



Consultant Scanner Personal Edition

User Guide

February 12, 2018

Copyright 2017-2018 by Qualys, Inc. All Rights Reserved.

Qualys and the Qualys logo are registered trademarks of Qualys, Inc. All other trademarks are the property of their respective owners.

Qualys, Inc.
919 E Hillsdale Blvd
4th Floor
Foster City, CA 94404
1 (650) 801 6100



Table of Contents

About this guide.....	3
About Qualys	3
Qualys Support	3
Quick Start.....	4
Scanner to take on the go!.....	4
What you'll need	4
Quick Look at the Scanner	5
Front panel.....	5
Back panel.....	5
Network requirements.....	6
Tell me the steps	7
1 - Get your Activation Code.....	7
2 - Log in to Qualys Cloud Suite UI and enter your Activation Code	7
3 - Power on the Scanner	8
Tip - Check Scanner status in Qualys UI	8
Configuration options.....	9
Configuration may be required for activation	9
How to configure a static IP address	9
How to configure IPv6 address for scanning	10
VLAN configuration.....	11
Proxy configuration	12
Split Network configuration	12
Troubleshooting	14
Why do I see an Activation Code?	14
Communications Failure message	14
Appliance Configuration Error	15
Product Specifications and Credits.....	17

About this guide

Welcome to Qualys Consultant Scanner - Personal Edition! This lightweight and easy to install Scanner helps you scan your internal networks for security issues using the Qualys 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

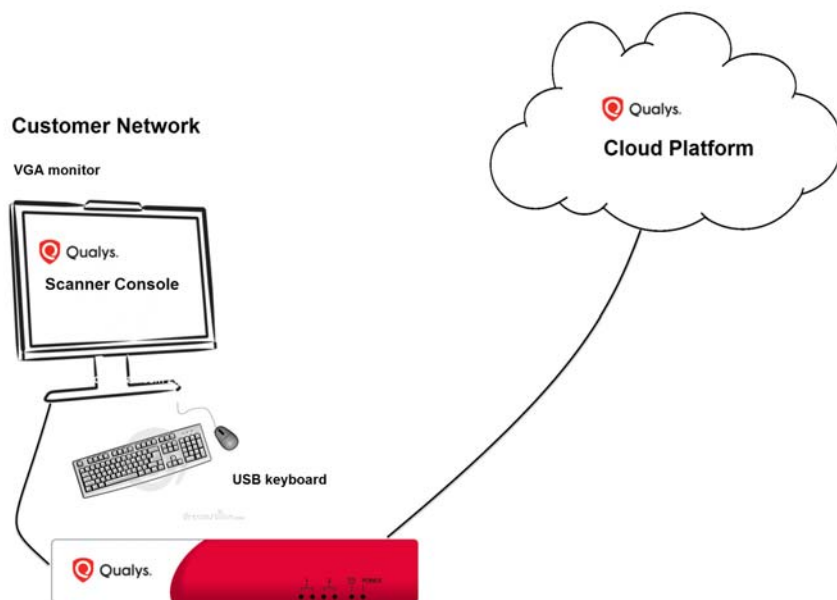
Qualys is committed to providing you with the most thorough support. Through online documentation, telephone help, and direct email support, Qualys ensures that your questions will be answered in the fastest time possible. We support you 7 days a week, 24 hours a day. Access support information at www.qualys.com/support/

Quick Start

Welcome to Qualys Consultant Scanner - Personal Edition! This lightweight Scanner Appliance is perfectly suited for consultants using the Qualys Cloud Platform to provide vulnerability and compliance services for their clients.

Scanner to take on the go!

- Super compact and lightweight
- Plug in any VGA monitor and access the built-in console
- Activate in minutes - DHCP is enabled by default
- Easily configure as needed - static IP, proxy, and more
- Bind/unbind with different subscriptions, unlimited times



What you'll need

Consultant Scanner - Personal Edition packaging from Qualys.

Qualys Cloud Suite account with Consultant Scanner - Personal Edition enabled. Manager or Unit Manager role is required. Interested in Consultant Scanner - Personal Edition? Sure just reach out to Qualys Support or your Qualys Account Manager.

