

Spirent Communications Prerequisites

FNO On Premises 2024 R1

Revenera GCS

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# Hardware and Software System Requirements

The hardware and Software System Requirements for both FNO On Premises 2024 R1 and 2023 R1 are listed below. There are no hardware or software system requirement differences. The only difference is the upgrade paths listed.

## FNO On Premises 2024 R1

Detailed system requirements for FlexNet Operations 2024 R1 On Premises include the following.

**Supported Operating Systems:**

* Microsoft Windows Server 2022
* Microsoft Windows Server 2019
* Microsoft Windows Server 2016
* Red Hat Enterprise Linux 8.4 (64-bit)
* Virtual appliance: Linux (64-bit) based on CentOS-7

IMPORTANT:All Linux platforms must be Linux Standard Base (LSB) compliant.

**Supported Databases:**

* SQL Server 2019
* SQL Server 2017

**Servers:**

NOTE: For best performance, availability, and reliability, install each FlexNet Operations component on a separate host.

For Windows servers (each):

* Dual core
* 8 GB of RAM for each component (FlexNet Operations, Cloud Licensing Service, Usage Analytics Service)
* Minimum of 10 GB free disk space

For Linux servers (each):

* Dual core
* 8 GB of RAM for each component (FlexNet Operations, Cloud Licensing Service, Usage Analytics Service)
* Minimum of 10 GB free disk space
* Current directory (.) must be in the path of the user who starts the FlexNet Operations server

For Virtual Appliance:

* 8 GB of virtual RAM
* 8 GB of virtual disk space
* VMware requires about three times as much hard disk space at Open Virtualization Format package deployment time

**Application Server:**

* WildFly version 8.2.0, with default configured heap space minimum of 4 GB and maximum of 8 GB

**Message Broker Software:**

* RabbitMQ version 3.10.6 (with Erlang/OTP v13.0.2 (25))

**Supported Java Development Kits:**

* Oracle JDK 1.8
* OpenJDK 1.8

**Web browsers:**

* Microsoft Edge
* Mozilla Firefox 75.0
* Google Chrome 80.0.3987.163

**FlexNet Licensing Module:**

• FlexNet Publisher Toolkit 11.12.0 or later

* FlexNet Embedded Toolkit 2015 R2 or later

NOTE: FlexNet Operations supports these FlexNet Embedded host ID types: ETHERNET, INTERNET, INTERNET\_6, FLEXID9, FLEXID10, STRING, USER, VM\_UUID, EXTENDED, PUBLISHER\_DEFINED, and CONTAINER\_ID.

**Vendor Certificate Generator:**

The current versions of the VCG kit are 12.11.0 and 16.2.2.0.

These VCGs were tested with the following compilers:

* Windows—Visual Studio 2010 Professional Edition
* Linux—gcc 4.1.2 (RHEL 5.0)
* Linux—gcc 4.4.4 (RHEL 6.0)

**Supported upgrade paths:**

You can upgrade from the following previous FlexNet Operations versions to the current version:

* 2018 R1
* 2020 R1.1
* 2021 R1
* 2022 R1
* 2023 R1

**LDAP Directory Server:**

Windows 2012 Active Directory

**High Speed File Upload:**

If you intend to use the High-Speed Upload option to upload files, the following plug-in is required:

* Aspera Connect 3.10.0 or later

## FNO On Premises 2023 R1

Detailed system requirements for FlexNet Operations 2023 R1 On Premises include the following.

**Supported Operating Systems:**

* Microsoft Windows Server 2022
* Microsoft Windows Server 2019
* Microsoft Windows Server 2016
* Red Hat Enterprise Linux 8.4 (64-bit)
* Virtual appliance: Linux (64-bit) based on CentOS-7

IMPORTANT:All Linux platforms must be Linux Standard Base (LSB) compliant.

**Supported Databases:**

* SQL Server 2019
* SQL Server 2017

**Servers:**

NOTE: For best performance, availability, and reliability, install each FlexNet Operations component on a separate host.

For Windows servers (each):

* Dual core
* 8 GB of RAM for each component (FlexNet Operations, Cloud Licensing Service, Usage Analytics Service)
* Minimum of 10 GB free disk space

For Linux servers (each):

* Dual core
* 8 GB of RAM for each component (FlexNet Operations, Cloud Licensing Service, Usage Analytics Service)
* Minimum of 10 GB free disk space
* Current directory (.) must be in the path of the user who starts the FlexNet Operations server

For Virtual Appliance:

* 8 GB of virtual RAM
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**Application Server:**

* WildFly version 8.2.0, with default configured heap space minimum of 4 GB and maximum of 8 GB

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**Supported Java Development Kits:**

* Oracle JDK 1.8
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The current versions of the VCG kit are 12.11.0 and 16.2.2.0.

