# FORCEPOINT

# Next Generation Firewall

## **Release Notes**

5.10.10 Revision B

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# About this release

This document contains important information about this release of Forcepoint<sup>™</sup> Next Generation Firewall (Forcepoint NGFW; formerly known as McAfee<sup>®</sup> Next Generation Firewall). We strongly recommend that you read the entire document.

NGFW version 5.10.1 has been evaluated against the Common Criteria Network Devices Protection Profile with Extended Package Stateful Traffic Filter Firewall. For more details, see <a href="https://www.niap-ccevs.org/Product/Compliant.cfm?pid=10669">https://www.niap-ccevs.org/Product/Compliant.cfm?pid=10669</a>.



**Note:** We have started rebranding the NGFW product and the NGFW product documentation. We use Stonesoft as the product name in this document. However, the old product name is still used in the NGFW appliances and the product documentation set that we created for the NGFW 5.10.0 release.

# Lifecycle model

This release of Forcepoint NGFW is a Long-Term Support (LTS) version.

We recommend using the most recent Long-Term Support (LTS) version if you do not need any features from a later Feature Stream version.

For more information about the Forcepoint NGFW lifecycle policy, see Knowledge Base article 10192.

# **System requirements**

Make sure that you meet these basic hardware and software requirements.

### **Forcepoint NGFW appliances**

We strongly recommend using a pre-installed Forcepoint NGFW appliance as the hardware solution for new Forcepoint NGFW installations.



**Note:** Some features in this release are not available for all appliance models. See Knowledge Base article 9743 for up-to-date appliance-specific software compatibility information.

Two Forcepoint NGFW engine images are available:

- x86-64 A 64-bit image that includes the Local Manager.
- x86-64-small A 64-bit image that does not include the Local Manager.



**Note:** If you do not use the Local Manager, we recommend that you use the x86-64-small image. Some appliance models support only the x86-64-small image.

The following table shows whether you can use an appliance model in the Firewall/VPN (FW), IPS, or Layer 2 Firewall (L2FW) role, and the image that is supported.

Appliance model	Roles	Images
FW-315	FW	The image that does not include the Local Manager is supported
320X (MIL-320)	FW	Both images are supported
IPS-1205	IPS, L2FW	Both images are supported
FWL321	FW	The image that does not include the Local Manager is supported
NGF321	FW, IPS, L2FW	Both images are supported
FWL325	FW	The image that does not include the Local Manager is supported
NGF325	FW, IPS, L2FW	Both images are supported
110	FW	The image that does not include the Local Manager is supported
1035	FW, IPS, L2FW	Both images are supported
1065	FW, IPS, L2FW	Both images are supported
1301	FW, IPS, L2FW	Both images are supported
1302	FW, IPS, L2FW	Both images are supported
1401	FW, IPS, L2FW	Both images are supported
1402	FW, IPS, L2FW	Both images are supported
3201	FW, IPS, L2FW	Both images are supported
3202	FW, IPS, L2FW	Both images are supported

Appliance model	Roles	Images
3205	FW, IPS, L2FW	Both images are supported
3206	FW, IPS, L2FW	Both images are supported
3207	FW, IPS, L2FW	Both images are supported
3301	FW, IPS, L2FW	Both images are supported
3305	FW, IPS, L2FW	Both images are supported
5201	FW, IPS, L2FW	Both images are supported
5205	FW, IPS, L2FW	Both images are supported
5206	FW, IPS, L2FW	Both images are supported

#### Sidewinder S-series appliances

These Sidewinder appliance models can be re-imaged to run Forcepoint NGFW software.

Appliance model	Roles	Images
S-1104	FW	Both images are supported
S-2008	FW	Both images are supported
S-3008	FW	Both images are supported
S-4016	FW	Both images are supported
S-5032	FW	Both images are supported
S-6032	FW	Both images are supported

## **Certified Intel platforms**

We have certified specific Intel-based platforms for Forcepoint NGFW.

The tested platforms can be found at https://support.forcepoint.com under the Forcepoint Next Generation Firewall product.

We strongly recommend using certified hardware or a pre-installed Forcepoint NGFW appliance as the hardware solution for new Forcepoint NGFW installations. If it is not possible to use a certified platform, Forcepoint NGFW can also run on standard Intel-based hardware that fulfills the hardware requirements.

## **Basic hardware requirements**

You can install Forcepoint NGFW on standard hardware with these basic requirements.

 (Recommended for new deployments) Intel<sup>®</sup> Xeon<sup>®</sup>-based hardware from the E5-16xx product family or higher



Note: Legacy deployments with Intel<sup>®</sup> Core<sup>™</sup>2 are supported.