VGA monitor to connect to Qualys Consultant Scanner - Personal Edition.

USB keyboard to connect to Qualys Consultant Scanner - Personal Edition.

Quick Look at the Scanner

Front panel



The Scanner's front panel gives you operational indicators.

1 - These LEDs tell you about the WAN interface which is disabled by default. When split network configuration is enabled for your scanner the left LED is lit (blinking) when there is WAN interface activity and the right LED is lit (solid) when the WAN interface is enabled. [Learn more](#)

2 - These LEDs tell you about the LAN interface which is enabled. The left LED is lit (blinking) when there is LAN interface activity and the right LED is lit (solid) when the LAN interface is enabled.

Disk - This LED is lit (blinking) when there is disk activity.

POWER - This LED is lit (solid) when the scanner is powered on.

Back panel



The Scanner's back panel includes: a power switch, a power socket, VGA socket, two USB ports, Ethernet LAN and WAN ports.

Your Scanner package from Qualys also includes accessories for proper set up in your networking environment.

Looking for more details? [See Product Specifications and Credits](#)

Network requirements

Bandwidth	Minimum recommended bandwidth connection of 1.5 megabits per second (Mbps) to the Qualys Cloud Platform.
Outbound HTTPS Access	The local network must be configured to allow outbound HTTPS (port 443) access to the Internet, so that the Scanner Appliance can communicate with the Qualys Cloud Platform.
Access to Qualys Cloud Platform	The Scanner Appliance must be able to reach certain infrastructure located at the Qualys Cloud Platform where your Qualys account is located. Tip - Log in to the Qualys portal and go to Help > About to see the Qualys Cloud Platform servers that need to be whitelisted.
Access to Target Assets	The assets to be scanned (IP addresses, web applications) must be accessible to the Scanner Appliance.
DHCP (default) or Static IP	By default the Scanner Appliance is pre-configured with DHCP. If configured with a static IP address, be sure you have the IP address, netmask, default gateway, primary DNS and WINS server (if appropriate). Learn more
Proxy Support	The Scanner Appliance 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. Learn more
LAN Interface (default) or Split Network config	The LAN interface services both scanning traffic and management traffic to the Qualys Cloud Platform, unless Split Network configuration is enabled. Learn more
WINS Support	If your network is running Windows Internet Naming Service (WINS), the Scanner Appliance needs to use it for host name resolution during scanning. Using a static IP address, the WINS servers are defined with the static IP settings using the Scanner Console. Learn more
VLAN Support	These options are supported <ul style="list-style-type: none"> - Static LAN configuration with native VLAN support. - VLANs defined using the Qualys Cloud Platform UI. Learn more Not supported at this time <ul style="list-style-type: none"> - Native (default) VLAN tagging in DHCP mode on the LAN interface is not supported using Consultant Scanner OS version 5.11.1-4. This limitation will be addressed in the next major release of the scanner's OS software.

Tell me the steps

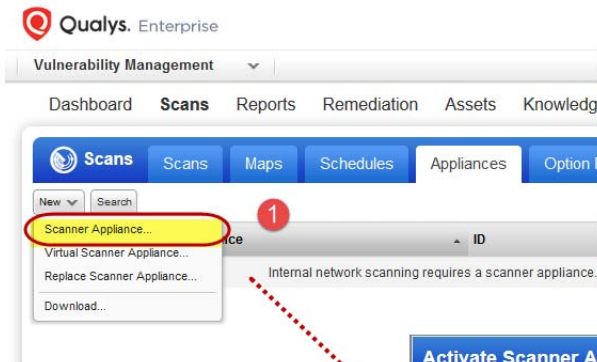
1 - Get your Activation Code

You'll find the Activation Code on the Qualys sticker fastened to your Scanner.

