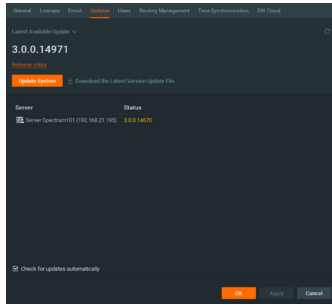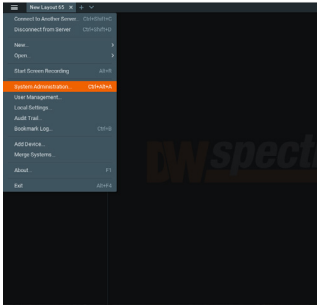
* If you are on the latest version, it will say "You have the latest version installed," and the Update System button will be disabled.
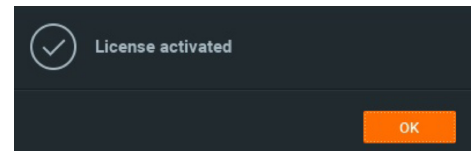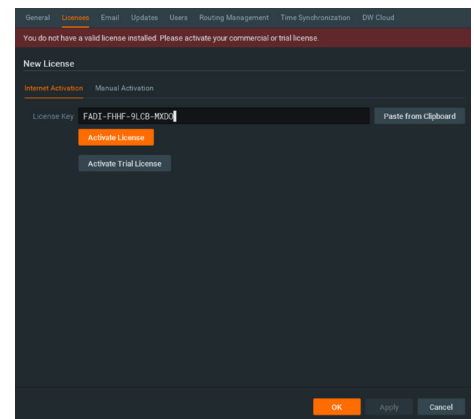3. Click OK when the update is completed.

STEP 4: **Enter and activate licenses**

1. Go to the system administration window and click on the license tab.

2. Enter the license key and click "Activate License." An Internet connection is required.

   * Click "Activate Trial License" if you have not purchased a valid license key.

3. Click OK when the license key is activated.

STEP 5: **Configure the recording**

1. Right-click on a camera in the resource tree to set up the recording. Click on camera settings from the context menu.

2. Go to the recordings tab.
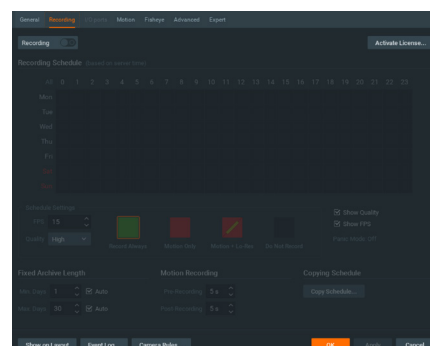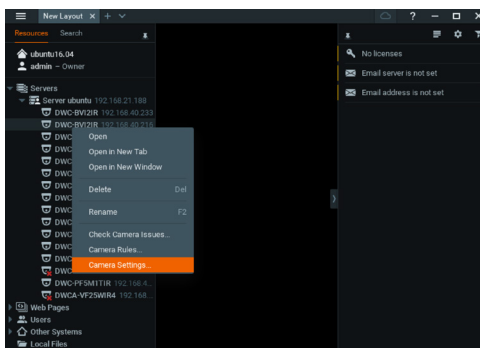
3. Click [Recording ⬤] to turn on the recording.

4. Configure the camera's schedule settings for quality, FPS and recording type.

5. Click and drag the mouse over the recording schedule to apply the settings to multiple days and times.

* Click "All" to apply the recording settings to the entire schedule.
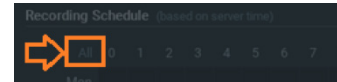
6. A red dot will appear next to the camera in the resource tree once the recording is started.
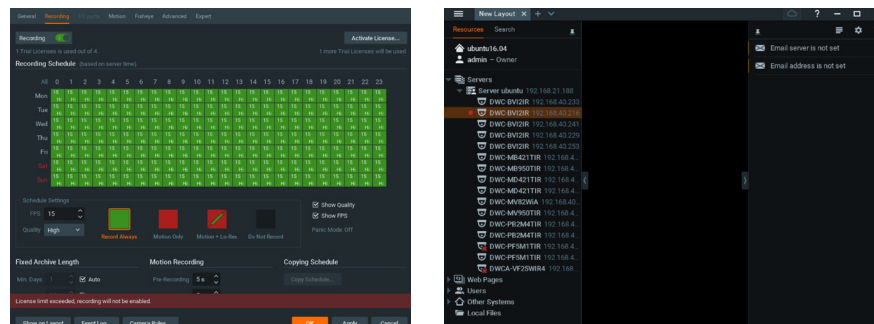
NOTE: A Recording License is required to allow each camera to the archive.

