



# Software Compatibility Guide

Virsec Security Platform 2.4

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## About This Document

This guide lists the software compatibility information for Virsec Security Platform (VSP) including VSP-Web, VSP-Memory and VSP-Host. The information provided covers the management infrastructure and supported server environments. Compatibility is based on VSP 2.4 release unless otherwise noted.

## 1.Contact Virsec

In case of any questions please contact Virsec Systems at [1-877-213-3558](tel:1-877-213-3558) OR [support@virsec.com](mailto:support@virsec.com).

## 2.Virsec Security Platform Version

The version is **Virsec Security Platform (VSP) 2.4**

## 3.Compatibility Matrix

### 3.1.For Containers

Table 1 below provides the software compatibility information for Workload Type – Containers

Operating System	VSP-Host	VSP-Memory	VSP-Web – Application Server			
			<a href="#">Java</a>	<a href="#">PHP</a>	<a href="#">ROR</a>	<a href="#">Node.js</a> **
RHEL7.6	✓	✓	✓	✓	✓	✓
UBUNTU16.04	✓		✓	✓	✓	✓
UBUNTU18.04	✓	✓	✓	✓	✓	✓

UBUNTU20	✓	✓	✓	✓	✓	✓
DEBIAN-BUSTER-SLIM	✓	✓			✓	
DEBIAN-BUSTER	✓	✓				
DEBIAN-STRETCH-SLIM	✓				✓	
DEBIAN-STRETCH	✓					
ALPINE3.6	✓	✓				
ALPINE3.7	✓	✓				
ALPINE3.8	✓*	✓				
ALPINE3.9	✓	✓				
ALPINE3.10	✓	✓				
ALPINE3.11	✓	✓				
ALPINE3.12	✓	✓				
ALPINE3.13	✓	✓			✓	

**Table 1** – Compatibility Matrix for Containers

\* FSM is not supported. Refer Section [7.1](#) for more information

\*\* Node.js is a beta feature included in VSP release 2.4.0

## 3.2. For Virtual Machines

Table 2 below provides the software compatibility information for Workload Type – Virtual Machines

Operating System	VSP-Host	VSP-Memory	VSP-Web – Application Server					
			<a href="#">Java</a>	<a href="#">PHP</a>	<a href="#">ROR</a>	<a href="#">Node.js</a> **	<a href="#">.NET</a>	
RHEL 6.5, 6.7	✓+							
RHEL7.6	✓	✓	✓	✓	✓	✓	✓	
RHEL8.x	✓	✓	✓	✓	✓	✓	✓	
UBUNTU16	✓		✓	✓	✓	✓	✓	
UBUNTU18	✓	✓	✓	✓	✓	✓	✓	
UBUNTU20	✓	✓	✓	✓	✓	✓	✓	
DEBIAN-9/STRETCH	✓*							
AMAZONLINUX-1	✓	✓			✓			
AMAZONLINUX-2	✓	✓			✓			
SUSE 12 (VSP 2.4.4 onwards)	✓							
SUSE 15 (VSP 2.4.3 onwards)	✓							
WINDOWS 2008 R2 SP1	✓							
WINDOWS 2012 R2	✓	✓	✓					✓
WINDOWS 2016	✓	✓	✓					✓
WINDOWS 2019	✓	✓	✓					✓

**Table 2 – Compatibility Matrix for VMs**

\* Memory Exploit Protection supported in a few kernels only. Refer Section [7.2](#) and [7.3](#) for more information

+ Memory Exploit Protection not supported. Refer Section [7.2](#) for more information

\*\* Node.js is a beta feature included in VSP release 2.4.0

### 3.3.Container Orchestration Support

Table 3 below provides the Container Orchestration Support information:

Container Orchestration Type	VSP Deployment	Workload Deployment	Notes
Kubernetes – Kubectl	✓	✓	Supported versions: Kubernetes - 1.18, 1.19, 1.20, 1.21, 1.22 Docker Engine - 19.03
Helm Charts	✓	✓	Supported versions: Helm 2, Helm 3
Docker-only		✓	Supported Docker Versions: 18.x, 19.x, 20.x
Amazon ECS on Fargate		✓	
Amazon ECS on EC2		✓	
Amazon EKS on EC2	✓	✓	

**Table 3 – Container Orchestration Support**

## 3.4. VM Hypervisor Support

Table 4 below provides VM Hypervisor Support information:

Hypervisor Type	Support
ESXi	✓
AWS EC2	✓
Nutanix	✓

Table 4 – VM Hypervisor Support

## 4. VSP-Web - Supported Application Server Technologies

### 4.1. Supported Technologies for Java

The table below lists the supported technologies for Java

Technology	Supported Version(s)
Java Versions	<ul style="list-style-type: none"> <li>JDK 1.7</li> <li>JDK 1.8</li> <li>JDK 9</li> <li>JDK 10</li> <li>JDK 11</li> <li>JDK 12</li> </ul>



<b>Application Servers</b>	<ul style="list-style-type: none"> <li>• Tomcat 7, 8, 9</li> <li>• JBoss 7.1+ (Community Edition)</li> <li>• Jetty 9</li> <li>• IBM WebSphere App Server 8.5</li> <li>• Oracle Weblogic 12</li> <li>• Wildfly Server 10, 11, 12</li> <li>• GlassFish 3, 4, 5</li> <li>• Executable Jar</li> </ul>
<b>Application Framework</b>	<ul style="list-style-type: none"> <li>• Spring Web (MVC)</li> <li>• Struts 2</li> <li>• Hibernate</li> <li>• GWT (Google Web Kit) 2.9</li> <li>• JSF (Java Server Faces)</li> <li>• Spring Boot</li> </ul>
<b>Databases</b>	<ul style="list-style-type: none"> <li>• MySQL JDBC 5.x</li> <li>• Postgres SQL JDBC 9.x, 42.2.5</li> <li>• Oracle JDBC ojdbc8</li> <li>• MS-SQL JDBC 8.x</li> <li>• H-SQL JDBC 2.x</li> </ul>

**Table 5 – Java – Supported Technologies**

## 4.2. Supported Technologies for PHP

The table below lists the supported technologies for PHP

Technology	Supported Version(s)
Runtime Versions	<ul style="list-style-type: none"> <li>• 7.3</li> <li>• 7.4</li> </ul>
Web Servers	<ul style="list-style-type: none"> <li>• Apache with Fork and PHP-FPM</li> <li>• NGINX</li> </ul>
Databases	<ul style="list-style-type: none"> <li>• MySQL Server 5.x</li> <li>• Maria DB Server 10.0.38</li> </ul>
Thread Safety Mode	<ul style="list-style-type: none"> <li>• NTS (Non-Thread Safe)</li> </ul>

**Table 6 – PHP – Supported Technologies**

## 4.3. Supported Technologies for Ruby on Rails

The table below lists the supported technologies for Ruby on Rails

Technology	Supported Version(s)
Language Versions	<ul style="list-style-type: none"> <li>• 2.5</li> <li>• 2.6</li> </ul>
Web Servers	<ul style="list-style-type: none"> <li>• Puma</li> <li>• Passenger</li> <li>• Unicorn</li> </ul>
Application Framework	<ul style="list-style-type: none"> <li>• Rails</li> </ul>
Databases	<ul style="list-style-type: none"> <li>• MySQL Server 5.x</li> <li>• Postgres</li> </ul>