These VCGs were tested with the following compilers:

* Windows—Visual Studio 2010 Professional Edition
* Linux—gcc 4.1.2 (RHEL 5.0)
* Linux—gcc 4.4.4 (RHEL 6.0)

NOTE: The 12.11.0 VCG is built with FlexNet Publisher 11.11.1 and shares the same minimum C compiler requirements on each supported platform. (See the FlexNet Publisher 11.11.1 release notes for C/C++ compiler support.)

**Supported Upgrade Paths:**

You can upgrade from the following previous FlexNet Operations versions to the current version:

* 2018 R1
* 2020 R1.1
* 2021 R1
* 2022 R1

**LDAP Directory Server:**

Windows 2012 Active Directory

**High Speed File Upload:**

If you intend to use the High-Speed Upload option to upload files, the following plug-in is required:

* Aspera Connect 3.10.0 or later

# Security Issues Resolved by Release Version

## FlexNet Operations 2024 R1 On Premises

The following issues related to FlexNet Operations security were addressed in the 2024 R1 release.

* Sanitizing Email Templates
* Sanitizing HTML Strings
* Updated Open-Source Component

Further documentation for the bulleted security issues resolved can be found in the FlexNet Operations 2024 R1 On Premises Release Notes, <https://docs.revenera.com/fno2024r1_onprem/pdf/FNO2024R1OnPrem_ReleaseNotes.pdf>.

## FlexNet Operations 2023 R1 SP1 On Premises

The following components have been updated in the FlexNet Operations On-Premises 2023 R1 SP1 release to address potential security issues:

* Log4j 2 has been updated from version 2.8.2 to 2.19.0 (CVE-2021-44228, CVE-2021-45046)
* Apache Struts2 has been updated from version 2.5.22 to 2.5.33 to address a potential remote code execution vulnerability. (CVE-2023-50164)

## FlexNet Operations 2023 R1 On Premises

The following security issues were addressed in the 2023 R1 release.

* Restricted File Types for File Import
* File Type Extensions in File Import no Longer Case Sensitive
* Configuration Added for Avoiding Concurrent Sessions in Producer Portal and End-User Portal
* Configuration Added for Locking Out Users After Repeatedly Providing an Incorrect Security Answer
* Third-Party Component moment.js Upgrade

Further documentation for the bulleted security issues resolved can be found in the FlexNet Operations 2023 R1 On Premises Release Notes, <https://docs.revenera.com/fno2023r1_onprem/rn/Default.htm>.

## FlexNet Operations 2022 R1 On Premises

The following security issues have been resolved in this release.

* Clear Text Password No Longer Exposed
* Configuration Added for Re-Validating Users Before Sending Entitlement Emails
* Configuration Added for Locking Out Users after Successive Attempts to Reset Password

Further documentation for the bulleted security issues resolved can be found in the FlexNet Operations 2022 R1 On Premises Release Notes, <https://docs.revenera.com/fno2022r1_onprem/rn/Default.htm>.

## FlexNet Operations 2021 R1 On Premises

The following security issues have been resolved in this release.

* Restricted Directory Access
* Possible Security Issue Addressed in the End-User Portal
* Resolved Security Issue Detected by WhiteHat

Further documentation for the bulleted security issues resolved can be found in the FlexNet Operations 2021 R1 On Premises Release Notes, <https://docs.revenera.com/fno2021r1_onprem/rn/Default.htm>.

# Notifications & Best Practices

## Revenera Supporting Documentation

Product documentation for FlexNet Operations On Premises can be found in two locations:

1. For recent product releases please visit the **Revenera Community**, [https://community.revenera.com](https://revenera.community.com) | **Documentation** | Select Product: FlexNet Operations On Premises.
2. For historical product release please visit the **Product and License Center (PLC)**. From the Revenera Community, [https://community.revenera.com](https://revenera.community.com) | Other Resources | Product and License Center.

## FlexNet Operations On Premise News Subscription

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  + Here the site will filter to only FlexNet Operations News for On-Premises
* Select “Subscribe”

This location is also where “Best Practices” are posted for the product.