DIGITAL WATCHDOG DW-BJCUBE4T-DL Digital Video Recorder User Guide

DIGITAL WATCHDOG DW-BJCUBE4T-DL Digital Video Recorder

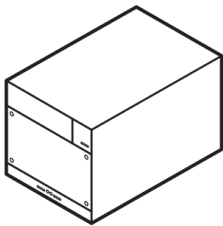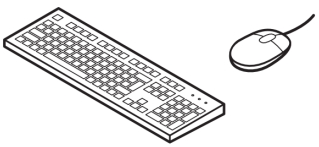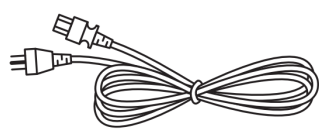| Default Login Information for DW Spectrum® IPVMS	
Username: **admin**	Password: **admin12345**

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

Contents

WHAT'S IN THE BOX

Cube-DL™ server		1	Keyboard and mouse		1 set
Quick start guide		1	Power cable		1

NOTE: Download all you 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® IPVMS full manual for more information on features and functionality

## BLACKJACK® CUBE-DL™ HARDWARE

F1 HDD LED
F2 Power button / Power LED
F3 5.25″ bay
F4 USB 2.0 port
F5 Microphone jack
F6 Headphone jack
F7 USB 2.0 port

F3   F1   F2

Front

F4
F5
F7
F6
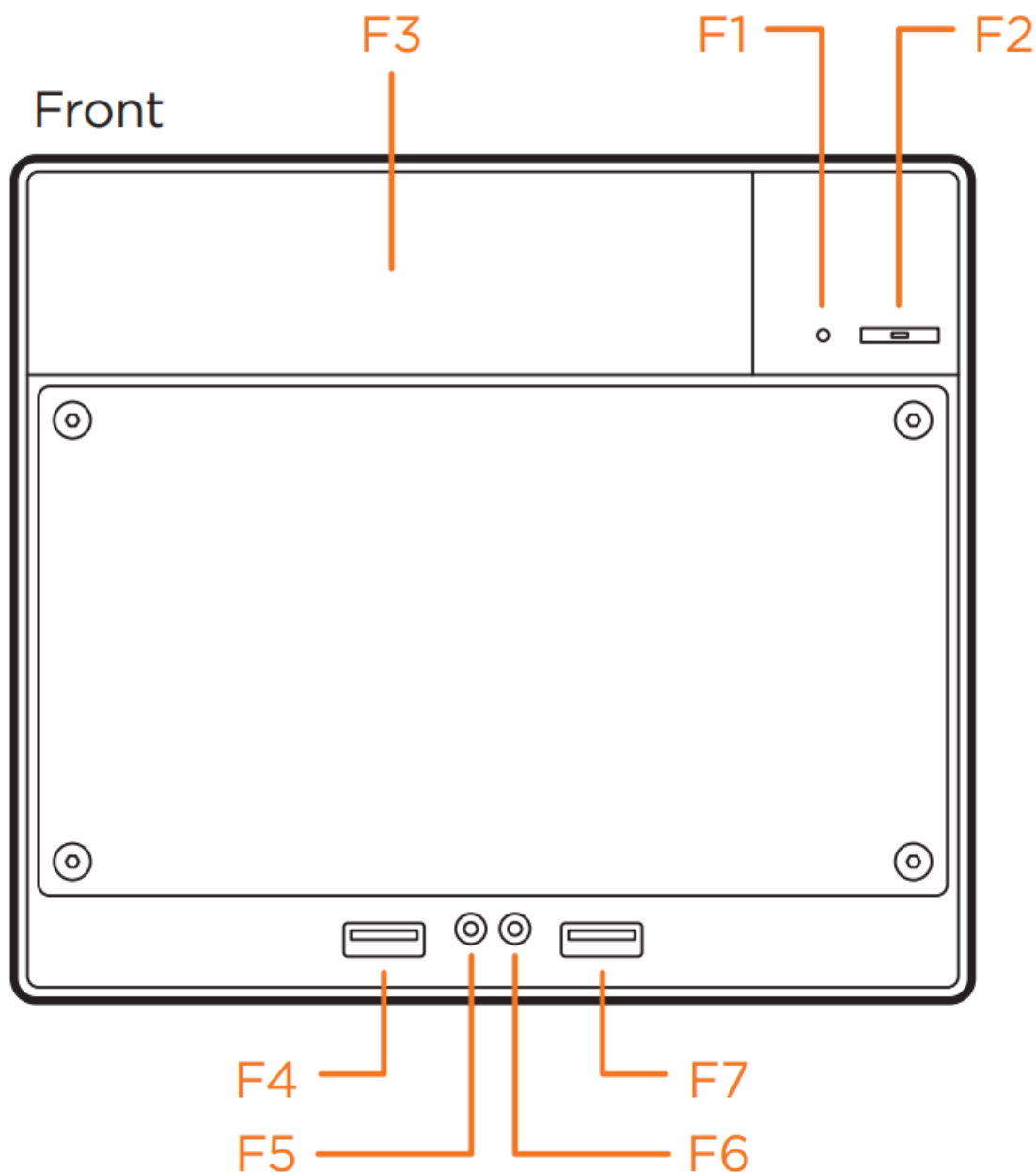
B1 AC Power socket
B2 Display port
B3 True HD port
B4 D-Sub port
B5 USB 3.0 ports
B6 USB 2.0 ports

B7 LAN port
B8 Clear CMOS button
B9 PS/2 port
B10 Line-in jack
B11 Line-out jack
B12 Microphone jack
B13 NIC port (connect to camera network)
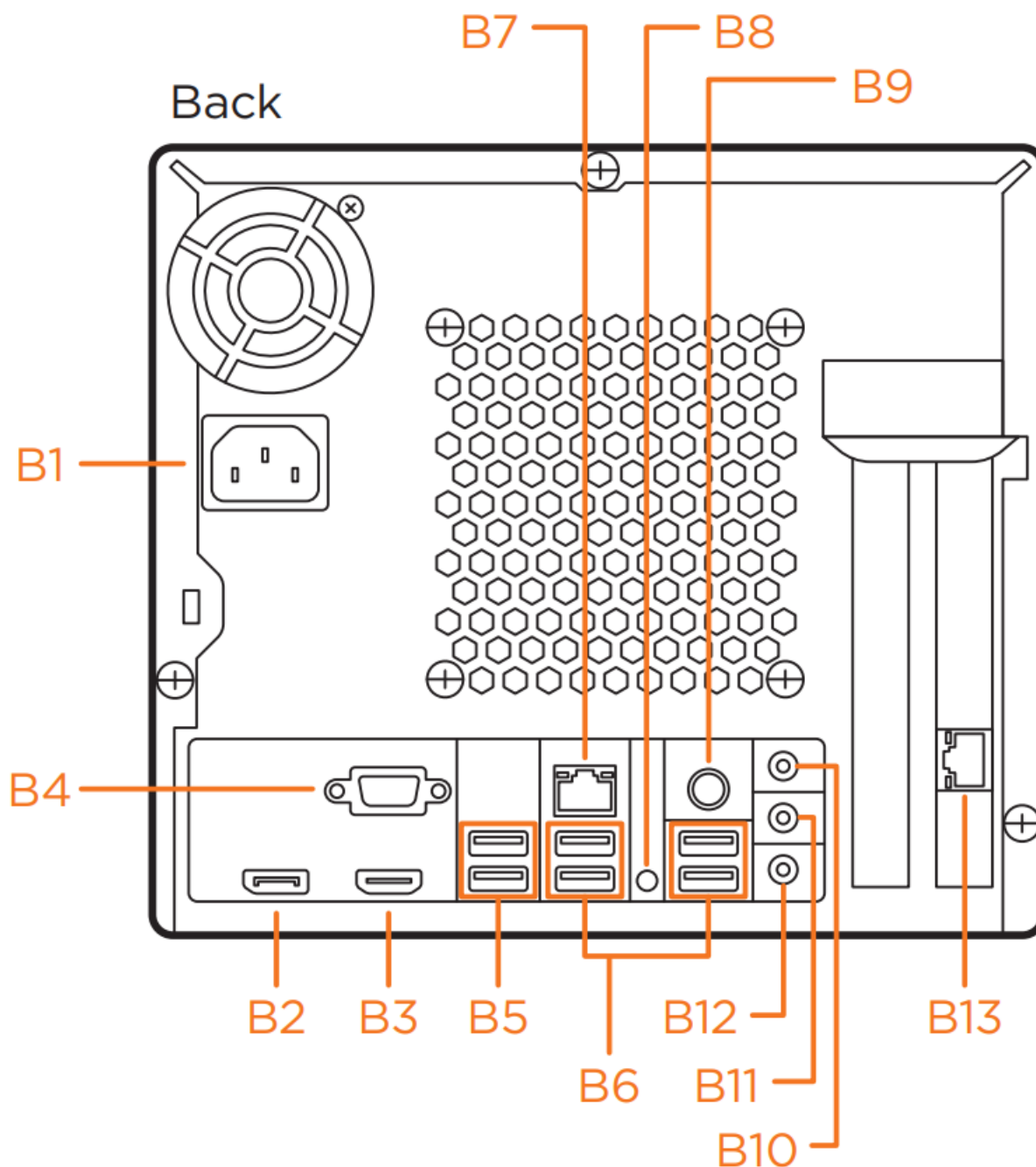
WARNING For an optimal system configuration, it is recommended that a UPS (Uninterrupted Power Supply) be used to power the setup.
Dual monitors are not recommended due to CPU performance. To connect two monitors to the server, go to the display setup to activate the second monitor.

SPECIFICATIONS

| Model		Blackjack® Cube-DL™
Included IP licenses		4
Form factor		Desktop
Operating system	Windows® 10 IoT	DW-BJCUBExT-DL
	OS on SSD	Yes
CPU		Intel® Core™ i7® processor
Memory		16GB
Ethernet port		2x gigabit Ethernet (RJ45)
System	Max. video storage rate (Mbps)	480Mbps (3 MEGApix® Pano™ 48MP cameras — DWC-PZV2M72T)
Storage	Maximum hard drives	1 x SSD + 2 x SATA HDD
	Maximum storage	20TB
Video-out	Outputs	D-Sub, true HD, Display port
	Resolution	HD 1080p
Pre-loaded VMS software		DW Specturm® IPVMS
Remote clients		Cross platform – Windows®, Linux Ubuntu® and Mac®
Mobile apps		iOS® and Andriod®
Keyboard and mouse		Included
Power supply		300W**
Operating temperature and humidity		41°F~104°F / 20~90% RH
Dimension (WxDxH) (inches)		8.5″ x 13″ x 7.5″
Warranty		5 year limited

SETTING UP THE SERVER

STEP 1: Connect external devices, power and network.

