Virtual Scanner Appliance
User Guide

December 18, 2017
About this guide

Qualys Virtual Scanner Appliance supports the same global scanning capabilities as our physical scanner appliance. The virtual scanner appliance is a stateless, disposable resource which acts as an extension of the Qualys Cloud Platform and is not a separately managed entity. This user guide describes how to get started with using a virtual scanner with your virtualization or cloud platform.

About Qualys

Qualys, Inc. (NASDAQ: QLYS) is a pioneer and leading provider of cloud-based security and compliance solutions with over 9,300 customers in more than 100 countries, including a majority of each of the Forbes Global 100 and Fortune 100. The Qualys Cloud Platform and integrated suite of solutions help organizations simplify security operations and lower the cost of compliance by delivering critical security intelligence on demand and automating the full spectrum of auditing, compliance and protection for IT systems and web applications. Founded in 1999, Qualys has established strategic partnerships with leading managed service providers and consulting organizations including Accenture, BT, Cognizant Technology Solutions, Fujitsu, HCL Comnet, HPE, Infosys, NTT, Optiv, SecureWorks, Tata Communications, Verizon and Wipro. The company is also a founding member of the Cloud Security Alliance (CSA).

For more information, please visit www.qualys.com

Qualys Support

Qualys is committed to providing you with the most thorough support. Through online documentation, telephone help, and direct email support, Qualys ensures that your questions will be answered in the fastest time possible. We support you 7 days a week, 24 hours a day.
Access support information at www.qualys.com/support/
Get Started

It’s easy to add a Virtual Scanner

You can add a virtual scanner to your account in just a couple minutes. Then you’ll be ready to scan devices and web applications on your internal network.

The Virtual Scanner option must be turned on for your account. Please contact Qualys Support or your Technical Account Manager if you would like us to turn on this option for you.

Tell me about the virtualization platforms

Qualys Virtual Scanner Appliance is packaged and qualified for deployment on a variety of virtualization and cloud platforms.

**Desktop/Laptop**
- VMware Workstation, Player, Workstation Player, Fusion
- Oracle VM VirtualBox

**Client/Server**
- VMware vSphere: vCenter Server, ESXi
- Citrix XenServer
- Microsoft Windows Server (Microsoft Hyper-V)

**Cloud**
- Amazon EC2-Classic
- Amazon EC2-VPC
- Microsoft Azure Cloud Platform (ARM)
- Microsoft Azure Cloud Platform (ASM)
- Google Cloud Platform
- OpenStack

Want help with choosing the right platform?

No problem, just check our Community where you can find all the details about our supported virtualization platforms, configurations and available distributions.

From our Community
- Virtual Scanner Appliance - Platform Qualification Matrix
- Reference - Virtual Scanner Appliance
Add Your Virtual Scanner

Step 1 - Start the Wizard

Go to Scans > Appliances and select New > Virtual Scanner Appliance.

Click Start Wizard, and we’ll walk you through the steps.

Step 2 - Choose your virtualization platform

Give your scanner a name and tell us the virtualization platform you’d like to use.
Step 3 - Download the Image

This step applies to virtualization platforms with a scanner appliance image download (i.e. VMware, Oracle VirtualBox, Citrix ZenServer, etc). Using a cloud platform? Skip to the next step.

Locate the Virtual Scanner image on your local system.

Step 4 - Get your Personalization Code

You’ll want to copy the code to a safe place (you’ll need it later).

Step 5 - Complete Configuration Steps for your Platform

Follow the “How to” link on the screen (next to your personalization code) to get detailed, step-by-step configuration instructions for your virtualization platform. The steps for each platform will differ slightly.
Step 6 - Personalize Your Scanner

Local system or server

These steps apply when you have downloaded a scanner appliance image (i.e. for VMware, Oracle VirtualBox, Citrix ZenServer, etc). You’ll use our Virtual Scanner Console running on your virtualization software to complete these steps.

Good to know We’ll automatically configure your virtual scanner with DHCP. Do you want to use a static IP instead? If yes select “Set up network (LAN)” first. Learn more

Press the Right arrow to select “Personalize this scanner” and then type in your personalization code.

Don’t have your personalization code? Go to Qualys and get it from the Scans > Appliances list.

Once you enter the code the activation process starts and you’ll see the progress. This may take a few minutes to complete.

Your virtual scanner must connect to our Cloud Security Platform in order to complete the activation and download the latest software versions.

Upon success you’ll see this scanner’s name and IP address. That’s it! You’ve added your virtual scanner to your account.

Having trouble with completing the activation? Click here
Get detailed instructions and best practices from our Community.

**From our Community**
- Scanner Appliance FAQs
- Configure a virtual scanner using VMware (various products)
- Configure a virtual scanner using Microsoft Hyper-V
- Configure a virtual scanner using Oracle VirtualBox
- Configure a virtual scanner using VMware vSphere (vCenter)
- Configure a virtual scanner using a laptop connected to the Internet (MiFi)

**Cloud Platform**
This includes Amazon EC2, Microsoft Azure, Google Cloud Platform and OpenStack. You'll enter your personalization code on the cloud platform, as part of the scanner appliance instance configuration. Get detailed instructions and best practices from our Community.

