Digital Check Corp.

Network Commander

User Guide

Rev. C

June 28, 2023

Contents

Document Version Control 4
Introduction 5
Installation 5
Running Network Commander 6
Importing a list of Network Devices 7
Scanning for DCC network devices 8
Scanning for Securelink 2.0-Embedded scanners that are Broadcasting 8
Scanning for all DCC network devices 9
Removing a Device from the List 10
Saving a list of Network Devices 10
Exporting Device Information 11
Configuring SecureLink 2.0-Embedded scanners 14
Configuring the Credentials 14
Updating SSL Certificates 15
Updating SSL Keys 15
Updating CA Certificates and Keys 15
Updating Firmware 17
Updating Network Parameters 18
Accessing the scanner admin web pages 19
Configuring network printers 20
Updating Printer Firmware 25
Configuring SecureLink 2.0 Appliances 26
Troubleshooting SecureLink 2.0-Embedded scanners 27
Accessing embedded web pages 27
Downloading an API log file or “Trace” 30
Troubleshooting Network printers 31
Troubleshooting SecureLink 2.0 Appliances 34
Other Operations 36
Reboot Printers 36

Run Config Script 36
jsonprog-testall.json 37

Document Version Control

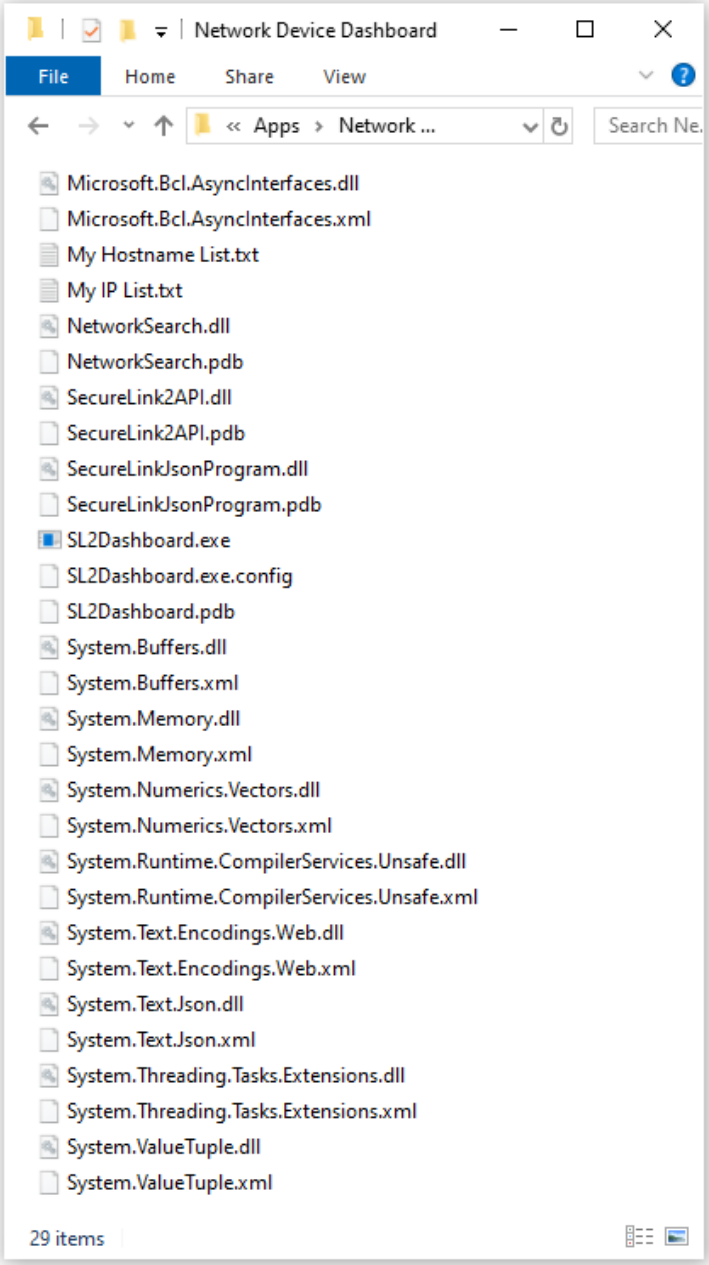
Revision	Author	Date	Description
Rev. A	JG	3/14/2020	Initial Draft Release
Rev. B	DC	3/27/2020	Updates for initial release
Rev. C	DC	6/28/2023	Updates for v1.1.4.2 (2022 Features), Updated branding to Network Commander

Introduction

This document provides instructions for installing, configuring and using the Network Commander application that can be used to locate and manage DCC network devices on the local area network (LAN). Source code for this application is also available on the SecureLink 2.0 development partner web site.

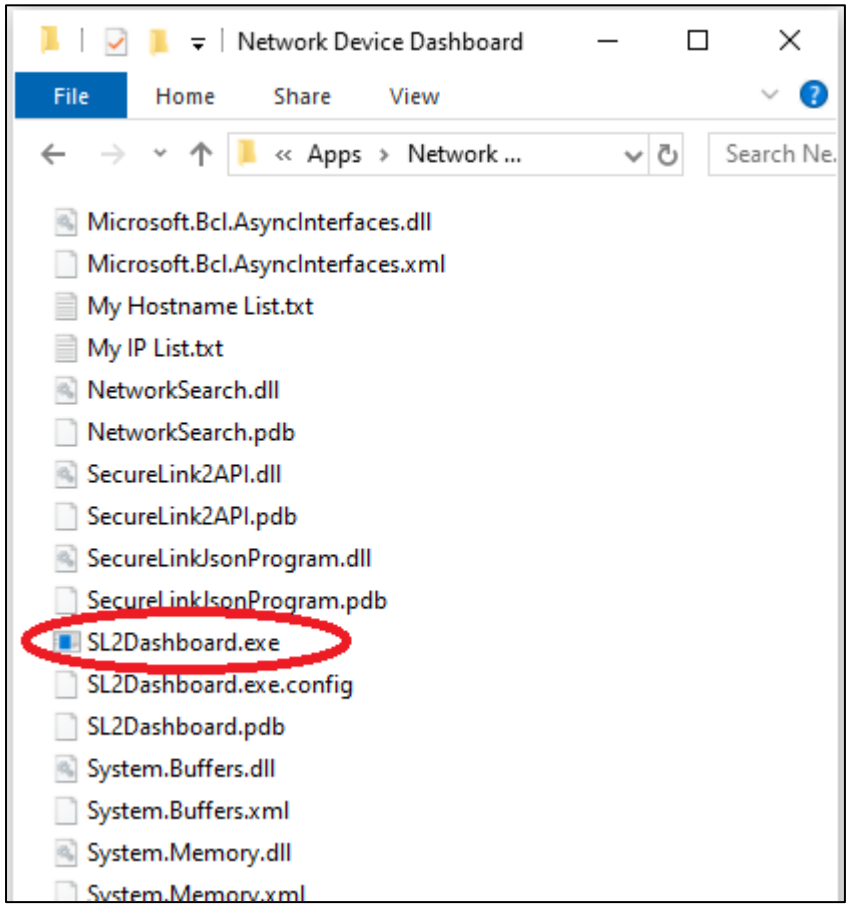
Installation

Unzip the file SL2Dashboard.zip to the desired folder:

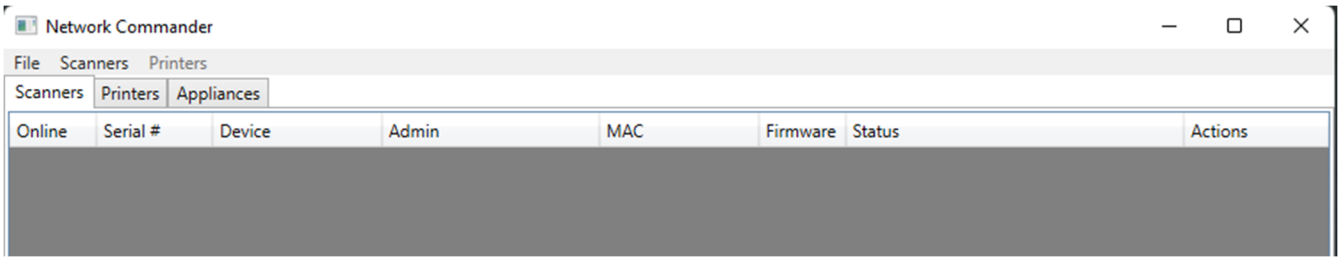


Running Network Commander

Double-click on **SL2Dashboard.exe**.



The Network Commander window should appear.

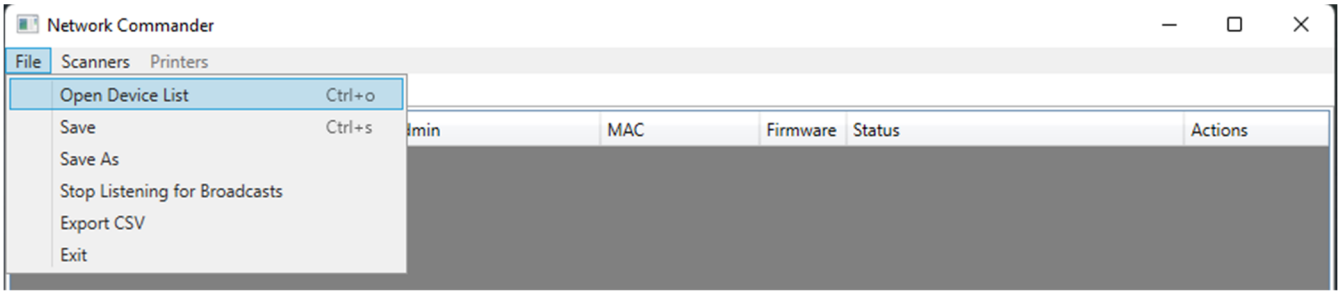


Importing a list of Network Devices

If available, a list or partial list of network devices can be imported into Network Commander. From the **File** menu, click on **Open Device List** to import a list of network devices. The Device List File must be formatted as a plain text file with one hostname per line.

For example:

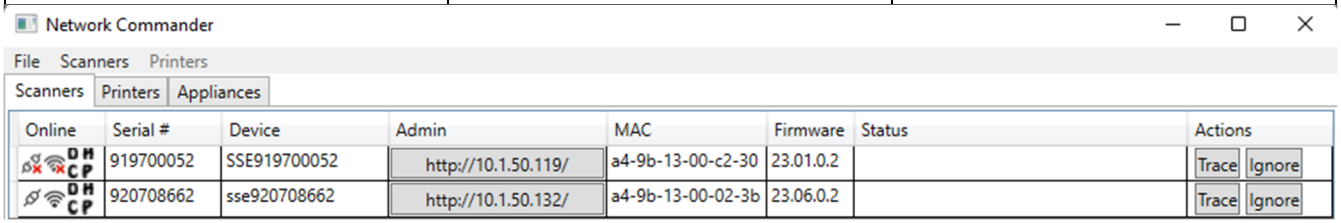
```
SSE900613628

SSE900783826

:
```



SecureLink 2.0-Embedded scanners are continuously Broadcasting specific information by default. Network Commander will automatically listen for and note which SecureLink 2.0-Embedded scanners in the imported list are Broadcasting.

Network Commander will add the serial number, IP address and firmware version. It will use three icons in the leftmost column to indicate if the scanner is currently reachable on the network, if it is currently broadcasting, and if it is configured to use DCHP or a static IP.

	Yes	No
Reachable on the network		
Broadcasting		
Using DHCP	DH CP	DH CP

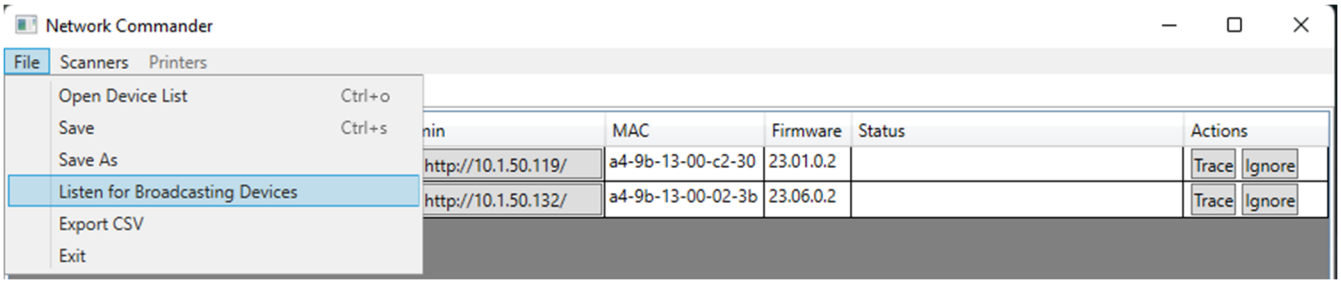


Scanning for DCC network devices

Scanning for Securelink 2.0-Embedded scanners that are Broadcasting

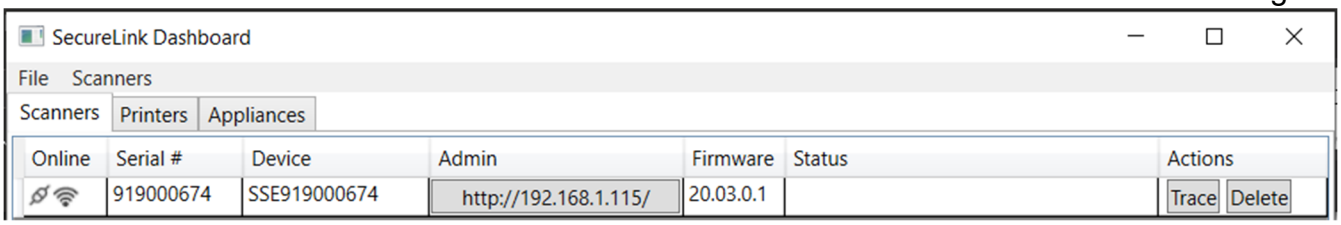
SecureLink 2.0-Embedded scanners are continuously Broadcasting specific information by default. It is very easy to locate these scanners on the LAN if this feature is not disabled.

From the **File** menu, click on **Listen for Broadcasting Devices** to locate scanners that are currently Broadcasting.