1. Connect a monitor, USB keyboard, USB mouse and network cable to one of the Ethernet ports (B13 on the diagram). Configure the camera's network first, then configure the server's local network.
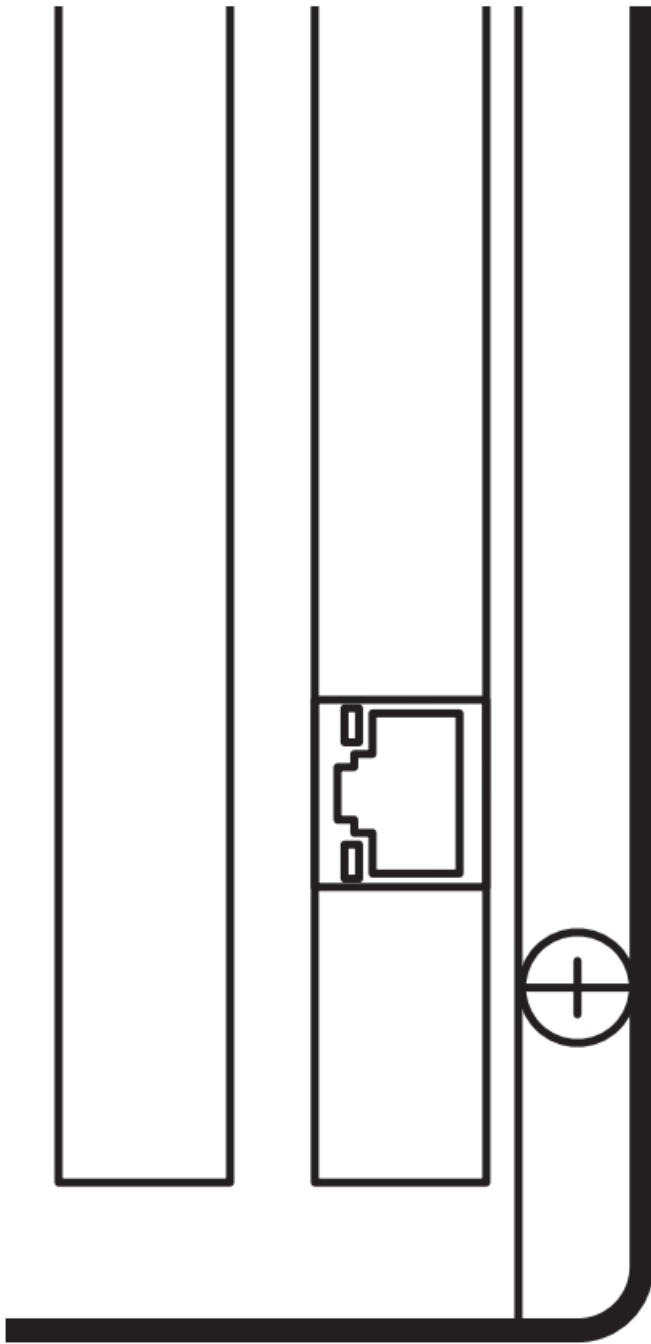
2. Connect the server to an appropriate power source. It is recommend to use 750VA or higher UPS system.

3. Power up the server if the server does not turn on automatically by pressing the power button on the front of the server. (F2 on the diagram).
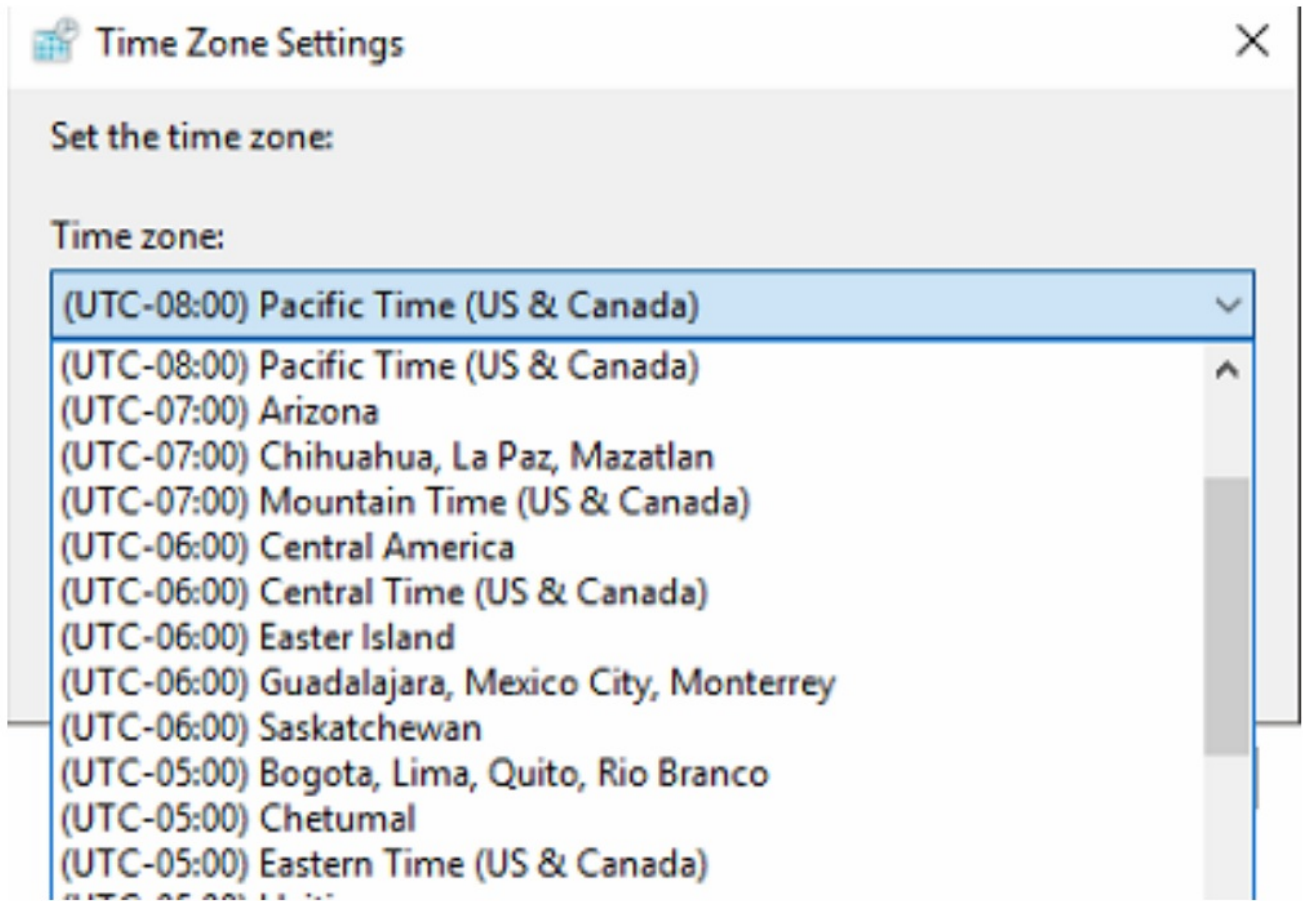
   * Connecting the power cable to the live power source may turn on the server automatically.

PoE switch for cameras
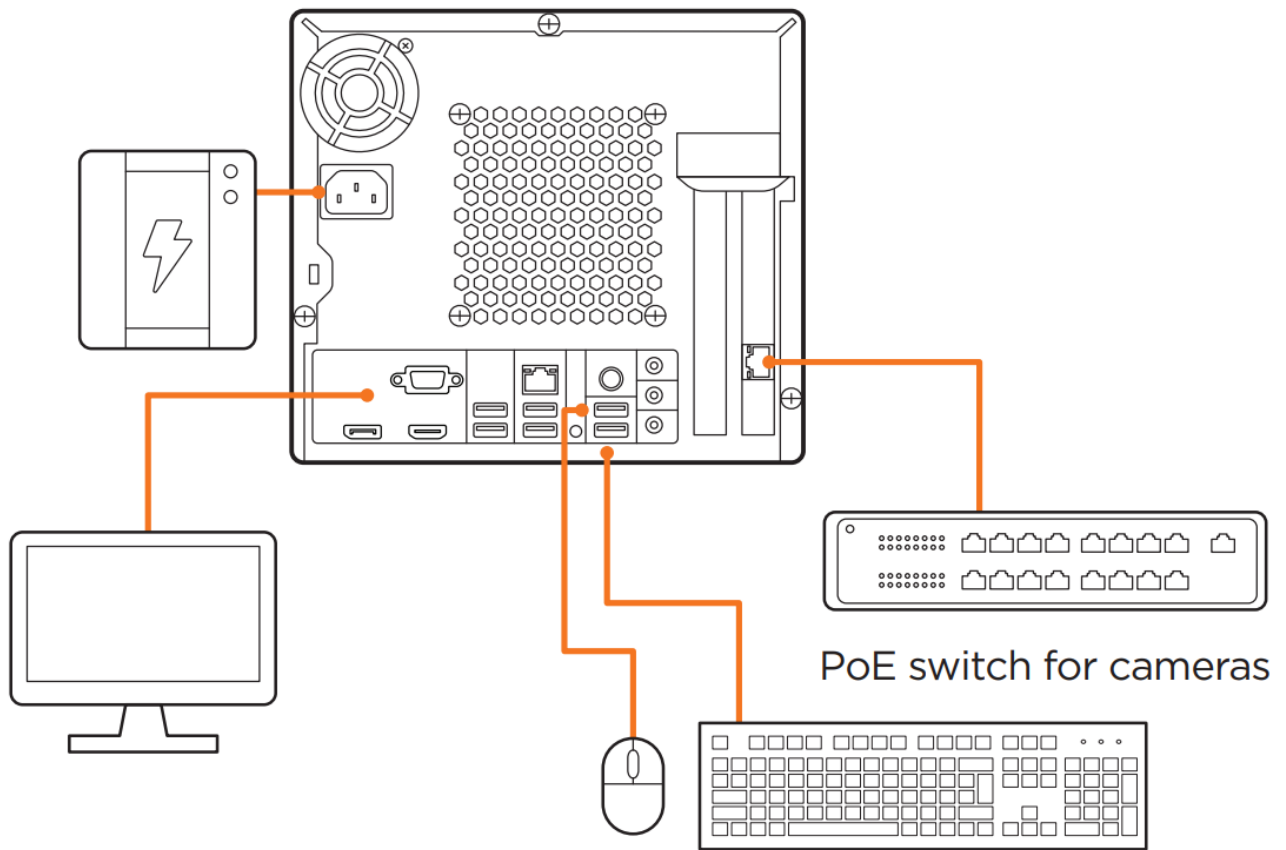
STEP 2: Configure date and time

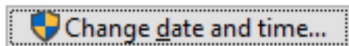
1. Double-click on the date and time icon on the desktop.