• IDE hard disk and CD drive

```
E
```

Note: IDE RAID controllers are not supported.

- Memory:
  - 4 GB RAM minimum for x86-64-small installation
  - 8 GB RAM minimum for x86-64 installation
- VGA-compatible display and keyboard
- One or more certified network interfaces for the Firewall/VPN role
- Two or more certified network interfaces for IPS with IDS configuration
- Three or more certified network interfaces for Inline IPS or Layer 2 Firewall

For information about certified network interfaces, see Knowledge Base article 9721.

## **Master NGFW Engine requirements**

Master Engines have specific hardware requirements.

- Each Master NGFW Engine must run on a separate physical device. For more details, see the *Forcepoint Next Generation Firewall Installation Guide*.
- All Virtual NGFW Engines hosted by a Master NGFW Engine or Master NGFW Engine cluster must have the same role and the same Failure Mode (*fail-open* or *fail-close*).
- Master NGFW Engines can allocate VLANs or interfaces to Virtual Security Engines. If the Failure Mode of the Virtual IPS engines or Virtual Layer 2 Firewalls is *Normal* (fail-close) and you want to allocate VLANs to several engines, you must use the Master NGFW Engine cluster in standby mode.
- Cabling requirements for Master NGFW Engine clusters that host Virtual IPS engines or Layer 2 Firewalls:
  - Failure Mode Bypass (fail-open) requires IPS serial cluster cabling.
  - Failure Mode Normal (fail-close) requires Layer 2 Firewall cluster cabling.

For more information about cabling, see the Forcepoint Next Generation Firewall Installation Guide.

## Virtual appliance node requirements

You can install Forcepoint NGFW on virtual appliances with these hardware requirements. Also be aware of some limitations.

 (Recommended for new deployments) Intel<sup>®</sup> Xeon<sup>®</sup>-based hardware from the E5-16xx product family or higher



Note: Legacy deployments with Intel<sup>®</sup> Core<sup>™</sup>2 are supported.

- One of the following hypervisors:
  - VMware ESXi 5.5 and 6.0



**Note:** Forcepoint Next Generation Firewall 5.10.10 does not support integration with Intel Security Controller and deployment on VMware NSX.

- KVM (KVM is tested as shipped with Red Hat Enterprise Linux Server 7.0)
- Oracle VM server 3.3 (tested with Oracle VM server 3.3.1)
- 8 GB virtual disk

- 4 GB RAM minimum
- · A minimum of one virtual network interface for the Firewall/VPN role, three for IPS or Layer 2 Firewall roles

When Forcepoint NGFW is run as a virtual appliance node in the Firewall/VPN role, these limitations apply:

- · Only Packet Dispatching CVI mode is supported.
- Only standby clustering mode is supported.
- Heartbeat requires a dedicated non-VLAN-tagged interface.

When Forcepoint NGFW is run as a virtual appliance node in the IPS or Layer 2 Firewall role, clustering is not supported.

# **Build version**

Forcepoint Next Generation Firewall 5.10.10 build version is 14112.

## **Product binary checksums**

Use the checksums to make sure that the installation files downloaded correctly.

sg\_engine\_5.10.10.14112\_x86-64.iso

```
SHA1SUM:
c6c2007056fde28e9edf055f469391a6ff978fcb
SHA256SUM:
5bd7b5a6a28de7679a92e8413d5f05b322dbe0381247d015b5cb29d9e3da1b7f
SHA512SUM:
90f06ac8e4192ff4df861ae973cba71b
40a2a9542840eca3a61c772642a9afc9
f68ada910b60786e374d808e0bf81c53
c026d50ea2e494d6157ef956e0ae8ab7
```

sg\_engine\_5.10.10.14112\_x86-64.zip

```
SHA1SUM:
1c41aeb602936de4a3e1bb394adcc83dbc056950
SHA256SUM:
808ba8bbd9cb1b1f9364d0503261c0644bb01de928f36154f4cef9fe2f6d18ed
```

SHA512SUM: 2eed52563e8f4d052915f76ac7cb98c8 4a606165ff8c06f0ff5d141992f8d4bb 88f4c004cf214cdca8696ae3426621ae 0d0b0110e0f9755236d80d5224703c98

sg\_engine\_5.10.10.14112\_x86-64-small.iso

```
SHA1SUM:
59ad190e37cc17454447adc8d2150ac6445f3da6
SHA256SUM:
6dd1bf35e707dac85b009c35322acaffe62d9b0188a1d57883e87536a35c755b
SHA512SUM:
```

