



ForeScout

Security Policy Templates

Configuration Guide

Version 19.0.12



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About the Documentation

- Refer to the Technical Documentation page on the Forescout website for additional documentation: <https://www.Forescout.com/company/technical-documentation/>
- Have feedback or questions? Write to us at documentation@forescout.com

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Table of Contents

About Security Policy Templates	5
Tracking Vulnerable and Infected Endpoints.....	5
Requirements.....	6
Installation	8
Configuration	10
Enable a Classification Policy	10
Replace Existing Policies.....	10
Statistics and Status Reports	11
Policy Dashboard Widgets	11
Testing Policies	11
Policy Templates included in this Module	13
AMDflaws	13
Apache	13
Bad Rabbit	14
BLEEDINGBIT	14
BlueKeep.....	15
Cisco ACI	15
Cisco ASA.....	15
Cisco IOS and IOS XE	16
Cisco RV	16
CredSSP.....	17
DTEN.....	17
EsteemAudit	18
EternalBlue.....	18
Exim.....	19
Exposed Servers	19
Foreshadow	20
Git.....	20
GoAhead	20
Google Chrome	21
Intel SA-00075 AMT/ISM/SBT	21
Intel SA-00086 ME/SPS/TXE	22
IoT Reaper	23
JBoss.....	23
Jira.....	23
macOS High Sierra Admin Bypass	24
MDS	24

Meltdown	25
Mirai	25
PAN GlobalProtect	26
Petya	26
PHP	26
RingCentral Meetings	27
SamSam	27
Satan	28
Schneider Electric SCADA/HMI	28
Spectre	29
SSL Vulnerability	29
UPnP Servers	29
VMWare Workstation/Fusion	30
VPNFilter Malware	31
WannaCrypt/WannaCry	31
WPA2 KRACK	32
Zoom	33
Additional Forescout Documentation.....	33
Documentation Downloads	33
Documentation Portal	34
Forescout Help Tools.....	34
Third Party Tools.....	35

About Security Policy Templates

Security Policy Templates use existing Forescout functionality to detect, evaluate and respond to vulnerabilities and threats - speeding and simplifying your network response. When this module is installed, templates are available in the Policy view of the Console under the *Vulnerability and Response* sub-folder in the *Templates* tree. Security Policy Templates are named according to the format - *VR <vulnerability name>*. To work with these templates, it is recommended to:

- Read the release notes, and review policy logic in the Console's Policy view.
- Enable/add mitigation actions to generated policies.

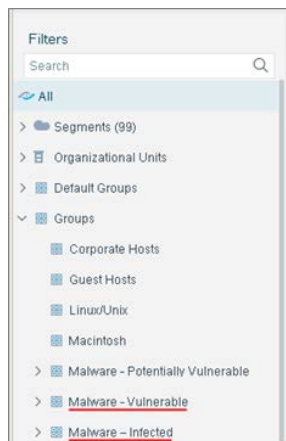
For details of working with Forescout policies, see the *Forescout Administration Guide*.

- 📖 *Review and understand the detection/logic model provided by Forescout in these templates before you add or edit rules, or make more extensive customizations.*

Tracking Vulnerable and Infected Endpoints

In addition to the actions applied by these policies, it is often useful to identify infected and vulnerable endpoints for further tracking and handling. To do this, the module creates standard folders in the Groups tree of the Filters pane of Home and Asset Inventory views.

Security Policy Templates use the **Add to Group** action to assign endpoints to the Malware-Vulnerable and Malware-Infected groups. See [Enable a Classification Policy](#).



Requirements

In addition to the requirements in this section, see the requirements for each template you wish to implement.

General:

- Windows Vulnerability DB 18.0.1 or above. Windows Vulnerability DB 18.0.5 or above to work with the VR CredSSP template.
- Windows PowerShell scripts must be allowed to run on Windows managed endpoints running Windows 7, Windows 20XX Server or above for working with VR Foreshadow, VR Meltdown and VR Spectre templates.
- To run policy actions on endpoints with SecureConnector installed, SecureConnector must be running as a service. When using the *Potentially Vulnerable - Latest Security Patches not Installed* sub rule on endpoints with dissolvable SecureConnector installed, it is recommended to run SecureConnector as an administrator.
- To run policy actions on endpoints with Remote Inspection, the user must have administrator privileges.
- To create policies that classify the network into CounterACT groups, make sure that either a Primary Classification or an Asset Classification policy is running on relevant endpoints, and The Add to Group actions in the classification policy are enabled.
- To take advantage of more precise classification profiles, create and run Primary Classification policies instead of Asset Classification policies.

Compatibility

- For information about the vendor models (hardware/software) and versions (product/OS) that are validated for integration with this Forescout component, refer to the [Forescout Compatibility Matrix](#).

If you are working with CounterACT 8.0, Forescout 8.1, or Forescout 8.2:

- Networking Module version 1.0 with the following components running:
 - Wireless Plugin for working with VR WPA2 KRACK and VR Cisco IOS/IOS-XE security templates.
 - VPN Concentrator for working with VR ASA security templates.
 - Switch Plugin for working with VR Cisco IOS/IOS-XE or VR CDP security templates.
- Endpoint Module version 1.0 with the following components running:
 - Linux Plugin for working with VR Intel SA-00075 AMT/ISM/SBT, VR Intel SA-00086 ME/SPS/TXE, and VR AMDflaws security templates.
 - OS X Plugin for working with VR macOS High Sierra Admin Bypass and VR AMDflaws security templates.
- Core Extensions Module version 1.0 with the Advanced Tools Plugin installed and running.

If you are working with CounterACT 7.0.0:

- An active Maintenance Contract for CounterACT devices is required.
- Wireless Plugin 1.5.1 or above must be installed and running to work with VR Cisco IOS/IOS-XE security templates.
- Switch Plugin 8.7.3 or above must be installed and running to work with VR Cisco IOS/IOS-XE or VR CDP security templates.
- Wireless Plugin 1.7.0.2009 or above is required for working with VR WPA2 KRACK security templates.
- VPN Concentrator Plugin 4.0.6 or above installed and running for working with VR ASA security templates.
- Linux Plugin version 1.1.0 or above installed and running for working with VR Intel SA-00075 AMT/ISM/SBT, VR Intel SA-00086 ME/SPS/TXE, and VR AMDflaws security templates.
- OS X Plugin version 1.2.0 or above installed and running for working with VR macOS High Sierra Admin Bypass and VR AMDflaws security templates.
- Advanced Tools Plugin version 2.2.0.1 or above installed and running.

Installation

Before installing the latest Security Policy Templates, make sure you have installed all the required dependencies, for example, the Windows Vulnerability DB.