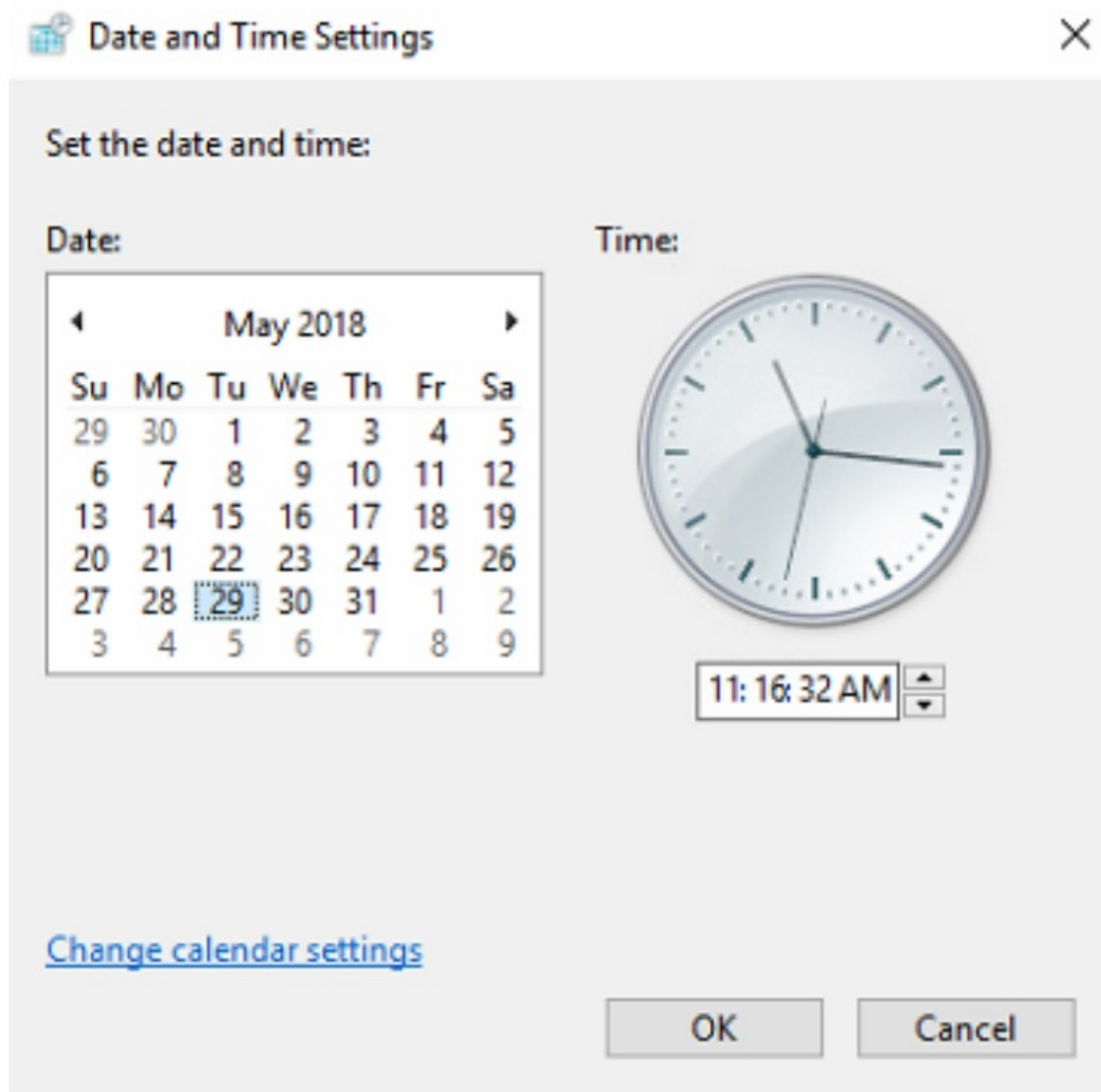2. Change time zone if it is not correct [Change time zone...] (default is UTC-08:00 Pacific Time).

Press OK after selecting the correct time zone.

3. Click "Change date and time…" to update the date and time if they are not correct.

* Verify the time zone before updating the date and time. Time may show 2 or 3 hours off due to incorrect time zone.

Date and Time Settings ✕

Set the date and time:

Date:

	May 2018					
Su	Mo	Tu	We	Th	Fr	Sa
29	30	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Time:

11: 16: 32 AM

Change calendar settings

OK   Cancel

Press OK after adjusting to the correct date and/or time.

4. Press OK to close the date and time when done.

STEP 3: Configure network

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

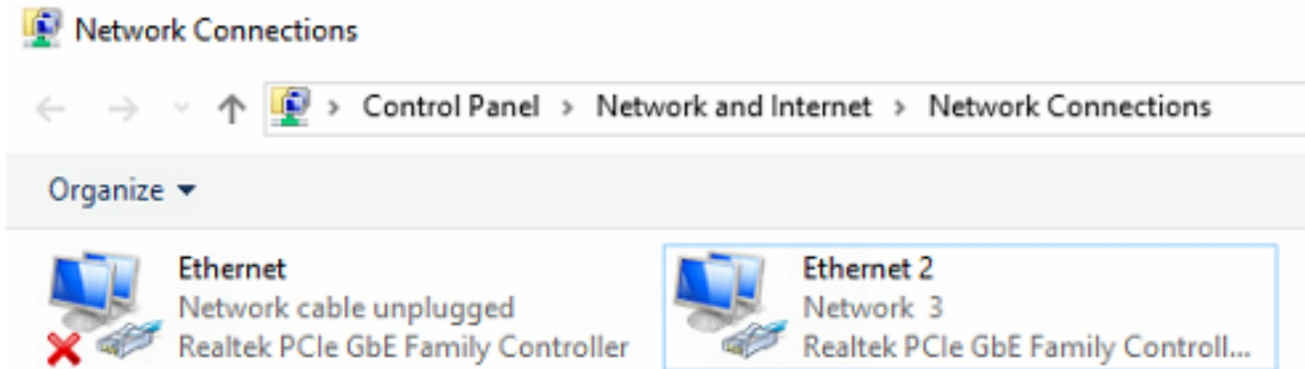|	Camera network	Local network (LAN)
IP address		
Subnet mask / Netmask		
Default gateway / Gateway	Not applicable	
DNS servers	Not applicable	

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

NOTE The Blackjack® server's network settings are set to DHCP as default.
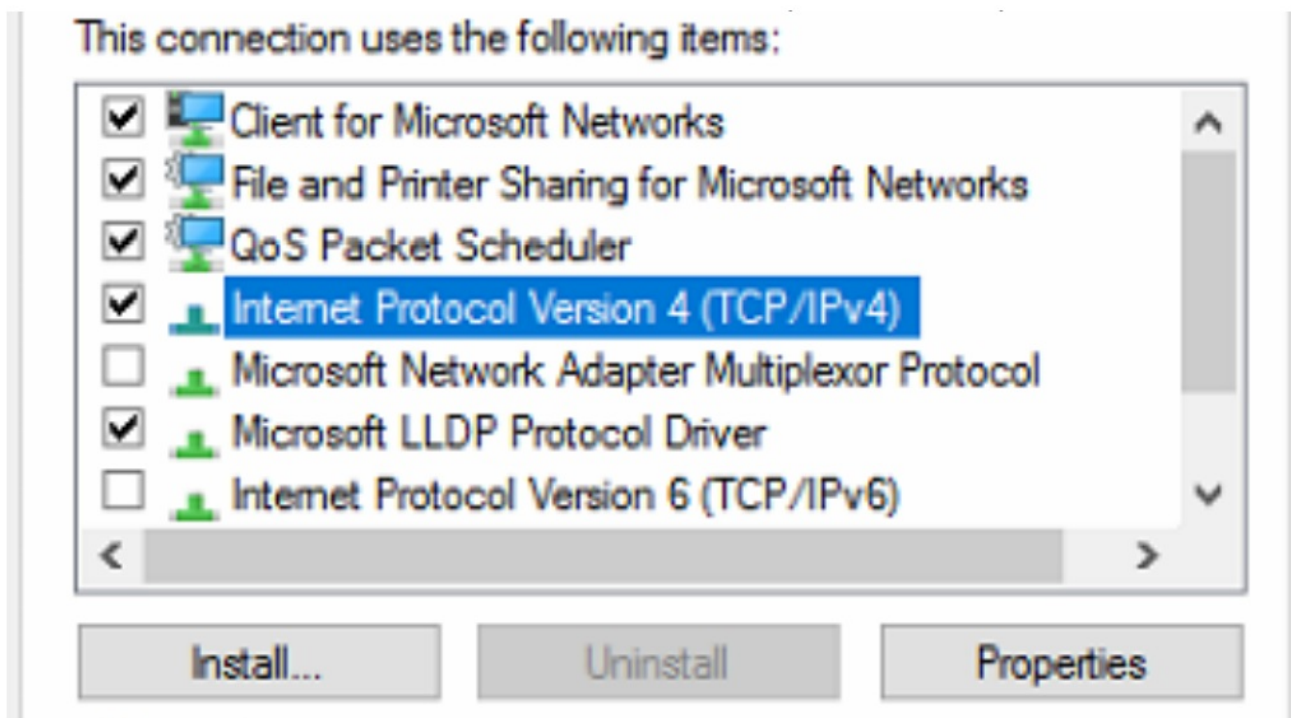
NOTE If you are not sure what information to enter, contact your Network Administrator or Internet Service Provider for the information.

1. Double click on the "Network Connections" on the desktop.

2. Right click on the Ethernet with cable connected and click "Properties".

3. Select "Internet Protocol Version 4 (TCP/IPv4)" and click "Properties".

4. Select "Use the following IP address" (Use the following DNS server addresses will be selected automatically).

5. Enter IP address and subnet mask of the camera network. (Do not enter anything for the default gateway, preferred DNS server and alternate DNS server.

   NOTE It must be the same network as the cameras and must not be the same network as the local network. Contact your network administrator for more information.

Internet Protocol Version 4 (TCP/IPv4) Properties ✕

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically

◉ Use the following IP address:

IP address:	192 . 168 . 10 . 10
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	. . .

○ Obtain DNS server address automatically

◉ Use the following DNS server addresses:

| Preferred DNS server: | . . . |
| Alternate DNS server: | . . . |

☐ Validate settings upon exit   [Advanced...]

[OK]   [Cancel]

6. Click OK to close then click close to go back to network connections.

   Local Network

7. Right click on the other Ethernet, the one with network cable unplugged, and click "Properties".

8. Select "Internet Protocol Version 4 (TCP/IPv4)" and click "Properties".

This connection uses the following items:

- ☑ Client for Microsoft Networks
- ☑ File and Printer Sharing for Microsoft Networks
- ☑ QoS Packet Scheduler
- ☑ **Internet Protocol Version 4 (TCP/IPv4)**
- ☐ Microsoft Network Adapter Multiplexor Protocol
- ☑ Microsoft LLDP Protocol Driver
- ☐ Internet Protocol Version 6 (TCP/IPv6)

Install...   Uninstall   Properties

Internet Protocol Version 4 (TCP/IPv4) Properties ✕

General Alternate Configuration

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

◉ Obtain an IP address automatically

○ Use the following IP address:

IP address: . . .