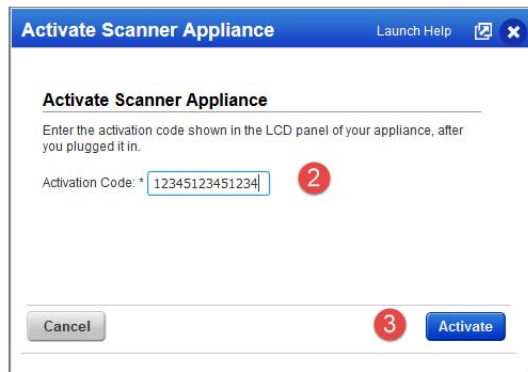
2 - Log in to Qualys Cloud Suite UI and enter your Activation Code

Go to Scans > Appliances and take these steps.

1) Select New > Scanner Appliance



- 2) Enter Activation Code
- 3) Click Activate

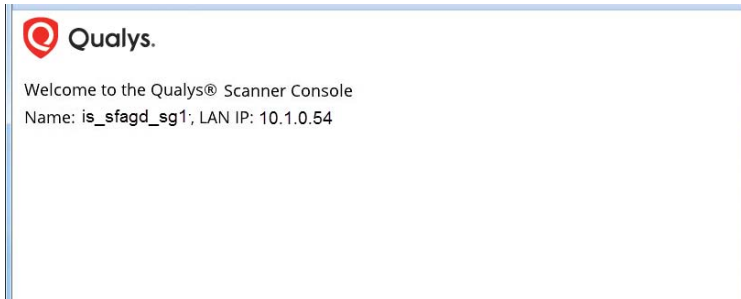


Are you a Unit Manager?

For the activation step you'll need to select an asset group to add the Scanner to. This will make the scanner available to all Unit Managers in your business unit.

3 - Power on the Scanner

Upon success you'll see the Scanner Appliance name and IP address. This appears only after the scanner makes a successful connection to the Qualys Cloud Platform using DHCP.



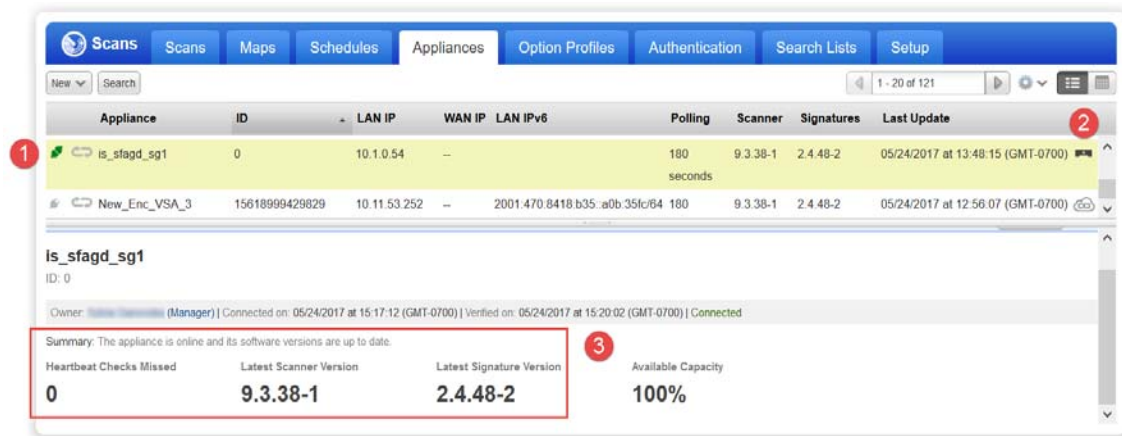
We'll attempt to connect the appliance to the Qualys Cloud Platform using DHCP by default.

Use the Scanner Console to configure network settings as needed. [Learn more](#)

Tip - Check Scanner status in Qualys UI

Just log in to Qualys Cloud Suite and go to Scans > Appliances. You'll see your new Scanner in the appliances list.

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



1 - Activation is complete. Now you can start internal scans! (You'll see the busy icon is greyed out until you launch a scan using this appliance).

2 - This icon tells you it is a physical scanner appliance.

