



VX 9000 Virtualized Controller

Installation Guide

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For product documentation online, visit: <https://www.extremenetworks.com/documentation/>

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Preface

This section discusses the conventions used in this guide, ways to provide feedback, additional help, and other Extreme Networks® publications.

Text Conventions

The following tables list text conventions that are used throughout this guide.

Table 1: Notice Icons





Icon	Notice Type	Alerts you to...
	General Notice	Helpful tips and notices for using the product.
	Note	Important features or instructions.
	Caution	Risk of personal injury, system damage, or loss of data.
	Warning	Risk of severe personal injury.
<i>New!</i>	New Content	Displayed next to new content. This is searchable text within the PDF.

Table 2: Text Conventions

Convention	Description
Screen displays	This typeface indicates command syntax, or represents information as it appears on the screen.
The words enter and type	When you see the word “enter” in this guide, you must type something, and then press the Return or Enter key. Do not press the Return or Enter key when an instruction simply says “type.”
[Key] names	Key names are written with brackets, such as [Return] or [Esc] . If you must press two or more keys simultaneously, the key names are linked with a plus sign (+). Example: Press [Ctrl]+[Alt]+[Del]
<i>Words in italicized type</i>	Italics emphasize a point or denote new terms at the place where they are defined in the text. Italics are also used when referring to publication titles.

Platform-Dependent Conventions

Unless otherwise noted, all information applies to all platforms supported by ExtremeXOS software, which are the following:

- ExtremeSwitching® switches
- Summit® switches
- SummitStack™

When a feature or feature implementation applies to specific platforms, the specific platform is noted in the heading for the section describing that implementation in the ExtremeXOS command documentation (see the Extreme Documentation page at www.extremenetworks.com/documentation/). In many cases, although the command is available on all platforms, each platform uses specific keywords. These keywords specific to each platform are shown in the Syntax Description and discussed in the Usage Guidelines sections.

Providing Feedback to Us

Quality is our first concern at Extreme Networks, and we have made every effort to ensure the accuracy and completeness of this document. We are always striving to improve our documentation and help you work better, so we want to hear from you! We welcome all feedback but especially want to know about:

- Content errors or confusing or conflicting information.
- Ideas for improvements to our documentation so you can find the information you need faster.
- Broken links or usability issues.

If you would like to provide feedback to the Extreme Networks Information Development team, you can do so in two ways:

- Use our short online feedback form at <https://www.extremenetworks.com/documentation-feedback/>.
- Email us at documentation@extremenetworks.com.

Please provide the publication title, part number, and as much detail as possible, including the topic heading and page number if applicable, as well as your suggestions for improvement.

Getting Help

If you require assistance, contact Extreme Networks using one of the following methods:

- **GTAC (Global Technical Assistance Center) for Immediate Support**
 - **Phone:** 1-800-998-2408 (toll-free in U.S. and Canada) or +1 408-579-2826. For the support phone number in your country, visit: www.extremenetworks.com/support/contact
 - **Email:** support@extremenetworks.com. To expedite your message, enter the product name or model number in the subject line.
- **Extreme Portal** — Search the GTAC knowledge base, manage support cases and service contracts, download software, and obtain product licensing, training, and certifications.
- **The Hub** — A forum for Extreme Networks customers to connect with one another, answer questions, and share ideas and feedback. This community is monitored by Extreme Networks employees, but is not intended to replace specific guidance from GTAC.

Before contacting Extreme Networks for technical support, have the following information ready:

- Your Extreme Networks service contract number and/or serial numbers for all involved Extreme Networks products
- A description of the failure
- A description of any action(s) already taken to resolve the problem
- A description of your network environment (such as layout, cable type, other relevant environmental information)

- Network load at the time of trouble (if known)
- The device history (for example, if you have returned the device before, or if this is a recurring problem)
- Any related RMA (Return Material Authorization) numbers

Subscribing to Service Notifications

You can subscribe to email notifications for product and software release announcements, Vulnerability Notices, and Service Notifications.