Subnet mask: . . .

Default gateway: . . .

◉ Obtain DNS server address automatically

○ Use the following DNS server addresses:

Preferred DNS server: . . .

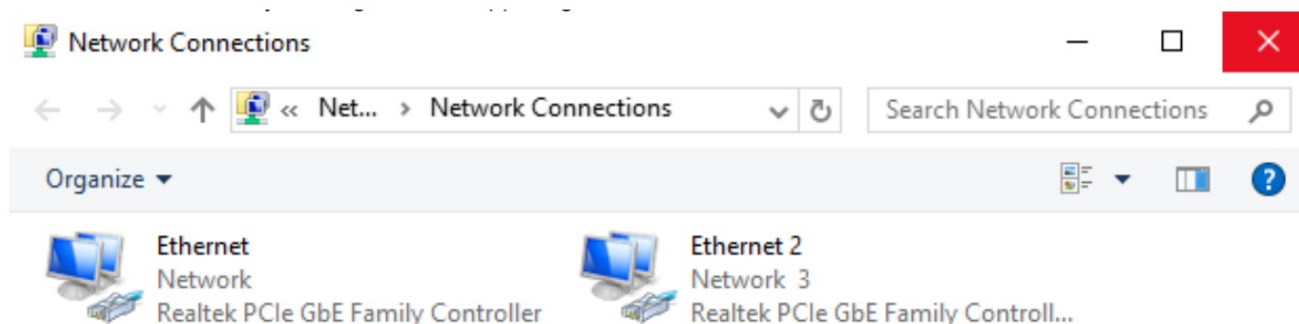Alternate DNS server: . . .

☐ Validate settings upon exit

Advanced...

OK Cancel

9. Select "Use the following IP address" (Use the following DNS server addresses will be selected automatically).
10. Enter IP address and subnet mask of the camera network.

Internet Protocol Version 4 (TCP/IPv4) Properties ✕

General

You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator for the appropriate IP settings.

○ Obtain an IP address automatically

◉ Use the following IP address:

IP address:	10 . 1 . 1 . 10
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	10 . 1 . 1 . 1

○ Obtain DNS server address automatically

◉ Use the following DNS server addresses:

Preferred DNS server:	8 . 8 . 8 . 8
Alternate DNS server:	8 . 8 . 4 . 4

☐ Validate settings upon exit

[Advanced...]

[OK]　　[Cancel]

11. Click OK to close then click close to go back to network connections.

12. Connect a network cable to the Ethernet port B7 on the diagram (page 2) to the switch on the local network.

13. Close the Network Connections dialog.

Network Connections　　—　☐　✕

← → ∨ ↑ 🖳 « Net... › Network Connections　　∨ ð　Search Network Connections 🔍

Organize ▾　　　　　　　　　　　　　🔳 ▾　▥　❓

🖥 Ethernet
Network
Realtek PCIe GbE Family Controller

🖥 Ethernet 2
Network 3
Realtek PCIe GbE Family Controll...

NOTE

If you are not connecting to the Blackjack® from within 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.

CONFIGURE CAMERAS USING DW IP FINDER

Refer to the camera's QSG to configure any DW® IP camera's IP address using DW® IP finder™.

DW Spectrum® IPVMS client
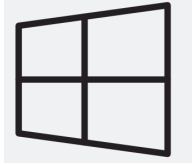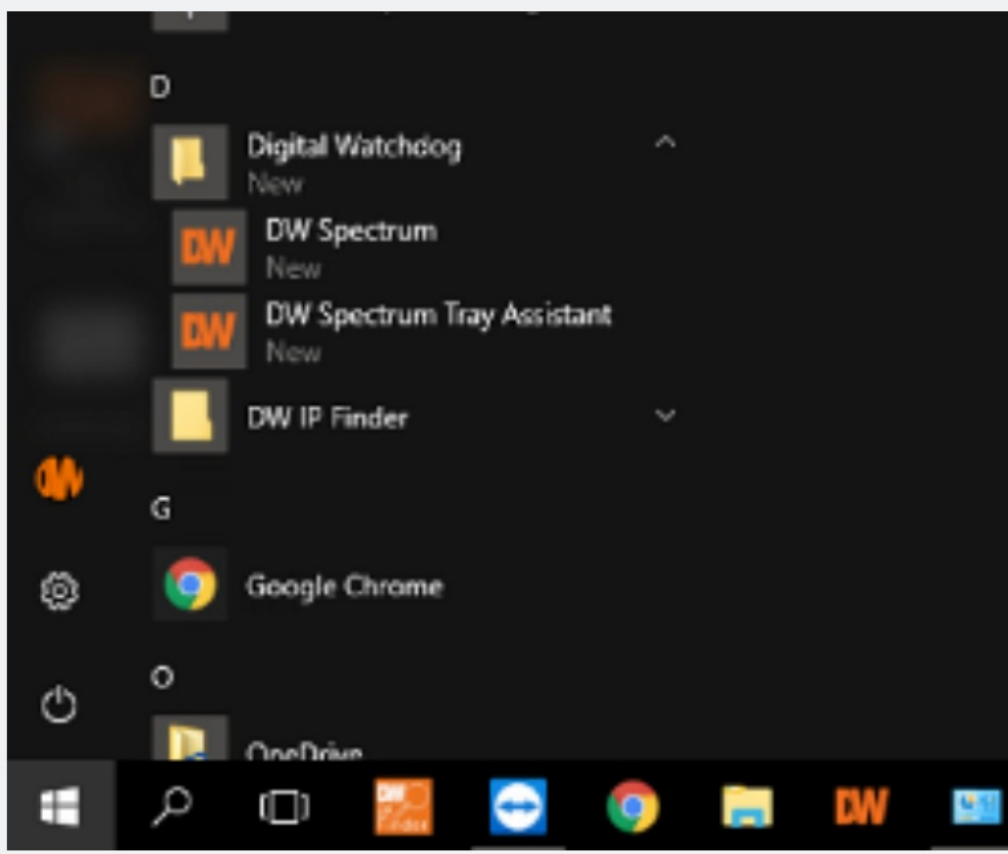
 WINDOWS-BASED SOFTWARE MANUAL LAUNCH
To launch the DW Spectrum® software on the Windows-based E-RACK:
OPTION 1: Double-click the DW Spectrum® desktop icon.

OR
OPTION 2: Go to 'Start' on the bottom left and select DW Spectrum® in the Digital Watchdog folder
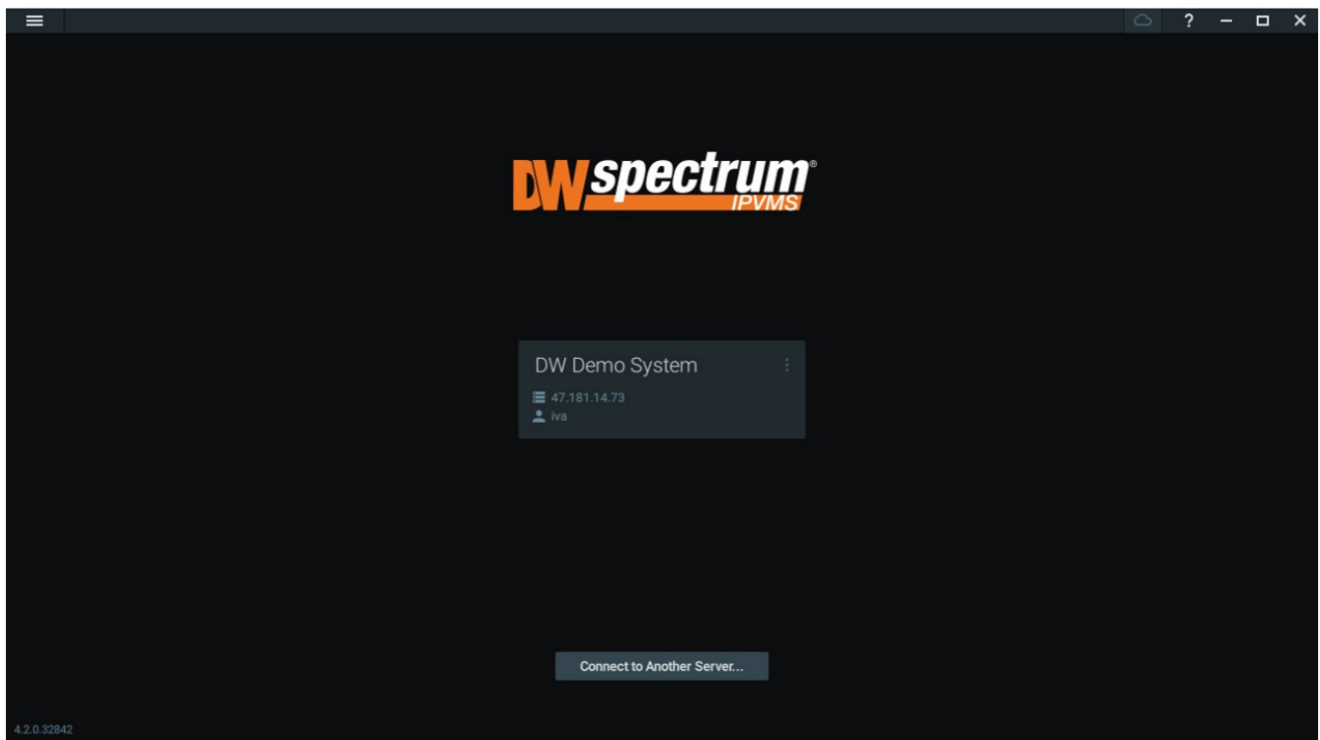