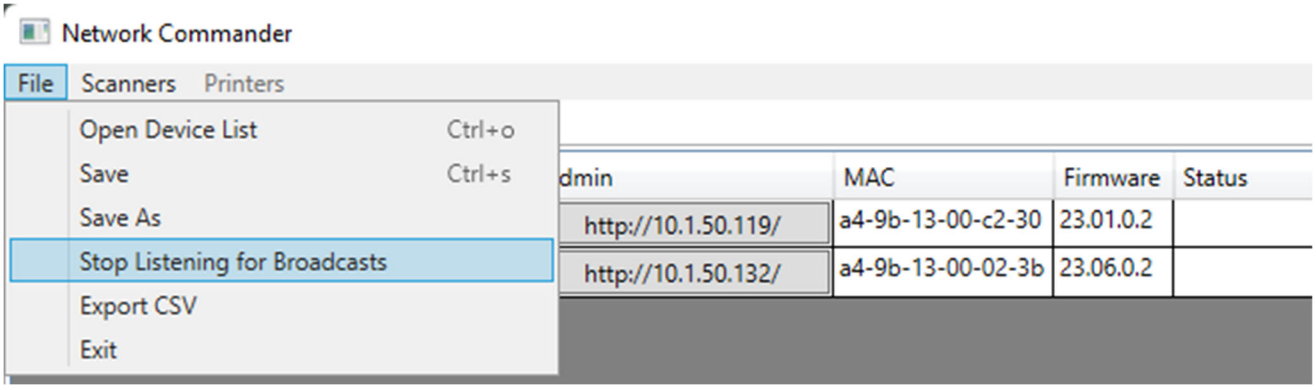


All scanners that are actively Broadcasting on the LAN will then be added to the list in the Dashboard window. This defaults to being in listening mode.

Network Commander will add the serial number, IP address and firmware version. It will use icons to communicate if the scanner is reachable on the network and that it is broadcasting



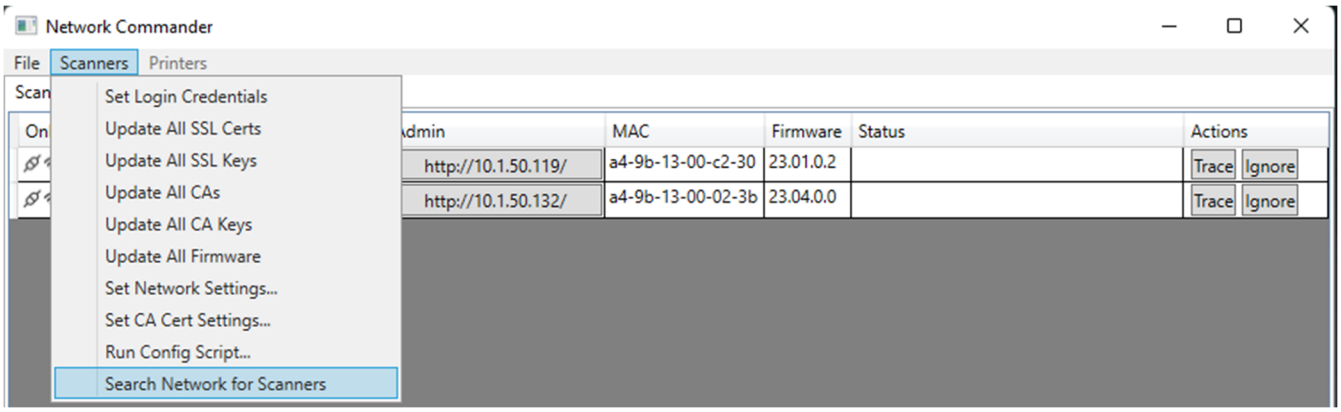
Network Commander will continue to add new scanners to this list until stopped by clicking on **Stop Listening for Broadcasts** in the **File** menu.



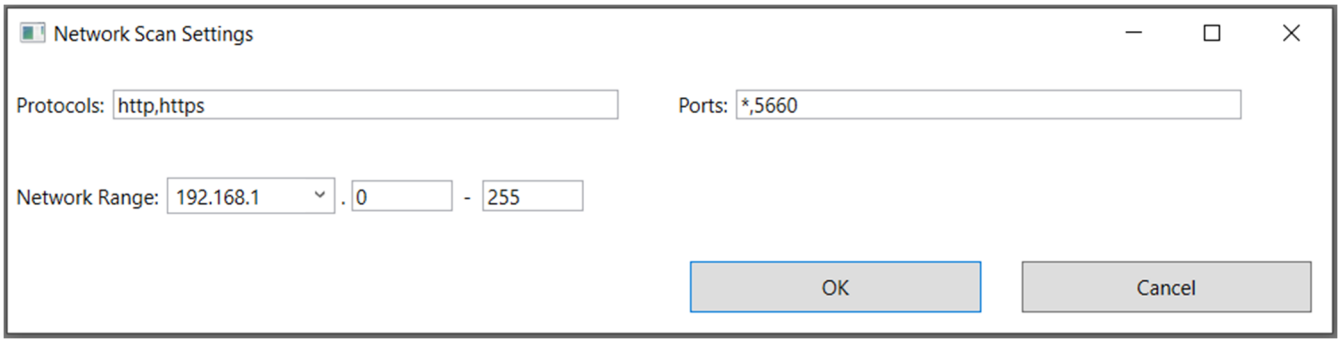
Scanning for all DCC network devices

SecureLink 2.0-Embedded scanners that have Broadcasting disabled, and DCC network printers can be located on the LAN through a network scanning process.

From the **Scanners** menu or **Printers** menu, click on **Search Network for Scanners/Printers**.

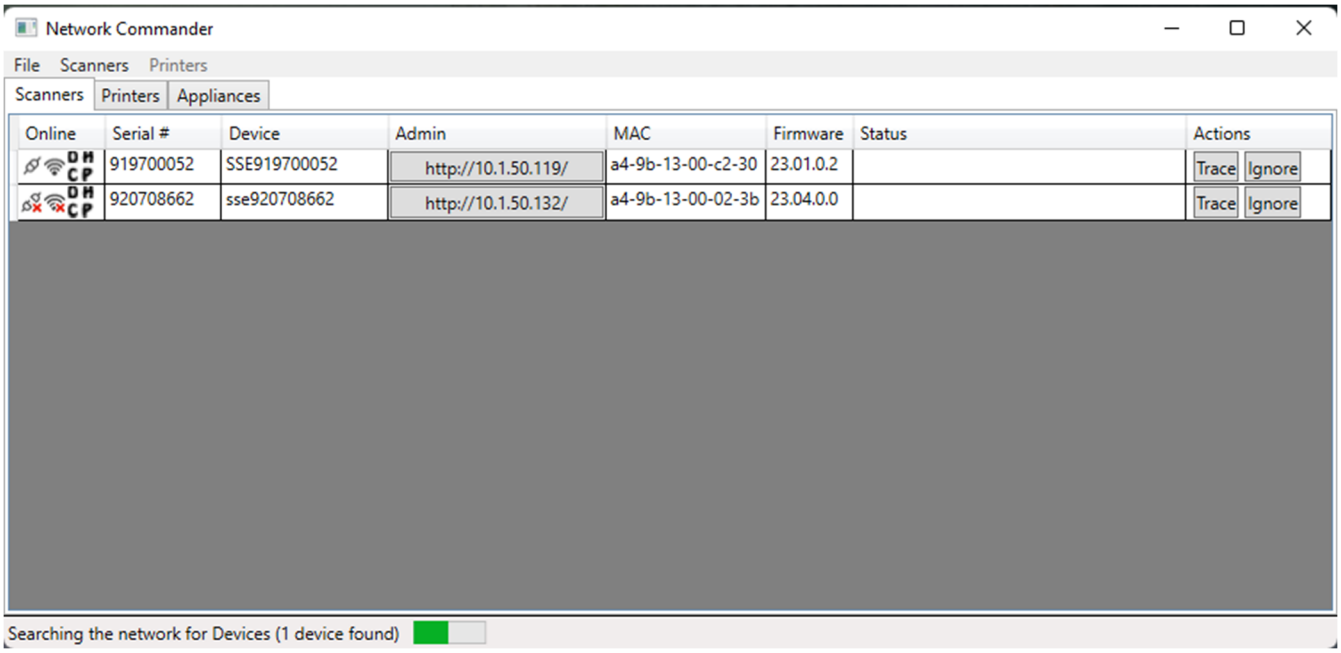


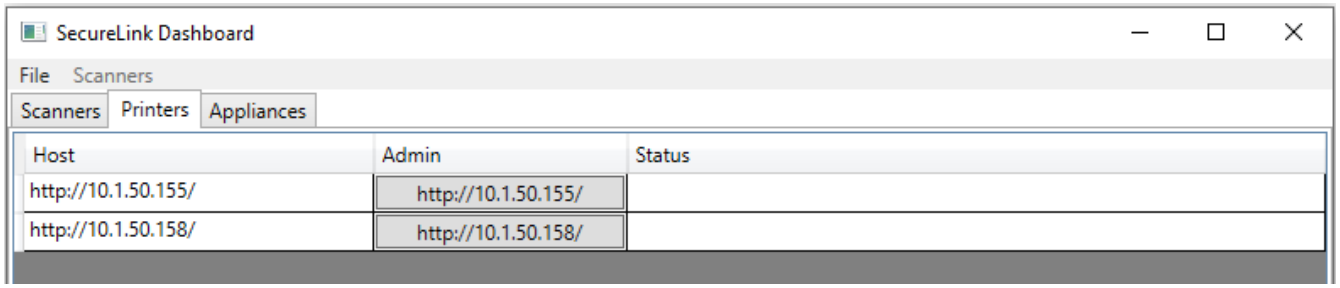
A new window will appear in which the user can enter parameters for the scan. The user's default network adapter parameters are used to pre-populate these parameters. A dropdown for the network range includes the subnets for all network adapters on the system, and if scanning multiple times, defaults to the previously used subnet

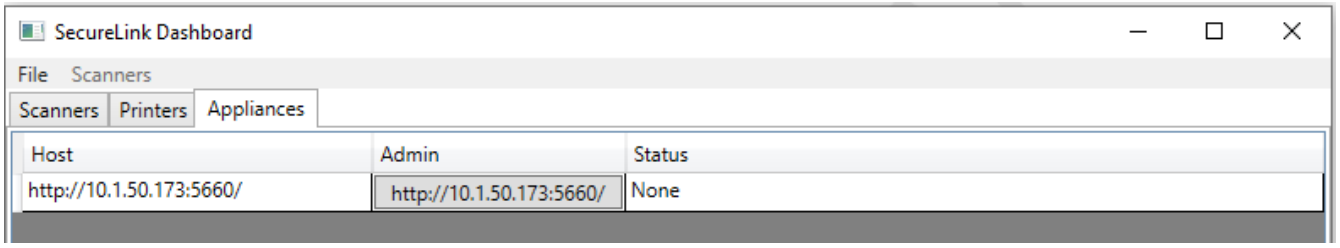


The network scan will typically take around 2 minutes. A progress bar is displayed at the bottom of the window.

Network Commander will populate the active scanner list with all SecureLink 2.0-Embedded scanners, and DCC network printers found on the LAN. Click on the **Scanners**,or **Printers** tab at any time to view each list.





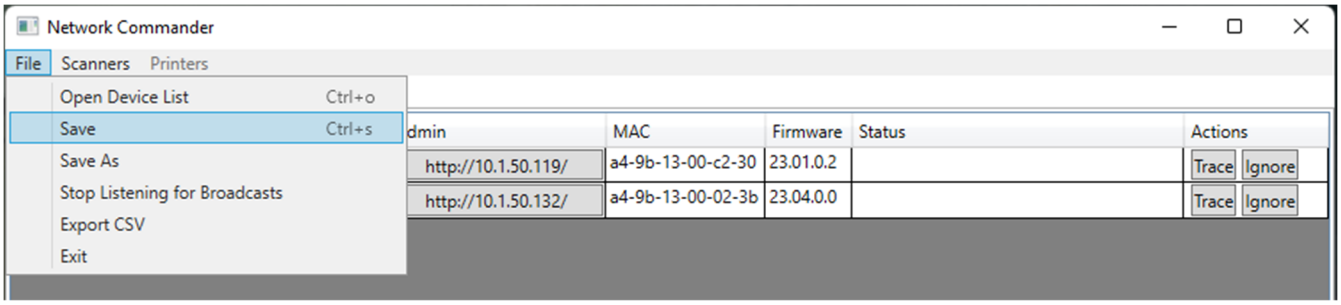


Removing a Device from the List

A device can be removed from the list by clicking the **Ignore** button in its **Actions** column, or by selecting the item and pressing the **Delete** key.

Saving a list of Network Devices

The list of network devices can be saved from the **File** menu. Click on **Save** to overwrite the imported Device File List. Click on **Save As** to create a new Device List File.

