



# Next Generation Firewall

6.5.12

Release Notes

## Contents

- [About this release](#) on page 2
- [Lifecycle model](#) on page 2
- [System requirements](#) on page 3
- [Build number and checksums](#) on page 6
- [Compatibility](#) on page 6
- [New features](#) on page 7
- [Enhancements](#) on page 7
- [Resolved issues](#) on page 9
- [Installation instructions](#) on page 10
- [Upgrade instructions](#) on page 11
- [Known issues](#) on page 11
- [Find product documentation](#) on page 12

# About this release

This document contains important information about this release of Forcepoint Next Generation Firewall (Forcepoint NGFW). We strongly recommend that you read the entire document.

## 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 <https://support.forcepoint.com/ProductSupportLifeCycle>.

# System requirements

To use this product, your system must meet these basic hardware and software requirements.



## CAUTION

To protect the privacy of your data, we recommend using dedicated hardware for all NGFW, SMC, and SMC Appliance installations. For cloud-based virtualization platforms, use an instance type that runs on dedicated hardware. For on-premises virtualization platforms, install the NGFW Engines, SMC components, or SMC Appliance on a hypervisor that does not host any other virtual machines. For third-party hardware, do not install any other software on the computer where you install the NGFW Engines or SMC components.

## Forcepoint NGFW appliances

We strongly recommend using a pre-installed Forcepoint NGFW appliance for Forcepoint NGFW installations.



## Note

Some features are not available for all appliance models. See Knowledge Base article [9743](#) for appliance-specific software compatibility information.

The majority of the following supported appliances can be used in the Firewall/VPN, IPS, or Layer 2 Firewall role.

- 100 Series (110 and 115) (*Firewall/VPN role only*)
- 320 Series (321 and 325)
- 330 Series (330, 331, and 335)
- 1000 Series (1035 and 1065)
- 1100 Series (1101 and 1105)
- 1400 Series (1401 and 1402)
- 2100 Series (2101 and 2105)
- 3200 Series (3202, 3206, and 3207)
- 3300 Series (3301 and 3305)
- 5206
- 6205


## Sidewinder S-series appliances

The following appliance models can be re-imaged to run Forcepoint NGFW software in the Firewall/VPN role.

- S-1104
- S-2008
- S-3008
- S-4016
- S-5032
- S-6032

## Basic hardware requirements

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

Component	Requirement
CPU	Intel® Pentium D series 2 core or higher
Memory	4 GB RAM
Hard disk	8GB <div>  <div> <b>Note</b>  RAID controllers are not supported. </div> </div>
Peripherals	<ul style="list-style-type: none"> <li>■ DVD drive</li> <li>■ VGA-compatible display</li> <li>■ Keyboard</li> </ul>
Interfaces	<ul style="list-style-type: none"> <li>■ One or more network interfaces for the Firewall/VPN role</li> <li>■ Two or more network interfaces for the IPS in IDS configuration</li> <li>■ Three or more network interfaces for inline IPS engine or Layer 2 Firewall</li> </ul> <p>For information about supported Ethernet interface types and adapters, see Knowledge Base article <a href="#">9721</a>.</p>

## Master NGFW Engine requirements

Master NGFW 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 NGFW 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 NGFW 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.

Component	Requirement
CPU	Intel® Pentium D series 2 core or higher
Memory	4 GB RAM
Virtual disk space	8 GB
Hypervisor	One of the following: <ul style="list-style-type: none"> <li>■ VMware ESXi 6.0 and 6.5</li> <li>■ KVM (KVM is tested as shipped with Red Hat Enterprise Linux Server 7.4 and 7.5)</li> <li>■ Microsoft Hyper-V on Windows Server 2012 or Windows Server 2016</li> </ul> Firewall/VPN role only. An Intel 64-bit processor is required.
Interfaces	<ul style="list-style-type: none"> <li>■ At least one virtual network interface for the Firewall/VPN role</li> <li>■ Three virtual network interfaces for IPS or Layer 2 Firewall roles</li> </ul> The following network interface card drivers are recommended: <ul style="list-style-type: none"> <li>■ VMware ESXi platform — <code>vmxnet3</code>.</li> <li>■ KVM platform — <code>virtio_net</code>.</li> </ul>

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.