6589ab5bc0c3fc40e00d6dbf3b225ef7 93f540fd2751b8aaade1b805fd7e92f9 614bbb346e97073d78bddf5d5a1e394a 14b0c0a0622ed49f1391bf9478e8884d sg\_engine\_5.10.10.14112\_x86-64-small.zip

```
SHA1SUM:
aa9566130b511c8909606666922308c06f26112b
SHA256SUM:
2d830f87de1d292ddbd6b73e24045b538a3075998c94801257a74c024c442e84
SHA512SUM:
55e7448c67cebda5e01787510960cfb6
45533a759ec70587bcf595971f5b91f7
baf5c5aec506ccbd28656a17add1bd72
e6f01acbfc0c48ef863037e4bd18720f
```

# Compatibility

Forcepoint NGFW 5.10.10 is compatible with the following component versions.

- Forcepoint<sup>™</sup> NGFW Security Management Center (SMC) (formerly known as McAfee<sup>®</sup> Security Management Center) 5.10.0 or later
- Dynamic Update 810 or later
- Stonesoft IPsec VPN Client 5.3.0 or later
- Stonesoft<sup>®</sup> VPN Client (formerly known as McAfee<sup>®</sup> VPN Client for Windows) 5.9.0 or later
- Stonesoft<sup>®</sup> VPN Client for Mac OS X (formerly known as McAfee<sup>®</sup> VPN Client for Mac OS X) 1.0.0 or later
- Stonesoft<sup>®</sup> VPN Client for Android (formerly known as McAfee<sup>®</sup> VPN Client for Android) 1.0.1 or later
- Server Pool Monitoring Agent 4.0.0 or later
- McAfee<sup>®</sup> Logon Collector 2.2 and 3.0
- McAfee<sup>®</sup> Advanced Threat Defense 3.6
- McAfee<sup>®</sup> Endpoint Intelligence Agent (McAfee EIA) 2.5

## **New features**

This release of the product includes these new features. For more information and configuration instructions, see the *Forcepoint Next Generation Firewall Product Guide*.



**Note:** Forcepoint Next Generation Firewall 5.10.10 does not support integration with Intel Security Controller and deployment on VMware NSX.

#### Support for Threat Intelligence Exchange

Forcepoint NGFW can now query file reputations and receive reputation updates from the McAfee<sup>®</sup> Threat Intelligence Exchange (TIE) server. TIE makes it possible for administrators to tailor comprehensive local threat intelligence from global intelligence data sources, such as McAfee<sup>®</sup> Global Threat Intelligence<sup>™</sup> (McAfee GTI), endpoints, gateways, and other security components. File reputation data is exchanged using the McAfee<sup>®</sup> Data Exchange Layer (DXL) broker network. File reputation updates ensure that Forcepoint NGFW engines always have the latest file reputations available for use in file filtering.

#### Single sign-on (SSO) to SSL VPN Portal

The SSL VPN Portal (reverse web proxy) can be configured to cache user credentials. The portal logs on to the back-end servers with the credentials as if they came from the web browser at the endpoint. You can group the servers that use the same credentials by SSO domain, to further reduce the need to re-enter the password.

#### New tunnel type for the route-based VPN

A new tunnel type for the route-based VPN allows the use of tunnel mode IPsec without an additional tunneling layer. The route-based VPN configuration dialog box has been improved.

# Connectivity between Forcepoint NGFW and SMC using IPv6

Engines that only use IPv6 to connect to the Internet can now be managed by SMC over the Internet using IPv6based management connections. Connectivity between SMC components still requires IPv4 addressing and connectivity.

#### **Network Security for Industrial Control Systems (ICS)**

ICS support has been enhanced with deep inspection support for DNP3 (TCP/UDP) and Open Platform Communications Unified Architecture (OPC UA).

#### Safe search support

Forcepoint NGFW can be configured to enforce safe search usage for Google, Bing, Yahoo, and DuckDuckGo web searches.

## Enhancements

This release of the product includes these enhancements.

#### **Enhancements in Forcepoint NGFW version 5.10**

Enhancement	Description
Advanced Threat Defense communication logging improvements	Improvements have been made to the communication protocol and logging features between McAfee <sup>®</sup> Advanced Threat Defense and Forcepoint NGFW. Forcepoint NGFW now logs the dynamic analysis results when available from Advanced Threat Defense. Forcepoint NGFW provides the file name, destination IP address, and URL details when sending the file to Advanced Threat Defense for analysis.

Enhancement	Description
File filtering improvements	Improvements have been made to file type detection and filtering. We recommend that you update your file filtering policies with the new file type categories.
DHCP services	It is now possible to use DHCP server and DHCP relay services on different interfaces of the same Forcepoint NGFW engine.