If you are working with CounterACT 8.0, Forescout 8.1, or Forescout 8.2:


To install the module:

1. Navigate to one of the following Forescout download portals, depending on the licensing mode your deployment is using:
 - [Product Updates Portal](#) - **Per-Appliance Licensing Mode**
 - [Customer Portal, Downloads Page](#) - **Flexx Licensing Mode**

To identify your licensing mode, select **Help > About ForeScout** from the Console.

2. Download the module `.fpi` file.
3. Save the file to the machine where the Console is installed.
4. Log into the Console and select **Options** from the **Tools** menu.
5. Select **Modules**. The Modules pane opens.
6. Select **Install**. The Open dialog box opens.
7. Browse to and select the saved module `.fpi` file.
8. Select **Install**. The Installation screen opens.
9. Select **I agree to the License Agreement** to confirm that you have read and agree to the terms of the License Agreement and select **Install**. The installation cannot proceed unless you agree to the license agreement.

 *The installation begins immediately after selecting Install and cannot be interrupted or canceled.*

 *In modules that contain more than one component, the installation proceeds automatically one component at a time.*

10. When the installation completes, select **Close** to close the window. The installed module is displayed in the Modules pane.

 *Some components are not automatically started following installation.*

If you are working with CounterACT 7.0.0:

To install the plugin:

1. Navigate to the [Product Updates Portal, Base Plugins](#) page and download the plugin `.fpi` file.
2. Save the file to the machine where the CounterACT Console is installed.
3. Log into the CounterACT Console and select **Options** from the **Tools** menu.
4. Select **Plugins**. The Plugins pane opens.

5. Select **Install**. The Open dialog box opens.
6. Browse to and select the saved plugin **.fpi** file.
7. Select **Install**.
8. An installation or upgrade information dialog box and a license agreement dialog box will open. Accept the license agreement to proceed with the installation.
9. Once the installation is complete, select **Close**. The plugin is listed in the Plugins pane.

Configuration


Configure the plugin:

- [Enable a Classification Policy](#)
- [Replace Existing Policies](#)

Enable a Classification Policy

Security Policy Templates use the groups created by classification policies. Verify the following:

1. Either an Asset Classification or a Primary Classification policy is running on relevant endpoints.
2. The **Add to Group** actions in the classification policy are enabled.

 *To take advantage of more precise classification profiles, it is recommended to create and run Primary Classification policies instead of Asset Classification policies.*

Replace Existing Policies

To benefit from the updated policy templates provided in this release, remove previously created policies from the Forescout platform and create and activate new policies based on this release.

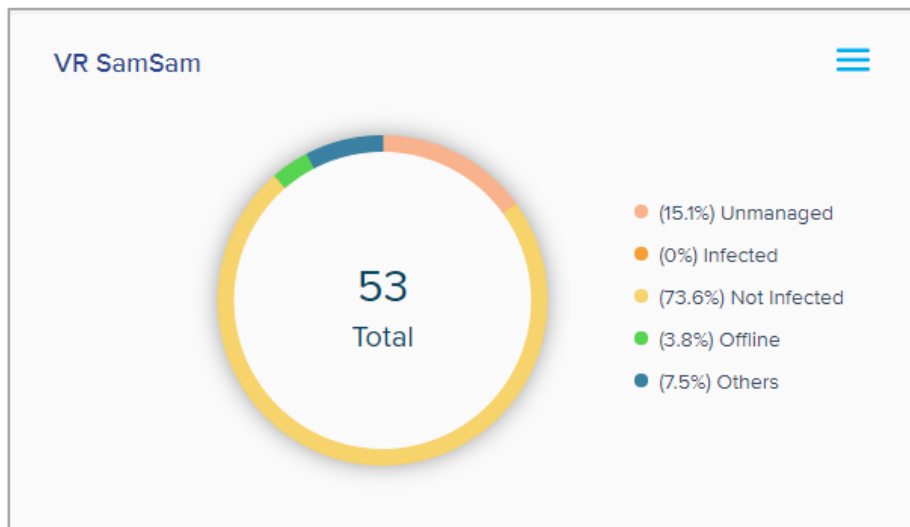
Statistics and Status Reports

This section describes tools that help you track the status of security policies you create.

- [Policy Dashboard Widgets](#)
- [Testing Policies](#)

Policy Dashboard Widgets

In CounterACT 8.0 and above, the Dashboard automatically creates a new widget for each installed Security Policy Template. The widget reports the current discovery status of the policy.



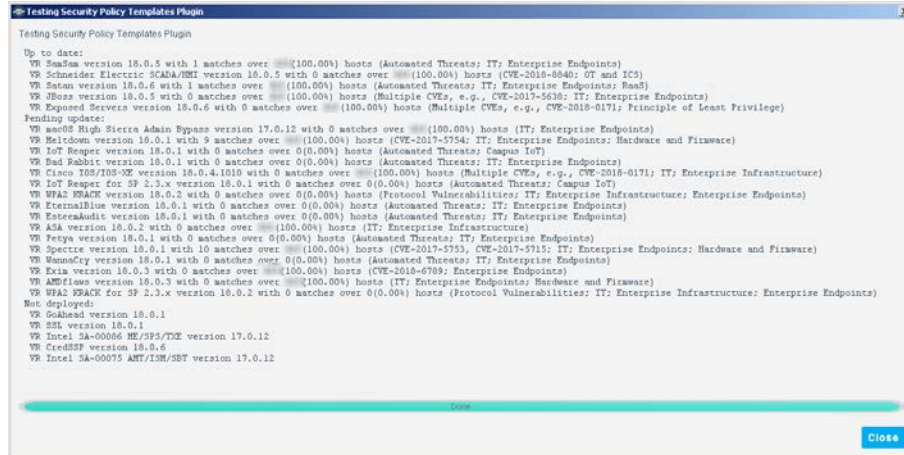
Testing Policies

The Security Policy Templates module includes a Test option that generates a report of the security policy templates that are installed and statistics of the number of matches found for each policy.

To test the Security Policy Templates:

1. Do one of the following:
 - In CounterACT 8.0 and above, go to **Tools > Options > Modules > Security Policy Templates**.
 - In CounterACT 7.0.0 go to **Tools > Options > Plugins** pane and select Security Policy Templates.

2. Select Test.



Policy Templates included in this Module

This section provides details of the templates provided in this release of the module. In the Policy creation wizard, these templates are installed under the *Vulnerability and Response* sub-folder in the Templates tree.

AMDflaws

Multiple vulnerabilities have been discovered in the AMD Ryzen and EPYC processor lines that include manufacturer backdoors in some chipsets and could allow attackers to gain direct access to the CPU. As a result, an attacker could inject persistent malware in the CPU as well as gain access to and steal network credentials.