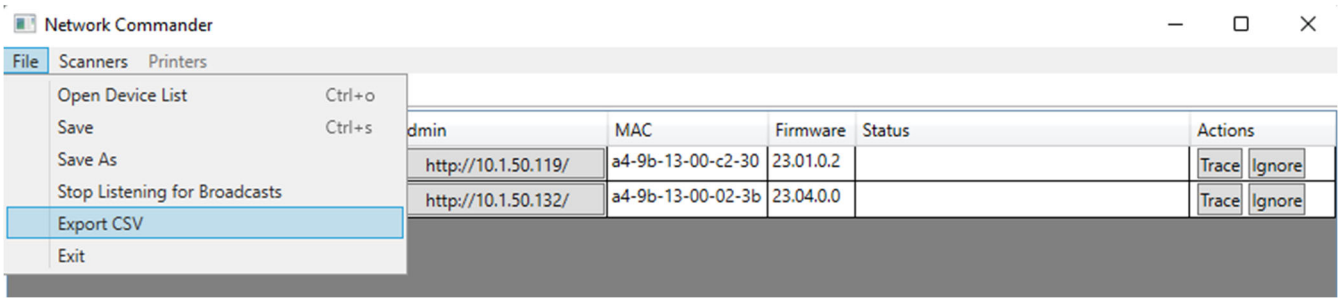


Exporting Device Information

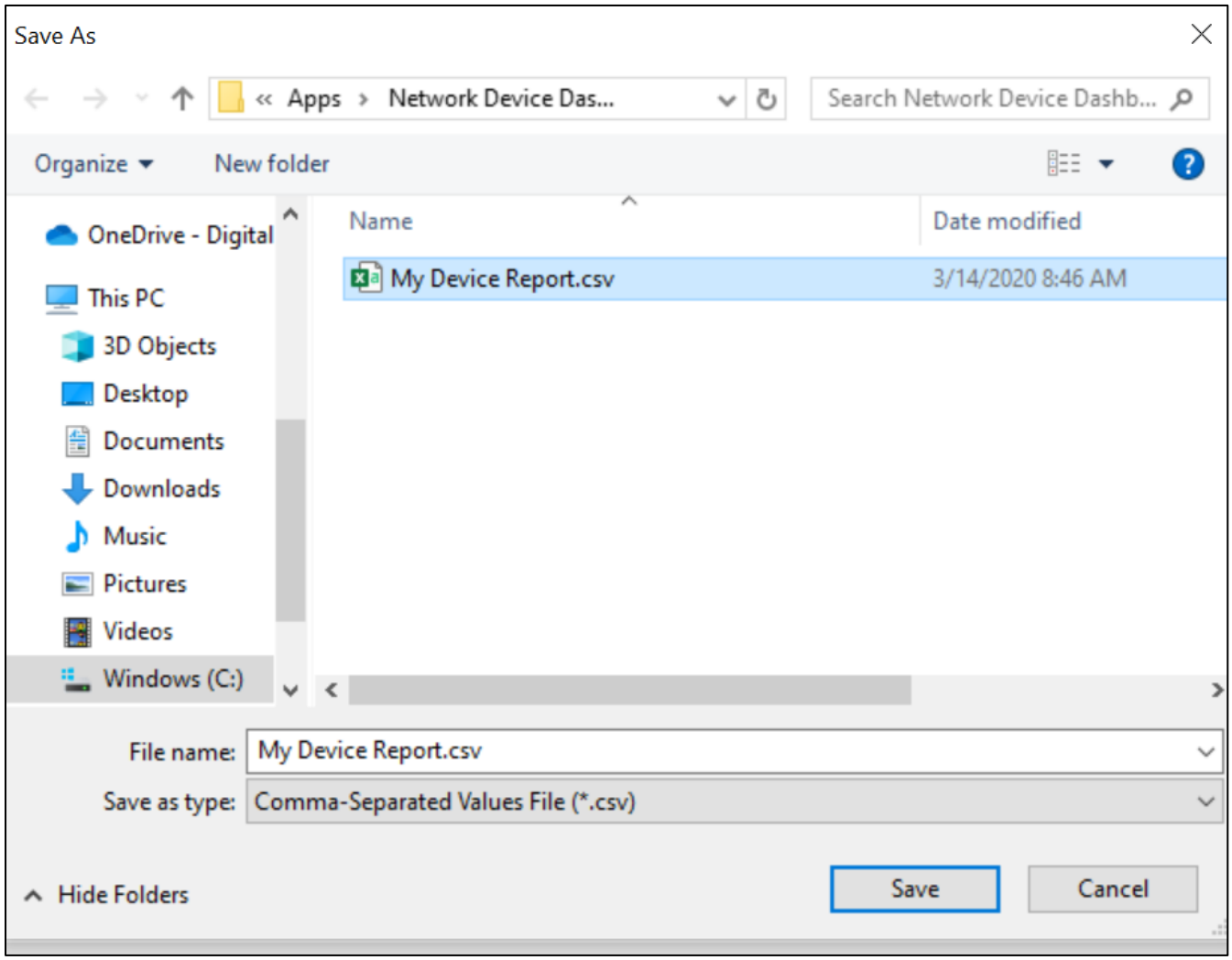
A report listing SecureLink 2.0-Embedded scanners along with useful information can be generated from the **File** menu. A text file is created in comma-separated-value format so that it can be easily imported into other applications such as Excel.

This report includes scanner serial number, SSL status, IP address, MAC address, firmware version, if the scanner was reachable on the network and if the scanner was Broadcasting.

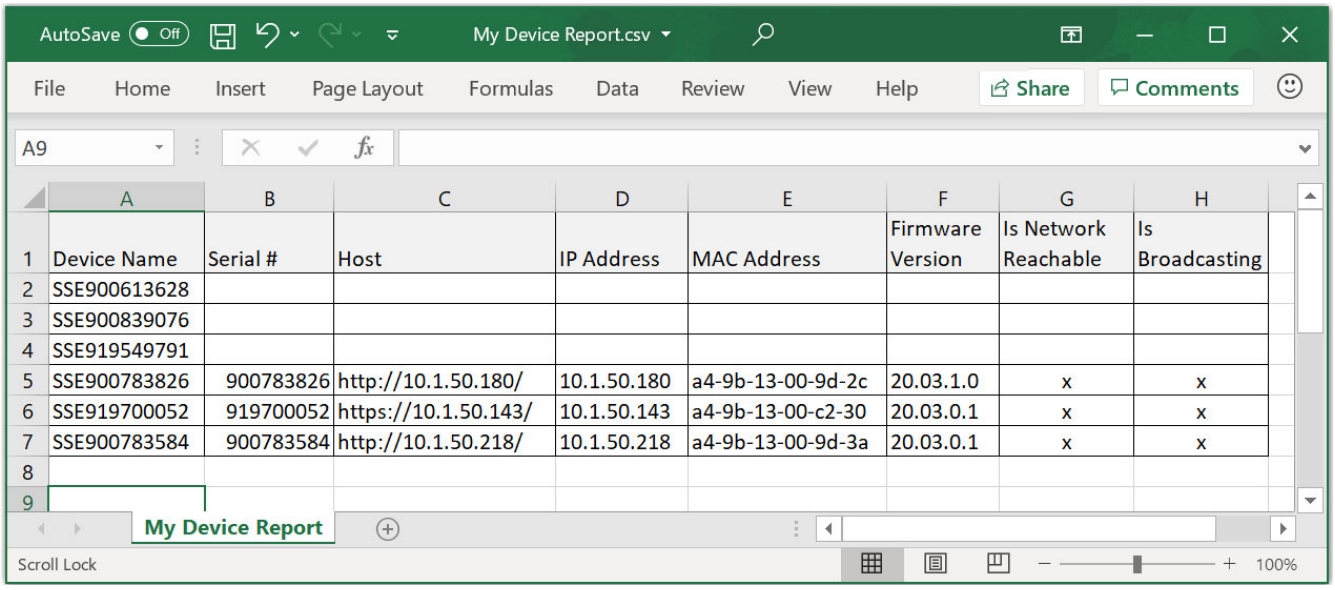
Click on **Export CSV** to generate this report.



Save the report to the desired location.


Save As
« Apps › Network Device Das...
Search Network Device Dashb...
Organize
New folder
OneDrive - Digital
This PC
3D Objects
Desktop
Documents
Downloads
Music
Pictures
Videos
Windows (C:)
Name
Date modified
My Device Report.csv
3/14/2020 8:46 AM
File name:
My Device Report.csv
Save as type:
Comma-Separated Values File (*.csv)
Hide Folders
Save
Cancel

The report can then be imported into other applications such as Excel.



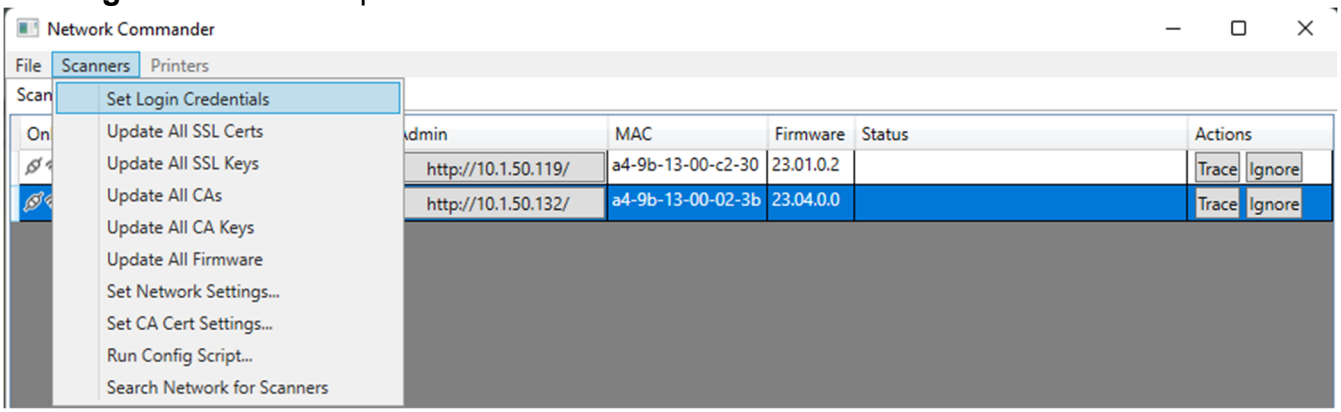
	A	B	C	D	E	F	G	H
1	Device Name	Serial #	Host	IP Address	MAC Address	Firmware Version	Is Network Reachable	Is Broadcasting
2	SSE900613628							
3	SSE900839076							
4	SSE919549791							
5	SSE900783826	900783826	http://10.1.50.180/	10.1.50.180	a4-9b-13-00-9d-2c	20.03.1.0	x	x
6	SSE919700052	919700052	https://10.1.50.143/	10.1.50.143	a4-9b-13-00-c2-30	20.03.0.1	x	x
7	SSE900783584	900783584	http://10.1.50.218/	10.1.50.218	a4-9b-13-00-9d-3a	20.03.0.1	x	x
8								
9								

Configuring SecureLink 2.0-Embedded scanners

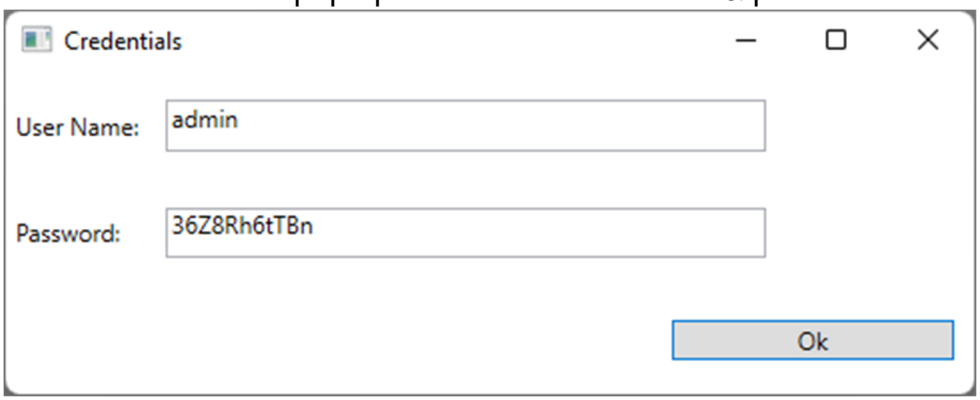
Network Commander provides a method of updating all scanners in the active list with the same configuration. Each scanner in the active list can be updated with the same network parameters, SSL Certificate, SSL Key and scanner firmware.

Configuring the Credentials

If the scanners are using non-default admin credentials, Network Commander will need to know them for these configuration operations. They can be input using the **Scanners** menu, **Set Login Credentials** option.

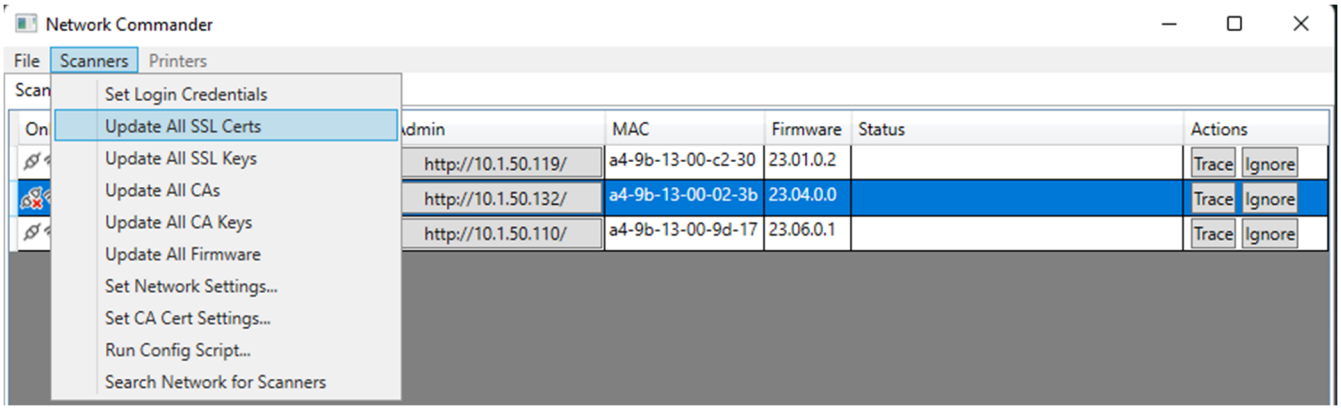


Another window will pop up to enter the username & password for the scanners.



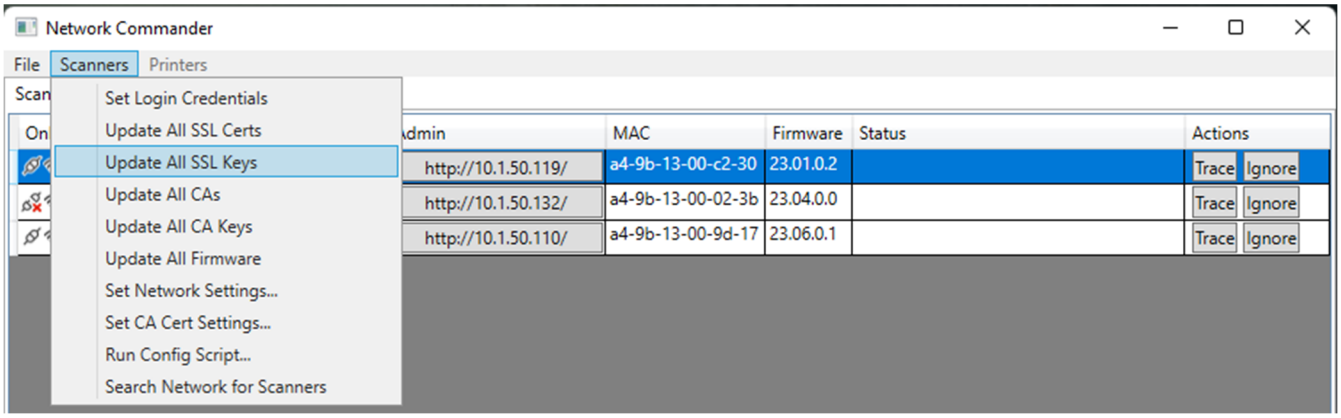
Updating SSL Certificates

From the **Scanners** menu, click on **Update All SSL Certs** to upload a new custom SSL certificate to all scanners in the active list.



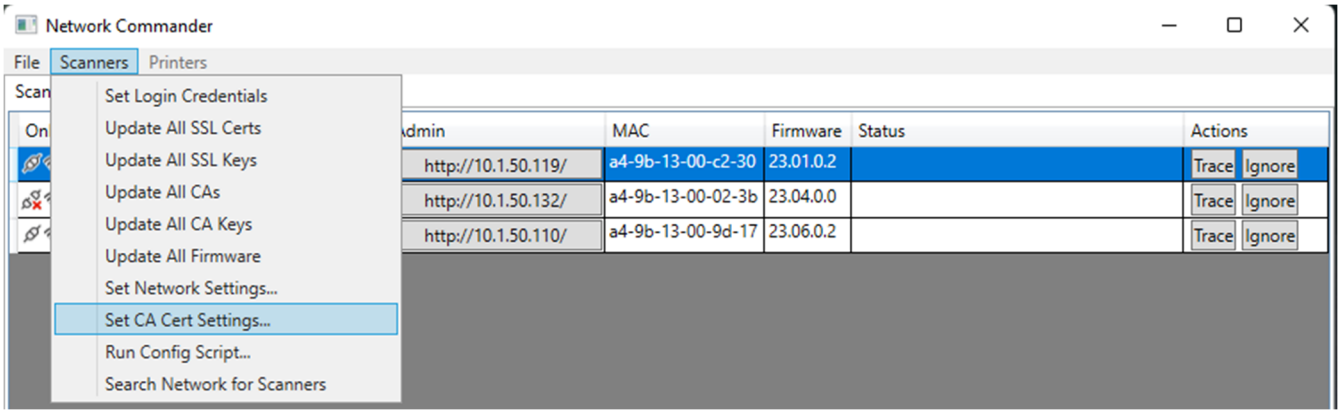
Updating SSL Keys

From the **Scanners** menu, click on **Update All SSL Keys** to upload a new custom SSL key to all scanners in the active list.