#### **Enhancements in Forcepoint NGFW version 5.10.3**

Enhancement	Description
Dynamic routing enhancements	Dynamic routing features, such as graceful restart for OSPF and BGP, have been improved. The stability of dynamic routing has also been improved.

#### **Enhancements in Forcepoint NGFW version 5.10.4**

Enhancement	Description
Improved alerting for offline transitions	Alerting for offline transitions has been improved. Alerts are now created for unexpected offline transitions, such as heartbeat recovery, or nodes that have different policies.
Faster policy installation for Virtual Security Engines	Policy installation is now faster in environments that have many Virtual Security Engines.

#### **Enhancements in Forcepoint NGFW version 5.10.8**

Enhancement	Description
Engine monitoring enhancements	Engine monitoring has been improved. If the monitoring connection through a primary Control Interface fails, the backup Control Interface is used.
Improved logging for File Filtering	Logging for File Filtering has been improved significantly. For example, all File Filtering Situations are now logged under File Filtering in the Facility column of the Logs view.
Inspection with a larger number of Virtual Security Engines	Inspection can now be used with a larger number of Virtual Security Engines that are hosted on a single Master Engine.

# **Resolved issues**

These issues are resolved in this release of the product. For a list of issues fixed in earlier releases, see the Release Notes for the specific release.

Description	Role	Issue number
The certificate that is used to sign engine upgrade packages expires on 2017-11-30. After this date, it is not possible to install NGFW version 5.10.0–5.10.9.	FW, IPS, L2FW	NGFW-102
To remotely upgrade NGFW version 5.10.10 after 2017-11-30, dynamic update package 810 or newer must be activated.		
When you select ANY in the Service (Port) cell of a Service Definition, the inspection process might restart when some types of traffic are inspected.	FW, IPS, L2FW	NGFW-1854
DHCP relay might stop working when you modify an interface that has DHCP relay enabled.	FW	NGFW-2675
DHCP requests and replies might contain so much group information that the DHCP relay service cannot handle the request. In fixed versions, the number of groups added to DHCP requests is limited by the maximum size of the request. As a result, information about some groups might not be passed to DHCP. The DHCP diagnostics facility creates log entries if this issue occurs.	FW	NGFW-2761
If IPv6 NAT is configured for a firewall node, the node does not respond to neighbor solicitation messages after the node reboots, or after there is a state change in the cluster.	FW	NGFW-3049
IPv6 ICMP error messages are not handled correctly if NAT is applied to the connection.	FW	NGFW-3305
The OpenSSL library has been updated to address CVE-2016-7056, CVE-2016-8610, and CVE-2017-3731. There are no known attack vectors for these vulnerabilities in Forcepoint Next Generation Firewall.	FW, IPS, L2FW	NGFW-3315
When you take traffic captures using the Management Client, transferring the traffic captures from the engine to the SMC might fail. The CPU load on the engine might also be high.	FW, IPS, L2FW	NGFW-3576
The engine might become unresponsive or stop working if the appliance has a large number of CPU cores and there are a large number of new concurrent connections in the VPN.	FW	NGFW-3981
When the VPN Gateway to which VPN Clients connect is a Virtual NGFW Engine, VPN Client users might not be able to re-authenticate.	FW	NGFW-4212
When the NGFW Engine receives a large number of Users and User Groups, for example from McAfee Logon Collector, the NGFW Engine might process traffic more slowly.	FW, IPS, L2FW	NGFW-4327
On interfaces that use the MOE10F4 (MOD-EM2-10G-SFP-4) or MO40F2 (MOD-40G-2) interface modules, link aggregation might stop working when you change the number of VLAN Interfaces on an Aggregated Link interface.	FW	NGFW-4419

Description	Role	Issue number
When you change the interface configuration on an NGFW Engine that has a large number of Physical Interfaces or VLAN Interfaces, policy installation can temporarily interrupt the flow of traffic.	FW	NGFW-4420
If the engine has a large number of Physical Interfaces and VLAN Interfaces, status monitoring might periodically report the engine as unreachable.	FW	NGFW-4433
When an NGFW Engine in the IPS role inspects connections detected by Capture Interfaces, resource consumption might become unusually high.	IPS	NGFW-4497
When you enable dynamic routing, the vtysh.conf file might be left empty. As a result, vtysh requests the root password when you access vtysh.	FW	NGFW-4553
The McAfee anti-malware version used by NGFW has been upgraded to address CVE-2016-8031.	FW, IPS, L2FW	NGFW-4730
On engines that have 300 or more Physical Interfaces or VLAN Interfaces, Aggregated Link Interfaces might not work correctly.	FW	NGFW-4733

# Installation instructions

Use these high-level steps to install SMC and the Forcepoint NGFW engines.