For more information, see <https://amdflaws.com>.

VR AMDflaws (version 18.0.3)

The policies you create with this template detect managed Windows, Linux/Unix and OS X endpoints with the AMD flaws vulnerability.

Apache

Multiple vulnerabilities have been discovered in the Apache HTTP server. In addition, some versions of Apache have reached End-of-Life.

VR Apache (version 19.0.4)

Policies you create with this template detect managed and unmanaged hosts that run vulnerable or outdated versions of the Apache HTTP server. Endpoints are sorted into Forescout groups based on their level of vulnerability and detected version of Apache. Apply further tests or appropriate remediation actions to each group.

Currently the policy handles Apache releases up to 2.4.39. For details of fixed vulnerabilities, refer to:

https://httpd.apache.org/security/vulnerabilities_24.html

Requirements

- Forescout 8.1 or above
- Core Extensions Module 1.1.0 or above

Deployment Notes

- This policy uses active inspection methods to resolve endpoint properties. The policy may not evaluate endpoints in the *Properties - Passive Learning* group.
- Detection is more efficient in deployments that use Port Mirroring.

Bad Rabbit

Policies based on the following template can help you detect and mitigate Bad Rabbit ransomware (a variant of Petya malware).

VR Bad Rabbit (version 18.0.1)

Policies you create with this template evaluate whether the endpoints in the policy scope are vulnerable to Bad Rabbit ransomware. Endpoints not yet infected can be "vaccinated" by running a VBS script on the endpoint that creates a file which prevents infection.

- This policy only evaluates endpoints managed by Remote Inspection or SecureConnector.
- The Forescout platform must have permission to run a VBS script in the Windows/system root directory (%windir%).

BLEEDINGBIT

Two chip-level vulnerabilities have been discovered that could impact access points and other unmanaged devices that utilize BLE (Bluetooth Low Energy) chips made by Texas Instruments (TI).

- The first vulnerability, BLEEDINGBIT, described in [CVE-2018-16986](#), impacts Cisco and Meraki Access Point devices that use TI BLE chips.
- The second vulnerability, BLEEDINGBIT OAD, described in [Aruba Networks](#), impacts the over the air firmware download (OAD) feature of TI chips used in Aruba Wi-Fi access point Series 300 systems.

VR BLEEDINGBIT (version 18.0.11)

The policies you create with this template classify wireless Access Points and devices connected by WiFi according to their BLEEDINGBIT vulnerability.

Requirements

- CounterACT version 8.0 or above

VR BLEEDINGBIT OAD (version 18.0.11)

The policies you create with this template classify wireless Access Points and devices connected by WiFi according to their BLEEDINGBIT OAD vulnerability in the over the air firmware download feature of the device.

Requirements

- CounterACT version 7.0.0 with Service Pack 3.0.0 or above.

Limitations

- Detection of potential vulnerability is not supported for the following Aruba models:
 - AP-3xx and IAP-3xx series access points
 - AP-203R
 - AP-203RP
- The ArubaOS Controller is detected as potentially vulnerable.

BlueKeep

The policies you create with this template detect infrastructure devices that are vulnerable or potentially vulnerable to the following exploit: [\(CVE-2019-0708\)](#)

VR BlueKeep (version 19.0.6)

Both managed and unmanaged endpoints are evaluated.

Requirements

- No credentials are required to access endpoints.
- Because these policies use active inspection methods, make sure to whitelist all scans originating from the Forescout platform in your next generation firewall, antivirus, and any similar software.
- By default, the policy scope includes all endpoints classified by the Forescout platform as Windows devices, as well as any devices detected as having open RDP ports. To identify these endpoints, apply a Primary Classification or Asset Classification policy and make sure that the Add to Group action is enabled.

Cisco ACI

Policies you create with this template detect potentially vulnerable devices that run Application Centric Infrastructure (ACI) Mode switch software.

VR Cisco ACI (version 19.0.5)

The policies you create with this template detect infrastructure devices that are vulnerable or potentially vulnerable to the following exploit:

- Cisco Nexus 9000 Series Fabric Switches Application Centric Infrastructure Mode Default SSH Key Vulnerability (CVE-2019-1804)
<https://tools.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20190501-nexus9k-sshkey>

Cisco ASA

Policies you create with this template detect potentially vulnerable devices that run Cisco Adaptive Security Appliance (ASA) software.

VR ASA (version 19.0.5)

The policies you create with this template detect infrastructure devices that are vulnerable or potentially vulnerable to known exploits, in particular:

- Cisco Adaptive Security Appliance Software and Firepower Threat Defense Software VPN SAML Authentication Bypass Vulnerability (CVE-2019-1714)
<https://www.cisco.com/c/en/us/support/docs/csa/cisco-sa-20190501-asaftd-saml-vpn.html>
- Cisco Adaptive Security Appliance Software VPN Denial of Service Vulnerability (CVE-2019-1705)
<https://tools.cisco.com/security/center/content/CiscoSecurityAdvisory/cisco-sa-20190501-asa-vpn-dos>

When you update ASA software on endpoints, published fixes for known vulnerabilities are installed. This includes vulnerabilities resolved by the previous

version of the template (18.0.2). The following page lists known vulnerabilities in previous ASA software releases:

<https://www.cisco.com/c/en/us/support/security/asa-5500-series-next-generation-firewalls/products-security-advisories-list.html>

- Policy logic does not identify endpoints that run Cisco Firepower Threat Defense (FTD) software.

Cisco IOS and IOS XE

Cisco IOS Software and Cisco IOS XE Software vulnerabilities could allow an attacker to cause a remote code execution (RCE) resulting in a denial of service (DoS) condition, or allow the execution of arbitrary code on an affected device.

See <https://tools.cisco.com/security/center/publicationListing.x#~FilterByProduct> for more information.

VR Cisco IOS/IOS-XE (version 19.0.10)

The policies you create with this template detect potentially vulnerable infrastructure devices with all versions of Cisco IOS and IOS XE software installed. Once vulnerable devices are detected, you should upgrade to the latest fixed software version. This policy evaluates configured Cisco Switch devices.

The 50 latest Cisco IOS/IOS XE vulnerabilities with high or critical severity are recorded. The vulnerability list is automatically updated daily so that vulnerability data is available in the policy template within 24 hours. There is no need to update or refine the policy.

- Switches that are configured as **Not a Switch** are not detected as vulnerable.

Requirements

- All CounterACT Appliances must have internet access to query the [Cisco IOS Software Checker](#) service.

Cisco RV

The policies you create with this template detect vulnerable infrastructure devices in the Cisco RV 320 product series.