SETTING UP DW SPECTRUM® MEDIA SERVER

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. Enter the password and click connect.
    * Default password: admin12345 (case sensitive).
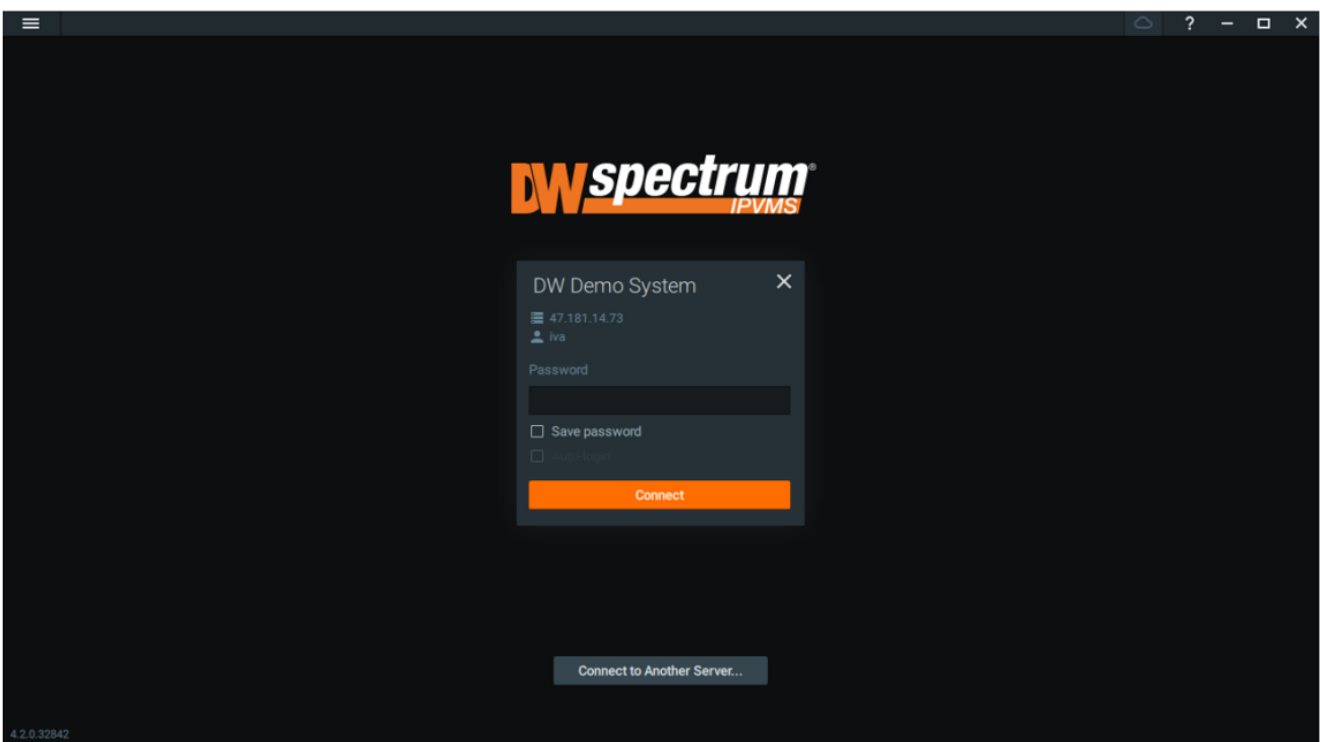
STEP 2: To rename the server

1. Right-click on the server name listed on the resources then click server settings.
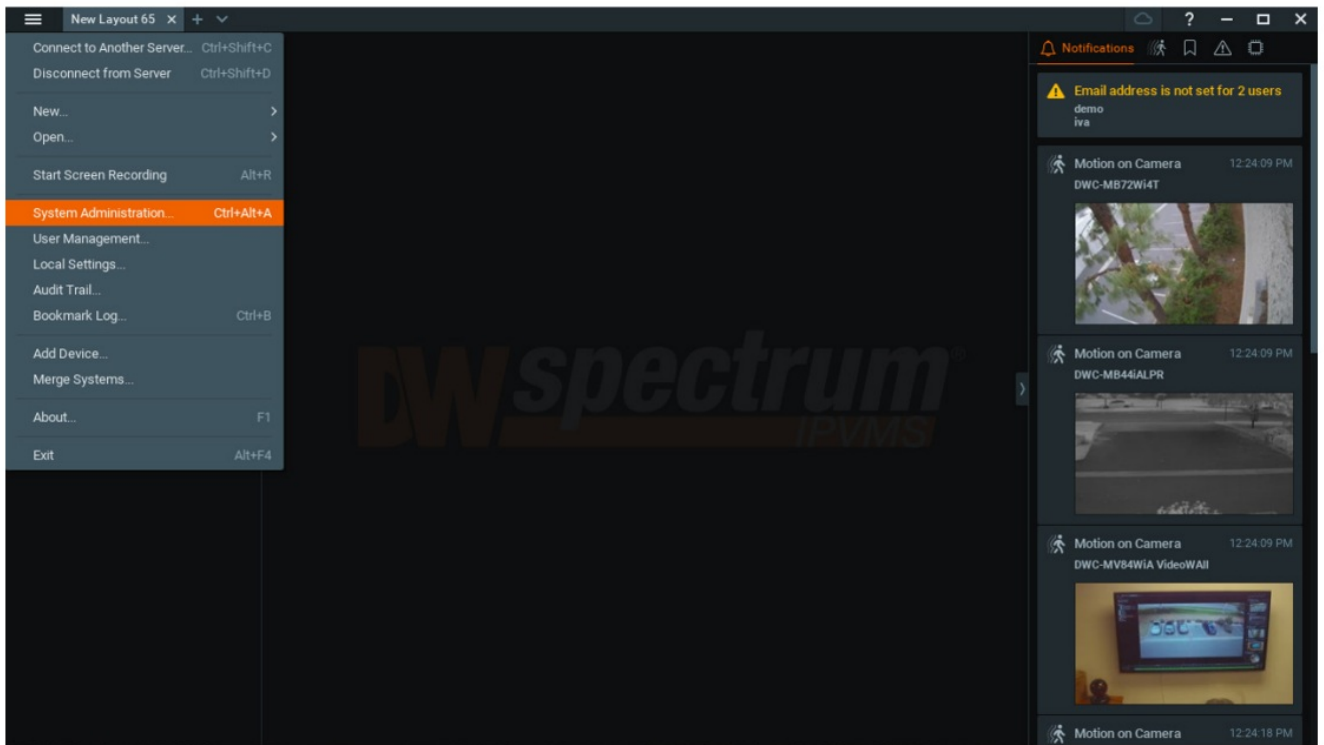
2. Go to the general tab and enter the new server name in the name field . Click OK.
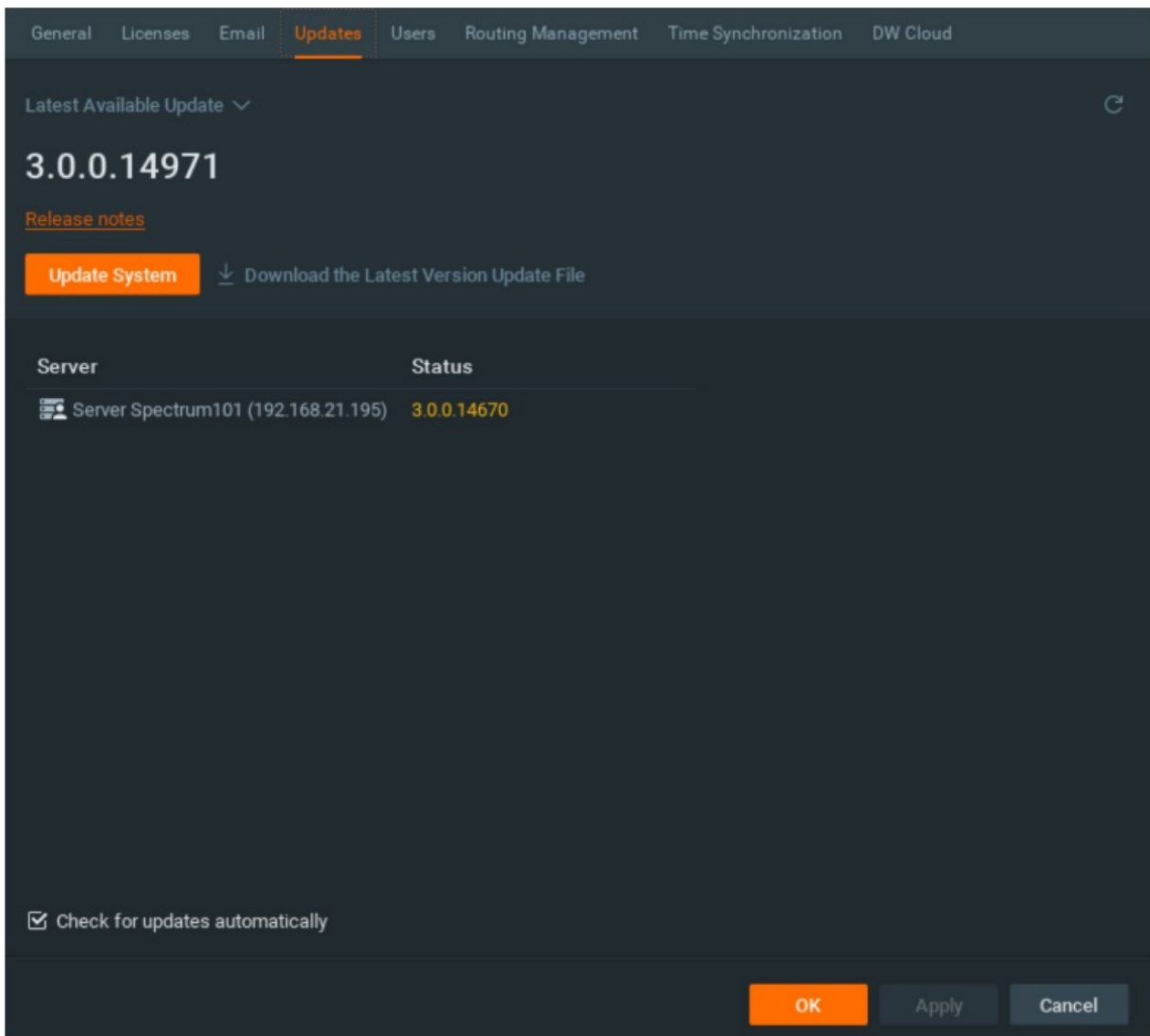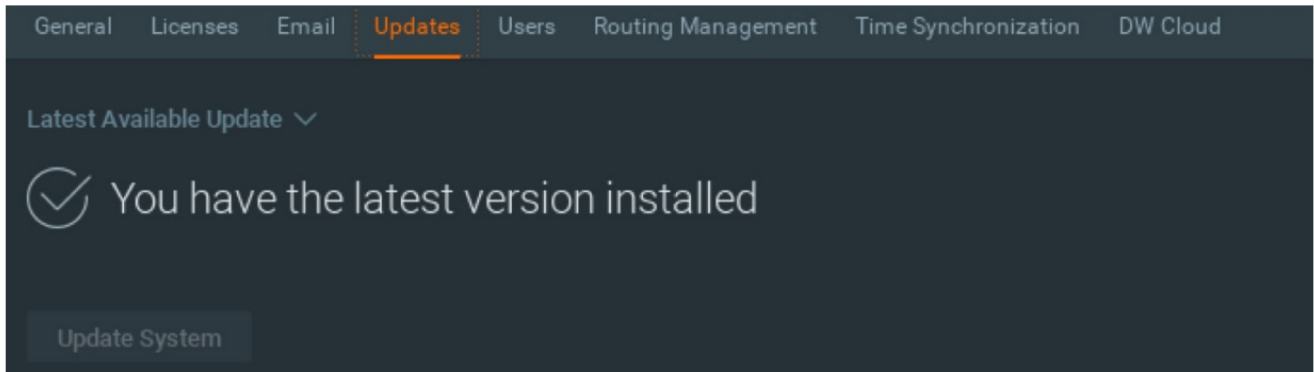

