Version 2022 R1

# LoadRunner Professional and LoadRunner Enterprise

**Support Matrix** (System Requirements)



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## **Contents**

This document (previously named System Requirements) provides up-to-date system requirements and supported environments for installing and running LoadRunner Professional and LoadRunner Enterprise. The list of supported Vuser protocols in LoadRunner Professional has been moved to the Supported Protocols guide.

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# LoadRunner Professional and LoadRunner Enterprise Host Requirements (Windows)

This section provides system requirement information for the following products:

- LoadRunner Professional Full
- LoadRunner Enterprise Host
- VuGen Standalone
- Analysis Standalone

- OneLG (Standalone Load Generator)
- Monitor over Firewall
- MI Listener
- TruClient Standalone

## **Hardware requirements**

This table provides hardware requirements for the products listed above. Memory and CPU requirements vary per protocol and system under test.

Hardware component	Supported / Recommended
Processor	<ul><li>2 core CPU</li><li>8 core CPU (Recommended)</li></ul>
Processor for UI-level protocols*	8 core CPU     16 core CPU (Recommended)
Memory (RAM)	8 GB     16 GB (Recommended)
Memory (RAM) for UI-level protocols*	• 16 GB • 32 GB (Recommended)
Available hard disk space**	<ul><li>50 GB</li><li>100 GB; SSD drive (Recommended)</li></ul>
Network card	1 Gbit/s

<sup>\*</sup> Such as TruClient, Citrix, SAP GUI, and so on.

<sup>\*\*</sup> All drives must have the minimum disk size required: at least 2 GB on the host system drive, and the amount specified in the product installation guide for any other drive.

# **Software requirements**

This table provides software requirements for the products listed above. For some Vuser protocols, one or more of the below OS may not be supported. Check the <u>supported protocols</u> documentation.

Software component	Supported / Recommended
Operating system	Microsoft Windows 8.1 64-bit
(See Windows Updates below)	<ul> <li>Microsoft Windows 10 64-bit versions 2004, Enterprise LTSC 2019, 20H2, 21H1, 21H2 - (Recommended)</li> </ul>
20.011	Microsoft Windows 11 64-bit 21H2
	Microsoft Windows Server 2012 R2 64-bit
	Microsoft Windows Server 2016 64-bit*
	Microsoft Windows Server 2019 64-bit* (Recommended)
	Microsoft Windows Server 2022 64-bit*
Browser	Google Chrome (Recommended)
(used for recording and	Microsoft Edge
replaying protocols only)	Mozilla Firefox
Screen resolution**	• 1366x768 or higher
	• 1600x900 or higher (Recommended)

<sup>\*</sup> We recommend enabling Desktop Experience when using this operating system.

\*\* Controller is not supported on display monitors with 4K or higher resolution.

## Windows updates

Before you install any components on a Windows machine, make sure that the full set of Windows updates has been installed, or install the Windows updates listed in the table below.

Note: Before you install any of the Windows updates, disable UAC (User Account Control) and restart the computer.

Windows version	Required updates
<ul> <li>Windows 8.1 64-bit*</li> <li>Windows 2012 R2 64-bit*</li> </ul>	<ol> <li>Install the following pack of updates:</li> <li>KB2919442 x64 or KB2970551 x64 (one of these two updates)</li> <li>KB2919355 x64</li> <li>KB2932046 x64</li> <li>KB2959977 x64 (if applicable)</li> <li>KB2937592 x64</li> <li>KB2938439 x64</li> <li>KB2934018 x64</li> <li>KB2999226 x64</li> </ol>

<sup>\*</sup> The list of required updates might change due to Microsoft's update delivery policy or new Windows update releases. If you experience any issues, please contact Micro Focus Software Support.

## **Component coexistence**

The LoadRunner Professional Full installation is installed on a single machine.

All the other LoadRunner components (listed on page <u>4</u>) must be installed on a separate machine, except for Analysis Standalone which can coexist on the same machine with VuGen Standalone or TruClient Standalone.

## **Supported coexistence**

✓	Analysis Standalone installed with VuGen Standalone
✓	Analysis Standalone installed with TruClient Standalone

## **Analysis database types**

The following table lists the database types and versions that are supported by LoadRunner Analysis.