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

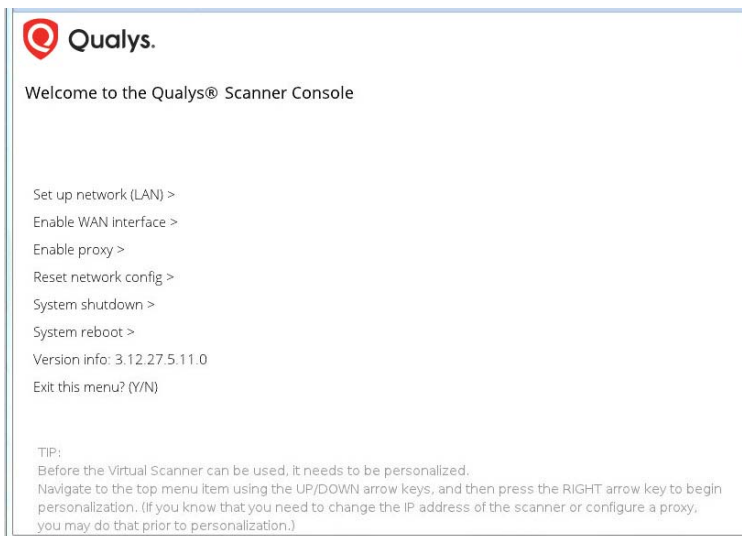
4 - The available capacity will be 100% until you launch a scan. You can come back and check this at any time.

Configuration options

You might need to customize the out of box configuration in order for successful activation to occur. The Scanner Console is used to configure network settings like static IP address, proxy server, and VLAN tag, and power on/off.

Configuration may be required for activation

Keep in mind your Scanner must be able reach our Cloud Security Platform via HTTPS - this is required for successful activation. Depending on your network, you might need to configure network settings using the Scanner Console so that activation can occur successfully.



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 field. When you are done, select the last item, for example "Configure static IP address on LAN?" and type Y to confirm (or N to cancel).

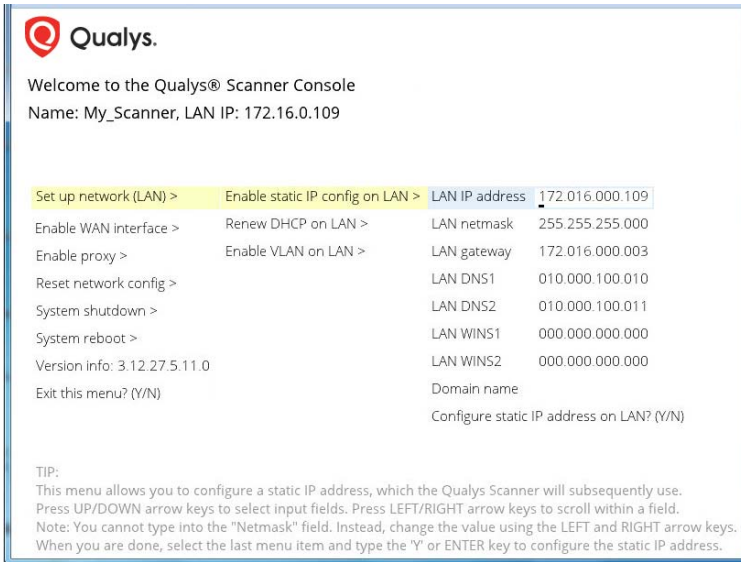
How to configure a static IP address

By default your Scanner is configured with DHCP. You can define a static IP address.

Tell me the steps

- Access the Scanner Console
- Press the Down arrow to select "Set up network (LAN)" from the main menu
- Press the Right arrow to highlight "Enable static IP config on LAN"
- Press the Right arrow
- Enter settings (use the Up/Down arrows to move thru the settings)
- When "Configure static IP address on LAN?" is selected type Y to confirm

Sample settings for Static IP configuration



How to configure IPv6 address for scanning

You have the option to configure the Scanner with an IPv6 address on the LAN interface - this will be used for scanning IPv6 hosts.

Account requirements - The IPv6 Scanning feature must be enabled for your subscription.

How it works

Once configured scanning traffic will be routed through the LAN interface

- LAN IPv4 interface for scanning IPv4 hosts, and
- LAN IPv6 interface for scanning IPv6 hosts

All management traffic (software updates, health checks, etc) will be routed through the LAN IPv4 interface.