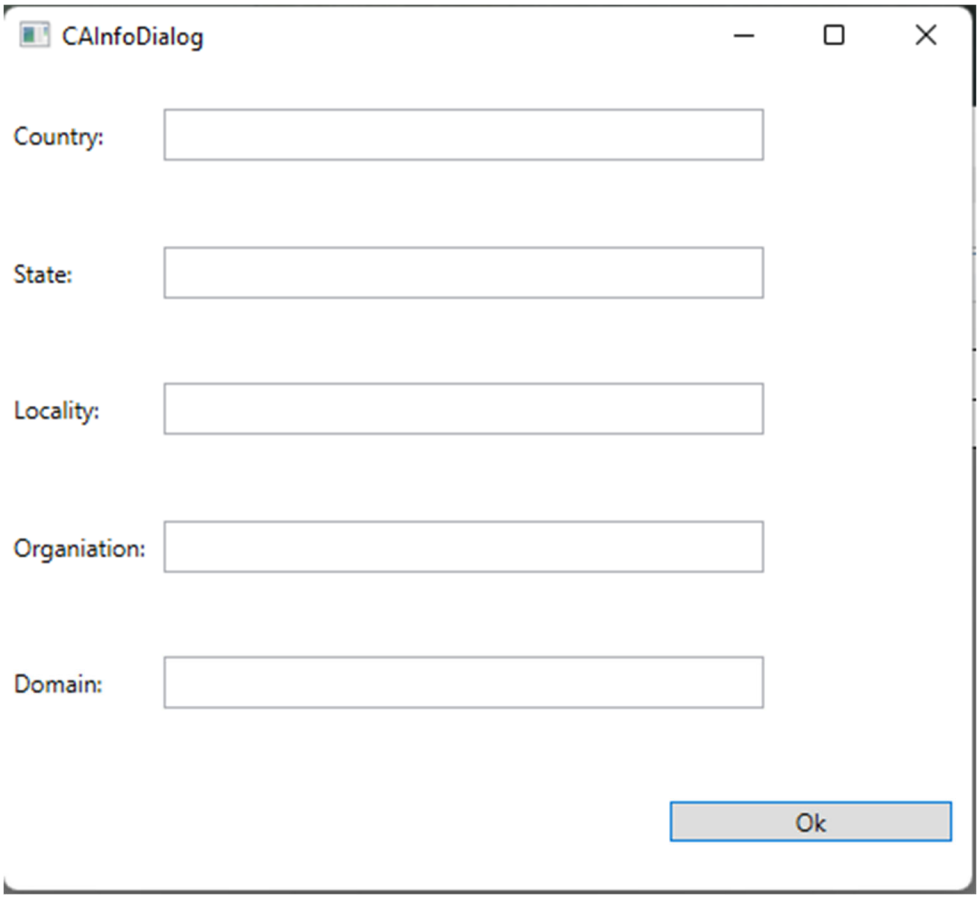


Updating CA Certificates and Keys

The same process as above can be used to update the CA certificates and keys, but using the **Scanners** menu **Update All CAs** and **Update All CA Keys** options. The CA Certificate options can also be configured from the **Scanners** menu **Set CA Cert Settings…** option.

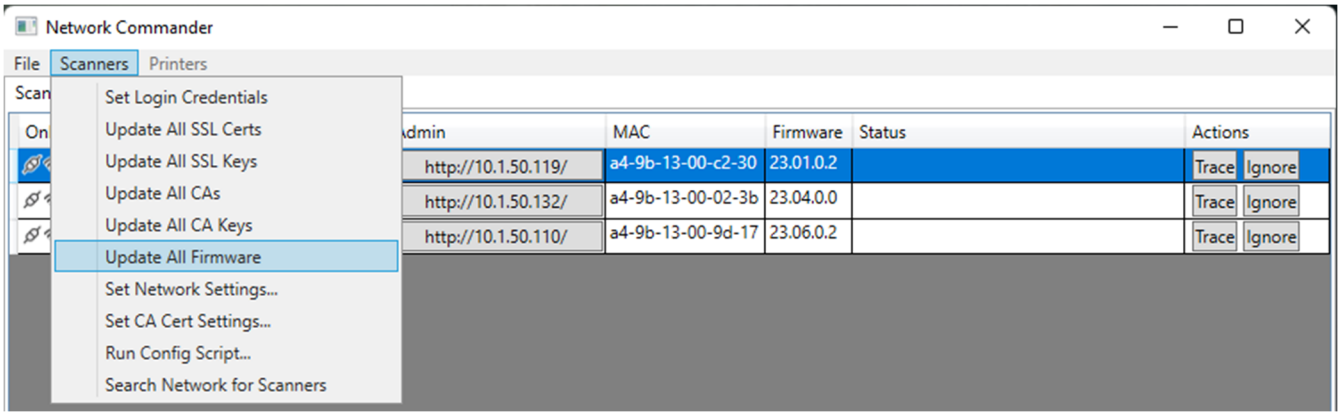


This will pop up a new window to enter information that will be included on self-generated certificate if the scanner is configured to use the on-board CA.



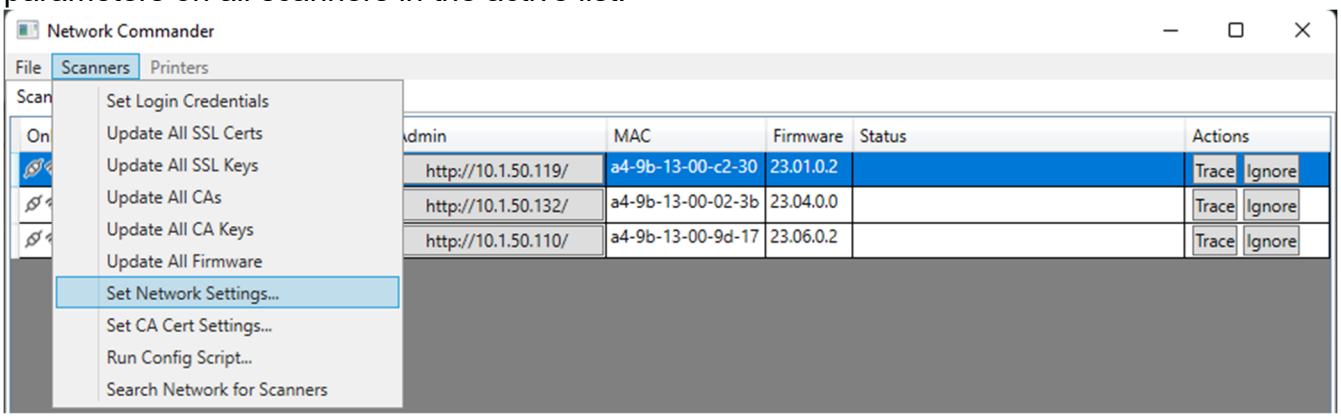
Updating Firmware

From the **Scanners** menu, click on **Update All Firmware** to upload new firmware to all scanners in the active list.

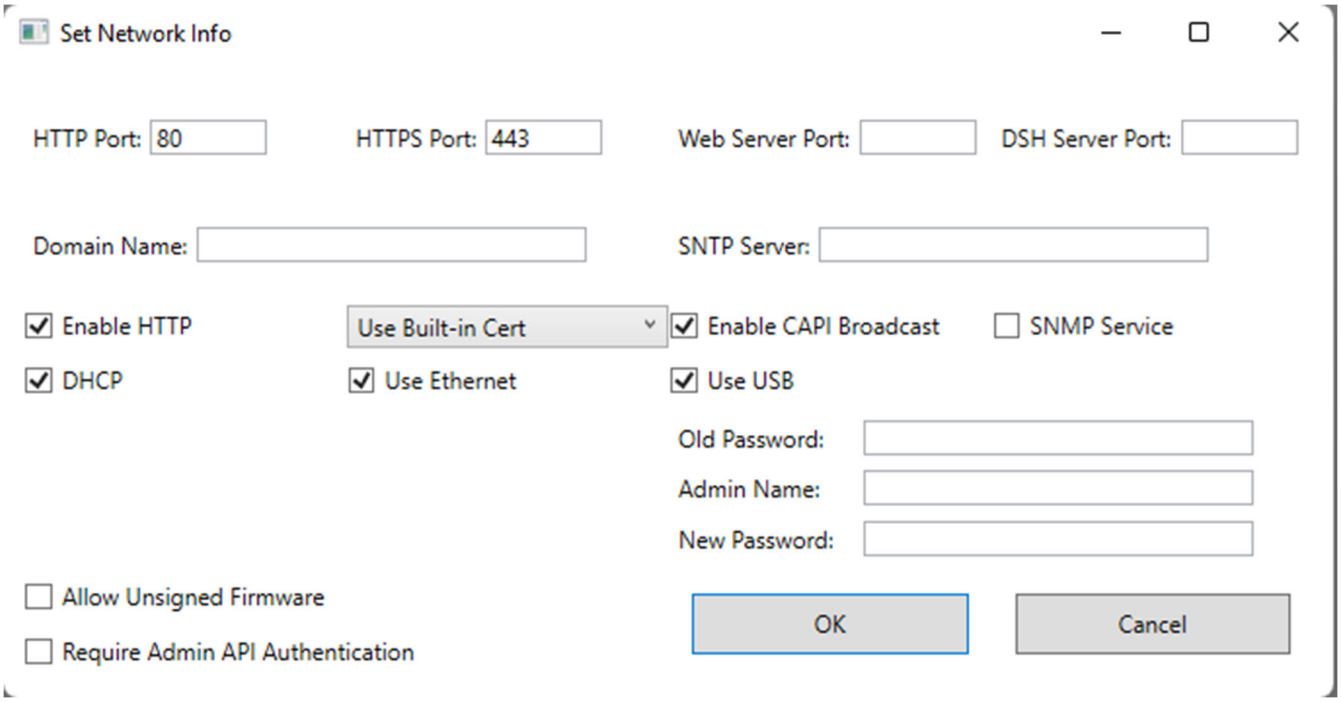


Updating Network Parameters

From the **Scanners** menu, click on **Set Network Settings** to update specific network parameters on all scanners in the active list.

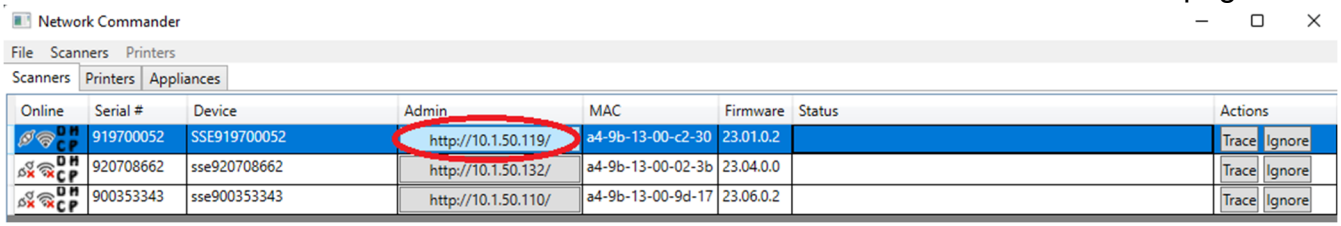


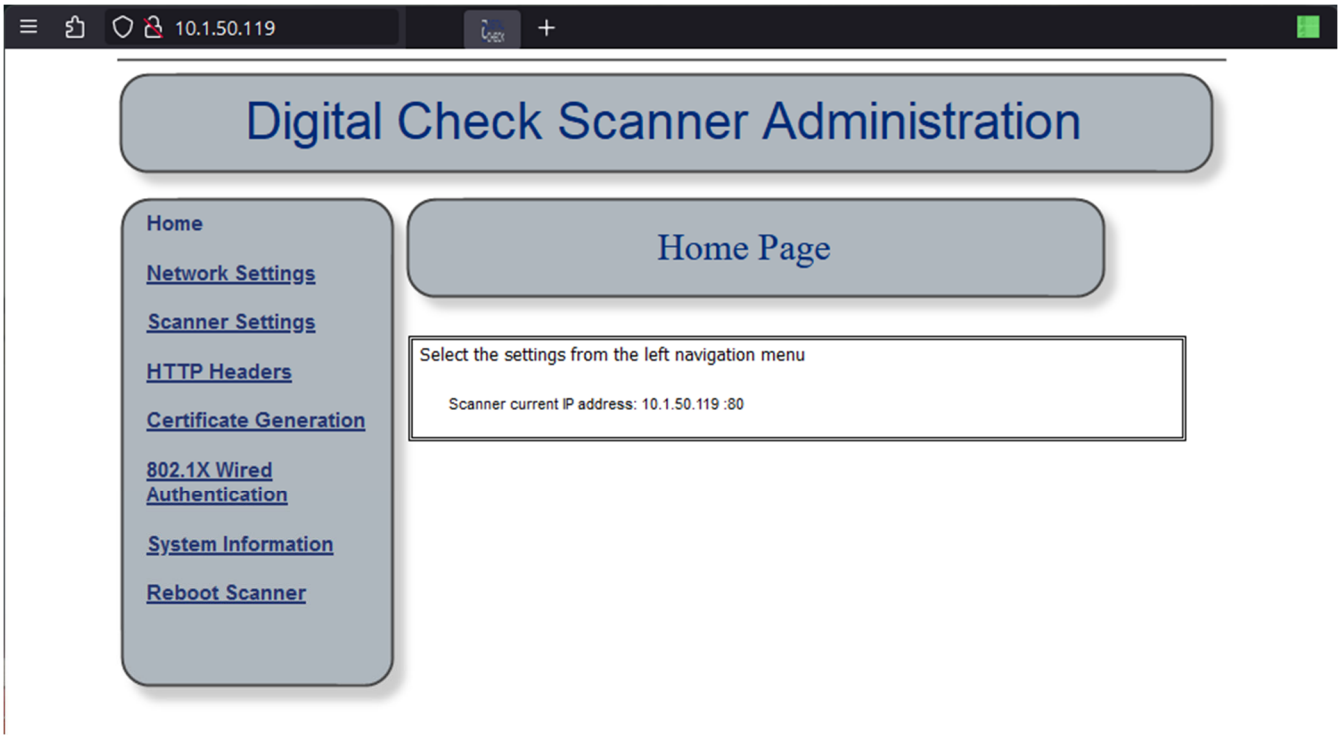
Select or enter the new configuration and click **OK** to send the new configuration to each scanner in the active list.