VR Cisco RV (version 19.0.2)

Policies you create with this template detect vulnerable devices as described in [CVE-2019-1653](#). Vulnerable devices are placed in the Cisco RV - Vulnerable Infrastructure group. Upgrade these devices to the latest fixed software version.

CredSSP

Credential Security Support Provider protocol (CredSSP) is an authentication provider that processes authentication requests for other applications and is commonly used in RDP (Remote Desktop Protocol) and WinRM (Windows Remote Management).

A remote code execution (RCE) vulnerability exists in unpatched versions of CredSSP. An attacker who successfully exploits this vulnerability could relay user credentials to execute code on the target system. Any application that depends on CredSSP for authentication may be vulnerable to this type of attack.

See <https://blog.preempt.com/security-advisory-credssp> and [CVE-2018-0886](https://cve.mitre.org/cve/2018/0886) for more information.

VR CredSSP (version 18.0.6)

Policies you create with this template detect managed Windows endpoints with the CredSSP vulnerability.

Limitations

- Windows managed endpoints with port 80 or 443 open may be reported as having WS Management when in reality the PowerShell may be not available or may be using a different port.
- For machines running Windows 10 Version 1511, refer to the FAQ section in <https://portal.msrc.microsoft.com/en-us/security-guidance/advisory/CVE-2018-0886> for guidelines.

DTEN

Forescout Research Labs have discovered and disclosed multiple vulnerabilities in video conferencing systems manufactured by DTEN (or "DisplayTen"). For more information and mitigation action item recommendations see these articles on forescout.com and wired.com.


These vulnerabilities affect DTEN interactive touch board modules D5 and D7 that are running DTEN firmware versions 1.3.4 or older. These systems are commonly used as touchscreen smart-TVs or collaborative, real-time whiteboards during Zoom meetings.

These vulnerabilities were given the following identifiers:

- [CVE-2019-16270](https://cve.mitre.org/cve/2019/16270)
- [CVE-2019-16271](https://cve.mitre.org/cve/2019/16271)
- [CVE-2019-16272](https://cve.mitre.org/cve/2019/16272)
- [CVE-2019-16273](https://cve.mitre.org/cve/2019/16273)
- [CVE-2019-16274](https://cve.mitre.org/cve/2019/16274)

VR DTEN (version 19.0.12)

Policies you create with this template detect vulnerable or potentially vulnerable DTEN TVs and whiteboards. The template also includes optional control actions to mitigate risk.

 *This policy was written quite broadly with the intent to catch as many vulnerable and potentially vulnerable endpoints as possible. If you find you are receiving too many false positives, consider adding further classifications to your policy.*

This policy evaluates both managed and unmanaged endpoints. No credentials are required for endpoint login.

Requirements


- CounterACT 8.0 or above
- Device Profile Library 19.0.11 or above
- In order to improve traffic inspection, it is recommended to enable these traffic inspection methods:
 - Packet Engine
 - DHCP Classifier
 - Flow Collector (or NetFlow Plugin)

EsteemAudit

Policies based on the following template can help you detect and mitigate the EsteemAudit exploit, which targets Windows endpoints:


VR EsteemAudit (version 18.0.1)

Policies you create with this template use properties related to installed Windows files to evaluate a Windows endpoint's vulnerability to EsteemAudit malware, and whether Microsoft patches were installed on the endpoint.

 *This policy evaluates all endpoints classified by the Forescout platform as Windows devices.*

EternalBlue

Policies based on the following template can help you detect and mitigate malware that exploits the Eternal Blue vulnerability, such as the WannaCry malware package. Typically Windows endpoints are targeted.

 *See additional policies that detect specific malware packages such as [WannaCrypt/WannaCry](#).*

VR EternalBlue (version 18.0.1)

Policies you create with this template run a script on the Forescout platform which remotely evaluates whether the endpoints in the policy scope are vulnerable to

malware that exploits the Eternal Blue vulnerability ([MS17-010](#)), such as the WannaCry malware package.

- This policy evaluates all endpoints classified by the Forescout platform as Windows devices.
- This policy evaluates both managed and unmanaged endpoints.
- Analysis of SMB responses may not yield a conclusive result on some endpoints.

Exim

Exim is an email server agent used in Unix-like operating systems. This policy template addresses several vulnerabilities in Exim. For example, attackers can send handcrafted messages to exploit buffer overflows resulting with remote code execution (RCE).

VR Exim (version 19.0.9)

This policy template is an extension of the previous VR Exim Policy Template (18.0.3). Vulnerabilities are described in [CVE-2019-15846](#) , [CVE-2019-10149](#), and [CVE-2018-6789](#).

- 📄 *If you are upgrading from the previous template version, to safeguard existing functionality, check for actions that have been added or other modifications made to the previous policy based on this template, redeploy the policy, and then re-apply these changes.*

This policy evaluates both managed and unmanaged endpoints. No credentials are required for endpoint login.

Requirements

There are no additional requirements for this template.

Exposed Servers

Networks that are exposed to open internet traffic can be vulnerable to attack. Using packet engine SPAN monitoring, the Forescout platform can identify traffic from routable internet addresses, or via well know ports that have been identified as vulnerable.

VR Exposed Servers (version 18.0.6)

The policies you create with this template detect traffic seen on the SPAN port to evaluate whether a network segment is exposed to internet traffic. The policy template includes definitions for identifiable ports that are classified as potentially vulnerable. Users can customize the policy rules to add or exclude ports, server addresses, or IP address ranges.

By default, the untrusted domain is defined as all routable IP addresses.

Requirements

- A Packet Engine with SPAN for monitoring traffic from the internet.

Limitations

- 123/UDP and ports higher than 1024/UDP are excluded to prevent false positives.
- IPv4 network addresses only.

Foreshadow

Foreshadow is a speculative execution attack on Intel processors which allows an attacker to steal sensitive information stored inside personal computers or third party clouds. Foreshadow has two versions:

- An attack designed to extract data from SGX enclaves.
- A Next-Generation version which affects Virtual Machines (VMs), hypervisors (VMM), operating system (OS) kernel memory, and System Management Mode (SMM) memory.

For more information, see <https://foreshadowattack.eu> and also: [CVE-2018-3615](#), [CVE-2018-3620](#), and [CVE-2018-3646](#).

VR Foreshadow (version 18.0.8)

The policies you create with this template detect managed Windows, Linux/Unix and OS X endpoints with the Foreshadow vulnerability.

This policy provides customized third party detection tools. Some tools such as Anti-Virus applications may prevent the policy from working properly. You may need to manually whitelist the *fs_test_SpeculationControl.bat* and *fs_test_pti_Linux.sh* executables used in the Expected Script Results conditions.

