Version 2021

# LoadRunner Professional and LoadRunner Enterprise

System Requirements (Product Availability Matrix)



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### **Contents**

This document (previously named Product Availability Matrix or PAM) 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.

LoadRunner Professional and LoadRunner Enterprise Host System Requirements (Windows)	4
LoadRunner Load Generator System Requirements (Linux)	8
LoadRunner Enterprise Server System Requirements	11
LoadRunner Enterprise Web Client System Requirements	12
Virtual Table Server Requirements (Linux)	13
Cloud Computing - Amazon AWS and Microsoft Azure	13
Integrations	14
Supported GUI Languages	16
Protocols	16

# LoadRunner Professional and LoadRunner Enterprise Host System 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 (See <u>Windows Updates</u> below)	<ul> <li>Microsoft Windows 8.1 64-bit*</li> <li>Microsoft Windows 10 64-bit versions 1607, 1803, 1809, 1903, 1909, 2004 - (Recommended), Enterprise LTSC 2019</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> </ul>
Browser (used for recording and replaying protocols only)	Microsoft Internet Explorer 11 (Recommended)     Microsoft Edge
Screen resolution***	<ul><li>1366x768 or higher</li><li>1600x900 or higher (Recommended)</li></ul>

<sup>\*</sup> Can only be used with Microsoft Internet Explorer 11.

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

<sup>\*\*\*</sup> 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 Rec	quired updates
• Windows 2012 R2 64-bit*  2. 3. 4. 5.	KB2932046 x64  KB2959977 x64 (if applicable)  KB2937592 x64  KB2938439 x64

<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 8) 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
<b>✓</b>	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
SQLite	v3

# **LoadRunner Load Generator System 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.

Component	Supported / Recommended
Processor	2 core CPU 8 core CPU (Recommended)
Distribution	<ul> <li>Oracle Enterprise Linux 7.1 UEK, 7.2-7.3 64-bit</li> <li>Oracle Enterprise Linux 8 64-bit</li> <li>Red Hat Enterprise Linux 7.7 64-bit</li> <li>Red Hat Enterprise Linux 8 64-bit* (Recommended)</li> <li>SUSE Linux Enterprise Server (SLES) version 12.1 64-bit</li> <li>SUSE Linux Enterprise Server (SLES) version 15 64-bit</li> <li>Ubuntu Server Linux 16.04 LTS 64-bit</li> <li>Ubuntu Server Linux 18.04 LTS 64-bit* (Recommended)</li> </ul>
Memory (RAM)	8 GB 16 GB (Recommended)
Available hard disk space	10 GB 20 GB (Recommended)

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

# 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> <li>Note: If your machine already has GLib 64-bit (such as OL7), make sure to update it to the latest version to avoid conflicts before installing GLib2 32-bit.</li> </ul>
	<ul> <li>libstdc++.i686</li> <li>libstdc++47.i686 (Amazon Linux)</li> <li>libidn.i686</li> </ul>	<ul> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'libstdc\+\+[0-9]*\.(i686 i386)'</li> <li>rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E</li> </ul>	
	• ncurses-libs.i686 (required by Security Console)	'libidn\.(i686 i386)'  • rpm -qaqf '%{NAME}.%{ARCH}\n'   grep -E 'ncurses(-libs)?\.(i686 i386)'	
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>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 </li> <li>package_name&gt;</li> <li>apt-get install libkeyutils1:i386</li> <li>apt-get install libidn11:i386</li> </ul>

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 System Requirements**

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

Component	Supported / Recommended
Processor	<ul><li>4 core CPU</li><li>8 core CPU (Recommended)</li></ul>
Memory (RAM)	8 GB     16 GB or higher (Recommended)
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** (Recommended)</li> <li>Microsoft Windows Server 2019 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 12c R1</li> <li>Oracle 12c R2</li> <li>Oracle 18c</li> <li>Oracle 19c</li> <li>PostgreSQL 12</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 System 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 Internet Explorer 11**
	Microsoft Edge 79 or later
	Mozilla Firefox:
	The two latest versions
	• ESR 52
	Mac OS:
	Apple Safari 10, 11

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

<sup>\*\*</sup> When using Microsoft Internet Explorer, we recommend opening a new browser window/session. If you encounter memory usage or performance issues, refer to <a href="Known issues">Known issues</a> in the LoadRunner Enterprise help.

# **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, 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 Load Generators">Manage Load Generators</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**

To view supported product version information online, see the Micro Focus Integration Catalog.

**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*	✓	<b>√</b> **
ALM Octane 12.55.4 or later (using Jenkins plugin 5.4 or later)	х	✓
Network Virtualization 2021.0.0.2320	✓	✓
VuGen 2020 SP1, 2020 SP2, 2020 SP3, 2021	х	✓
Analysis 2021	х	✓
Service Virtualization 5.4	✓	✓
SiteScope 2019.11, 2020.05, 2020.10	✓	✓
UFT Mobile 3.5 (supported in TruClient – Native Mobile protocol only)	<b>✓</b>	<b>√</b>
UFT One 15.0.2	✓	✓

<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

# **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 – 7.1.3	Uses App Delivery Management Bamboo plugin 1.5, available from <u>Atlassian Marketplace</u> .  See the <u>LoadRunner Enterprise and Bamboo</u> documentation in the LoadRunner Enterprise help.	
Jenkins	Jenkins server 2.190.1 and later	Uses Micro Focus Application Automation Tools plugin 6.5.  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 1.0.2, 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 2019	Uses LoadRunner Enterprise CI plugin 1.0.7, 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.  Due to New Relic deprecating support for TLS 1.0 and changing their API, a hotfix is required for the integration to work. For details, see <a href="KM03631897">KM03631897</a> .	
Dynatrace AppMon Dynatrace SaaS and Managed	Tested with Dynatrace AppMon 7.2	See Dynatrace AppMon in the <u>LoadRunner Professional</u> or <u>LoadRunner Enterprise</u> help.  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 – 1.7.10	See Manage analysis servers in the LoadRunner Enterprise help.	
Kubernetes*	1.17.4 – 1.19.4	See Manage elastic dockerized hosts in the LoadRunner Enterprise help.	
Swarm*	1.39	See Manage elastic dockerized hosts in the LoadRunner Enterprise help.	

# **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>.

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

# Send us feedback



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