Accessing the scanner admin web pages

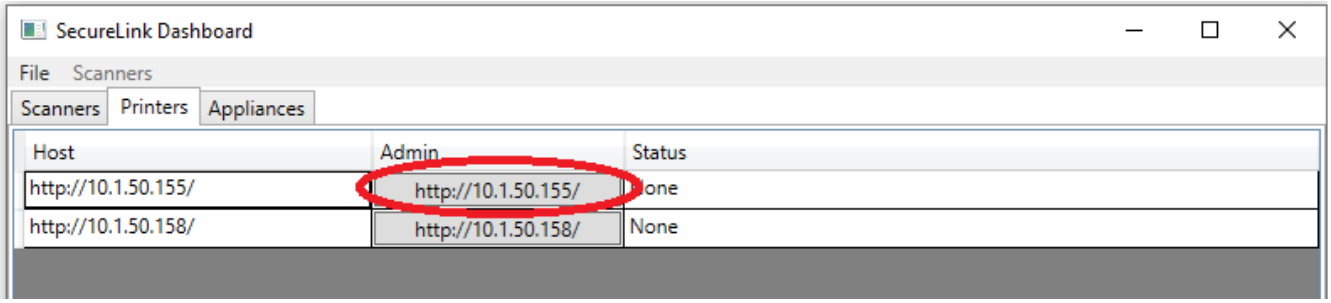
Click on the link in the **Admin** column to be redirected to that scanner's admin web page.

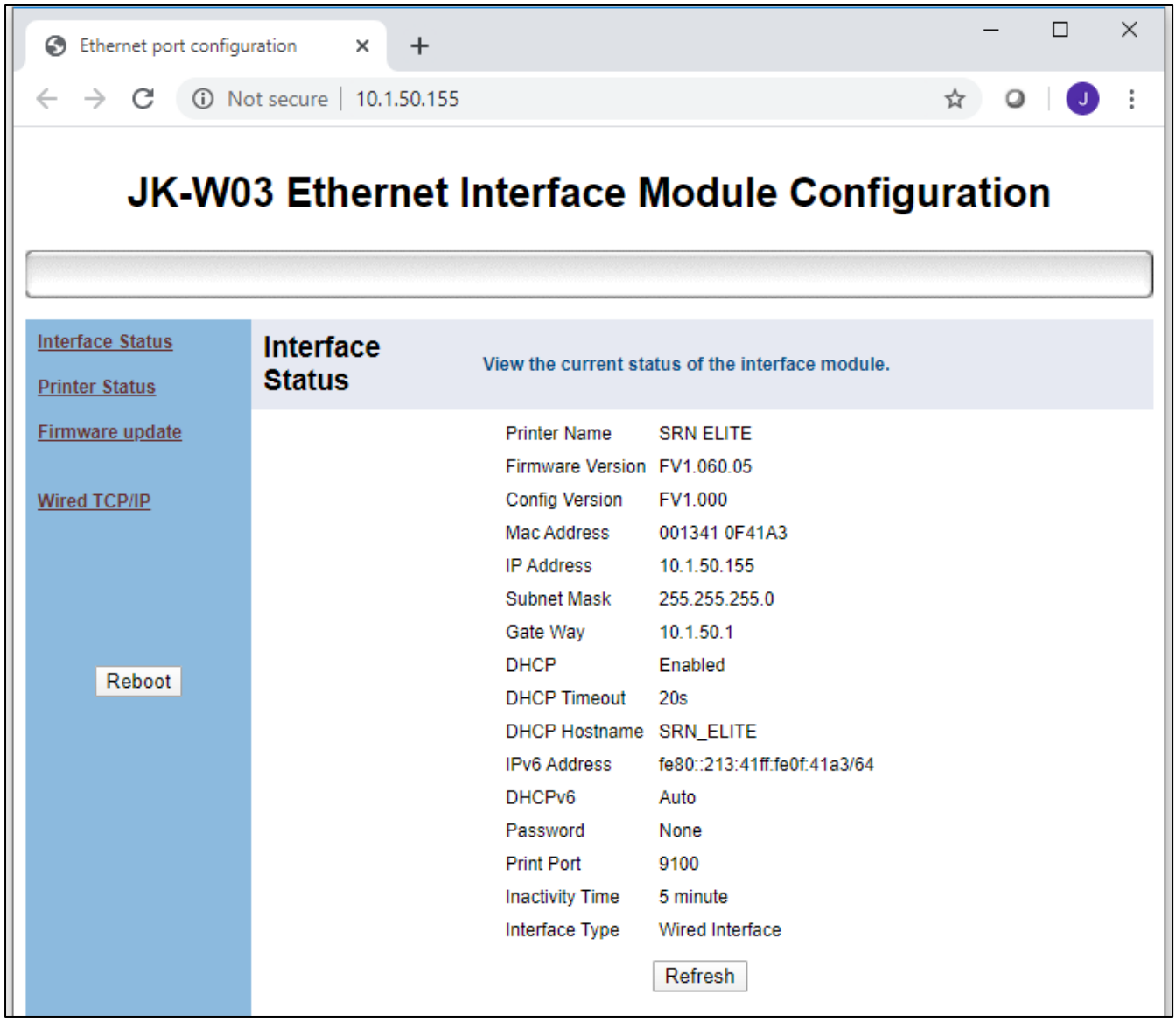




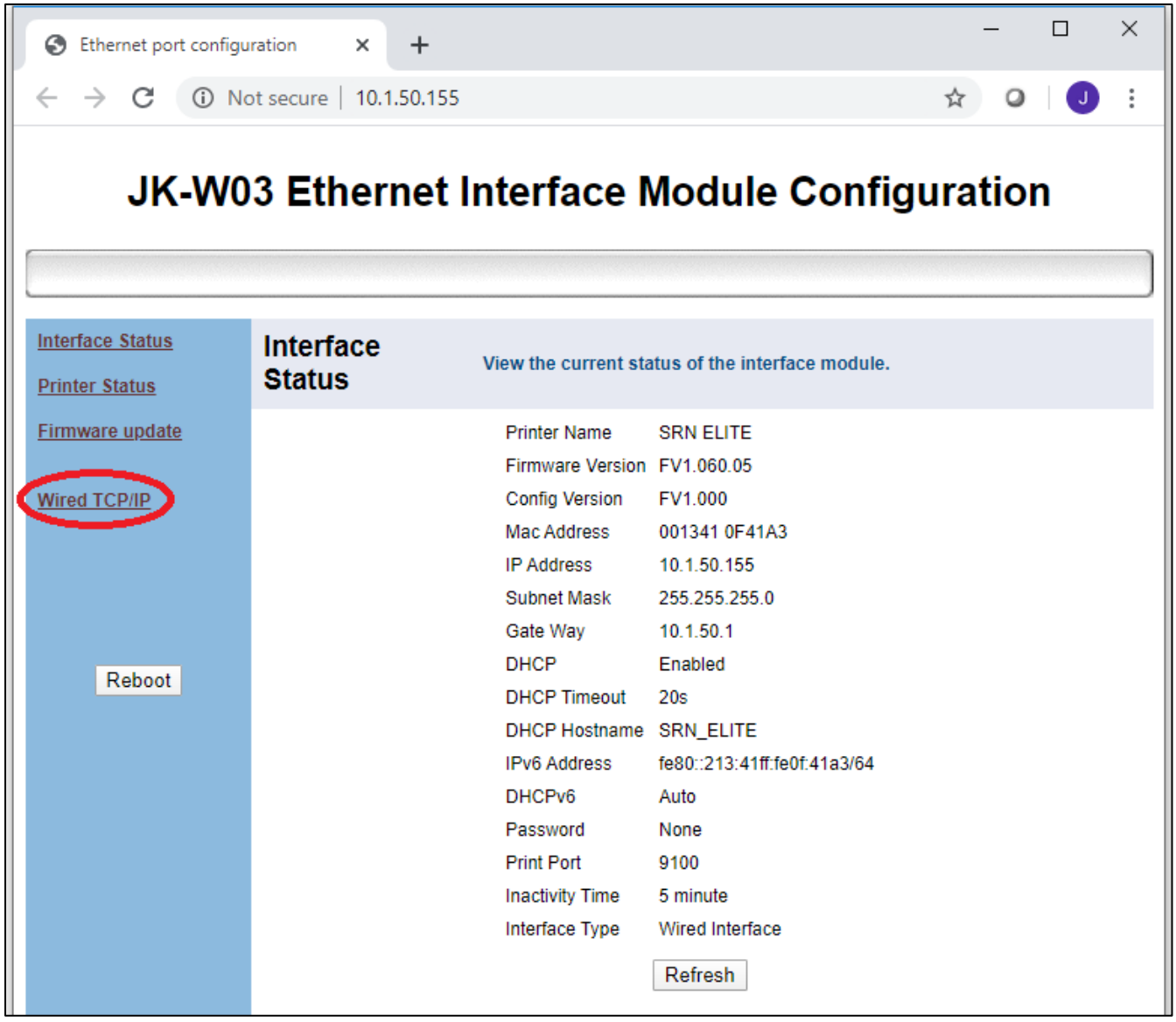
Configuring network printers

Click on the **Printers** tab to view the active list of printers.
Click on the link in the **Admin** column to be redirected to that printer's admin web page.

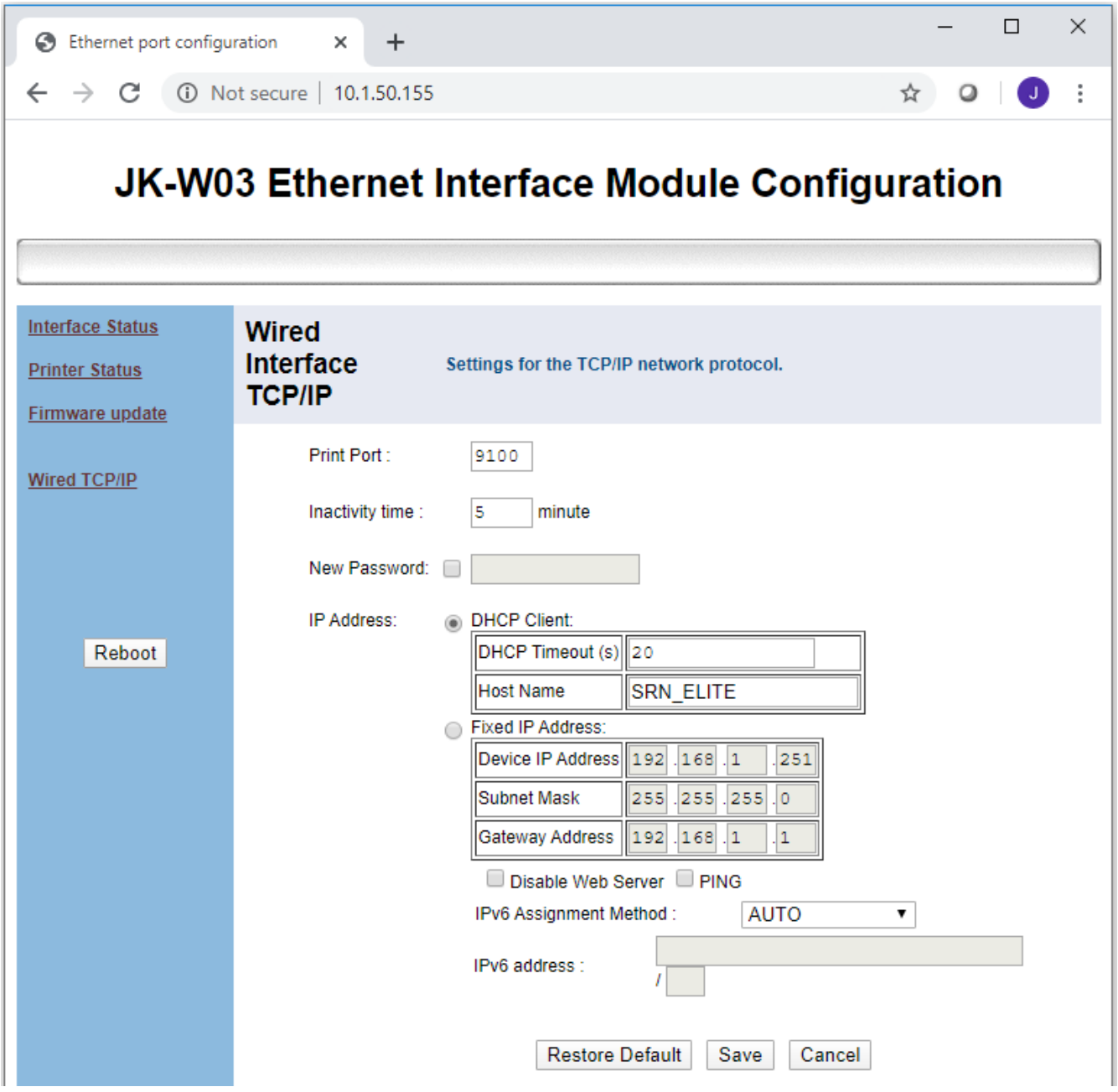



Ethernet port configuration
Not secure | 10.1.50.155
JK-W03 Ethernet Interface Module Configuration
Interface Status
Printer Status
Firmware update
Wired TCP/IP
Reboot
Interface Status
View the current status of the interface module.
Printer Name SRN ELITE
Firmware Version FV1.060.05
Config Version FV1.000
Mac Address 001341 0F41A3
IP Address 10.1.50.155
Subnet Mask 255.255.255.0
Gate Way 10.1.50.1
DHCP Enabled
DHCP Timeout 20s
DHCP Hostname SRN_ELITE
IPv6 Address fe80::213:41ff:fe0f:41a3/64
DHCPv6 Auto
Password None
Print Port 9100
Inactivity Time 5 minute
Interface Type Wired Interface
Refresh