Git

A number of vulnerabilities have been discovered in the Git Project that allow an attacker to execute arbitrary code during processing of a recursive "git clone".

For more information, see [CVE-2018-11235](#) and [CVE-2018-17456](#).

VR Git (version 18.0.10)

The policies you create with this template detect managed Windows, Linux/Unix and OS X end points with the Git vulnerability.

Some tools such as Anti-Virus applications may prevent this policy from working properly. You may need to manually whitelist the *fs_test_git_Linux.sh* and *fs_test_git_Mac.sh* executables used in the Expected Script Results conditions.

GoAhead

GoAhead httpd 2.5 < 3.6.5, also known as LD_PRELOAD exploit (CVE-2017-17562), is a vulnerability found in the GoAhead web server software in IoT devices that allows remote code execution (RCE) that can be potentially remotely exploited to hijack gadgets.

VR GoAhead (version 18.0.1)

This policy identifies potentially vulnerable devices and by applying control may be used proactively to prevent security breaches, data leakage and DDoS attacks.

This policy evaluates both managed and unmanaged endpoints. No credentials are required for endpoint login.

Google Chrome

Policies you create with this template detect endpoints running vulnerable versions of the Google Chrome browser. Vulnerabilities in these versions can be exploited by hackers to execute code remotely.

VR Google Chrome (version 19.0.11)

This policy template is an extension of previous VR Google Chrome Policy Templates (19.0.9). Vulnerabilities are described in [Google release information for November 6th 2019](#).

- 📖 *If you are upgrading from the previous template version, to safeguard existing functionality, check for actions that have been added or other modifications made to the previous policy based on this template, redeploy the policy, and then re-apply these changes.*

Update the Google Chrome browser on the relevant endpoints to a stable release.

Requirements

The following Forescout components are required:

- Linux Plugin
- OS X Plugin

To run scripts on managed endpoints:

- If necessary, manually whitelist the `fs_test_chrome_Linux.sh` executable used in policy conditions.

Intel SA-00075 AMT/ISM/SBT

The policies you create with this template detect Windows and Linux/Unix endpoints with Intel SA-00075 AMT/ISM/SBT vulnerability.

VR Intel SA-00075 AMT/ISM/SBT (version 17.0.12)

This policy only detects vulnerabilities on managed endpoints. This policy provides a third party Intel detection tool. Linux endpoint or server support includes Ubuntu 16.04 LTS and 14.04 LTS or higher.

- 📖 *Some tools such as Anti-Virus may prevent the policy from working properly. If this happens, you may need to manually whitelist the "fs_test_00075.exe" and "fs_test_00075_Linux.sh" executables used in the Expected Script Results conditions.*

 *The tool does not support Virtual Machine (VM) environments.*

Requirements

Windows endpoints/servers:

- Microsoft Windows 7, 8, 8.1, or 10
- Local operating system administrative access

Linux endpoints/servers:


- Ubuntu 16.04 LTS and 14.04 LTS.
- Local operating system administrative access
- The Intel® Management Engine Components, specifically: The Intel® Management Engine Interface driver (Intel® MEI).

Intel SA-00086 ME/SPS/TXE

The policies you create with this template detect Windows and Linux/Unix endpoints with Intel SA-00086 ME/SPS/TXE vulnerability.

VR Intel SA-00086 ME/SPS/TXE (version 17.0.12)

This policy only detects vulnerabilities on managed endpoints. This policy provides a third party Intel detection tool.

 *Some tools such as Anti-Virus may prevent the policy from working properly. If this happens, you may need to manually whitelist the "fs_test_00086.exe" and "fs_test_00086_Linux.sh" executables used in the Expected Script Results conditions.*

Requirements

Windows endpoints/servers:

- Microsoft Windows* 7, 8, 8.1, or 10 (Windows* 10S and Windows*10 IOT Core are not supported)
- Windows* 2012 R2 for servers (x64)
- .NET Framework 4.5 or higher
- HECI Driver
- Local operating system administrative access

Linux endpoints/servers:

- Python 2.7 or higher
- Ubuntu LTS 16.0.4 (for client), Redhat 7.2 (for Server)
- Local operating system administrative access

IoT Reaper

Policies based on the following templates use Forescout remote scanning capabilities to evaluate IoT device vulnerability to the ports and HTTP protocols used by the botnet for download and infection.

- 📄 *The VR IoT Reaper policy and VR IoT Reaper for SP 2.3.x policy should not be used together in the same system.*

VR IoT Reaper (version 18.0.1)

This policy scans potentially vulnerable IoT devices for vulnerable ports. Once such a device is detected, the Forescout platform tests these ports with the HTTP protocol that is used by the botnet for infection. Suspected vulnerable devices are reported by the Forescout platform.

Requirements

- Your system must be running the Primary Classification policy to work with this template.

JBoss

The default configuration of JBoss application servers does not restrict access to the console and web management interfaces, which allows remote attackers to bypass authentication and gain administrative access via direct requests. Once compromised, these servers can be used to distribute malware.

For more information, see <https://blog.talosintelligence.com/2016/04/jboss-backdoor.html> and <https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2017-5638>

VR JBOSS (version 18.0.5)

The policies you create with this template detect JBoss application servers in a local network and perform a JBoss server scan to look for vulnerabilities.

It is recommended to patch the server software to the latest JBoss version.

Requirements

- CounterACT version 8.0 and above

Jira

A logic error in Jira's Whitelisting policies lets attackers access the content of internal network resources by using server-side request forgery (SSRF). For more information see [CVE-2019-8451](https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2019-8451) or jira.atlassian.com.

VR Jira (version 19.0.12)

Policies you create with this template use active inspection methods to detect Jira servers that are vulnerable to this issue. You can customize this policy to suit your own naming conventions of Jira servers. The policy evaluates both managed and unmanaged endpoints. No credentials are required for endpoint login.

macOS High Sierra Admin Bypass

The policies you create with this template detect Macintosh endpoints with macOS High Sierra admin bypass vulnerability.

VR macOS High Sierra Admin Bypass (version 17.0.12)

This policy only detects vulnerabilities on managed endpoints.

- 📄 *When upgrading from the macOS High Sierra security template version 10.13.0 to 10.13.1, a reboot is required for the patches to complete installation.*

Requirements

- To run policy actions on endpoints with Secure Connector installed, Secure Connector must be running as a service.
- To run policy actions on endpoints with Remote Inspection, the user must have administrator privileges

By default, the Forescout platform uses the Windows Vulnerability DB to distribute vulnerability information. For more information about download options supported by the Forescout platform, see these sections of the *Forescout Endpoint Module: HPS Inspection Engine Configuration Guide*:

- Distributing Vulnerability Information to Windows Endpoints
- Using Windows Server Update Services (WSUS) or Windows Update
- Windows Update Default Settings

MDS

Microarchitectural Data Sampling (MDS) exploits, such as the *RIDL* and *Fallout* exploits, take advantage of MDS side-channel vulnerabilities in Intel CPUs to access arbitrary pieces of private information. It is similar to the *Meltdown* and *Spectre* vulnerabilities which are covered by the [VR Meltdown \(version 18.0.8\)](#) and [VR Spectre \(version 18.0.8\)](#) Forescout Security Policy Templates.