## Supported cloud environments

You can deploy Forcepoint NGFW in the Amazon Web Services (AWS) and Microsoft Azure cloud environments.

### Amazon Web Services

Forcepoint NGFW instances can be launched from AWS using 1-Click Launch, and existing instances can be remotely upgraded to the latest Forcepoint NGFW version.

To see the currently available instance types, search for *Forcepoint NGFW* in the AWS Marketplace.

For more information about deploying in AWS, see the document *How to deploy Next Generation Firewall in the Amazon Web Services cloud* and Knowledge Base article [10156](#).

## Microsoft Azure

Forcepoint NGFW instances can be launched from Azure using custom solution templates, and existing instances can be remotely upgraded to the latest Forcepoint NGFW version.

To see the currently available custom solution templates, search for *Forcepoint NGFW* in the Azure Marketplace.

For more information about deploying in Azure, see the document *How to deploy Next Generation Firewall in the Azure cloud* and Knowledge Base article [14485](#).

## Build number and checksums

The build number for Forcepoint NGFW 6.5.12 is 21653.

Use checksums to make sure that files downloaded correctly.

- `sg_engine_6.5.12.21653_x86-64-small.iso`

```
SHA1SUM:
4e18ed03a25c71b377225ca39ab34fae9114b520

SHA256SUM:
c361add070e7f9ab7174477efb96e5b2027b9926a7b80bb9efda5f652006ddf9

SHA512SUM:
f2240ba2b2f3d55629e4a55990d57d06
77479d30302d6004e5ec4557d736b66c
e5560698f7eb9f119d7d17865bbb8297
8e163d4a632b15645a69582e78bbe2ed
```

- `sg_engine_6.5.12.21653_x86-64-small.zip`

```
SHA1SUM:
6c894d1b30e1ede486413a3cfb3cdf9eb1f21188

SHA256SUM:
1cbb858f48d17b2fafc6b28ee750106400b595f75ec7905c669d1230b80a61c1

SHA512SUM:
305a21a5b90b6572db6e5127f5d6fb53
3ddf6cfb7288539dd9247ff0be239f7f
d31d7e8339bd68295b3751f011c44b6a
8678eb2aacff0d3e0787a970862aaf37
```

## Compatibility

Forcepoint NGFW 6.5 is compatible with the following component versions.

- Forcepoint NGFW Security Management Center (SMC) 6.5 or higher
- Dynamic Update 1104 or higher
- Stonesoft® VPN Client for Windows 6.1.0 or higher
- Stonesoft® VPN Client for Mac OS X 2.0.0 or higher
- Stonesoft® VPN Client for Android 2.0.0 or higher
- Server Pool Monitoring Agent 4.0.0 or higher
- Forcepoint Endpoint Context Agent (ECA) 1.1.0 or higher

- Forcepoint User ID Service 1.1.0 or higher

## New features

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

### SD-WAN dashboard

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The SD-WAN dashboard makes the software-defined wide area network (SD-WAN) features that are already part of Forcepoint NGFW more visible. The SD-WAN dashboard allows you to monitor SD-WAN features, such as outbound Multi-Link and Multi-Link VPNs, and to view statistics and reports related to SD-WAN features.

### Application routing

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You can now apply different NAT rules to traffic, select which VPN traffic uses, and redirect traffic to different proxy servers depending on the network applications detected in the traffic.

### Route metrics, ECMP, and route monitoring

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You can now define multiple static routes to the same destination and apply metrics to the routes. The routes with a lower metric value can be used as backup routes. When you enable the equal-cost multi-path (ECMP) feature on the routes, there is a potential increase in bandwidth as traffic is balanced between the routes. In addition, you can use probes to monitor the status of a route. If a route is unavailable, the route is removed from the routing table and traffic is automatically sent over another route.

## Enhancements

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This release of the product includes these enhancements.

### Enhancements in Forcepoint NGFW version 6.5.0

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Enhancement	Description
Integrated User ID Service on NGFW Engines	You can now use the Integrated User ID Service on the NGFW Engines to provide transparent user identification for access control by user. The Integrated User ID Service is primarily meant for demonstration purposes and proof-of-concept testing of user identification services.
LDAP authentication for administrators	You can now authenticate administrators using simple password authentication against integrated external LDAP databases.