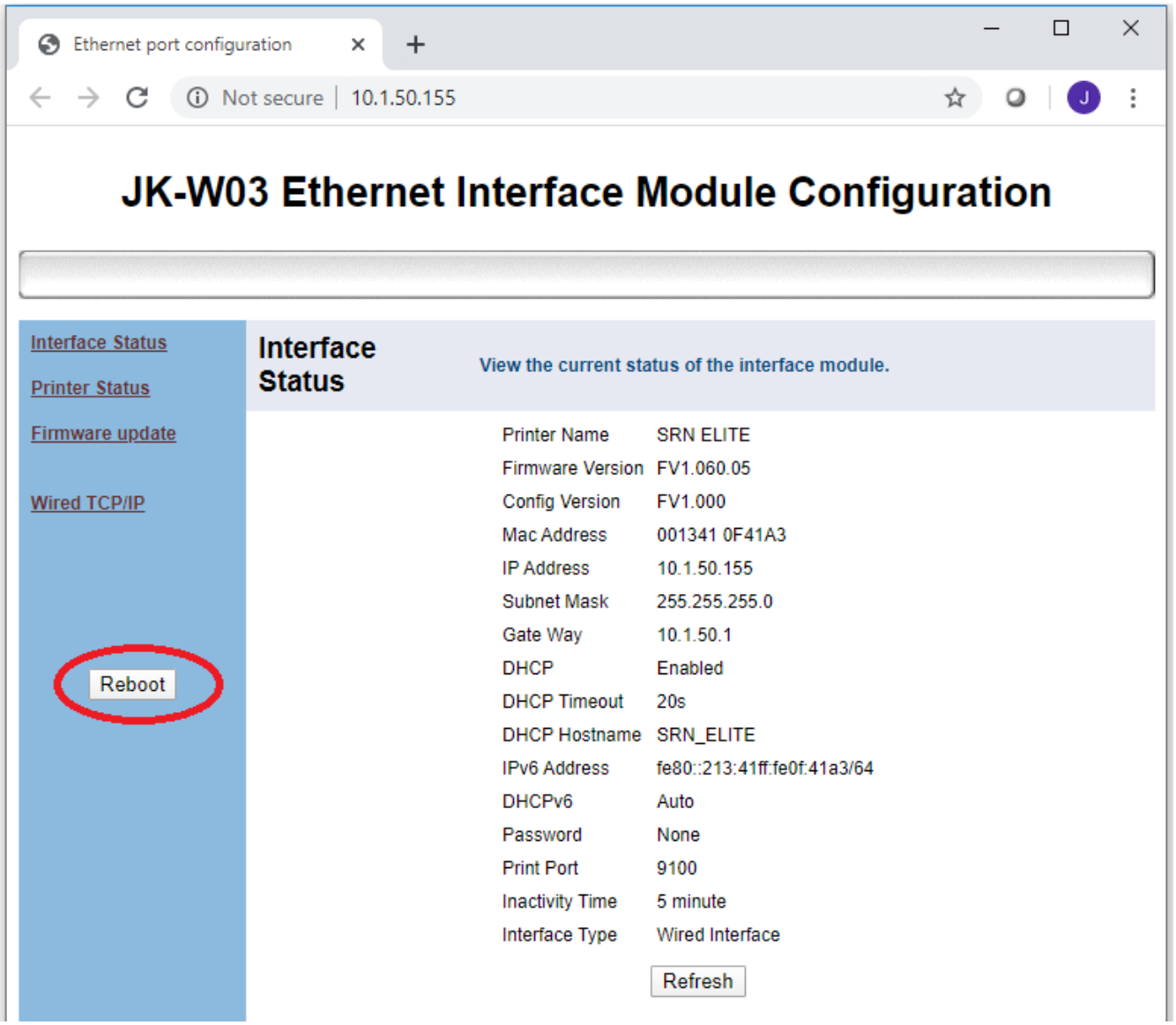
Click on the **Wired TCP/IP** link to change printer network parameters.



Use this page to add a password, configure the printer for a fixed IP address, disable the web server or restore the printer to factory default settings.

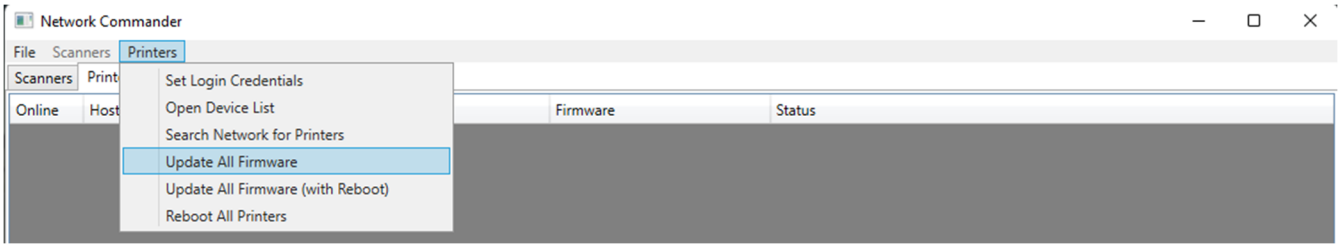


Click on the **Reboot** button to reboot the printer so all changes can take place.



Updating Printer Firmware

From the **Printers** menu, the **Update All Firmware** option will update firmware for all active printers in the list. Be sure to use the **Set Login Credentials** option, from the **Printers** menu first (same as for scanners) if your printers use non-default admin credentials.

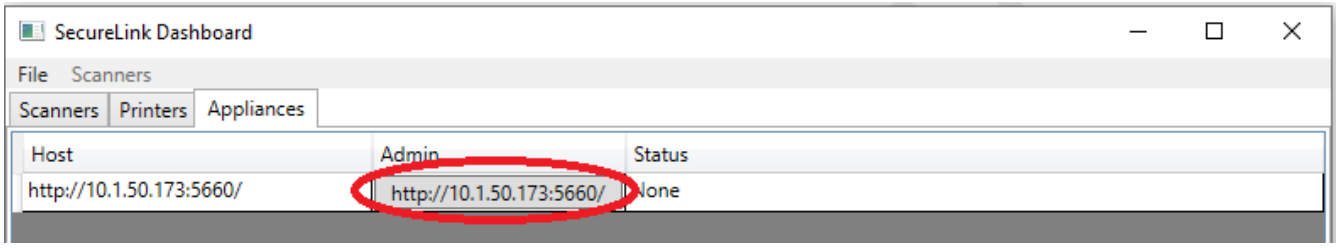


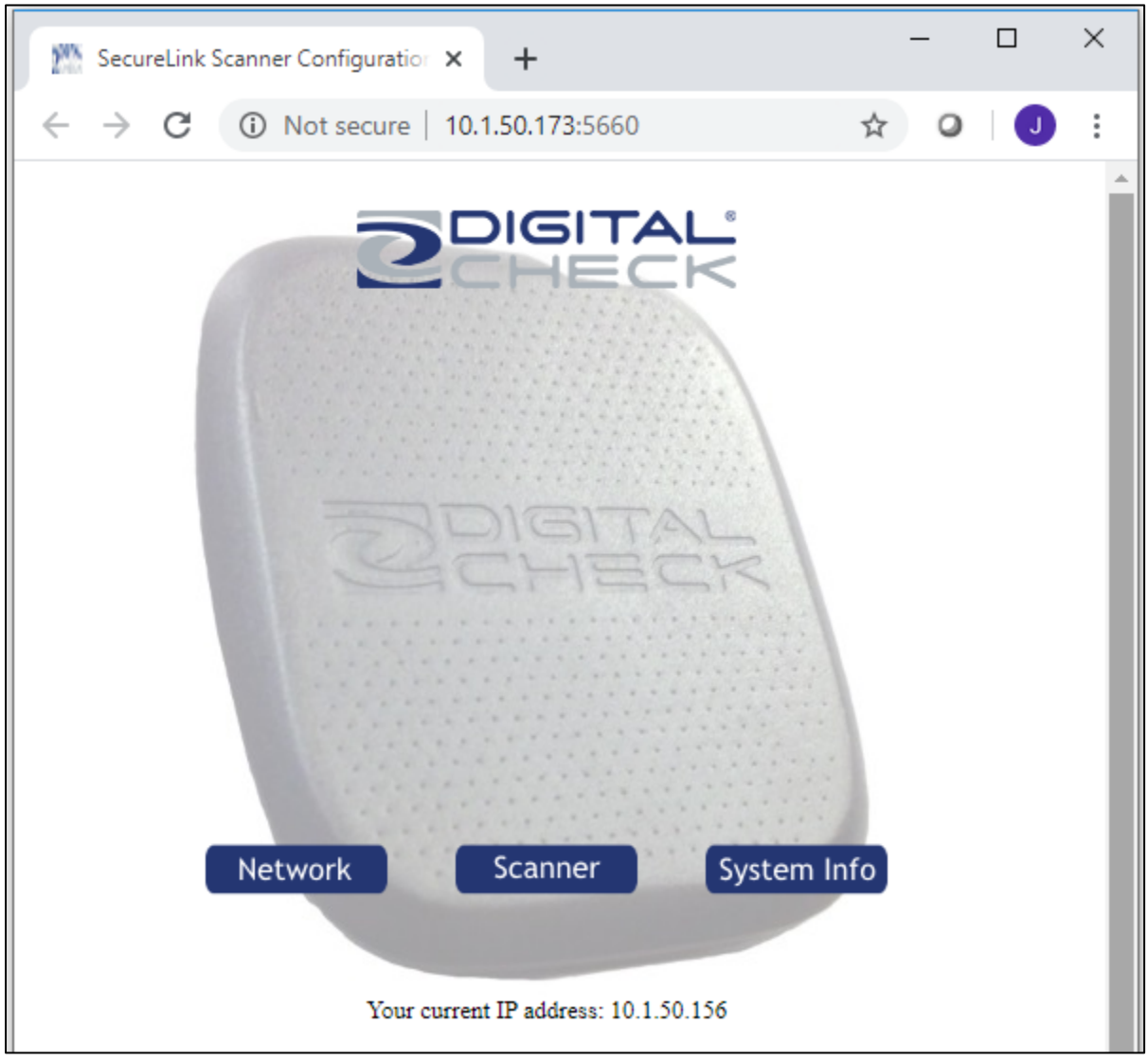
Some older printers won't reboot themselves automatically after this update, so an alternative option **Update All Firmware (with Reboot)** is provided for these cases.

Configuring SecureLink 2.0 Appliances

Click on the **Appliances** tab to view the active list of Appliances.

Click on the link in the **Admin** column to be redirected to that Appliance's admin web page which can be used to configure the Appliance.



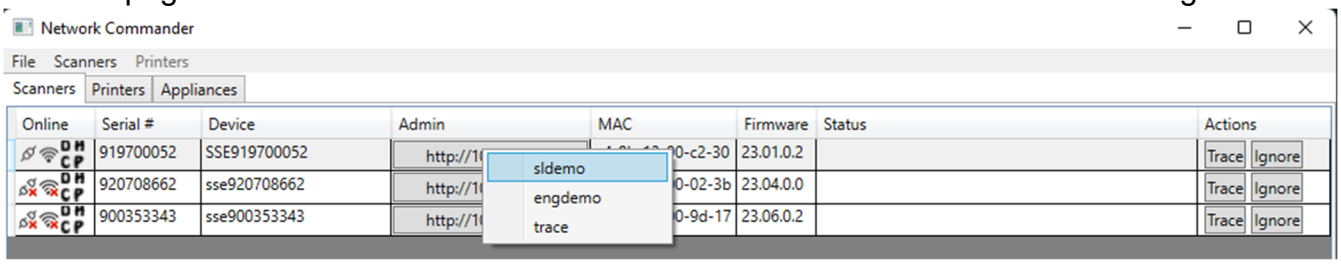


Troubleshooting SecureLink 2.0-Embedded scanners

Accessing embedded web pages

Network Commander provides quick links to embedded web pages.

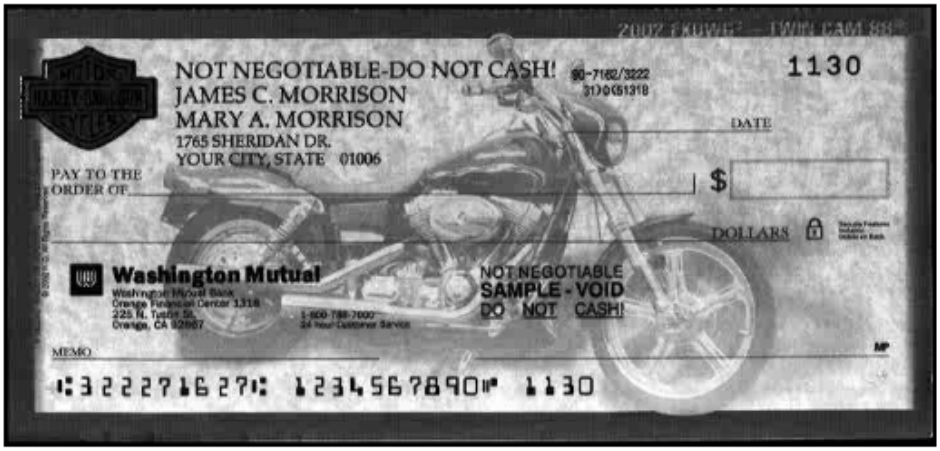
Right-click on the link in the **Admin** column to get a list of embedded web pages. The **sldemo** page can be used to exercise the scanner and view SecureLink 2.0 messages.

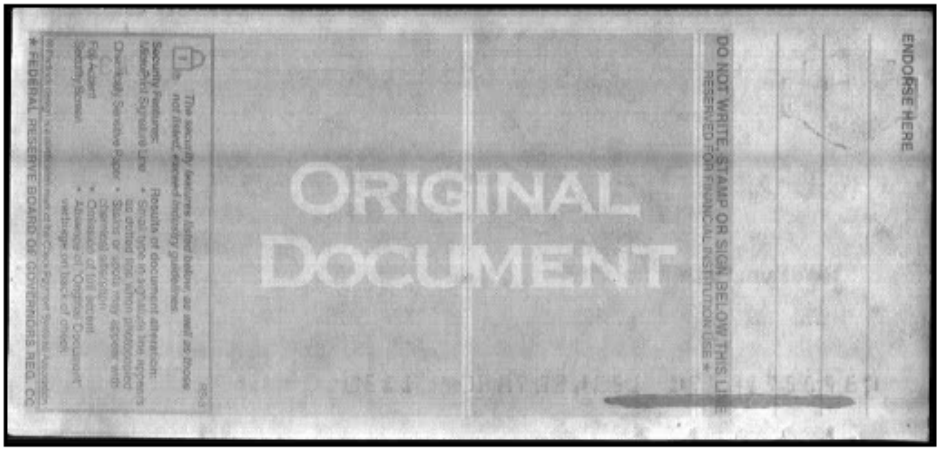


Digital Check Corp.