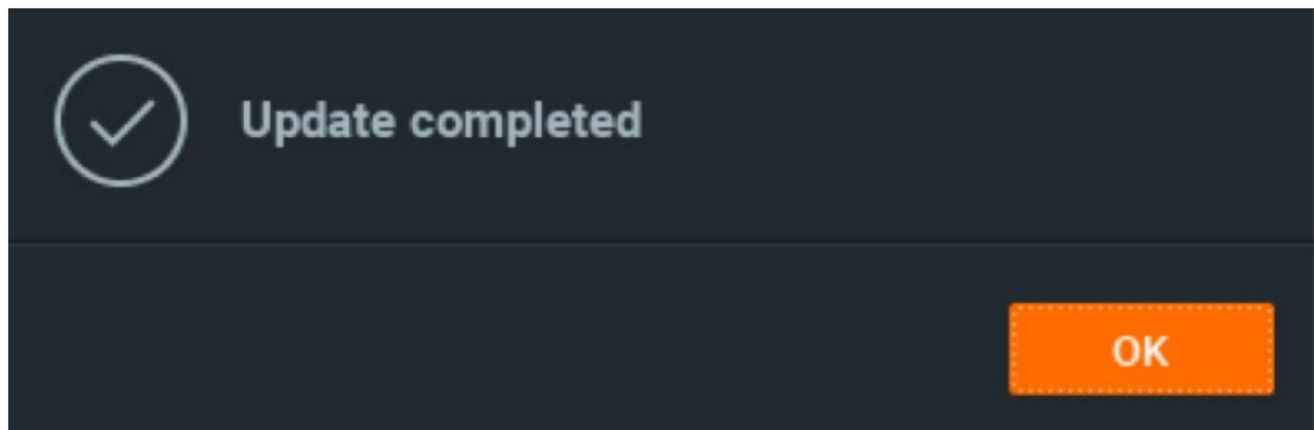**STEP 3: To check for updates**

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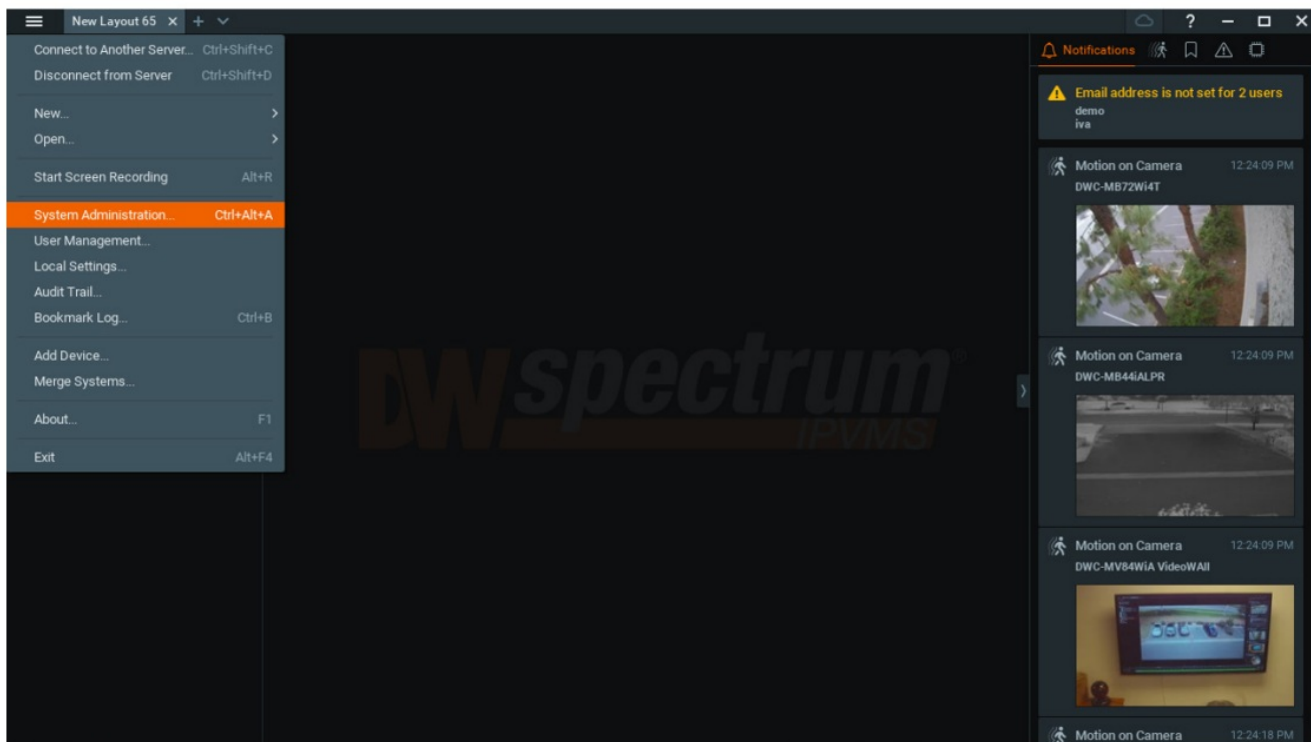
2. Go to the updates tab. If the system requires updating, click on the update system button.
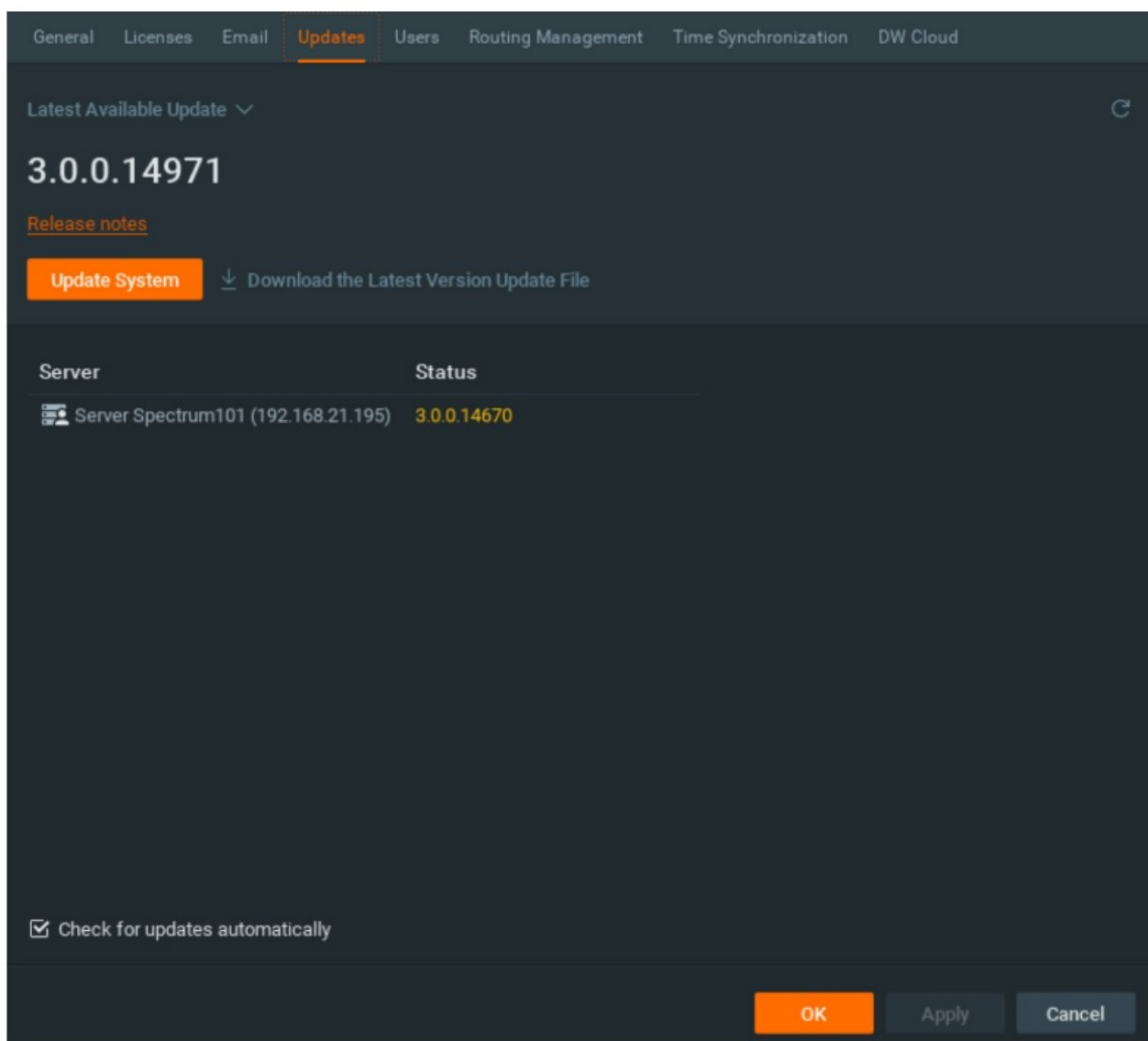
* If you are on the latest version, it will say "You have the latest version installed" and the Update System button will be disabled.

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

3. Click OK to when the license key is activated.
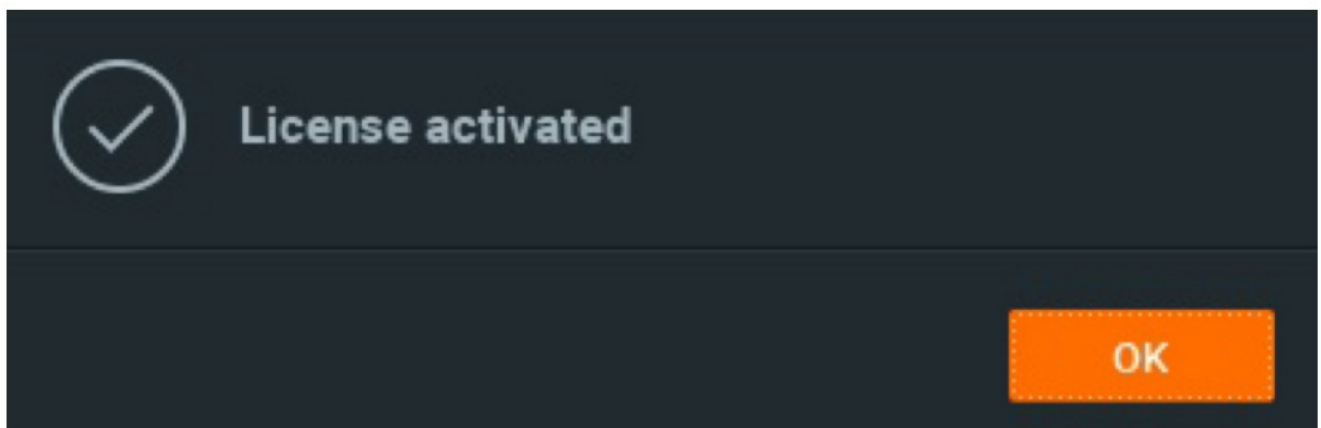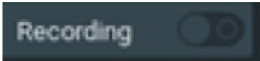
STEP 5: Configure recording