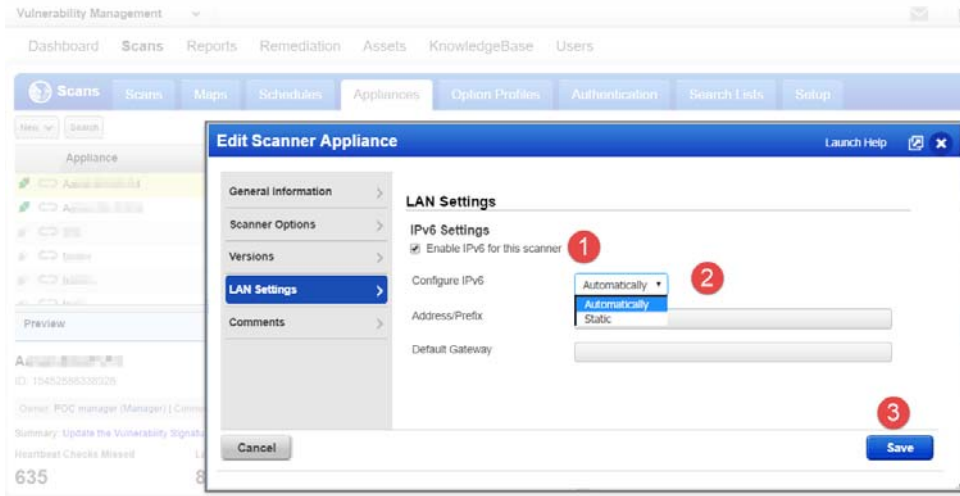
1 - Complete the Quick Start

Follow the Quick Start steps, described in this user guide, to activate your Scanner. Be sure your Scanner has successfully connected to the Qualys Cloud Platform. [Learn more](#)

Good to Know - Your Scanner must be configured using DHCP or a static IPv4 address before you can configure an IPv6 address for scanning.

2 - Edit Scanner settings using Qualys UI

Log in to Qualys portal. Go to Scans > Appliances and edit your Scanner Appliance.



- 1) Select “Enable IPv6 for this scanner”.
- 2) Choose “Automatically” and we’ll do IP assignment through router advertisement, or choose “Static” and assign a static IP address.
- 3) Click Save to save the settings with IPv6 configuration.

Don’t see IPv6 Settings? This means the IPv6 Scanning feature is not turned on for your account. Please contact Support or your Technical Account Manager if you’d like us to turn it on for you.

VLAN configuration

[These options are supported](#)

- Static LAN configuration with native VLAN support.
- VLANs defined using the Qualys Cloud Platform UI (see steps below).

[Not supported at this time](#)

- Native (default) VLAN tagging in DHCP mode on the LAN interface is not supported using Consultant Scanner OS version 5.11.1-4. This limitation will be addressed in the next major release of the scanner’s OS software.

Steps to define VLANS using Qualys Cloud Platform UI

Log in to Qualys portal. Go to Scans > Appliances and edit the settings. You can add up to 4094 VLANs to devices with a serial number over 29000 and up to 99 VLANs to devices with a serial number under 29000. Add up to 99 static routes. Don’t see these settings in the UI? 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.

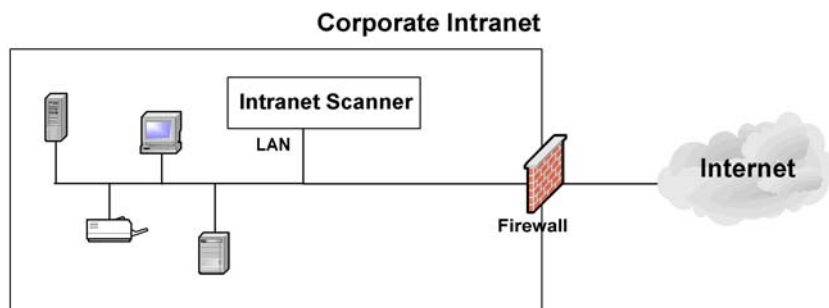
Proxy configuration

The Scanner includes Proxy support with or without authentication - Basic or NTLM. The Proxy server must allow transparent SSL tunneling. Proxy-level termination (as implemented in SSL bridging, for example) is not supported. SOCKS proxies are not supported.