**From our Community**
- Configure a virtual scanner using Amazon EC2
- Choosing the Correct Scanner AMI (Amazon Machine Image)
- Scanning in Microsoft Azure
- Virtual Appliance in Google Compute Cloud (GCE)
- Scanning in OpenStack
We recommend one more thing

Check your virtual scanner status. Go to Scans > Appliances, and select your scanner and you’ll see the preview pane.

Tip - It can take a few minutes for the Qualys user interface to get updated after you add a new appliance. Please refresh your browser periodically to ensure that you are seeing the most up to date details.

1 - 🍃 tells you your virtual scanner is ready. Now you can start internal scans! (Next to this, you’ll see the busy icon is greyed out until you launch a scan using this scanner).

You might want to also check out:

2 - This shows you it’s a virtual appliance.

3 - Latest software versions - these are installed as part of the activation.

4 - The available capacity will be 100% until you launch a scan. You can come back and check this at any time.
Configuration settings

You might need to customize your configuration, so that your scanner can phone home to our Cloud Security Platform - this is required for successful activation.

Network settings

There are multiple network settings that you can choose for your virtual scanner, like static IP address, proxy server, and VLAN tag (for 802.1q trunked port). Just enter the network settings using the Virtual Scanner Console.

Having trouble personalizing your scanner? You might need to configure network settings first.

How to use a static IP address

You can choose to configure your appliance with a static IP address instead of DHCP.
- using the Virtual Scanner Console go to the main menu
- select “Set up network (LAN)”
- press the Right arrow to highlight “Enable static IP config on LAN”
- press the Right arrow
- enter settings

How do I enter settings? Press the Up and Down arrows to select input fields. Press the Right and Left arrows to scroll within a fields. When you are done, select the last item, for example “Configure static IP address on LAN?” and type Y to confirm (or type N to cancel).

Want to configure a static IP using Amazon EC2? Click here
Enable VLAN on LAN (Native/Default VLANs)

Select the “Enable VLAN on LAN” option in the Virtual Scanner Console if you have connected the LAN interface to a 802.1q trunked port and need your virtual scanner to use VLAN tags on the LAN default network. You’ll enter the VLAN tag number (1-4094) you want to use.

Configure VLANs and static routes (in Qualys UI)

Configuring VLANs and static routes is supported for all virtual scanner distributions, except cloud platforms like Amazon EC2/VPC, Microsoft Azure and Google Cloud Platform.

Log in to Qualys and go to the appliances list (Scans > Appliances) and edit the appliance settings. Up to 4094 VLANs and static routes can be added to each virtual scanner appliance, as long as you are using the latest distribution. You’ll have the latest virtual scanner if you’ve deployed it using scanner image qVSA-2.0.13-1 or later. (If you have an older version, you can add up to 99 VLANs and static routes.)

Don’t see these settings? The VLAN trunking feature must be turned on for your account. Please contact Support or your Technical Account Representative if you’d like us to turn it on for you.

Proxy configuration

The Scanner includes Proxy support with or without authentication - Basic or NTLM. The Proxy server must be assigned a static IP address and must allow transparent SSL tunneling. Proxy-level termination (as implemented in SSL bridging, for example) is not supported. The Scanner does not support Proxy servers in networking environments where the Proxy server IP address is dynamically assigned. SOCKS proxies are not supported.

What are the steps? Access the Virtual Scanner Console. Navigate to “Enable proxy”, press the Right arrow and enter proxy settings. You can enter either the IPv4 address or the FQDN for the proxy server. Not seeing the FQDN option? Be sure you have the latest scanner software version.

Split Network configuration

By default the Scanner LAN interface services all traffic to the Qualys Cloud Platform, including management traffic (software updates, health check, scan data upload) and scanning traffic.

![Diagram of Corporate Intranet, Intranet Scanner, LAN, Firewall, Internet]

You have the option to configure a split network configuration for your Scanner by configuring the WAN interface using the Virtual Scanner Console. This enables support for networks that do not have direct Internet access. Split network configuration also keeps scanned data and internal targets secure by isolating internal LAN traffic from Internet traffic by using the WAN interface.
Once configured, management traffic will be routed through the WAN interface and scanning traffic will be routed through the LAN interface. No internal traffic will be routed or bridged to the WAN interface, and no management traffic will be routed or bridged to the LAN interface.

Please review these tips and best practices before you configure split network configuration.

- Check to be sure that network connection to both the LAN and WAN interfaces on the Virtual Scanner have been set up properly.
- The Virtual Scanner must be configured with DHCP or a static IP address on the LAN interface first.
- Do not configure the LAN and WAN interfaces on the same subnet. This type of configuration is not supported.

What are the steps? Access the Virtual Scanner Console. Navigate to “Enable WAN interface”, press the Right arrow and provide the required settings. All software updates and health checks are routed through the WAN interface and scanning traffic is routed through the LAN interface.

**Resize the Disk**

You can increase the disk size for your scanner appliance instance at any time, as often as needed. Stop the instance, find the Hard Disk/Storage option in your Virtual Machine settings and increase the size of the disk (reducing the size is not supported). Save your settings and start up your scanner. Your scanner instance should come up with the new disk size.

Here’s an example from the VMware ESXi/vCenter platform.