Enhancement	Description
VPN tunnels can remain established	You can now set specific VPN tunnels to always remain established even when no traffic is sent through the VPN tunnel.
IPv6 support for DHCP relay	You can now use DHCP relay on interfaces that have IPv6 addresses.
Node-initiated contact to Management Server for clustered NGFW Engines	Firewall Clusters and Master NGFW Engines in the Firewall/VPN role now support node-initiated contact to the Management Server. The clustered NGFW Engine opens a connection to the Management Server and maintains connectivity.
More precise controls for endpoint use	You can now define which VPN endpoints can communicate with each other, and how the endpoints are used in a Multi-Link configuration.
Dynamic routing with active-active clustering	You can now use dynamic routing in Firewall Clusters that use load-balancing mode. In load-balancing mode, all nodes in the cluster are online at the same time and traffic is balanced between the nodes, increasing performance for inspection and VPN traffic.
Dynamic elements specific to cloud platforms	You can use a specific naming scheme with Domain Name elements in Access rules to run a script on the NGFW Engine that resolves dynamic element names specific to a cloud platform to IP addresses. The IP addresses are resolved through API calls rather than regular network DNS queries. For more information, see Knowledge Base article <a href="#">16290</a> .
Update to using IKEv1 and certificate-based authentication	Previously, the NGFW Engine used the CA IssuerName in the IKE payload of the certificate request during IKEv1 negotiation. Starting from NGFW 6.5, the SubjectName is used in the payload, as recommended in RFC 4945.

## Enhancements in Forcepoint NGFW version 6.5.1

Enhancement	Description
ECA_Situation-Application-Not-Identified situation element	The ECA_Situation-Application-Not-Identified situation is used when Endpoint Context Agent (ECA) reports an unidentified application.
More precise URL categorization	URL parameters and destination IP addresses are now included in URL filtering queries to the ThreatSeeker Cloud for more precise URL categorization.
Faster policy installation	Policy installation is now faster for configurations that include a larger number of interfaces and changes to networks.

## Enhancements in Forcepoint NGFW version 6.5.2

Enhancement	Description
Shorter traffic interruption	The length of time for which traffic is interrupted during policy installation or refresh has been shortened.
Faster synchronization of dynamic routing tables	Synchronizing very large dynamic routing tables is now faster. With a large dynamic routing table, the non-active dynamic routing node receives changes more reliably.

## Enhancements in Forcepoint NGFW version 6.5.5

Enhancement	Description
New syntax for CN field in certificate requests for browser-based user authentication	It is now possible to use a specific syntax for the CN field in a certificate request (CSR) for browser-based user authentication so that the Subject Alternative Name (SAN) fields can already be defined when the NGFW Engine generates the certificate request for browser-based user authentication. For more information, see Knowledge Base article <a href="#">17375</a> .

## Enhancements in Forcepoint NGFW version 6.5.6

Enhancement	Description
Support for YouTube in DNS-based SafeSearch	DNS-based SafeSearch has been extended to support YouTube.

## Enhancements in Forcepoint NGFW version 6.5.11

Enhancement	Description
More memory usage details available using SNMP Agents for NGFW Engines	Two new counters for available memory are now reported in Forcepoint NGFW-specific SNMP MIBs. The new OIDs are fwMemBytesAvailable and fwMemBytesSReclaimable. To use the new counters, update the NGFW-specific SNMP MIB for your SNMP tools to the NGFW MIB 6.9 level. For more information, see Knowledge Base article <a href="#">15926</a> .