What are the steps? Access the Scanner Console. Navigate to “Enable proxy”, press the Right arrow and enter proxy settings. You can enter the IPv4 address or the FQDN for the proxy server.

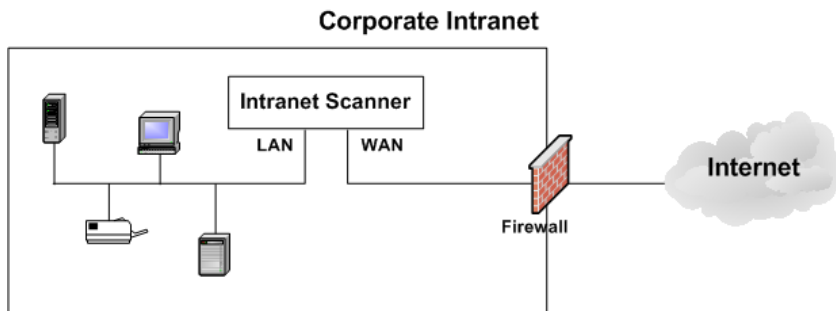
Split Network configuration

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.



You have the option to configure a split network configuration for your Scanner by configuring the WAN interface using the 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.



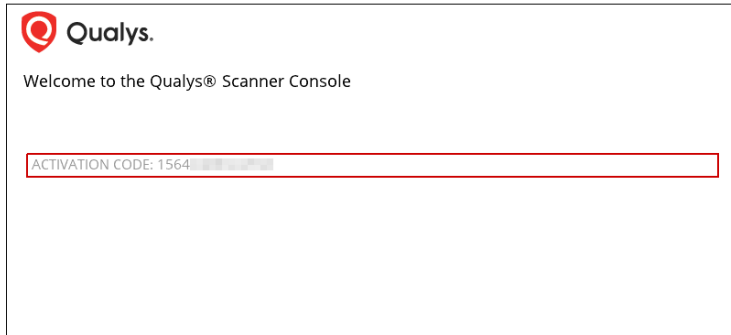
Please review these tips and best practices before you configure split network configuration.

- 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 Scanner Console. Navigate to “Enable WAN Interface”, press the Right arrow and provide the required settings. Once configured, all software updates and health checks are routed through the WAN interface and scanning traffic is routed through the LAN interface.

Troubleshooting

Why do I see an Activation Code?



The Scanner Console displays ACTIVATION CODE in some cases:

- You powered on the Scanner before entering the Activation Code using the Qualys portal UI. [Click here for the activation steps](#)
- You entered the wrong Activation Code using the Qualys portal UI, i.e. the Scanner has another activation code.
- You entered the Activation Code following the activation steps but used the wrong Qualys Cloud Platform, e.g. the Scanner is licensed for US Platform 1 instead of US Platform 2.

Communications Failure message

The COMMUNICATION FAILURE message appears if there is a network breakdown between the scanner and the Qualys Cloud Platform.

The communication failure may be due to one of these reasons: the local network goes down, Internet connectivity is lost for some reason, or any of the network devices between the scanner and the Qualys Cloud Platform goes down.

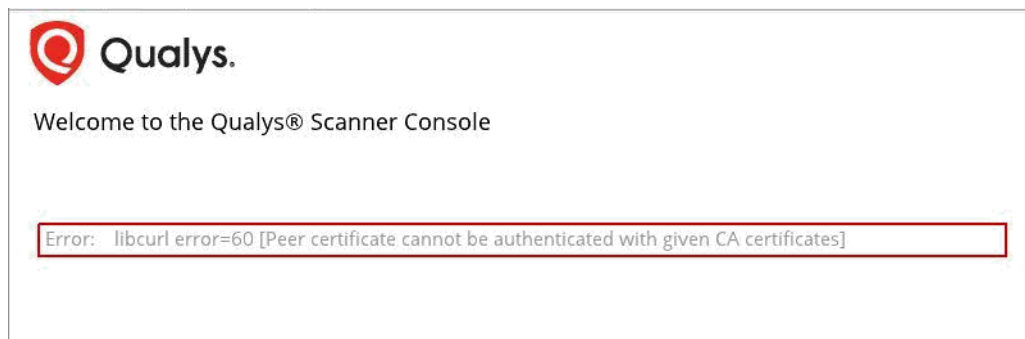
Note the sequence of events following a network breakdown:

- If there are no scans running on the Scanner: The next time the scanner sends a polling request to the Qualys Cloud Platform, the polling request fails, and then the COMMUNICATION FAILURE message appears.
- If there are scans running on the Scanner: The COMMUNICATION FAILURE message appears after the running scans time out. In this case it is recommended you cancel any running scans and restart them to ensure that results are accurate.

Once the network breakdown is resolved, you'll see the scanner friendly name and IP address and you scan start new scans.

The COMMUNICATION FAILURE message remains until the next time the Scanner makes a successful polling request to the Qualys Cloud Platform. There may be a lag time after the network is restored and before the scanner is back online, depending on when the next polling request is scheduled. Additional time is necessary for communications to be processed by a Proxy server if the scanner has a Proxy configuration.

Appliance Configuration Error



An appliance configuration error indicates the Scanner attempted to connect to the Qualys Cloud Platform and failed.

Important! The Scanner is not functional until the error is resolved.

Error listing

General

No response to HTTP request from Qualys Cloud Platform

Invalid proxy IP

Invalid proxy configuration

libcurl error=7 [Failed to connect to host]

(For complete list of libcurl error codes, refer to curl(1) manual page)

Unexpected QG HTTP/404

(where QG represents Qualys Cloud Platform)

Unexpected proxy HTTP/407 (Proxy Authentication Failure)

LAN related

LAN interface is down

No CARRIER on LAN interface

LAN has no IPv4 address

LAN has no DNS servers

LAN DNS servers can't resolve Qualys Cloud Platform URL

LAN has no default IPv4 gateway

Invalid LAN IP configuration

LAN DNS servers can't resolve proxy URL

WAN related

WAN interface is down

No CARRIER on WAN interface

WAN has no IPv4 address

WAN has no DNS servers

WAN DNS servers can't resolve Qualys Cloud Platform URL

WAN has no default IPv4 gateway

Invalid WAN IP configuration

WAN DNS servers can't resolve proxy URL

Product Specifications and Credits

Model number QGSA-1330-A2

Software Credits

Portions of the software embedded in the Qualys Scanner Appliance were developed by third parties and are governed by the terms and conditions detailed in the following Qualys document

Qualys Scanner Appliance Software Credits

<https://www.qualys.com/docs/qualys-software-credits-scanner-appliance.pdf>

Product Specifications

Configuration	
CPU	Intel Celeron Quad-Core 2.00 GHz, 2M Cache
Memory	4 GB DDR3-1333
Hard Drive	500 GB, 2.5", SATA 6 Gb/s, 5400 RPM
Ethernet	Two GbE ports
USB	Two USB 2.0 ports
Power Input	100-240 VAC, 50-60 Hz to AC-DC Adapter 12 VDC, 40W
Power Consumption	AC-DC Adapter 12 VDC, 40W
Dimension	1.73 (H) x 8.19 (W) x 7.13 (D) inches
Weight	3.96 lbs.
Environment	
Acoustic Noise	~24 dBA at 23°C
Operating Conditions	0°C to 40°C, 0 to 5,000 feet, 5 to 85% RH
Storage Conditions	-20°C to 75°C, 5 to 95% RH
Operating Vibration	0.5 Grms, 5-500 Hz, 30 minutes per axis
In-Package Shock	In accordance with GB/T 2423.8-1995 Part 2; Test Ed (IEC 60068-2-32:1990-1995 IDT equivalent)
Regulatory	UL
EMC	FCC
Environmental	RoHS, WEEE
Other certifications	Per specific requirements