1. Right-click on a camera in the resource tree to setup recording. Click on camera settings from the context menu.
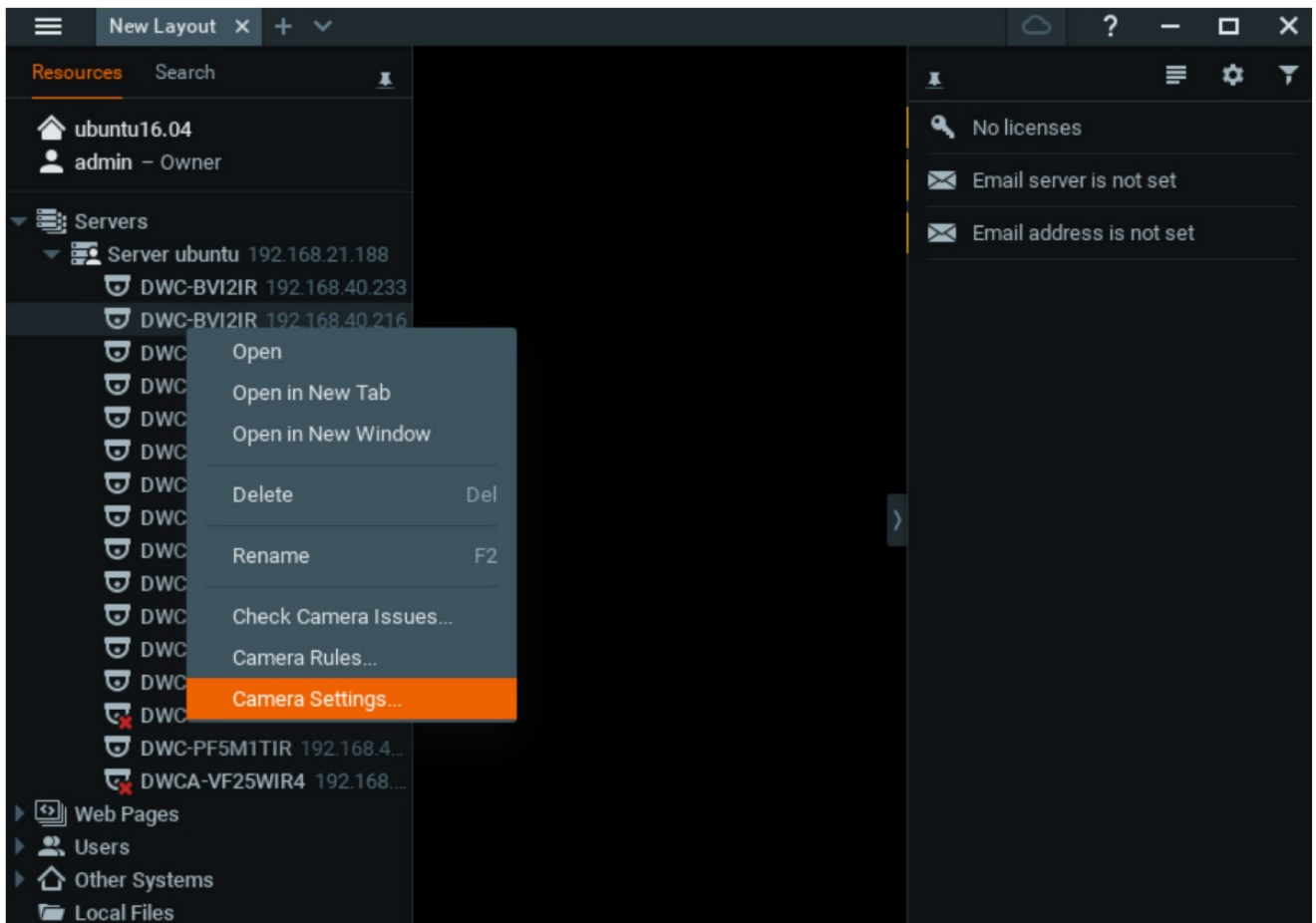
2. Go to the recordings tab.
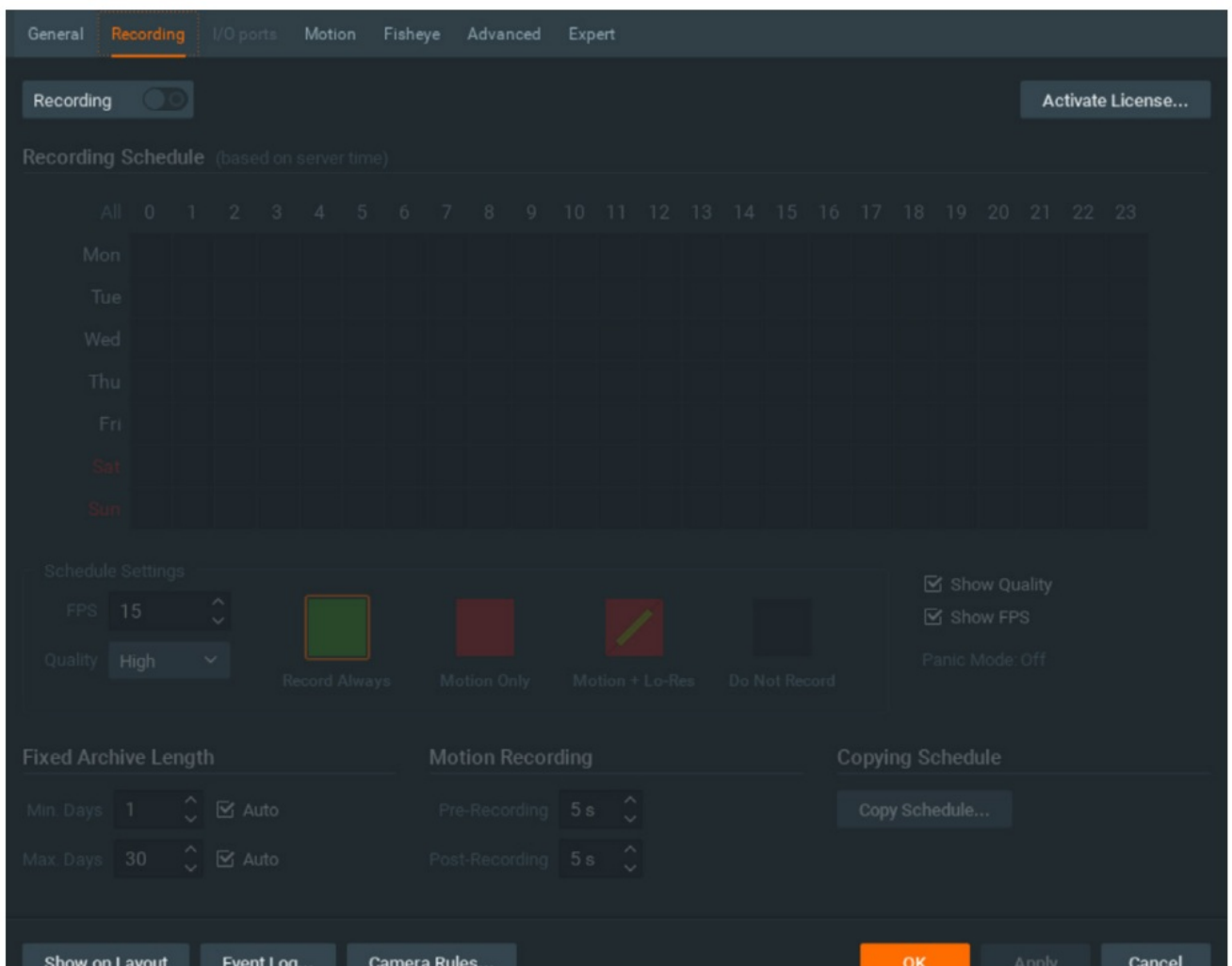
3. Click ![Recording toggle] to turn on recording.

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 recording is started.
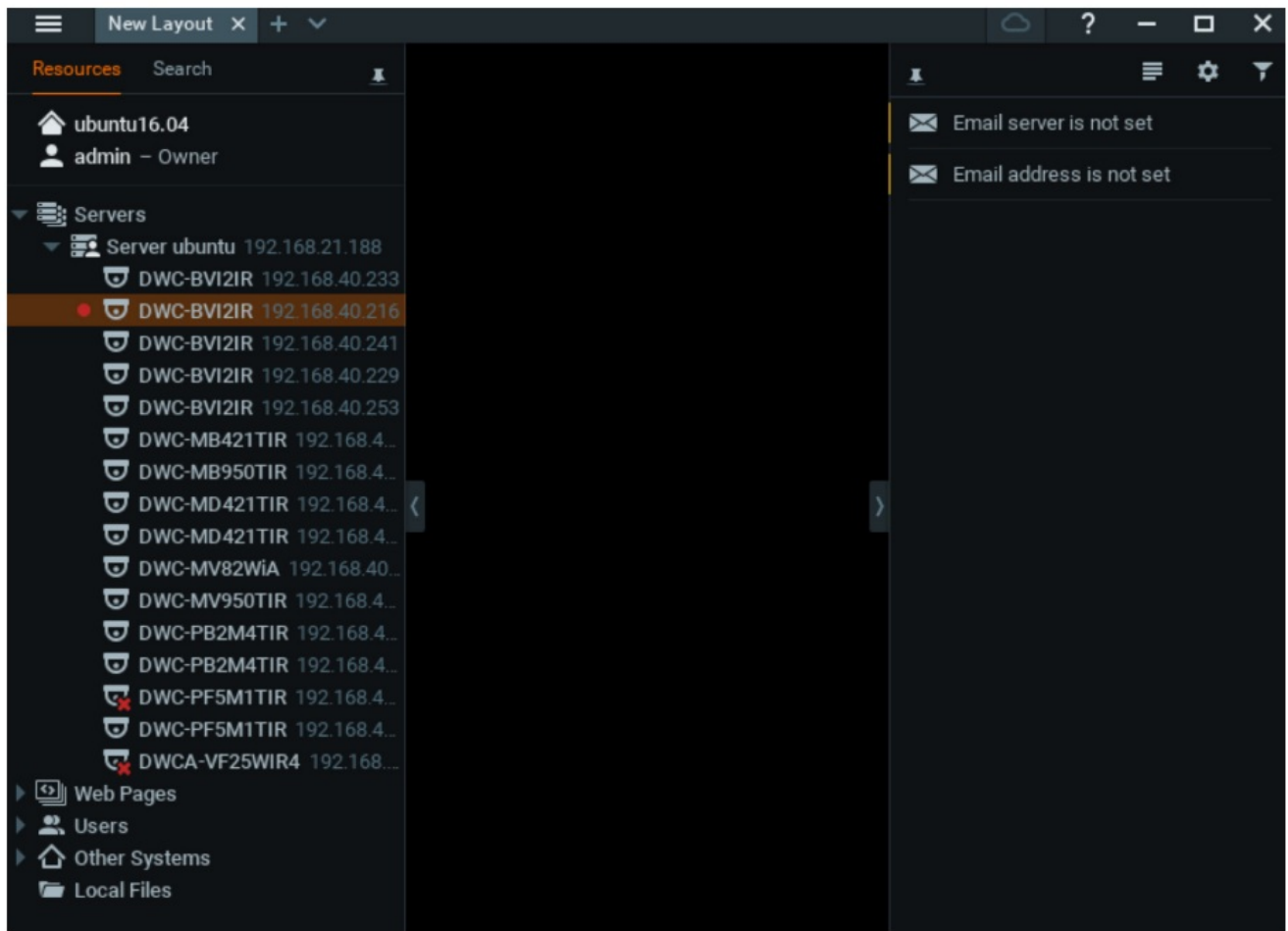
STEP 6: Backup database