## Resolved issues

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

Description	Role	Issue number
When a trusted CA certificate expires but there is another valid trusted CA certificate that uses the same subject and public key, TLS inspection might fail to validate the server certificate chain.	FW, IPS, L2FW	NGFW-24525
In rare cases when you use GTI file reputation scans, the inspection process might restart.	FW, IPS, L2FW	NGFW-24844
When the InternalDomain LDAP domain is the default LDAP domain, the InternalDomain LDAP domain is searched for user matches first even if users specify their LDAP Domain in the user@domain format when they authenticate.	FW	NGFW-29091
If NGFW Engines are currently connected to a backup Log Server, route monitoring using the SMC API does not work.	FW, IPS, L2FW	NGFW-29975
When the NGFW Engine is behind specific third-party NAT devices, NetLink probing might stop working until the NGFW Engine is restarted.	FW	NGFW-30378

Description	Role	Issue number
Dynamic routing has been optimized to work faster with a large number of announced networks and prefix lists.	FW	NGFW-30929
When a backup Log Server is configured, route monitoring might not work.	FW	NGFW-31276
When there is an attempt to open a related connection for SIP, the inspection process might restart.	FW	NGFW-31674
If you have configured multiple DNS servers and the NGFW Engine uses different interfaces to contact each DNS server, DNS relay might not work.	FW	NGFW-31787
The FTP protocol agent might not work correctly in strict mode without inspection when the following FTP commands are used: PRET, HOST, CLNT, RANG, or HASH.	FW	NGFW-31837
The TCP_Segment-SYN-Options-Conflict packet validation situation might drop packets without logging.	FW, IPS, L2FW	NGFW-32148
When you use outbound load-balancing and forward traffic to a proxy service for inspection, TCP retransmission packets are not handled correctly.	FW	NGFW-32571
When you use Master NGFW Engines and Virtual NGFW Engines, synchronizing a large number of routes for dynamic routing on multiple Virtual NGFW Engines might not always work.	FW	NGFW-32988

## Installation instructions

Use these high-level steps to install the 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/Documentation>.

### Steps

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

# Upgrade instructions

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



## Note

Upgrading to version 6.5 is only supported from version 6.3 or higher. If you have a lower version, first upgrade to version 6.3.



## Note

Starting from Forcepoint NGFW version 6.4, the McAfee Advanced Threat Defense feature is no longer supported. We recommend that you use Forcepoint Advanced Malware Detection instead.

- Forcepoint NGFW version 6.5 requires an updated license. The license upgrade can be requested at <https://stonesoftlicenses.forcepoint.com>. 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 NGFW Engine, use the remote upgrade feature or reboot from the installation DVD and follow the instructions. For detailed instructions, see the *Forcepoint Next Generation Firewall Installation Guide*.
- If you have customized the `sshd_config` file in the `/data/config/ssh` directory, you might need to manually update the configuration file after upgrading the NGFW Engine to Forcepoint NGFW version 6.5. See Knowledge Base article [10461](#).

## Known issues

For a list of known issues in this product release, see Knowledge Base article [16287](#).

## Known limitations

This release of the product includes these known limitations.

Limitation	Description
Inspection in asymmetrically routed networks	In asymmetrically routed networks, using stream-modifying features such as TLS Inspection, URL filtering, and file filtering can make connections stall.
Inline Interface disconnect mode	The disconnect mode for Inline Interfaces is supported only on modular appliance models that have full-sized bypass interface modules (not mini modules).

For information about feature-specific limitations, see the *Forcepoint Next Generation Firewall Product Guide*.

# Find product documentation

In the Forcepoint Customer Hub, 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 in the Forcepoint Customer Hub at <https://support.forcepoint.com>. There, you can access product documentation, release notes, Knowledge Base articles, downloads, cases, and contact information.

You might need to log on to access the Forcepoint Customer Hub. If you do not yet have credentials, create a customer account. See <https://support.forcepoint.com/CreateAccount>.

## Product documentation

Every Forcepoint product has a comprehensive set of documentation.

- *Forcepoint Next Generation Firewall Product Guide*
- Forcepoint 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](#).

- *Forcepoint Next Generation Firewall Installation Guide*

Other available documents include:

- *Forcepoint Next Generation Firewall Hardware Guide* for your model
- *Forcepoint NGFW Security Management Center Appliance Hardware Guide*
- *Forcepoint Next Generation Firewall Quick Start Guide*
- *Forcepoint NGFW Security Management Center Appliance Quick Start Guide*
- *Forcepoint NGFW SMC API Reference Guide*
- *Forcepoint VPN Client User Guide* for Windows or Mac
- *Forcepoint VPN Client Product Guide*