Not secure | 10.1.50.180/sldemo.html

Connect | Get Parameters | Scan One | Scan ID | Scan Batch | Eject Document | Disconnect | Clear Log



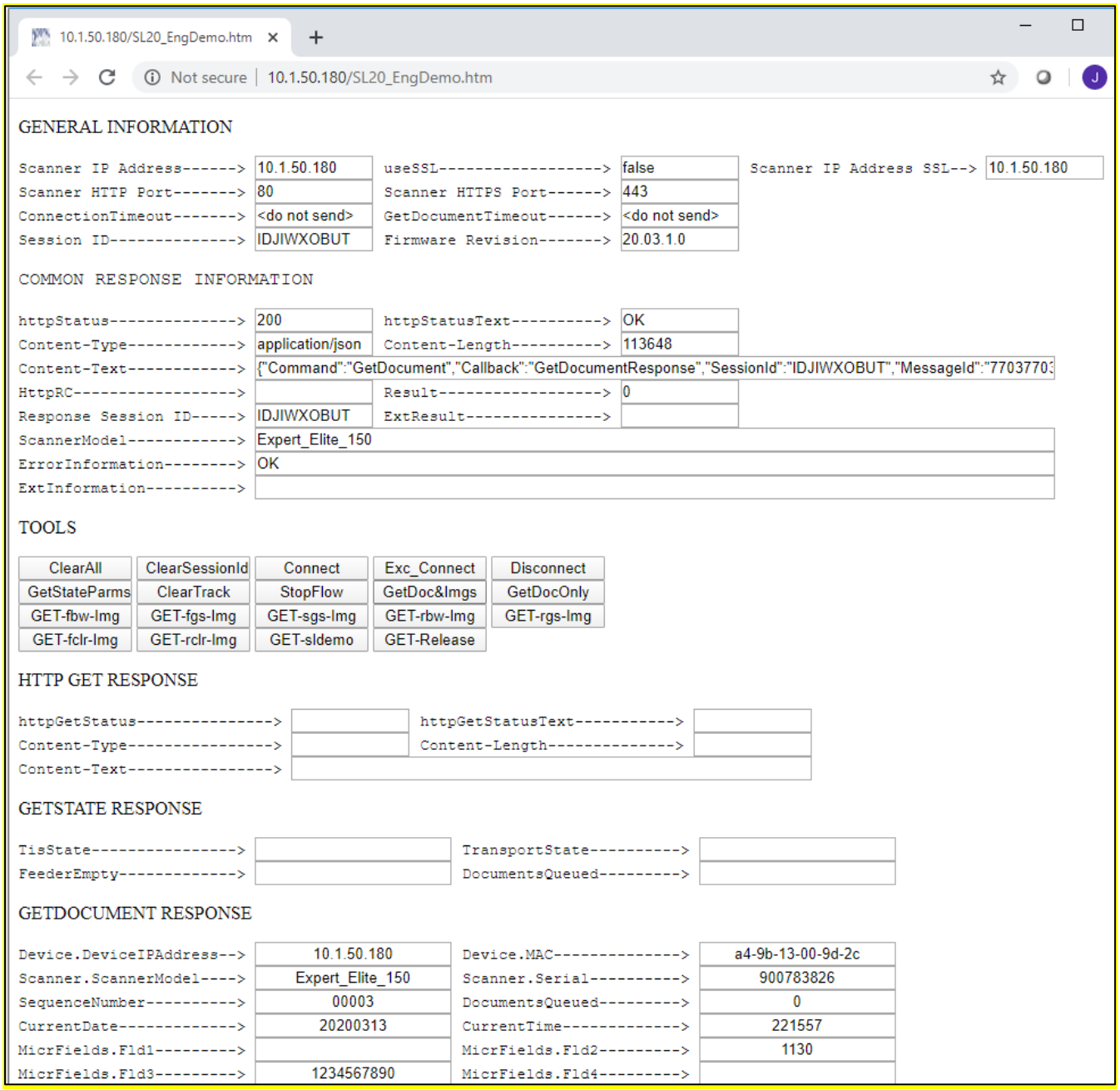


MICR: C322271627C 1234567890B 1130

JSON Response:

```
    "IncludeImages": "true",
    "Timeout": "5000"
}
1584137587423: (I) GetDoc has returned (2212 ms)
1584137587424:   Command: GetDocument
1584137587426:   Callback: Callback
1584137587427:   SessionId: BYVQTMUWAQ
1584137587428:   MessageId: 42
1584137587429:   Copyright: Digital Check Corp 2019
1584137587430:   Device{
```

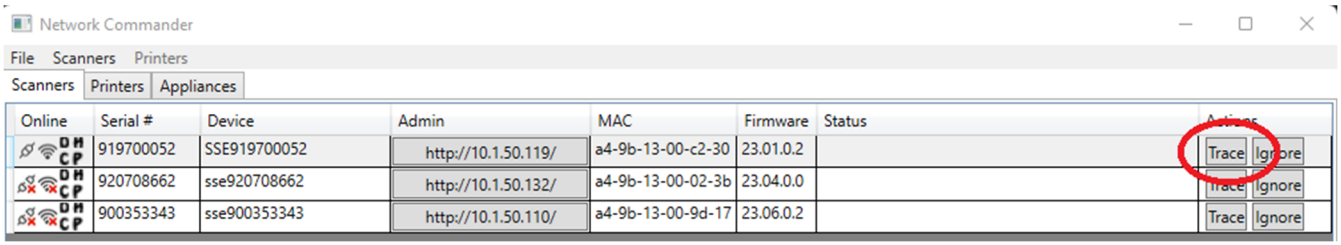
The **engdemo** page is designed for developers and can also be used to exercise the scanner.



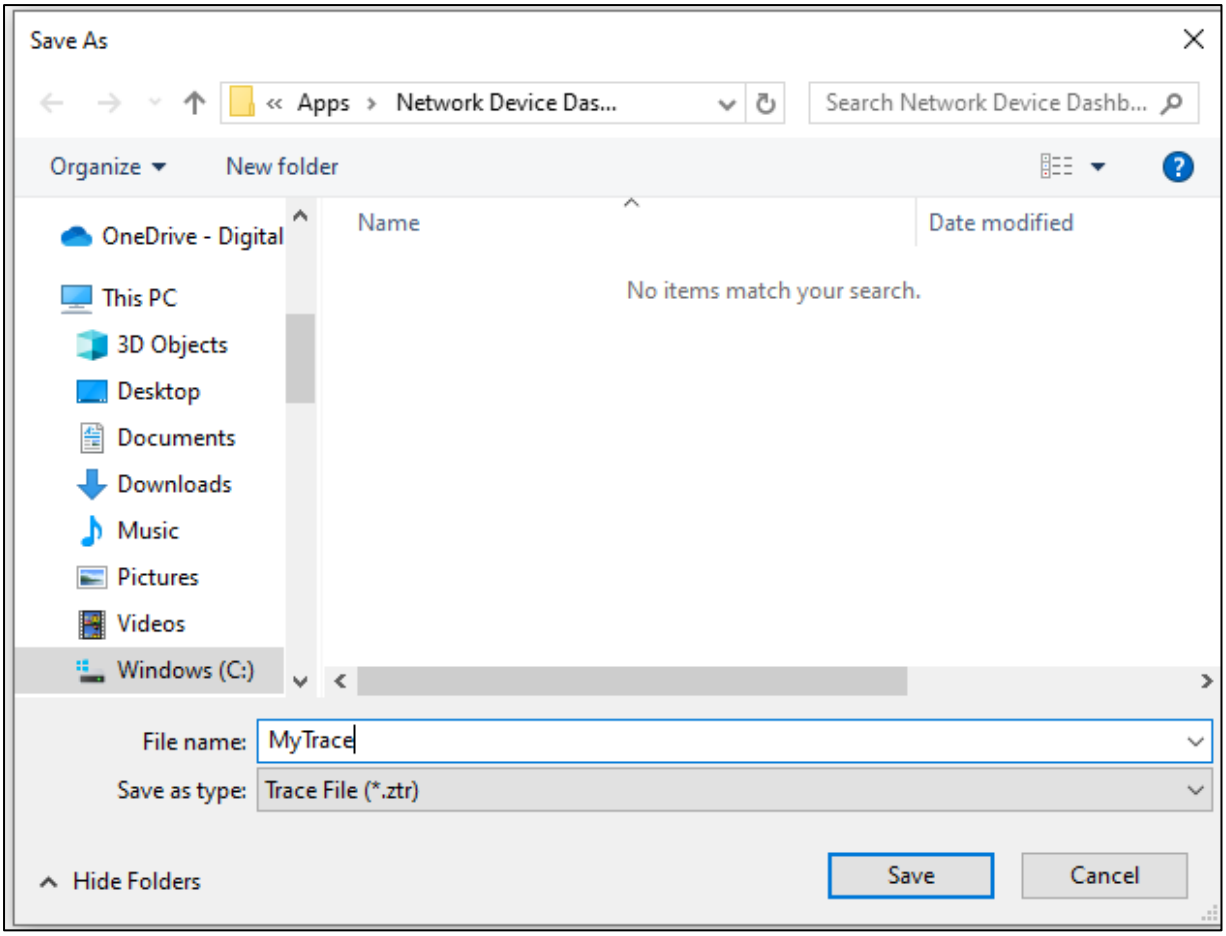
Downloading an API log file or "Trace"

DCC Support Analysts may request an API log or "Trace" to assist in troubleshooting issues. A button is provided for each SecureLink 2.0-Embedded scanner in the Dashboard.

Click on the **Trace** button to begin the download process.



Save the Trace file to the desired location.

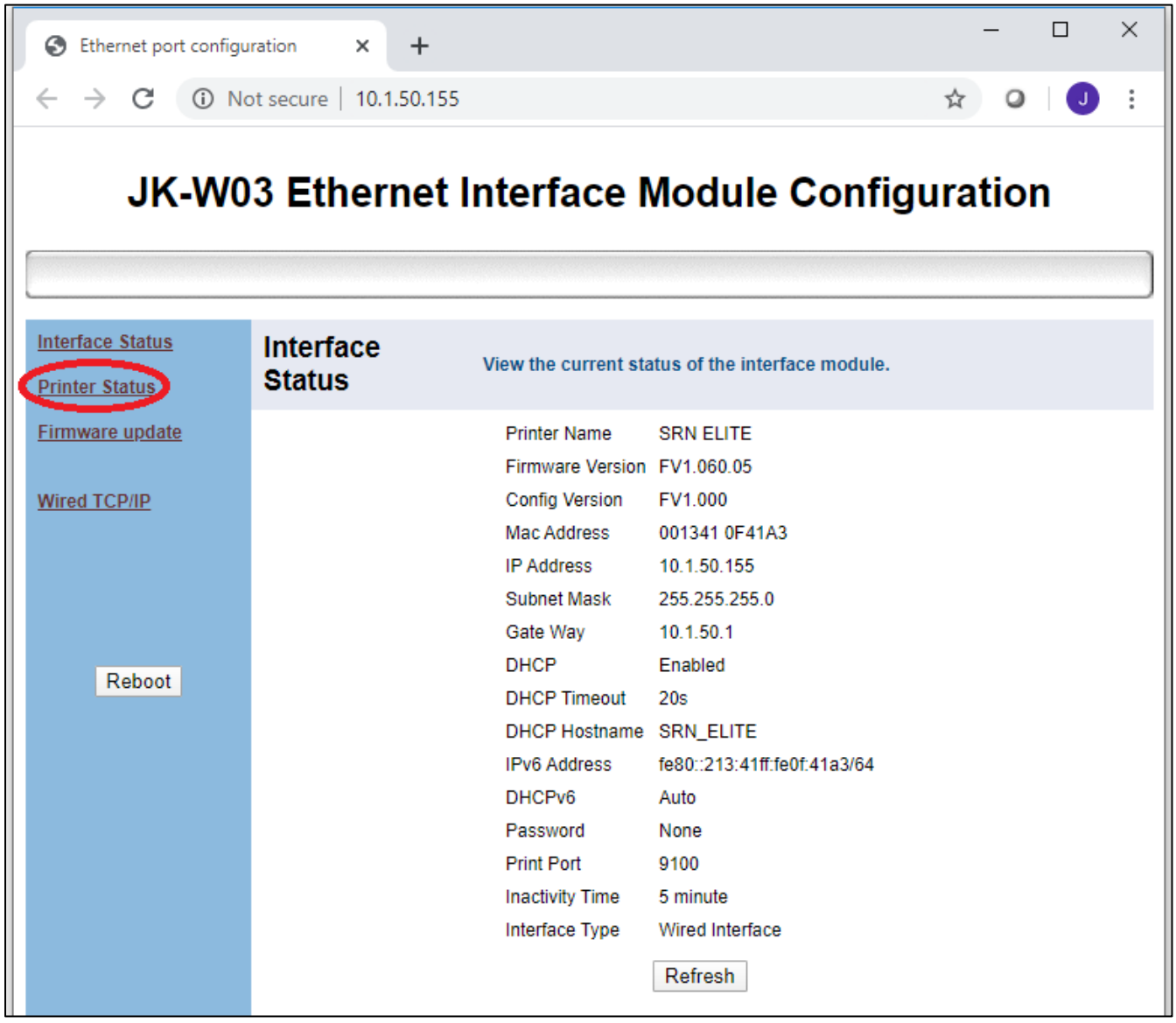


Troubleshooting Network printers

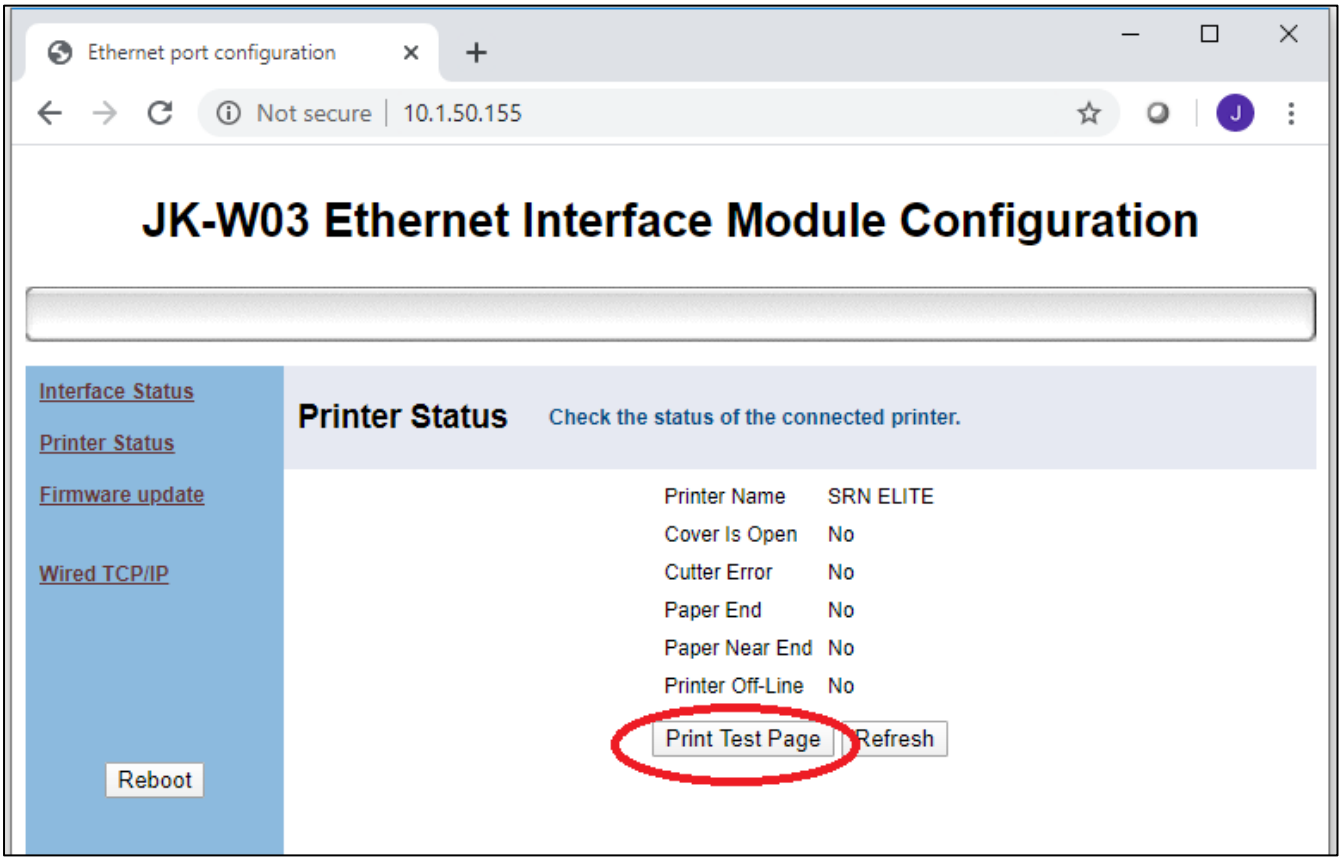
Click on the **Printers** tab to view the active list of printers.