Supported database type	Versions
Microsoft Access	2010, 2013
Microsoft SQL Server	2008 R2, 2012, 2019
SQLite	v3

# **LoadRunner Load Generator Requirements (Linux)**

#### **Linux installation**

The following table lists the system requirements and distributions for installing the Load Generator component on a Linux machine (only the Load Generator component is supported for installation on Linux). For some Vuser protocols, one or more of the below distributions may not be supported. Check the <u>supported protocols</u> documentation.

**Note:** Load generators support all X Servers.

Component	Supported / Recommended
Processor	2 core CPU
	8 core CPU (Recommended)
Distribution	• Oracle Enterprise Linux 7.1 UEK, 7.2-7.3 64-bit**
	Oracle Enterprise Linux 8 64-bit
	Red Hat Enterprise Linux 8 64-bit*
	Red Hat Enterprise Linux 8.4 64-bit* (Recommended)
	SUSE Linux Enterprise Server (SLES) version 15 64-bit
	Ubuntu Server Linux 18.04 LTS 64-bit*
	Ubuntu Server Linux 20.04 LTS 64-bit* (Recommended)
Memory (RAM)	8 GB
	16 GB (Recommended)
Available hard disk space	20 GB
	40 GB (Recommended)

<sup>\*</sup> Supports dockerized load generators.

<sup>\*\*</sup> Supports installation of Network Virtualization.

# Prerequisite packages for 64-bit installations

The following table lists the packages that must be installed on Linux machines before installing the 64-bit version of a load generator.

Distribution	Prerequisites	How to check if it is installed	How to install
Red Hat family including Oracle Linux	<ul><li>glibc.i686</li><li>glib2.i686</li><li>keyutils-libs.i686</li></ul>	<ul> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'glibc\.(i686 i386)'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'glib2\.(i686 i386)'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'keyutils-libs\.(i686 i386)'</li> </ul>	<ul> <li>yum install     <package_name></package_name></li> <li>yum install keyutils-libs.i686</li> <li>yum install libidn.i686</li> </ul> Note: If your machine already
	<ul><li>libstdc++.i686</li><li>libstdc++47.i686 (Amazon Linux)</li></ul>	• rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'libstdc\+\+[0-9]*\.(i686 i386)'	has GLib 64-bit (such as OL7), make sure to update it to the latest version to avoid conflicts before installing GLib2 32-bit.
	<ul> <li>libidn.i686</li> <li>ncurses-libs.i686 (required by Security Console)</li> </ul>	<ul> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'libidn\.(i686 i386)'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'ncurses(-libs)?\.(i686 i386)'</li> </ul>	
Ubuntu Server	<ul> <li>libc6-i386</li> <li>libglib2.0-0:i386</li> <li>lib32stdc++6</li> <li>libkeyutils1:i386</li> <li>lib32ncurses5 (required by Security Console)*</li> <li>lib32ncurses6 (required by Security Console)*</li> <li>libidn11:i386</li> </ul>	<ul> <li>dpkg -l libc6-i386   grep 'ii'</li> <li>dpkg -l libglib2.0-0:i386   grep 'ii'</li> <li>dpkg -l lib32stdc++6   grep 'ii'</li> <li>dpkg -l libkeyutils1:i386   grep 'ii'</li> <li>dpkg -l lib32ncurses5   grep 'ii'</li> <li>dpkg -l libidn11:i386   grep 'ii'</li> </ul>	<ul> <li>apt-get install <package_name></package_name></li> <li>apt-get install libkeyutils1:i386</li> <li>apt-get install libidn11:i386</li> </ul>

<sup>\*</sup> for Ubuntu Server Linux 18.04 LTS 64-bit

<sup>\*\*</sup> for Ubuntu Server Linux 20.04 LTS 64-bit

Distribution	Prerequisites	How to check if it is installed	How to install
SUSE Linux Enterprise Server (SLES) 64-bit	<ul> <li>lincurses5 32-bit</li> <li>glibc 32-bit</li> <li>libglib-2_0-0-32bit</li> <li>libstdc++6 32-bit</li> <li>keyutils-libs-32bit</li> <li>libidn11-32bit</li> </ul>	<ul> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'ncurses[0-9]*-32bit'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'glibc-32bit'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'libglib-2_0-0-32bit'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'libstdc\+\+6-32bit'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'keyutils-libs-32bit'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'libidn11-32bit'</li> </ul>	<ul> <li>zypper install libncurses5-32-bit</li> <li>zypper install glibc-32-bit</li> <li>zypper install libglib-2_0-0-32bit</li> <li>zypper install libstdc++6-32-bit</li> <li>zypper install libkeyutils1-32bit</li> <li>zypper install libidn11-32bit</li> </ul>

# **LoadRunner Enterprise Server Requirements**

The following table displays the system requirements for installing a LoadRunner Enterprise server.