**Table 7** – Ruby on Rails – Supported Technologies

## 4.4. Supported Technologies for .NET

The table below lists the supported technologies for .NET

Technology	Supported Version(s)
<b>.NET Framework</b>	
Language Versions	<ul style="list-style-type: none"> <li>.Net Framework 4.5.x</li> <li>.Net Framework 4.6.x</li> <li>.Net Framework 4.7.x</li> <li>.Net Framework 4.8.x</li> </ul>
Architecture	<ul style="list-style-type: none"> <li>x86</li> <li>x64</li> </ul>
Web Servers	<ul style="list-style-type: none"> <li>IIS 7.x+</li> </ul>
Managed Pipeline Mode	<ul style="list-style-type: none"> <li>Classic</li> <li>Integrated</li> </ul>
Application Framework	<ul style="list-style-type: none"> <li>ASP.NET MVC</li> <li>ASP.NET Web Forms</li> <li>ASP.NET Web Pages</li> <li>ASP.Net WebAPI</li> <li>ASP.Net Web Service (asmx)</li> </ul>
Databases	<ul style="list-style-type: none"> <li>MS SQL Server</li> </ul>
APM Compatibility	<ul style="list-style-type: none"> <li>AppDynamics</li> </ul>

.NET Core	
Language Versions	<ul style="list-style-type: none"> <li>.Net Core 2.2</li> <li>.Net Core 3.0</li> <li>.Net Core 3.1</li> </ul>
Architecture	<ul style="list-style-type: none"> <li>x86</li> <li>x64</li> </ul>
Web Servers	<ul style="list-style-type: none"> <li>IIS 7.x+</li> </ul>
Hosting model	<ul style="list-style-type: none"> <li>In-proc</li> <li>Out-Of-Proc</li> </ul>
Application Framework	<ul style="list-style-type: none"> <li>ASP.NET Core</li> <li>ASP.NET Core WebAPI</li> </ul>
Databases	<ul style="list-style-type: none"> <li>MS SQL Server</li> </ul>
APM Compatibility	<ul style="list-style-type: none"> <li>AppDynamics</li> </ul>

**Table 8** – .NET – Supported Technologies

## 4.5.Supported Technologies for Node.js



NOTE:

It is a beta feature included in VSP release 2.3.0

The table below lists the supported technologies for Node.js

Technology	Supported Version(s)
Language Versions	<ul style="list-style-type: none"> <li>12</li> <li>14</li> </ul>
Application Framework	<ul style="list-style-type: none"> <li>Express</li> </ul>
Databases	<ul style="list-style-type: none"> <li>MySQL Server 5.x</li> <li>Oracle</li> <li>MS SQL Server</li> </ul>

**Table 9 – .Node.js – Supported Technologies**

## 5.VSP-Web - Supported Web Server Versions

The table below lists the supported Webservice Versions by VSP-Web – Web Server

Operating System	NGINX		Apache	
	VM	Container	VM	Container
RHEL7	NGINX 1.16		Apache 2.4.6	
RHEL8	NGINX 1.18			
UBUNTU16	NGINX 1.10.3	NGINX 1.10.3	Apache 2.4.18	Apache 2.4.18
UBUNTU18	NGINX 1.14			
UBUNTU20	NGINX 1.18			

Table 10 – Supported Webservice Versions

## 6.VSP-Memory Qualified Applications



NOTE:

VSP Memory is not supported when Intel® Transactional Synchronization Extensions (Intel® TSX) is enabled

## 6.1. For Containers

The table below lists the qualified Applications

Operating System	NGINX 1.4	Httpd 2.4	Apache 2
Alpine 3.8	✓		
Alpine 3.10	✓		
Alpine 3.11	✓		
Alpine 3.12	✓	✓	
Alpine 3.13	✓	✓	
Debian Stretch Slim	✓		
Debian Buster Slim	✓		
Ubuntu 18.04	✓		
Ubuntu 20.04	✓		✓
RHEL 7.6	✓	✓	
CentOS 7.9	✓	✓	

**Table 11** – Qualified Applications for Containers



## 6.2.For Virtual Machines

The table below lists the qualified Applications

Operating System	NGINX 1.4	NGINX 1.2	Httpd 2.4	Apache 2
RHEL 7			✓	
CentOS 7.9			✓	
Ubuntu 18				✓
Ubuntu 20				✓
AmazonLinux2	✓	✓		