- 1 Go to www.extremenetworks.com/support/service-notification-form.
- 2 Complete the form with your information (all fields are required).
- 3 Select the products for which you would like to receive notifications.



Note

You can modify your product selections or unsubscribe at any time.

- 4 Click **Submit**.

Documentation and Training

To find Extreme Networks product guides, visit our documentation pages at:

Current Product Documentation	www.extremenetworks.com/documentation/
Archived Documentation (for earlier versions and legacy products)	www.extremenetworks.com/support/documentation-archives/
Release Notes	www.extremenetworks.com/support/release-notes
Hardware/Software Compatibility Matrices	https://www.extremenetworks.com/support/compatibility-matrices/
White papers, data sheets, case studies, and other product resources	https://www.extremenetworks.com/resources/

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Training

Extreme Networks offers product training courses, both online and in person, as well as specialized certifications. For more information, visit www.extremenetworks.com/education/.

1 Introduction

The VX virtualized controller is a software WLAN controller appliance running as a virtual machine (VM) on a variety of Hypervisor and Amazon EC2 cloud infrastructures. The VX 9000 supports virtually any server and commercially available Hypervisors for fast and seamless integration into an existing network infrastructure, without adding new hardware. You can run multiple instances of the VX 9000 on a single server, reducing cost, space and power in the Network Operations Center (NOC). With the ability to run in a private or public cloud, you have the freedom to choose the model that works best for your deployment needs, install on your own servers or lease a server in the public cloud.

Like existing controller platforms, the VX virtualized controller has its own unique VX 9000 product category. However, the VX 9000 is unique, in the sense it requires a software license to enable it. The VX virtualized controller is a license only orderable software SKU, and does not come as a resident application within an existing hardware product. Users are required to purchase a license to activate their VX 9000 downloaded. The ordering and fulfillment process however is similar to other software products, with an appliance license shipped in the form of a hard-copy license certificate.

A license is required to enable VX virtualized controller functionality within WiNG. There are different AP license packs available depending on the number of adaptive access points you'd like to support.

License	Description
VX-9000-APPLNC-LIC	VX 9000 appliance license
VX-9000-ADP-16	16x adaptive access point license pack
VX-9000-ADP-64	64x adaptive access point license pack
VX-9000-ADP-256	256x adaptive access point license pack
VX-9000-ADP-512	512x adaptive access point license pack
VX-9000-ADP-1024	1024x adaptive access point license pack

2 Downloading and Installing the VX 9000 Virtualized Controller

To license and install the VX virtualized controller:

- 1 Use the following link to go to the Extreme Networks Portal download page: [Extreme Networks Portal Download Page](#).
- 2 If you do not have an Extreme Portal account, register here: <https://extremeportal.force.com/ExtrAccountRegistration>.
- 3 Select the ExtremeWireless product family.
- 4 Select the Firmware tab.
- 5 The Firmware page displays the resources that you are entitled to. If you do not see the items that you need or think that you are entitled to, please contact GTAC [http:// www.extremenetworks.com/support/contact/](http://www.extremenetworks.com/support/contact/).
- 6 Download the VX 9000 Virtualized Controller application. The application is downloaded as an .iso image.

Ensure a virtual machine hypervisor is installed in your server environment or the downloaded .iso image will not run.

- 7 Install the .iso following your hypervisors instructions for installing a virtual machine.
- 8 Boot the VX 9000 application for the first time.



Note

Ensure a virtual machine hypervisor is installed in your server environment or the downloaded .iso image will not run.

- 9 Configure your network for your data center environment (static IP address) and commit your updates.

The serial number is automatically generated. The VX appliance is ready for license activation.



Note

Extreme Networks recommends you save the generated serial number.



Note

Do not change the IP address. If changed, the VX will not function until you obtain a new license by calling Support.

- 10 Run `show → version` command to display the serial number.

3 License Key Activation

License Key generation and activation instruction are available at:

<https://extremeportal.force.com/ExtrArticleDetail?n=000014511>

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