Component	Supported / Recommended
Processor	4 core CPU     8 core CPU (Recommended)
Memory (RAM)	<ul><li>8 GB</li><li>16 GB or higher (Recommended)</li></ul>
Available hard disk space*	<ul><li>100 GB</li><li>150 GB; SSD drive (Recommended)</li></ul>
Operating system	<ul> <li>Microsoft Windows Server 2012 64-bit</li> <li>Microsoft Windows Server 2012 R2 64-bit</li> <li>Microsoft Windows Server 2016 64-bit**</li> <li>Microsoft Windows Server 2019 64-bit** (Recommended)</li> <li>Microsoft Windows Server 2022 64-bit**</li> </ul>
Database	<ul> <li>Microsoft SQL Server 2014 (SP3 and above)</li> <li>Microsoft SQL Server 2016</li> <li>Microsoft SQL Server 2017</li> <li>Microsoft SQL Server 2019</li> <li>Oracle 18c</li> <li>Oracle 19c</li> <li>PostgreSQL 11.x, 12.x, 13.x, 14.x</li> </ul>
Web server	IIS 8.0, 8.5, 10.0

<sup>\*</sup> All drives must have the minimum disk size required: at least 2 GB on the host system drive, and the amount specified in the product installation guide for any other drive.

<sup>\*\*</sup> We recommend enabling Desktop Experience when using this operating system.

# **LoadRunner Enterprise Web Client Requirements**

The following table displays the system requirements for LoadRunner Enterprise web client.

Component	Supported / Recommended
Screen resolution	<ul> <li>Microsoft Windows: 1366x768 or higher</li> <li>Microsoft Windows: 1600x900 or higher (Recommended)</li> <li>Mac OS: 1280x800 or higher</li> </ul>
Browser	Windows*:  • Google Chrome (Recommended):  • The two latest versions  • Chrome for Business  • Microsoft Edge 79 or later  • Mozilla Firefox:  • The two latest versions  • ESR 52  Mac OS:  • Apple Safari 13, 14

<sup>\*</sup> For optimal performance on Windows, we recommend using Google Chrome.

# **Virtual Table Server Requirements (Linux)**

The system requirements for installing the Virtual Table Server on a Linux machine are the same as for installing a Load Generator on Linux. For details, see <u>Linux</u> installation.

# **Cloud Computing - Amazon AWS, Microsoft Azure, and Google Cloud Platform**

LoadRunner Professional and LoadRunner Enterprise are certified to be installed and run under Amazon Web Services (AWS), Microsoft Azure and Google Cloud Platform instances or virtual machines, using a BYOL (Bring Your Own License) model.

Requirements for deploying LoadRunner Professional or LoadRunner Enterprise on cloud platforms:

- All components of the cloud computing environment follow the system requirements specified in this document.
- The required ports are open for communication. For the required ports, see <u>Load Generators on the Cloud</u> in the LoadRunner Professional help, and Communications Paths in the <u>LoadRunner Enterprise Installation Guide</u>.

#### Note:

- Cloud load generators can be provisioned using the built-in functionality of LoadRunner Professional or LoadRunner Enterprise. For details, see <a href="Manage LoadGenerators">Manage LoadGenerators</a> on the Cloud in the LoadRunner Professional help and <a href="Provision Cloud load generators">Provision Cloud load generators</a> in the LoadRunner Enterprise help. All other components must be manually installed and configured by the user.
- To improve performance, it is preferable to deploy the LoadRunner Enterprise server and hosts, and the database in the same region. Consult the cloud provider help for best practices about network performance.
- Cloud load generator ports are configurable. When all the components are in the cloud, the ports to use are defined by the cloud provider (they are not based on internal IT policies).

# **Integrations**

The following integrations are supported with this version of LoadRunner Professional and LoadRunner Enterprise.