Table 12 – Qualified Applications for VMs

## 7.VSP-Host Qualified Features

### 7.1.For Containers

Table 13 below provides the VSP-Host compatibility information for Workload Type - Containers

Operating System	Process and Library Monitoring	FSM
RHEL7.6	✓	✓
UBUNTU16.04	✓	✓
UBUNTU18.04	✓	✓

UBUNTU20	✓	✓
DEBIAN-BUSTER-SLIM	✓	✓
DEBIAN-BUSTER	✓	✓
DEBIAN-STRETCH-SLIM	✓	✓
DEBIAN-STRETCH	✓	✓
ALPINE3.6	✓	✓
ALPINE3.7	✓	✓
ALPINE3.8	✓	
ALPINE3.9	✓	✓
ALPINE3.10	✓	✓
ALPINE3.11	✓	✓
ALPINE3.12	✓	✓
ALPINE3.13	✓	✓

**Table 13** – VSP-Host Compatibility Matrix for Containers

## 7.2.For Virtual Machines

Table 14 below provides the VSP-Host compatibility information for Workload Type – Virtual Machines



NOTE:

VSP-Host features are not supported on VMs running containers

Operating System	Process and Library Monitoring	FSM	Memory Exploit Protection (Beta Feature)
RHEL 6.5, 6.7	✓		
RHEL7.6	✓	✓	✓*
RHEL8.x	✓	✓	✓*
UBUNTU16	✓	✓	✓*
UBUNTU18	✓	✓	✓*
UBUNTU20	✓	✓	✓*
DEBIAN-9/STRETCH	✓	✓	✓*
AMAZONLINUX-1	✓	✓	
AMAZONLINUX-2	✓	✓	
SUSE 12 (VSP 2.4.4 onwards)	✓	✓	
SUSE 15 (VSP 2.4.3 onwards)	✓	✓	
WINDOWS 2008 R2 SP1	✓		✓
WINDOWS 2012 R2	✓	✓	✓
WINDOWS 2016	✓	✓	✓
WINDOWS 2019	✓	✓	✓

**Table 14 – VSP-Host Compatibility Matrix for VMs**

\* Supported in a few kernels only. Refer Section [7.3](#) for more information

## 7.3. Supported Kernel Versions for Memory Exploit Protection

Table 15 below provides the supported Kernel versions for Memory Exploit Protection

Operating System	Supported Kernel Versions
DEBIAN-9/STRETCH	<ul style="list-style-type: none"> <li>4.9.0-16-common_debian9</li> </ul>
RHEL7.6	<ul style="list-style-type: none"> <li>3.10.0-123.el7_rhel7.6</li> <li>3.10.0-957.el7_rhel7.6</li> <li>3.10.0-1160.el7_rhel7.9</li> </ul>
RHEL8.x	<ul style="list-style-type: none"> <li>4.18.0-80.el8_rhel8.0</li> <li>4.18.0-193.el8_rhel8.2</li> </ul>
UBUNTU16	<ul style="list-style-type: none"> <li>4.4.0-210-generic_ubuntu16</li> </ul>
UBUNTU18	<ul style="list-style-type: none"> <li>4.15.0-140-generic_ubuntu18</li> <li>4.15.0-147-generic_ubuntu18</li> </ul>
UBUNTU20	<ul style="list-style-type: none"> <li>5.4.0-77-generic_ubuntu20</li> <li>5.4.0-70-generic_ubuntu20</li> </ul>

Table 15 – Supported Kernel Versions

## 8.CMS Compatibility

### 8.1.With Third-Party Products

The table below lists the third-party products that CMS is compatible with

Third-Party Product	Notes
LDAP	CMS is compatible with Active Directory only. No other LDAP integration is supported
SAML	Only Okta is supported in SAML
Splunk	Only HTTP is supported and not HTTPS
Zendesk	
QRadar	
Email Server	
Syslog Server	

Table 16 – CMS Compatibility with Third Party Products

### 8.2.Supported Browser

Google Chrome is the supported browser for CMS

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