These vulnerabilities are described in <https://mdsattacks.com/>.

VR MDS (version 19.0.7)

Policies you create with this template detect managed Windows, Linux/Unix, and macOS™/OS X® endpoints that are vulnerable to MDS exploits.

Requirements

- Linux Plugin 1.4.1 installed and running.
- Make sure the Linux Plugin uses root credentials to access endpoints.
- OS X Plugin 2.2.1 installed and running.
- OS X Plugin SecureConnector deployed as a Service. See Forescout Deploying SecureConnector as Part of a Machine Image How-to Guide.
- Make sure the OS X Plugin Remote Inspection uses root credentials to access endpoints.

- Policies created with this template provide customized third party detection tools. Make sure the `fs_test_SpeculationControl.bat` and `fs_test_MDS_Linux.sh` executables used in the Expected Script Results conditions are whitelisted (Do this manually if needed), so that tools such as Anti-Virus applications do not prevent the policy from working properly.
- Policies created with this template use Windows PowerShell scripts. Make sure that these scripts are allowed on Windows managed endpoints running Windows 7, Windows 2008 Server or above.

Meltdown

Meltdown breaks the most fundamental isolation between user applications and the operating system. This attack allows a program to access the memory, and thus also the secrets, of other programs and the operating system. Meltdown is described in [CVE-2017-5754](#), see <https://meltdownattack.com> for more information.

This vulnerability is similar to the *Spectre* and *MDS* vulnerabilities, which are covered by the [VR Spectre \(version 18.0.8\)](#) and [VR MDS \(version 19.0.7\)](#) Forescout Security Policy Templates.

VR Meltdown (version 18.0.8)

The policies you create with this template detect managed Windows, Linux/Unix and OS X endpoints with the Meltdown vulnerability.

This policy provides a third party Microsoft detection tool. Some tools such as Anti-Virus applications may prevent the policy from working properly. You may need to manually whitelist the `fs_test_SpeculationControl.bat` and `fs_test_pti_Linux.sh` executables used in the Expected Script Results conditions.

Mirai

Policies based on the following template can help you detect and remediate variants of the Mirai botnet.

VR Mirai (version 19.0.3)

Policies you create with this template evaluate endpoint vulnerability to a Mirai variant that targets enterprise devices, in particular WePresent WiPG-1000 Wireless Presentation systems and LG Supersign displays. For details, refer to [this report](#), which links to related exploits.

Vulnerable and potentially vulnerable endpoints are assigned to Forescout groups for further remediation. Based on this evaluation, you can apply controls that proactively prevent security breaches, data leakage, and DDoS attacks.

This policy evaluates both managed and unmanaged endpoints. No credentials are required for endpoint login.

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Requirements

- This policy uses the results of Forescout endpoint classification. A primary classification policy must be applied to endpoints.

PAN GlobalProtect

Policies based on the following template can help you detect and remediate vulnerabilities in Palo Alto Networks (PAN) GlobalProtect Agent.

VR PAN GlobalProtect (version 19.0.4)

Some versions of PAN Global Protect Agent are vulnerable to spoofing. Attackers can replay authentication or session tokens to gain access as the user.

Policies you create with this template detect Windows and OS X endpoints that run vulnerable or outdated versions of the PAN GlobalProtect Agent. Managed and unmanaged endpoints are evaluated. Endpoints are sorted into Forescout groups based on their level of vulnerability and detected software version. Apply further tests or appropriate remediation actions to each group. This vulnerability is described in [CVE-2019-1573](#).

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Requirements

- OS X Plugin


 *Detection is more efficient in deployments that use Port Mirroring.*

Petya

Policies based on the following template can help you detect and mitigate Petya ransomware.

VR Petya (version 18.0.1)

Policies you create with this template evaluate whether the endpoints in the policy scope are vulnerable to Petya ransomware. Infected endpoints are detected before the terminal reboot phase. Endpoints not yet infected can be "vaccinated" by running a VBS script on the endpoint that creates a file which prevents infection.

 *This policy only evaluates endpoints managed by Remote Inspection or SecureConnector.*

PHP

Multiple vulnerabilities have been discovered in PHP. These vulnerabilities allow attackers to execute arbitrary code. Depending on the privileges of the exploited application, an attacker could install programs; view, change, or delete data; or create new accounts with full user rights. Exploitation of these vulnerabilities can also result in a denial-of-service.

VR PHP (version 19.0.11)

This policy template is an extension of the previous VR PHP Policy Template (19.0.9). The template has been updated to support the current PHP supported versions, detecting "End-of-Life" (EOL) and "Security Only" versions of PHP as well as the latest vulnerabilities for PHP. For more information on PHP version support and the latest vulnerabilities see [PHP - Supported Versions, cisecurity.org \(2019-116\)](#) and [CVE-2019-11043](#).

- 📄 *If you are upgrading from the previous template version, to safeguard existing functionality, check for actions that have been added or other modifications made to the previous policy based on this template, redeploy the policy, and then re-apply these changes.*

This policy evaluates both managed and unmanaged endpoints. No credentials are required for endpoint login.

Requirements

There are no additional requirements for this template.

RingCentral Meetings

Some versions of the RingCentral conferencing application are vulnerable to attack. A user can be unknowingly connected to a video call, letting an attacker access the user's device and its video camera. This vulnerability is similar to the [Zoom](#) vulnerability, also covered in the current Security Policy Templates release.

VR RingCentral Meetings (19.0.7)

Policies you create with these templates detect macOS™/OS X® endpoints that run *vulnerable or outdated versions of RingCentral Meeting*. Managed endpoints are evaluated. Endpoints are sorted into Forescout groups according to their level of vulnerability and detected software version. Apply further tests or appropriate remediation actions to each group.

This vulnerability is described in [CVE-2019-13450](#) and [CVE-2019-13567](#).

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Requirements

These Forescout Components are required:

- OS X Plugin 2.2.1

SamSam

SamSam is high-risk ransomware designed to infect unpatched servers and encrypt files stored on computers networked to the infected server. This ransomware is distributed manually. Samsam employs the RSA-2048 asymmetric encryption algorithm and, therefore, two keys (public and private) are generated during encryption - public to encrypt, private to decrypt.