## **Integrations with other Micro Focus products**

**Note:** IPv6 support is provided for Application Lifecycle Management and SiteScope.

Product	LoadRunner Professional	LoadRunner Enterprise
Application Lifecycle Management (ALM) 12.60, 12.60 P1, 12.60 P2, 12.60 P3, 15.0, 15.5*, 16.0.x*	✓	<b>√</b> **
ALM Octane 12.55.4 or later (using Jenkins plugin 5.4 or later)	х	✓
Network Virtualization 2022.1.0.2924	✓	✓
VuGen 2020 SP1, 2020 SP2, 2020 SP3, 2021, 2021 R1, 2021 R2, 2022, 2022 R1	х	<b>√</b>
Analysis 2021, 2021 R1, 2021 R2, 2022, 2022 R1	х	✓
Service Virtualization 5.4.1, 2022, 2022 R1	✓	✓
SiteScope 2020.10, 2021.05, 2021.11, 2022.05	✓	✓
UFT Mobile 2021 R2 (supported in TruClient – Native Mobile protocol only)	<b>√</b>	<b>✓</b>
UFT One 2021 R1	✓	✓

<sup>\*</sup> ALM Lab Extension for functional and performance testing should not be enabled on the project.

<sup>\*\*</sup> LoadRunner Enterprise integrates with Application Lifecycle Management (ALM) 15.0, 15.5 and 16.0.x only.

# **Integration with non-Micro Focus products**

The following integrations with non-Micro Focus products are compatible with this version of LoadRunner Professional and LoadRunner Enterprise.

Supported products	Supported versions	Comments	
Bamboo	Bamboo 5.10.3 – 8.0.3	Uses App Delivery Management Bamboo plugin 1.8, available from <u>Atlassian Marketplace</u> .  See the <u>LoadRunner Enterprise and Bamboo</u> documentation in the LoadRunner Enterprise help.	
Jenkins	Jenkins server 2.222.1	Uses Micro Focus Application Automation Tools plugin 7.0.  See the Jenkins documentation in the <u>LoadRunner Professional</u> or <u>LoadRunner Enterprise</u> help.	
TeamCity*	TeamCity 2018.2.1	Uses LoadRunner Enterprise CI plugin 1.0.3, available from <u>JetBrains</u> .  See <u>LoadRunner Enterprise and TeamCity</u> in the LoadRunner Enterprise help.	
Azure DevOps/TFS*	Tested with Team Foundation Server 2018 and Azure DevOps Server 2020	Uses LoadRunner Enterprise CI plugin 1.0.8, available from <u>Visual Studio Marketplace</u> .  See <u>LoadRunner Enterprise and Azure DevOps (previously TFS/VSTS)</u> in the LoadRunner Enterprise help.	
New Relic*	Tested with New Relic REST API (v2)	See New Relic Monitor in the LoadRunner Enterprise only.	
Dynatrace SaaS and Managed		See Dynatrace SaaS and Managed monitors in the <u>LoadRunner Professional</u> or <u>LoadRunner Enterprise</u> help.	
AppDynamics*	Tested with AppDynamics 4.4	See the <u>AppDynamics Monitor</u> documentation in the LoadRunner Enterprise help.	
CA Application Performance Management (CA APM)	SaaS: 10.6	See the CA APM documentation in the <u>LoadRunner Professional</u> or <u>LoadRunner Enterprise</u> help.	
InfluxDB (on-premises)*	1.7.10 – 1.8.10	See Manage analysis servers in the LoadRunner Enterprise help.	
Kubernetes*	1.21 – 1.23.4	See Manage elastic dockerized hosts in the LoadRunner Enterprise help.	
Swarm*	1.41	See Manage elastic dockerized hosts in the LoadRunner Enterprise help.	

<sup>\*</sup>Supported in LoadRunner Enterprise only

# **Supported GUI Languages**

Language Packs enable you to view the LoadRunner Professional and LoadRunner Enterprise user interfaces in your local language. The following languages are supported:

Language	LoadRunner Professional	LoadRunner Enterprise
Chinese – Simplified	✓	✓
French	✓	✓
German	✓	✓
Italian	✓	✓
Japanese	✓	✓
Korean	✓	✓
Russian	✓	✓
Spanish	✓	✓

# **Protocols**

For the table of supported Vuser protocols in LoadRunner Professional and LoadRunner Enterprise, see the <u>Supported Protocols Guide</u>.

## Send us feedback



Let us know how we can improve your experience with the System Requirements Guide. Send your email to: docteam@microfocus.com

