

Seeker

v0.0.1

A PowerShell Web Scraper for Cisco Unified IP Phones

Description:

The Seeker PowerShell utility tests connections to both the phone's Internet Protocol (IP) address and the HyperText Transfer Protocol (http) on port 80. If the phone is online and the web interface is enabled, Seeker scrapes the web page for the device's serial number, IP address, hostname, and Media Access Control (MAC) address. Seeker then generates two reports. A status report is created that describes if the process was successful, details if the device was unreachable, or if port 80 was not open. The second report contains an inventory of the device's serial number, IP address, hostname, and MAC address.

Before Running Seeker:

On the Cisco Unified Communications Manager

1. Work with your local VoIP workcenter to turn on the web function across all VoIP phones. (Instructions coming soon)
2. Work with your local VoIP/Infrastructure workcenter to ensure that Access Control Lists (ACLs) protecting the VoIP networks allow Transmission Control Port (TCP) port 80 from the host network containing Seeker.

On the workstation with Seeker

1. Extract the contents of the Seeker.zip file.
2. Open PowerShell
3. Change directory using the `cd` command.
 - a. (e.g. `cd C:\Users\1252191310E\Desktop\Seeker`)
4. Close both the phone `_inventory.csv` and `phone_status_report.csv` if opened.

Running Seeker:

Note: Seeker v0.0.1 can only scan up to a /24 or class C subnet. Seeker requires the parameters to be inputted correctly for it to work.

On the workstation with Seeker

1. Run Seeker as show in the example.

```
PS C:\Users\1252191310E\Desktop\Seeker> .\seeker.ps1 -network 172.16.172. -start 1 -end 254
```

Seeker takes mandatory `[-network]`, `[-start]`, and `[-end]` parameters.

`[-network]` : First three octets of the network to be scanned followed by a ".".

Example: 172.16.172.

10.10.10.

192.168.1.

[-start] : First IP address in the network to be scanned.

Example: 1

50

100

[-end] : Last IP address in the network be scanned. (NEVER ENTER THE BROADCAST)

Example: 254

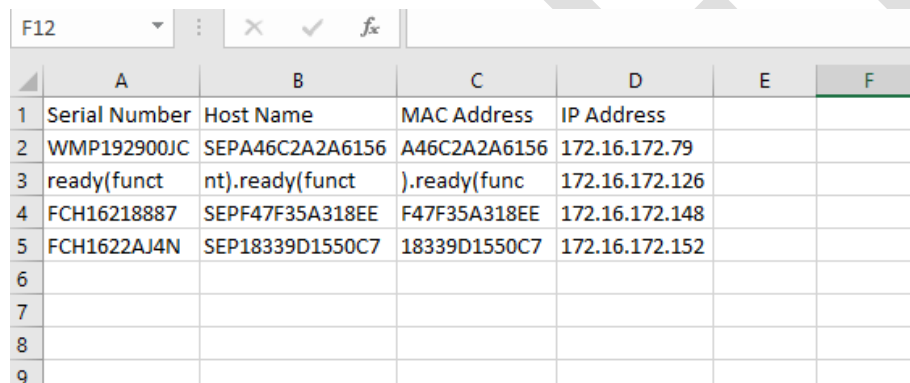
75

200

After Running Seeker:

On the workstation with Seeker

1) Open phone_inventory.csv within the Seeker folder.



	A	B	C	D	E	F
1	Serial Number	Host Name	MAC Address	IP Address		
2	WMP192900JC	SEPA46C2A2A6156	A46C2A2A6156	172.16.172.79		
3	ready(func	nt).ready(func).ready(func	172.16.172.126		
4	FCH16218887	SEPF47F35A318EE	F47F35A318EE	172.16.172.148		
5	FCH1622AJ4N	SEP18339D1550C7	18339D1550C7	172.16.172.152		
6						
7						
8						
9						

- The phone_inventory.csv file contains the Serial Number, Host Name, MAC Address, and IP Address for all phone found.
- In the following example, notice the erroneous entry that is highlighted. This happens when devices that are not Cisco IP Phones are on the VoIP network. Take actions based on your local policy for moving non-VoIP phones off the VoIP network.

1	Serial Number	Host Name	MAC Address	IP Address
2	WMP192900JC	SEPA46C2A2A6156	A46C2A2A6156	172.16.172.79
3	ready(func	nt).ready(func).ready(func	172.16.172.126
4	FCH16218887	SEPF47F35A318EE	F47F35A318EE	172.16.172.148

2) Open phone_status_report.csv within the Seeker folder.

	A	B	C
1	Status	IP Address	
2	HTTP/Port 80 is not open	172.16.172.1	
3	Not Online	172.16.172.5	
4	HTTP/Port 80 is not open	172.16.172.78	
5	Success!	172.16.172.79	

- a. The phone_status_report.csv contains three status descriptions of each IP address that was scanned.
- i. **HTTP/Port 80 is not open** : The IP Address scanned was online and reachable, but the web interface was not enabled within call manager
 - ii. **Not Online** : There is no host for that IP address or Seeker traffic is blocked by ACLs.
 - iii. **Success!** : Seeker was able to reach the IP address and was able to connect to TCP port 80.

3) Close phone_status_report.csv and phone_inventory.csv before running Seeker again.