For more information, see <https://blog.talosintelligence.com/2016/03/samsam-ransomware.html>.

VR SamSam (version 18.0.5)

The policies you create with this template detect managed Windows endpoints that are infected with the *I am sorry* variant of this malware.

Satan

A Ransomware as a Service (RaaS) that distributes the Satan ransomware has been discovered. This service allows any potential attacker to register an account with the service, and create and distribute their own customized version of the Satan ransomware.

Satan ransomware (discovered in January 2017) targets Windows computers, and encrypts the files on a victim's computer, scrambling the encrypted file names, and appending the *.STN* extension and others to the file name.

See <https://www.bleepingcomputer.com/news/security/new-satan-ransomware-available-through-a-ransomware-as-a-service/> for more information on the Ransomware as a Service that has been observed in the wild.

VR Satan (version 18.0.6)

The policies you create with this template detect managed Windows endpoints that are infected with the Satan ransomware.

Limitations

In some rare cases, files generated by Windows may result in a false positive indicator for the Satan ransomware.

Schneider Electric SCADA/HMI

A significant vulnerability in Schneider Electric Software used at manufacturing and energy facilities could allow hackers to execute arbitrary code and in a worst-case scenario, disrupt or cripple plant operations. An attacker without credentials could use the vulnerability to compromise the security of a machine in a manufacturing or energy production plant, and could move laterally within the organization's network to carry out additional attacks.

The vulnerabilities affect the following Schneider Electric Software:

- InduSoft Web Studio v8.1 and prior versions.
- InTouch Machine Edition 2017 v8.1 and prior versions.

For more information, see <http://software.schneider-electric.com/pdf/security-bulletin/lfsec00000125/> and <https://nvd.nist.gov/vuln/detail/CVE-2018-8840>

VR Schneider Electric SCADA/HMI (version 18.0.5)

The policies you create with this template detect vulnerabilities on managed Windows endpoints.

Spectre

Spectre breaks the isolation between different applications. It allows an attacker to trick error-free programs, which follow best practices, into leaking their secrets. In fact, the safety checks of said best practices actually increase the attack surface and may make applications more susceptible to Spectre. Spectre is described in [CVE-2017-5753](#) and [CVE-2017-5715](#), see <https://meltdownattack.com> for more information.

This vulnerability is similar to the *Meltdown* and *MDS* vulnerabilities, which are covered by the [VR Meltdown \(version 18.0.8\)](#) and [VR MDS \(version 19.0.7\)](#) Forescout Security Policy Templates.

VR Spectre (version 18.0.8)

The policies you create with this template detect managed Windows, Linux/Unix and OS X endpoints with the Spectre vulnerability.

This policy provides a third party Microsoft detection tool. Some tools such as Anti-Virus applications may prevent the policy from working properly. You may need to manually whitelist the `fs_test_SpeculationControl.bat` and `fs_test_pti_Linux.sh` executables used in the Expected Script Results conditions.

SSL Vulnerability


The policies you create with this template detect HTTPS servers that are vulnerable to malware that exploits SSL vulnerabilities in managed and unmanaged endpoints. For example, the ROBOT Attack TLS Decryption Vulnerability (Return of Bleichenbacher's Oracle Threat) and the Heartbleed vulnerability.

The Robot Attack TLS Decryption Vulnerability is a 19-year-old vulnerability that allows performing RSA decryption and signing operations with the private key of a TLS server. For more information on the vulnerability, see <https://eprint.iacr.org/2017/1189> and <https://robotattack.org>

Heartbleed is a serious vulnerability in the OpenSSL cryptographic software library that allows stealing the information protected, under normal conditions, by the SSL/TLS encryption used to secure the Internet.

VR SSL (version 18.0.1)

This policy evaluates both managed and unmanaged endpoints. No credentials are required for endpoint login.

 *This policy template can be customized to accommodate different IP address ranges and specific HTTPS ports.*

UPnP Servers

BCMUPnP_Hunter is a botnet that targets routers that have the Universal Plug and Play (UPnP) Server feature enabled. The botnet takes advantage of a known vulnerability discovered in 2013 and described by Defensecode.com.


BCMUPnP_Hunter is a self-built proxy network, which initially looks like it's being used to push out spam from web mail sources. The botnet then scans the TCP and

UDP ports of the targeted device for ways to access the device, and sends an exploit payload to the target.

For more information, see threatpost.com.

VR UPnP Servers (version 19.0.12)

This policy template is an extension of the previous VR UPnP Servers Policy Template (18.0.11). The policies you create with this template use Active Scanning to remotely evaluate whether the endpoints and devices in the policy scope have UPnP Servers that are exposed to network traffic. You can customize the policy rules to add or exclude ports, server addresses, or IP address ranges.

 *If you are upgrading from the previous template version, to safeguard existing functionality, check for actions that have been added or other modifications made to the previous policy based on this template, redeploy the policy, and then re-apply these changes.*

This policy evaluates both managed and unmanaged endpoints. No credentials are required for endpoint login.

VMWare Workstation/Fusion

Policies you create with this template evaluate managed Windows, Linux, and Mac/OS X endpoints that run VMware Workstation/Fusion to detect vulnerabilities announced by VMware.

VR VMWare Workstation/Fusion (version 18.0.12)

This template is new for this version. Currently these evaluations are performed:

- End of Life – endpoints running versions of VMware Workstation/Fusion that are no longer supported.
- Known Vulnerability – vulnerable endpoints as described in VMware security advisory VMSA-2018-0030 (CVE-2018-6983). For details, refer to:

<https://www.vmware.com/security/advisories/VMSA-2018-0030.html>

<https://cve.mitre.org/cgi-bin/cvename.cgi?name=CVE-2018-6983>

Requirements and Limitations

Windows endpoints must be managed by SecureConnector or by Remote Inspection with an admin user.

For Linux endpoints:

- Linux Plugin.
- Endpoints must be managed by SecureConnector or by Remote Inspection with an admin user.
- This policy uses the **Expected Script Results** property, which runs scripts on endpoints. If AntiVirus applications and other tools block these scripts, the policy will not work properly. You may need to manually whitelist the `fs_test_vmware_Linux.sh` executable used to resolve the **Expected Script Results** property.

For OS X endpoints:

- OS X Plugin.
- OS X endpoints must be managed in one of these ways:
 - OS X SecureConnector deployed as a Service.
 - Remote Inspection by a user that can run scripts with root permissions.

VPNFilter Malware

VPNFilter malware is a multi-stage, modular platform with versatile capabilities to support both intelligence collection and destructive cyber attack operations.