STEP 6: **Backup database**

1. Go to the system administration window and click on the general tab.

2. Click "Create Backup…".

3. Navigate to the folder you want to save the database and enter a name for the backup file. Click save.
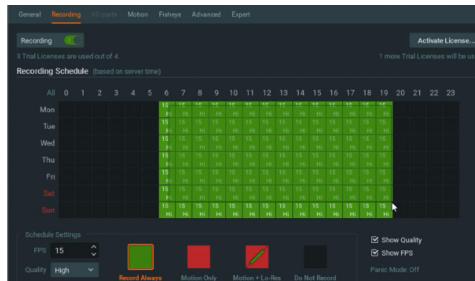
    * It is strongly recommended to create a Database Backup to external storage media before and after every update if a system restore point is needed.
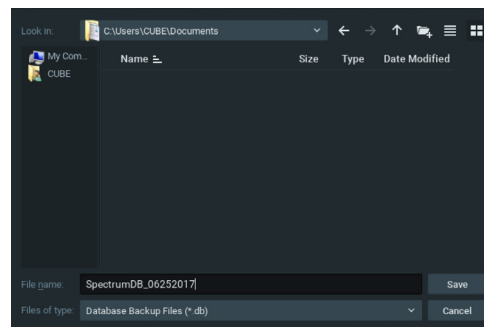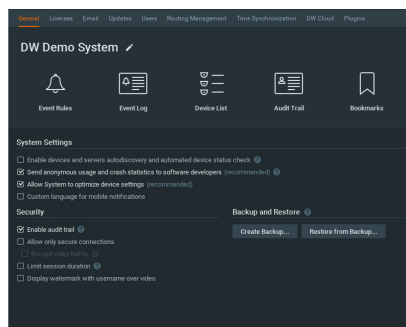
NOTE: More information and instructions are available in the DW Spectrum® IPVMS user manual.

TROUBLESHOOTING TIPS

Problem	Possible solutions
My camera does not auto-discover	1. Is the camera in the same LAN network as the media server? 2. Is your camera compatible with DW Spectrum? (Refer to our website for the complete list of supported cameras.) 3. Is the camera updated to its latest firmware? 4. If your camera is integrated with DW Spectrum via ONVIF, make sure ONVIF is enabled on your camera. 5. Try adding the camera manually. 6. Try rebooting the server after installation. Allow up to 2 minutes for the server to map your network and detect all supported devices.
Videos are slow	1. Are you accessing the same cameras from multiple clients? (LAN and WAN) 2. Do you have a Gigabit network? Check your network speed.
My camera appears disconnected	1. Under camera settings, make sure the username and password are correct. 2. Under the camera settings, use the 'Ping' button to ensure the camera is correctly connected to the network. 3. If you can connect to the camera's web viewer, try rebooting the camera and/or restoring it to factory default. 4. Ensure your camera is using the latest firmware available. 5. Ensure that the camera is connected to the same network as the server. 6. If you connect to a camera integrated with DW Spectrum via the ONVIF protocol (see list), ensure ONVIF is enabled. 7. Make sure your user has permission to view that specific camera.
I cannot get playback video from my camera	1. Do you have a network connection between the client and the server (in case server and client are not on the same machine)? 2. Make sure your user has playback viewing permissions for the selected channel. 3. Ensure the camera is set to a recording mode that provides recorded video for the selected time and environment. 4. On the server side, check the media server log to make sure the camera you are trying to watch has not been unexpectedly disconnected.
I get an 'unauthorized' message on my camera	1. Ensure the camera's username and password are entered correctly in the camera's general information under the camera settings menu. 2. If necessary, try rebooting the camera to apply the camera's username and password.

DW SPECTRUM SYSTEM REQUIREMENTS

Recommended specs for the full client

	Single-monitor DW Spectrum workstation	Dual-monitor DW Spectrum workstation	Quad-monitor DW Spectrum workstation
Processor	Intel i5 8th gen or AMD Ryzen 5 3000 Quad-Core or better	Intel i7 8th gen or AMD Ryzen 7 3000 Quad-Core or better	Intel i9 or AMD Ryzen 9 Quad-Core or better
Video card	Intel HD Graphics onboard GPU or better	Intel HD Graphics onboard GPU or better	GeForce GTX 1650 or better
RAM	8 GB DDR3 1600 MHz or better	16 GB DDR3 1600 MHz or better	32 GB or better
NIC	1Gbps or better	2 x 1 Gbit or better	2 x 1 Gbit or better
Storage	Dedicated SSD or NVME disk for the OS, 128 GB or larger	Dedicated SSD or NVME disk for the OS, 128 GB or larger	Dedicated SSD or NVME disk for the OS, 128 GB or larger
OS supported	**Microsoft Windows OS** (supported by both DW Spectrum® Server and Client). • Windows 8 – Released: October 2012 | EoS: 01/2023 • Windows 8.1 – Released: October 2013 | EoS: 01/2023 • Windows 10 – Released: July 2015 • Windows Server 2012 – Released: August 2012 | EoS: 10/2023 • Windows Server 2012 R2 – Released: October 2013 | EoS: 10/2023 • Windows Server 2016 – Released: October 2016 | EoS: 01/2027 • Windows Server 2019 – Released: October 2018 | EoS: 01/2029 • Windows Server 2022 – Released: August 2021 | EoS: 10/2031 **NOTE: DW Spectrum IPVMS for Windows can be installed as a software bundle, or the Server and Client software can be installed separately. **Ubuntu (Debian-based Linux) OS** (supported by both DW Spectrum Server and Client). • Ubuntu 16.04 LTS "Xenial Xerus" – Released: April 2016 | EoS: 04/2024 • Ubuntu 18.04 LTS "Bionic Beaver" – Released: April 2018 | EoS: 04/2028 • Ubuntu 20.04 LTS: "Focal Fossa" – Released: April 2020 | EoS: 04/2030 **NOTE: DW Spectrum IPVMS for Ubuntu is only available for separate installations (not bundled). **Macintosh OS** (supported only by the DW Spectrum Client. DW Spectrum Server is not available for macOS). • macOS 10.14 "Mojave" – Released: September 2018 • macOS 10.15 "Catalina" – Released: October 2019 • macOS 11.0, 11.1, 11.2 "Big Sur" – Released: November 2020 • macOS 12 "Monterey" – Released: October 2021 **NOTE: the DW Spectrum Client only supports DW Spectrum IPVMS for macOS.		

* Except Storage Server version

 Important: OS not listed will not be supported by DW®

Tech Support

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DW®

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