For detailed information, see the *Forcepoint Next Generation Firewall Installation Guide*. All guides are available for download at https://support.forcepoint.com.



**Note:** The sgadmin user is reserved for SMC use on Linux, so it must not exist before SMC is installed for the first time.

#### **Steps**

- 1) Install the Management Server, the Log Servers, and optionally the Web Portal Servers.
- Import the licenses for all components.
   You can generate licenses at https://stonesoftlicenses.forcepoint.com.
- Configure the Firewall, IPS, or Layer 2 Firewall elements with the Management Client using the Security Engine Configuration view.
- 4) To generate initial configurations for the engines, right-click each Firewall, IPS, or Layer 2 Firewall element, then select Configuration > Save Initial Configuration. Make a note of the one-time password.
- 5) Make the initial connection from the engines to the Management Server, then enter the one-time password.
- 6) Create and upload a policy on the engines using the Management Client.

## **Upgrade instructions**

Take the following into consideration before upgrading licenses, engines, and clusters.

- Upgrading to version 5.10.x is only supported from version 5.8.x or later. If you have an earlier version, first upgrade to the latest 5.8.x version.
- Forcepoint NGFW 5.10.x requires an updated license if upgrading from version 5.9.x or earlier. The license upgrade can be requested at <a href="https://stonesoftlicenses.forcepoint.com">https://stonesoftlicenses.forcepoint.com</a>. Install the new license using the Management Client before upgrading the software. If communication between the SMC and the license server is enabled and the maintenance contract is valid, the license is updated automatically.
- To upgrade the engine, use the remote upgrade feature or reboot from the installation CD and follow the instructions. For detailed instructions, see the *Forcepoint Next Generation Firewall Installation Guide*.

Take the following software architecture information into consideration.

- Forcepoint NGFW appliances support only the software architecture version with which they come installed.
   32-bit versions (i386) can only be upgraded to another 32-bit version and 64-bit versions (x86-64) can only be upgraded to another 64-bit version.
- Clusters can only have online nodes that use the same software architecture version.
- State synchronization between 32-bit and 64-bit versions is not supported.
- Changing the architecture of third-party servers using software licenses requires the software to be fully reinstalled from CD.
- Forcepoint NGFW version 5.10 only supports 64-bit software architecture. Except for the FW-315 appliance, the last supported software version for 32-bit Firewall/VPN appliances is 5.8.
- To upgrade a cluster (consisting of FW-315 appliances or third-party hardware using software licenses) from a 32-bit to 64-bit version, see Knowledge Base article 9875.

# Known issues

For a list of known issues in this product release, see Knowledge Base article 10138.

## **Known limitations**

This release of the product includes these known limitations.

Limitation	Description
Inspection in asymmetrically routed networks	In asymmetrically routed networks, using the stream-modifying features (TLS Inspection, URL filtering, and file filtering) can make connections stall.
SSL/TLS inspection in capture (IDS) mode	Due to SSL/TLS protocol security features, SSL/TLS decryption in capture (IDS) mode can only be applied in a server protection scenario when RSA key exchange negotiation is used between the client and the server.
Inline Interface disconnect mode in the IPS role	The <i>disconnect mode</i> for Inline Interfaces is not supported on IPS virtual appliances, IPS software installations, IPS appliance models other than IPS-6xxx, or modular appliance models that have bypass interface modules.

## **Find product documentation**

On the Forcepoint support website, you can find information about a released product, including product documentation, technical articles, and more.

You can get additional information and support for your product on the Forcepoint support website at <a href="https://support.forcepoint.com">https://support.forcepoint.com</a>. There, you can access product documentation, Knowledge Base articles, downloads, cases, and contact information.

## **Product documentation**

Every Forcepoint product has a comprehensive set of documentation.

- Stonesoft Next Generation Firewall Product Guide
- Stonesoft Next Generation Firewall online Help



**Note:** By default, the online Help is used from the Forcepoint help server. If you want to use the online Help from a local machine (for example, an intranet server or your own computer), see Knowledge Base article 10097.

• Stonesoft Next Generation Firewall Installation Guide

Other available documents include:

- Stonesoft Next Generation Firewall Hardware Guide for your model
- Stonesoft Next Generation Firewall Quick Start Guide
- Stonesoft SMC API Reference Guide
- Stonesoft VPN Client User Guide for Windows or Mac
- Stonesoft VPN Client Product Guide

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