Click on the link in the **Admin** column to be redirected to that printer's admin web page. The printer's interface status is shown.

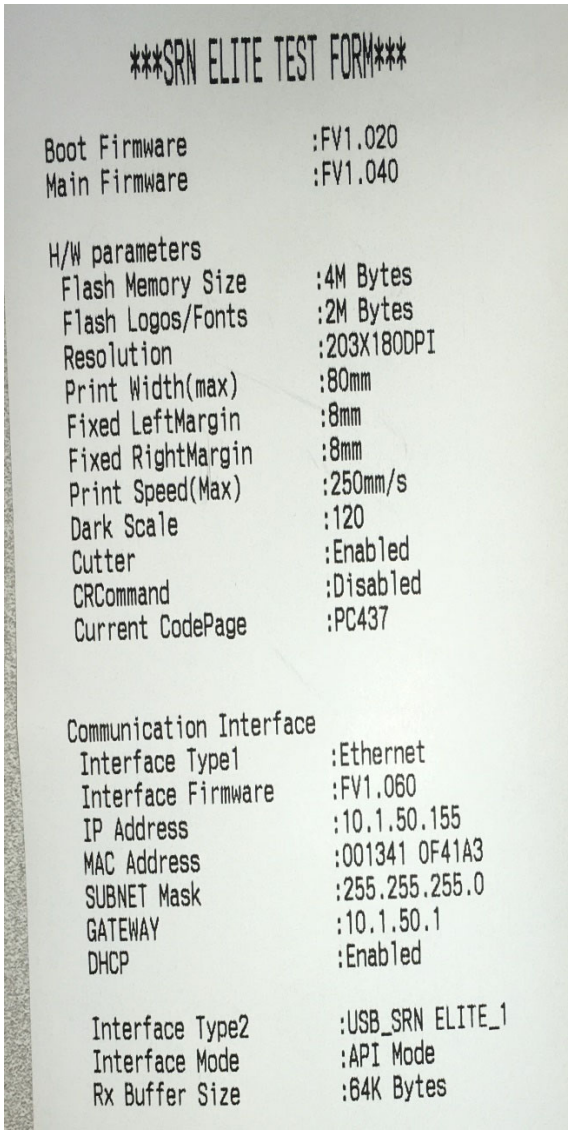
Click on the **Printer Status** link to check the status of the network printer.



Click on the **Print Test Page** button to print a test page.

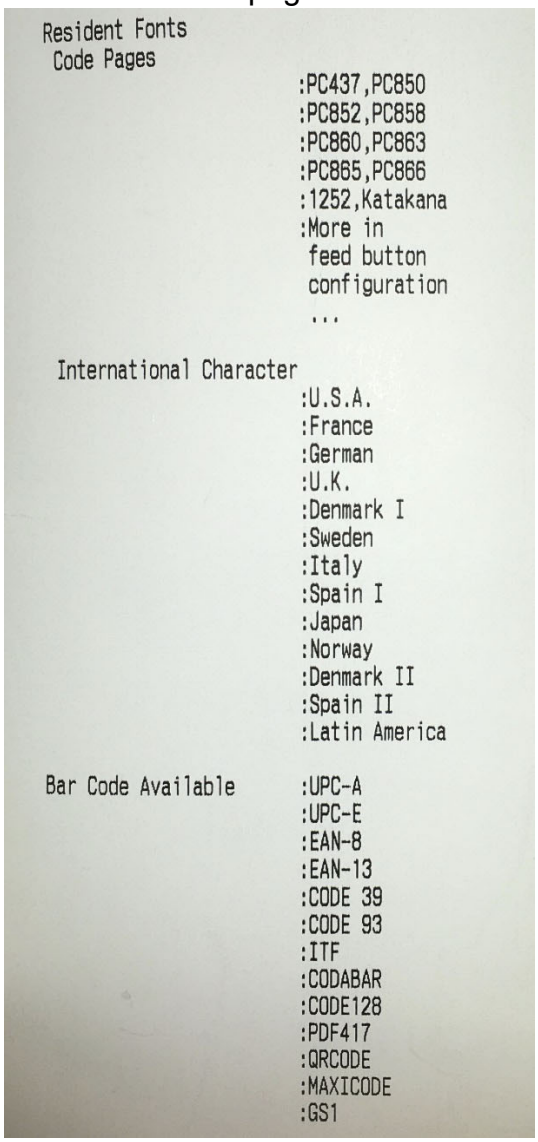


Additional configuration information can be found on the test page.



SRN ELITE TEST FORM

Boot Firmware	:FV1.020
Main Firmware	:FV1.040
H/W parameters	
Flash Memory Size	:4M Bytes
Flash Logos/Fonts	:2M Bytes
Resolution	:203X180DPI
Print Width(max)	:80mm
Fixed LeftMargin	:8mm
Fixed RightMargin	:8mm
Print Speed(Max)	:250mm/s
Dark Scale	:120
Cutter	:Enabled
CRCommand	:Disabled
Current CodePage	:PC437
Communication Interface	
Interface Type1	:Ethernet
Interface Firmware	:FV1.060
IP Address	:10.1.50.155
MAC Address	:001341 0F41A3
SUBNET Mask	:255.255.255.0
GATEWAY	:10.1.50.1
DHCP	:Enabled
Interface Type2	:USB_SRN ELITE_1
Interface Mode	:API Mode
Rx Buffer Size	:64K Bytes

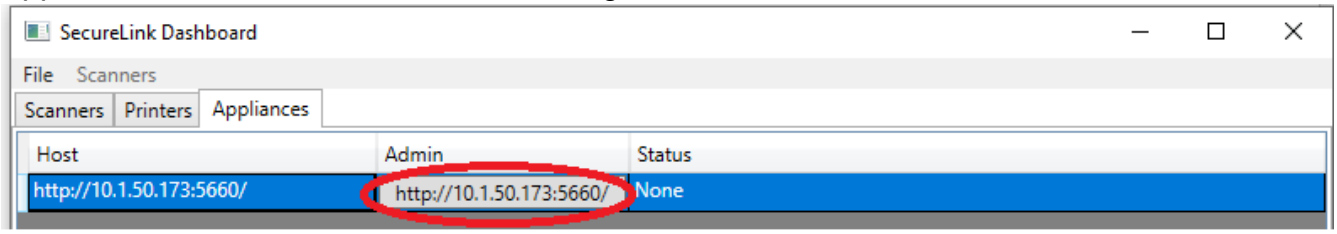


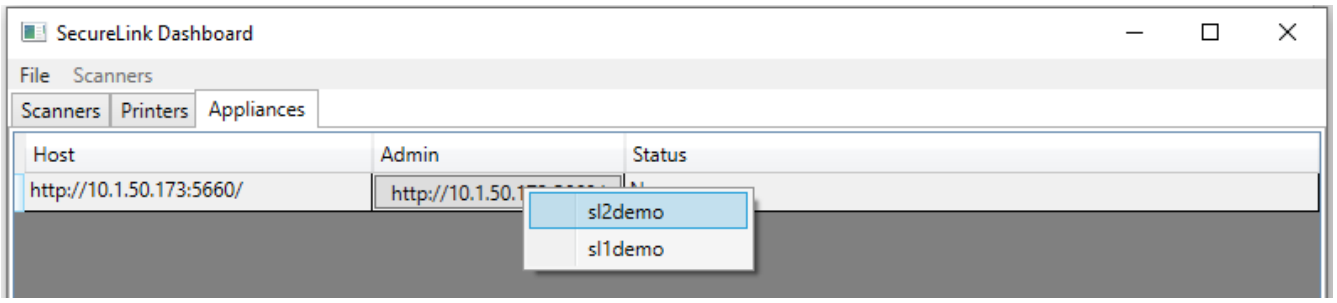
Resident Fonts	
Code Pages	:PC437,PC850
	:PC852,PC858
	:PC860,PC863
	:PC865,PC866
	:1252,Katakana
	:More in feed button configuration
	...
International Character	
	:U.S.A.
	:France
	:German
	:U.K.
	:Denmark I
	:Sweden
	:Italy
	:Spain I
	:Japan
	:Norway
	:Denmark II
	:Spain II
	:Latin America
Bar Code Available	:UPC-A
	:UPC-E
	:EAN-8
	:EAN-13
	:CODE 39
	:CODE 93
	:ITF
	:CODABAR
	:CODE128
	:PDF417
	:QRCODE
	:MAXICODE
	:GS1

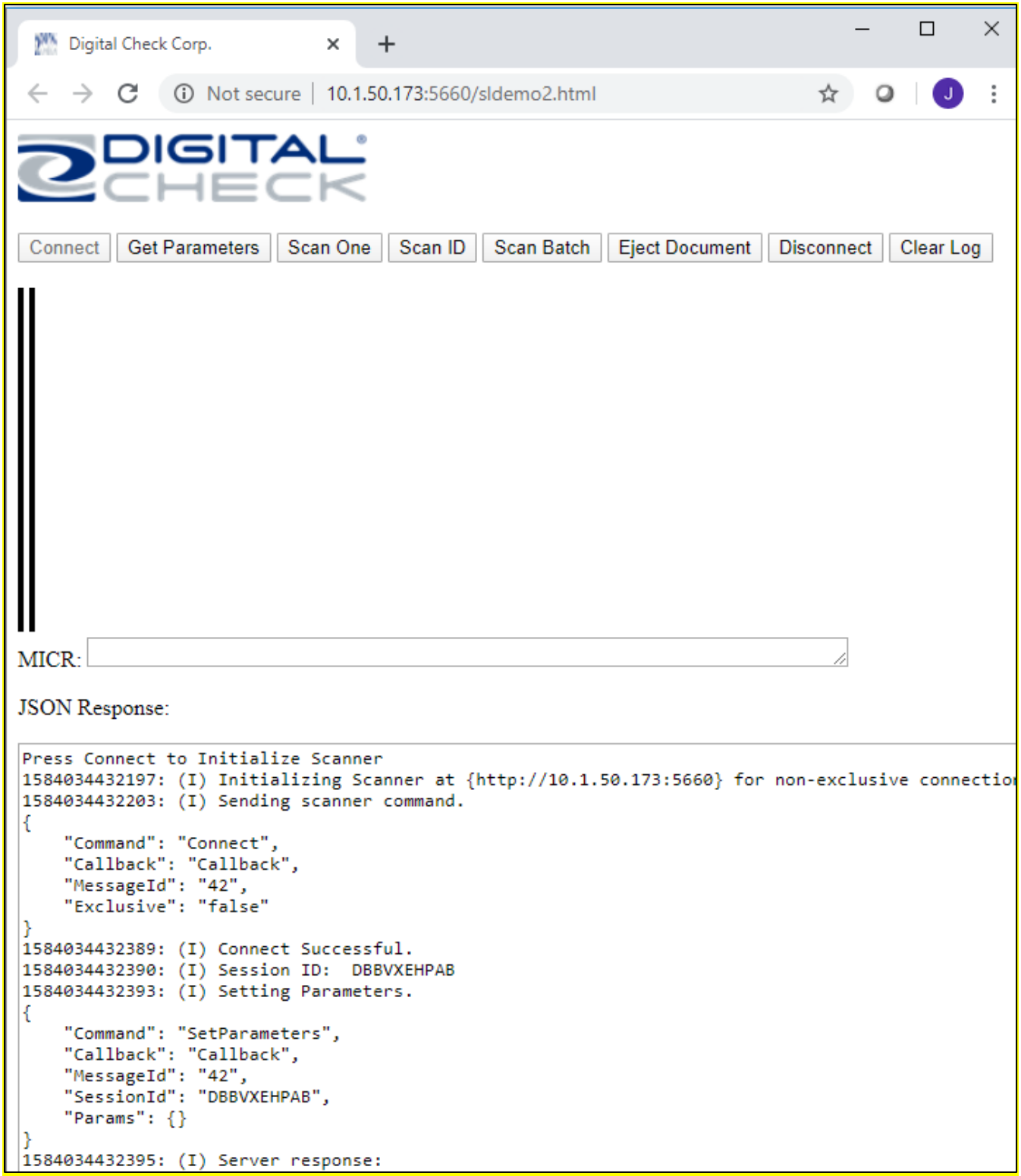
Troubleshooting SecureLink 2.0 Appliances

Right-click on the link in the **Admin** column to get a list of Appliance demo pages.

The **sldemo2** page can be used to exercise a scanner connected to the SecureLink 2.0-Appliance and view SecureLink 2.0 messages.






Digital Check Corp.
Not secure | 10.1.50.173:5660/sldemo2.html
Connect
Get Parameters
Scan One
Scan ID
Scan Batch
Eject Document
Disconnect
Clear Log
MICR:
JSON Response:
Press Connect to Initialize Scanner
1584034432197: (I) Initializing Scanner at {http://10.1.50.173:5660} for non-exclusive connectio
1584034432203: (I) Sending scanner command.
{
"Command": "Connect",
"Callback": "Callback",
"MessageId": "42",
"Exclusive": "false"
}
1584034432389: (I) Connect Successful.
1584034432390: (I) Session ID: DBBVXEHPAB
1584034432393: (I) Setting Parameters.
{
"Command": "SetParameters",
"Callback": "Callback",
"MessageId": "42",
"SessionId": "DBBVXEHPAB",
"Params": {}
}
1584034432395: (I) Server response:

Other Operations

Reboot Printers

Reboots all printers in the active list.

Run Config Script

Choose a JSON file describing a “program” of API calls to execute against all devices in the active list. This JSON file must have a root child named “program” containing an array of “command” objects. Each command object has a key “command” with a string value with the name of a SL2.0 command, and if necessary, a key “args” that depends on the command. See the included example **jsonprog-testall.json** that demos many of the supported commands. Other commands that are supported include changing the admin credentials (via the setAdmin command), and configuring the CA for self-generated SSL certificates (via setCertInfo, uploadCACertificate, and uploadCAKey commands).

jsonprog-testall.json

```
{
	"program": [
		{
			"command": "setNetworkInfo",
			"args": {
				"CAPIBroadcast": true
			}
		},
		{
			"command": "connect",
			"args": {
				"Exclusive": false
			}
		},
		{
			"command": "setParameters",
			"args": {
				"fbwEnabled": true
			}
		},
		{
			"command": "disconnect"
		},
		{
			"command": "UploadSSLCertificate",
			"args": "C:\\sl demos\\Sample Certs\\DigitalCheck_Cert.der"
		},
		{
			"command": "UploadSSLKey",
			"args":"C:\\sl demos\\Sample Certs\\DigitalCheck_Key.der"
		},
		{
			"command": "UploadFirmware",
			"args": "C:\\sl demos\\fw\\Teller-ExEl-EDS.hex"
		},
		{
			"command": "reboot"
		}
	]
}
```