- The stage 1 malware persists through a reboot, to gain a persistent foothold and enable the deployment of the stage 2 malware.
- The stage 2 malware (which does not persist through a reboot) possesses capabilities such as file collection, command execution, data exfiltration and device management. Some versions of stage 2 also possess a self-destruct capability that overwrites a critical portion of the device's firmware and reboots the device, rendering it unusable.
- Stage 3 modules serve as plugins for the stage 2 malware, providing stage 2 with additional functionality such as a *packet sniffer* for collecting traffic passing through the device, including theft of website credentials and monitoring of Modbus SCADA protocols, and a *communications module* that allows stage 2 to communicate over Tor.

For more information, see <https://blog.talosintelligence.com/2018/06/vpnfilter-update.html>

VR VPNFilter (version 18.0.7)

Policies you create with this template detect potentially vulnerable devices. The policy can be tailored by the operator to specify different ports, or to identify different patterns that indicate vulnerability.

To scan endpoints that are connected through potentially infected devices, you can utilize a third party router testing tool for the VPN Filter malware provided by Symantec: <http://www.symantec.com/filtercheck/>

WannaCrypt/WannaCry

Policies based on the following template can help you detect and mitigate WannaCrypt/WannaCry ransomware, which targets Windows endpoints.

 See also the [EternalBlue](#) policy template that addresses this vulnerability.

VR WannaCry (version 18.0.1)

Policies you create with this template use Forescout properties related to Windows registry keys, running services, and installed files to detect Windows endpoints infected with known variants of WannaCry/WannaCrypt malware.

- This policy only evaluates endpoints managed by Remote Inspection or SecureConnector.
- WannaCrypt malware exploits a vulnerability in SMB connectivity, which was identified by Microsoft and published as [MS17-010](#) in March 2017.

The policy provided in this release check for this vulnerability as part of endpoint evaluation - and can cause download of Microsoft vulnerability information to Windows endpoints.

WPA2 KRACK

Krack is a vulnerability in the WPA2 wireless protocol that could allow attackers to eavesdrop on wireless connections and inject data into the wireless stream in order to install malware or modify web pages.

VR WPA2 KRACK (version 18.0.2)

Policies based on this template classify WiFi connected devices according to KRACK risk, based on the detected software release. Windows managed devices are checked for the Oct 2017 patch. See [Remediating WPA2 KRACK on Wireless Controllers and Access Points](#) for details about remediation of Wireless controllers and access points.

- 📄 *The VR WPA2 KRACK policy and VR WPA2 KRACK for SP 2.3.x policy should not be used together in the same system.*

Remediating WPA2 KRACK on Wireless Controllers and Access Points

Policies based on the VR WPA2 KRACK use the **WLAN Device Software** property provided by the Wireless Plugin to evaluate vulnerability to WPA2 KRACK malware. Risk is assessed based on the software release on the controller.

- **For Cisco and Aruba controllers**, policy rules identify vulnerable devices based on currently known information about software releases.
 - Add policy actions to remediate devices that were found to be vulnerable.
 - In the Asset Inventory view, examine policy results per rule.
- **For controllers of other vendors**, follow this procedure:
 - a. Create and run a policy based on one of the templates.
 - b. The Forescout platform populates the Asset Inventory view for the **WLAN Device Software** property.
 - c. In the Asset Inventory view for this property, review the software releases that the Forescout platform detected on your controllers. Refer to manufacturer announcements of vulnerability and patch information for these software releases.
 - d. Use the **WLAN Device Software** property in policies you create to detect and remediate devices that run vulnerable software.

Zoom

Some versions of the Zoom conferencing application are vulnerable to *Remote Code Execution (RCE)* attacks. Also, a user can be unknowingly connected to a video call, letting an attacker access the user's device and its video camera.

VR Zoom (version 19.0.7)

Policies you create with these templates detect Windows and macOS™/OS X® endpoints that run *vulnerable or outdated versions of Zoom*. Managed endpoints are evaluated. Endpoints are sorted into Forescout groups according to their level of vulnerability and detected software version. Apply further tests or appropriate remediation actions to each group.

This vulnerability is described in [CVE-2019-13450](#) and [CVE-2019-13567](#).

Requirements

These Forescout Components are required:

- OS X Plugin 2.2.1

Additional Forescout Documentation

For information about other Forescout features and modules, refer to the following resources:

- [Documentation Downloads](#)
- [Documentation Portal](#)
- [Forescout Help Tools](#)

Documentation Downloads

Documentation downloads can be accessed from the [Forescout Technical Documentation Page](#), and one of two Forescout portals, depending on which licensing mode your deployment is using.

- **Per-Appliance Licensing Mode** – [Product Updates Portal](#)
- **Flexx Licensing Mode** – [Customer Support Portal](#)

 *Software downloads are also available from these portals.*

To identify your licensing mode:

- From the Console, select **Help > About Forescout**.

Forescout Technical Documentation Page

The Forescout Technical Documentation Page provides access to a searchable, web-based [Documentation Portal](#) as well as PDF links to the full range of technical documentation.

To access the Technical Documentation Page:

- Go to <https://www.Forescout.com/company/technical-documentation/>

Product Updates Portal

The Product Updates Portal provides links to Forescout version releases, Base and Content Modules, and eyeExtend products, as well as related documentation. The portal also provides a variety of additional documentation.

To access the Product Updates Portal:

- Go to <https://updates.forescout.com/support/index.php?url=counteract> and select the version you want to discover.

Customer Support Portal

The Downloads page on the Forescout Customer Support Portal provides links to purchased Forescout version releases, Base and Content Modules, and eyeExtend products, as well as related documentation. Software and related documentation will only appear on the Downloads page if you have a license entitlement for the software.

To access documentation on the Customer Support Portal:

- Go to <https://Forescout.force.com/support/> and select **Downloads**.

Documentation Portal

The Forescout Documentation Portal is a searchable, web-based library containing information about Forescout tools, features, functionality, and integrations.

To access the Documentation Portal:

- Go to https://updates.forescout.com/support/files/counteract/docs_portal/

Forescout Help Tools

Access information directly from the Console.

Console Help Buttons

Use context sensitive *Help* buttons to quickly access information about the tasks and topics you are working with.

Forescout Administration Guide

- Select **Administration Guide** from the **Help** menu.

Plugin Help Files

- After the plugin is installed, select **Tools > Options > Modules**, select the plugin and then select **Help**.

Documentation Portal

- Select **Documentation Portal** from the **Help** menu to access the [Documentation Portal](#).

Third Party Tools

Third party tools are used together with the Security Policy Templates. The tools are provided as is by the individual vendors and are licensed by the respective owners of the software. The individual licensing terms and conditions can be viewed in your CounterACT device at the following location:

`/usr/local/forescout/plugin/spt/documents`