1. Go to the system administration window and click on the general tab.
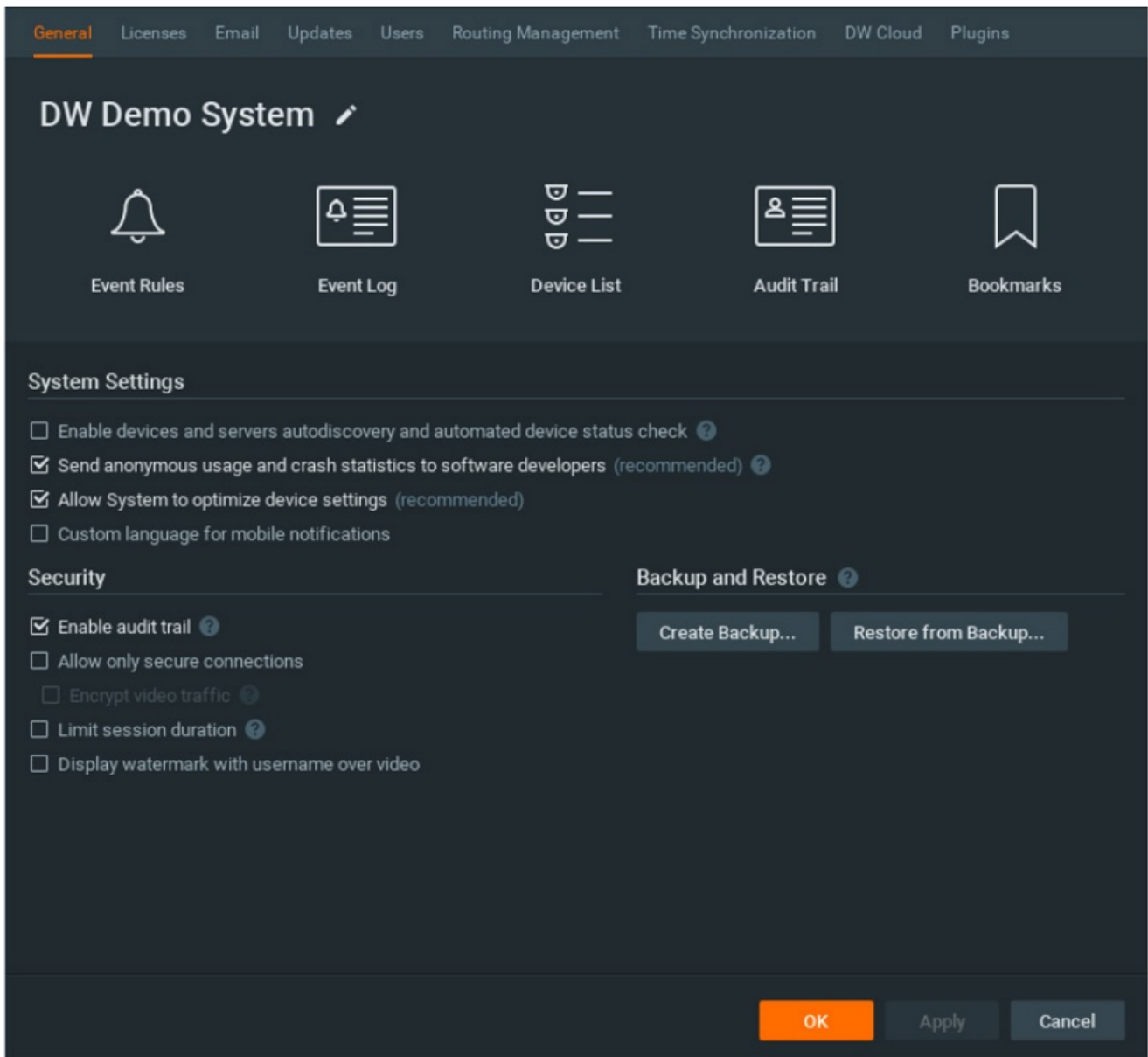
2. Click "Create Backup … ".

3. Navigate to the folder you want to save the database and enter a name for the backup file. Click save.

   It is strongly recommend to backup your data to an external storage media as well.
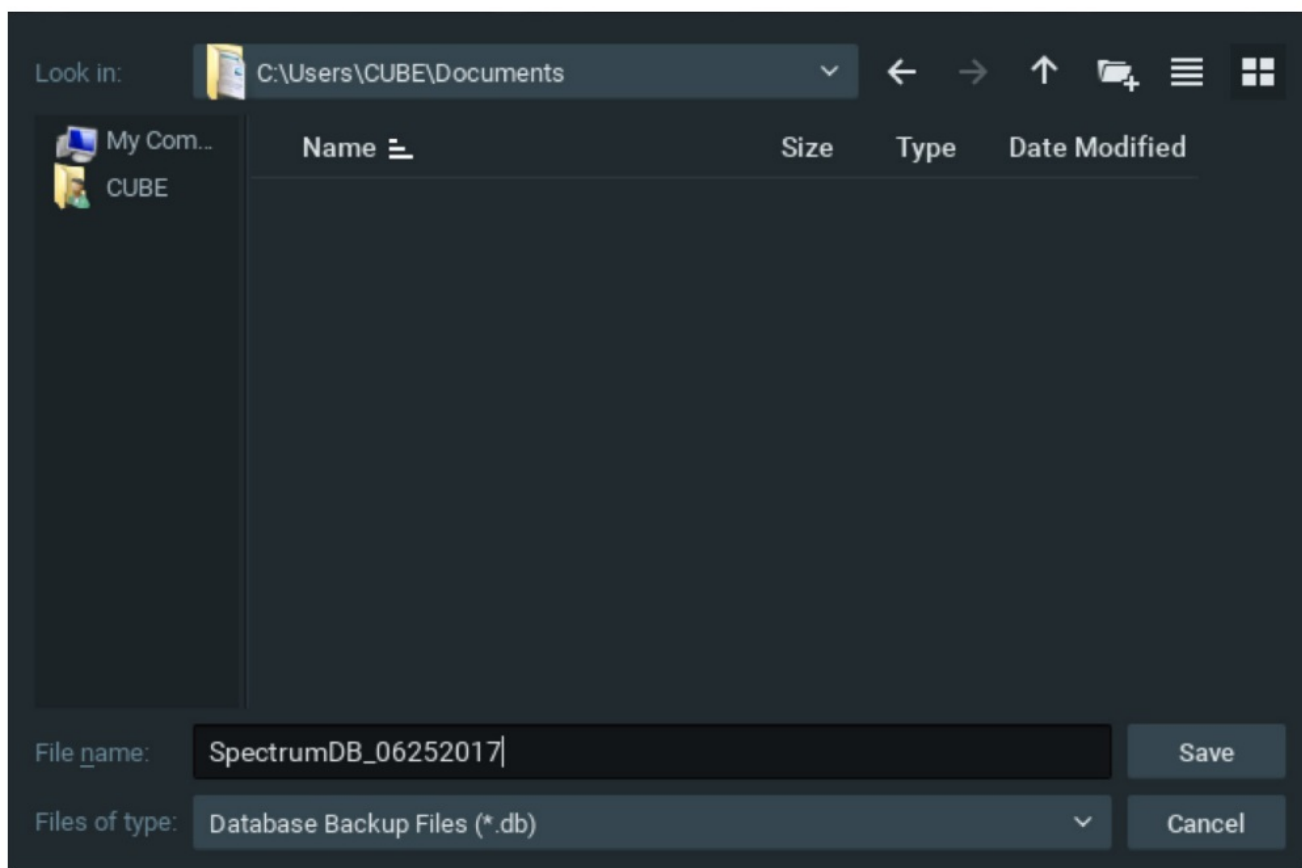
NOTE: More information and instructions are available in the DW Spectrum® IPVMS user manual.

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 full 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 user name and password are correct. 2. Under the camera settings, use the 'Ping' button to make sure the camera is connected to the network properly. 3. If you can connect to the camera's web viewer, try rebooting the camera and/or restore it to factory default. 4. Make sure your camera is using the latest firmware available. 5. Make sure that the camera is connected to the same network as the server. 6. If you are connecting to a camera that is integrated with DW Spectrum® via the ONVIF protocol (see list), make sure ONVIF is enabled. 7. Make sure your user has permissions to view that specific camera.
I cannot get playback video from my camera	1. Do you have network connection between client and 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. Make sure the camera is set to a recording mode that would provide 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. Make sure the camera's user name and password are properly entered in the camera's general information under the camera settings menu. 2. If necessary, try rebooting the camera to apply the camera's user name 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 • 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		
	Ubuntu (Debian-based Linux) OS Ubuntu 16.04 LTS "Xenial Xerus" – Released: April 2016 | EoS: 04/2024 Ubuntu 18.04 LTS "Bionic Beaver" – Released: April 2018 | EoS: 04/2028		
	Macintosh OS • 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 **NOTE: DW Spectrum IPVMS for macOS is only supported by the DW Spectrum Client.		

• Except Storage Server version
Important: OS not listed will be not be supported by OW® Tech Support

Customer Support

<div align="center">

Tel: +1 (866) 446-3595 / (813) 888-9555
Technical Support Hours: 9:00AM – 8:00PM EST, Monday through Friday

Tel: +l (866) 446-3595

</div>

Fax: (813) 888-9262
digital-watchdog.com

www.digital-watchdog.com
sales@digital-watchdog.com

Documents / Resources

DIGITAL WATCHDOG DW-BJCUBE4T-DL Digital Video Recorder [pdf] User Guide
DW-BJCUBE4T-DL, DW-BJCUBE8T-DL, DW-BJCUBE12T-DL, DW-BJCUBE16T-DL, DW-BJC
UBE4T-DL Digital Video Recorder, DW-BJCUBE4T-DL, Digital Video Recorder, Video
Recorder, Recorder, DW-BJCUBE20T-DL

References

- **Digital Watchdog I Welcome**
- **Digital Watchdog I Welcome**
- **Resources**

Manuals+,