

# Crestron Virtual Control Server Software

## Crestron VIRTUAL CONTROL

- Offers a centralized server-based alternative to individual hardware-based control systems
- Provides a scalable virtual control platform
- Streamlines deployment, maintenance, and management
- Supports monitoring and configuration via the [XiO Cloud®](#) service
- Supports .AV Framework™ management solution
- Supports C#, SIMPL, and SIMPL# Pro programming
- Integrates directly with IP-controllable devices over the network
- Integrates with serial, IR, CEC, and other controllable devices via decentralized control ports on [DM®](#), [DM NVX®](#), and other Crestron® interfaces
- Native BACnet network/IP support
- Enables server redundancy for increased reliability
- Employs enterprise-grade security to ensure maximum reliability and privacy
- Per-room licensing makes it easy to determine the number of licenses required for an installation
- Online and offline licensing options available

Crestron® Virtual Control (VC-4) is a server-based control platform for enterprise applications that can be used in place of hardware-based Crestron control systems. The platform runs programs to control multiple rooms over the network from a single, centralized location. Cloud-based monitoring and configuration is available using the [XiO Cloud®](#) service. Crestron Virtual Control also provides native support for [.AV Framework™](#) software, which is a web-based management solution that is used to deploy scalable Crestron enterprise room solutions without requiring any programming.

**NOTE:** When running in a virtualized environment, Crestron Virtual Control can leverage the hypervisor's fault tolerance and high-availability features. If Crestron Virtual Control is installed on a bare-metal server (such as a standalone computer), it cannot leverage these features. If these features are desired, Crestron Virtual Control software must be installed in an existing virtualized environment that supports them.

Crestron Virtual Control can be integrated with a variety of devices, including audio, video, lighting, motorized shades, thermostats, door locks, sensors, and security systems. Connected devices can be controlled directly via Ethernet, and those that require a serial, IR, or other hardware interface can be integrated via decentralized control ports on a [DM NVX®](#) encoder/decoder, [DM®](#) transmitter or receiver, [CEN-CI3-1-POE](#) interface, or the [CEN-IO wired](#) and [wireless](#) series of I/O modules. Cresnet® network devices can be integrated via a [DIN-CENCN-2-POE](#) bridge, and wireless Crestron devices can also be integrated via an [infiNET EX®](#) wireless gateway. Native support for the BACnet communication protocol provides a direct interface to third-party building management systems over Ethernet, simplifying integration with HVAC, security, and other systems.<sup>1</sup>

Crestron Virtual Control supports server redundancy for increased reliability. For large buildings, Crestron Virtual Control streamlines deployment and maintenance by allowing a single program to be deployed across multiple rooms. Support for C#, [SIMPL](#), and [SIMPL#Pro](#) programming languages gives programmers design flexibility and enables programs to be shared with hardware-based control systems.<sup>2</sup> Crestron Virtual Control also employs enterprise-grade security to ensure maximum reliability and privacy.

Crestron Virtual Control is sold through Authorized Crestron Dealers, and requires installation on a customer-supplied server running a supported Linux® server operating system.

### Room Licensing

The Crestron Virtual Control licensing model is similar to a traditional hardware purchase model: purchase a specified number of room licenses ([VC-4-ROOM](#)), and the Crestron Virtual Control installation will run the number of rooms purchased. Each room license also includes one software mobility license ([SW-MOBILITY](#)) that enables functionality for various Crestron software solutions.

# Crestron Virtual Control Server Software

The VC-4 server provides two licensing options: online licensing via the [XiO Cloud® service](#), or offline licensing via the [USB-OFFLINE](#) dongle.

- For online licensing via the XiO Cloud service, an active XiO Cloud account is required to validate VC-4 server licenses. A free XiO Cloud subscription ([SW-XIOC](#)) or paid XiO Cloud Premium subscription ([SW-XIOC-PREMIUM-1YR-1-99](#), [SW-XIOC-PREMIUM-1YR-100-499](#), and [SW-XIOC-PREMIUM-1YR-500+](#)) is not required to manage VC-4 server licenses. However, each VC-4 server license claimed into an XiO Cloud account with an XiO Cloud Premium subscription will be included in the device count total. Visit the [Licensing and Registration Hub](#) to associate VC-4 server licenses with an XiO Cloud account.
- For offline licensing via the USB-OFFLINE dongle, the dongle must be connected to the VC-4 server to validate its licenses. All room licenses must be ordered and the [offline licensing form](#) must be completed prior to validating licenses via the USB-OFFLINE dongle. For more information, refer to the [Crestron Virtual Control Product Manual](#).

This product is licensed under Crestron's On Premises Software License and Maintenance Agreement, available at [www.crestron.com/Legal/software-products-on-premises-and-cloudware](http://www.crestron.com/Legal/software-products-on-premises-and-cloudware).

This product is covered under the Crestron standard limited warranty, which can be found at [www.crestron.com/warranty](http://www.crestron.com/warranty).

The specific patents that cover Crestron products are listed online at [www.crestron.com/legal/patents](http://www.crestron.com/legal/patents).

Certain Crestron products contain open source software. For specific information, please visit [www.crestron.com/opensource](http://www.crestron.com/opensource).

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## Model

### VC-4-ROOM

Crestron Virtual Control Server Software - Single-Room License

## Available Accessories

For a list of available accessories, visit the [VC-4-ROOM](#) product page.

### Notes:

- BACnet network/IP support is required. The VC-4 server supports up to 100 BACnet objects by default. For systems with more than 100 objects, at least one [SW-VC4-BN-1000](#) license must be purchased. For systems with more than 1000 objects, multiple SW-VC4-BN-1000 licenses must be purchased based on the total required objects. Licenses are validated within the XiO Cloud® service or via the USB-OFFLINE dongle. The VC-4 server supports a maximum of 10000 BACnet objects when dedicated for BACnet use only. Actual capabilities are contingent upon the overall program size and complexity.
- Crestron Virtual Control does not support programs that were created using D3 Pro software.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at [www.crestron.com/How-To-Buy/Find-a-Representative](http://www.crestron.com/How-To-Buy/Find-a-Representative) or contact us for additional information by visiting [www.crestron.com/contact/our-locations](http://www.crestron.com/contact/our-locations) for your local contact.

The original language version of this document is U.S. English. All other languages are a translation of the original document.

# Crestron Virtual Control Server Software

## Minimum Server Requirements

Operating System	Red Hat Enterprise Linux® 8.2 software (64-bit version) or greater; AlmaLinux OS® 8.3 software (64-bit version) or greater; Rocky Linux™ OS 8.4 software (64-bit version) or greater
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**NOTE:** Crestron Virtual Control also can be installed on a server running version 9.x of any of the operating systems above.

Network Interface	1 Gbps
Hard Drive	100 GB
Disk Space	100 GB

## CPU Cores Required

	Average Devices Per Room																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
50	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	8	8	8
100	4	4	4	4	4	4	4	4	4	8	8	8	8	8	8	8	8	8	16	16
200	4	4	4	4	8	8	8	8	8	16										
300	4	4	8	8	8	8														
400	4	4	8	8	16															
500	4	8	8	16																

## RAM (GB) Required

	Average Devices Per Room																																											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20																								
50	4	4	8	8	8	16	16	16	16	16	32	32	32	32	32	32	32	32	32	32																								
100	4	8	16	16	16	32	32	32	32	32	32	64	64	64	64	64	64	64	64	64																								
200	8	16	32	32	32	64	64	64	64	64																																		
300	16	32	32	64	64	64																																						
400	16	32	64	64	64																																							
500	16	32	64	64																																								