

Version 2022 R1

LoadRunner Professional and LoadRunner Enterprise

Supported Protocols



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Protocols

The following table lists the supported Vuser protocols in LoadRunner. Software must be supported by both LoadRunner and the vendor. We recommend checking the relevant product support matrix from the vendor.

Protocol	Application	Application supported versions	Server supported versions	Native 64-bit client recording	64-bit replay	Async	IPv6 support	IP spoofing support	NV 2022 support	Load Generator OS	Multi-protocol	Comments
Remote protocols												
Citrix ICA	Citrix Workspace for Windows	Citrix Workspace 1912 (19.12.0.119)*, Citrix Workspace 2203 LTSR	XenApp and XenDesktop 7.15 Citrix Virtual Apps and Desktops 1912, 2103	N	N	N	Y	N	Y	Any supported Windows OS	Y	*Citrix Workspace 1912 should be used without any cumulative updates. For recording, use Citrix multiprotocol with Web. Citrix Agent supports XenApp and XenDesktop servers. Network Virtualization supports Load Generator mode only. Recommended client version is Citrix Workspace 19.12.0.119. Citrix Agent supports text-trapping functions (ctr_sync_on_text_ex and ctr_get_text) only on Windows 8.1 and Windows Server 2012 R2.
RDP (Remote Desktop Protocol)	Remote Desktop Connection	8.1, 10, 10.2, 10.4, 10.6, 10.7, 10.8	Windows 8.1 Windows Server 2012 Standard/R2 Windows 10 (20H2, 21H1, 21H2) Windows 11 (21H2) Windows Server 2016 Windows Server 2019 Windows Server 2022	Y	N	N	Y	Y	Y	Any supported Windows OS	Y	Requires workaround connection to Windows 10 or Windows Server 2016.
Teradici PCoIP	Teradici PCoIP Client and compatible implementations	N/A	Teradici PCoIP Agent 2.14.0 Teradici PCoIP Connection Manager 1.8.0 - 1.8.2 Teradici PCoIP Security Gateway 1.14 - 1.14.1 VMware Horizon 7.0, 8	Y	Y	N	N	N	Y	Any supported Windows OS	N	Network Virtualization supports Load Generator mode only. LoadRunner PCoIP client does not support connection to application pools (published applications). You can connect to desktop pools only. Starting LRP 2021 R2, PCoIP protocol supports only 64-bit record and replay.
RTE (Remote Terminal Emulator)	PowerTerm for Micro Focus (built-in version with LoadRunner Professional). Supported modes: 3270, 5250, VTxxx	14	N/A	N	N	N	Y	N	Y	Any supported Windows OS	N	
GUI protocols												
SAP GUI	SAP GUI for Windows	7.7	SAP R/3 4.60c SAP ERP ECC 5.0 SAP ERP ECC 6.0 SAP HANA Edition	N	N	N	Y	N	Y	Any supported Windows OS	Y	
TruClient - Web	MS Internet Explorer	IE 11	N/A	Y	Y	N/A	Y	Y	Y	Any supported Windows OS	N	TruClient Browser is based on Mozilla technology.
	Chromium	Built-in 96.0.4664.45 (64-bit)										
	TruClient Browser	Built-in 88.0.2.7908 (64-bit)										
TruClient - Mobile Web	TruClient Browser	Built-in 88.0.2.7908 (64-bit)	N/A	Y	Y	N/A	Y	Y	Y	Any supported Windows OS	N	

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TruClient - Native Mobile	Refer to the UFT Mobile documentation for details		UFT Mobile 2021 R2	N/A	N/A	N/A	N/A	N/A	Y (supported through UFT Mobile server)	Any supported Windows OS	N	UFT Mobile is required for this protocol. Physical devices are necessary to record and replay scripts. TruClient-Native Mobile uses Chromium 96.0.4664.45 (64-bit) as editor.
Add-in protocols												
C++.NET Template (Visual Studio Add-in)	MS Visual Studio	2015, 2017, 2019	N/A	N/A	N/A	N/A	N/A	Y	Y	Any supported Windows OS	N	
C#.NET Template (Visual Studio Add-in)	MS Visual Studio	2015, 2017, 2019	N/A	N/A	N/A	N/A	N/A	Y	Y	Any supported Windows OS	N	
VB.NET Template (Visual Studio Add-in)	MS Visual Studio	2015, 2017, 2019	N/A	N/A	N/A	N/A	N/A	Y	Y	Any supported Windows OS	N	
Java Vuser for Continuous Delivery (Eclipse Add-in for Developers)	Eclipse IDE	2019-06 (4.12), 2019-09 (4.13), 2019-12 (4.14)	N/A	N/A	N/A	N/A	N/A	N/A	Y	Any supported Windows OS	N	Recommended to use Selenium 3.13 and JUnit 5.4.0. Java JRE is required. Supported versions are Java 7, 8 and 11.
	JUnit	5.3.1, 5.4.0										
	Selenium	3.12, 3.13, 3.14										
Java Vuser for Continuous Delivery (IntelliJ IDEA Add-in)	IntelliJ IDEA	2019.1, 2019.2, 2019.3	N/A	N/A	N/A	N/A	N/A	N/A	Y	Any supported Windows OS	N	
Unit Test based on .NET (Visual Studio Add-in for Developers)	MS Visual Studio	2015, 2017, 2019	N/A	N/A	N/A	N/A	N/A	N/A	Y	Any supported Windows OS	N	
	NUnit	3.10, 3.11, 3.12										
Custom Protocols developed with Protocol SDK	Vendor dependent	Visual Studio 2015 .Net 4.8	Vendor dependent	Vendor dependent	Vendor dependent	Vendor dependent	Vendor dependent	Vendor dependent	Y	Vendor dependent	N	
Web protocols												
Oracle NCA	Oracle Applications	JInitiator 1.3.1.18, 1.1.8.16	Forms 10gR2, 11g Oracle E-Business Suite 11, 12.2.x	Y	N	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	To work with Oracle client, install one of the following JVMs: JRE 7 or 8 or JDK 7 or 8.
Oracle - Web	MS Internet Explorer	Same as Web - HTTP/HTML protocol	N/A	Y	N	Y	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	To work with Oracle client, install one of the following JVMs: JRE 7 or 8 or JDK 7 or 8.
	Oracle Applications	JInitiator 1.3.1.18, 1.1.8.16	Forms 10gR2, 11g Oracle E-Business Suite 11, 12.2.x									

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SAP - Web	Same as Web - HTTP/HTML protocol	Same as Web - HTTP/HTML protocol	N/A	Y	N	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	DFE is not supported in Linux OSs.
Siebel - Web	Oracle (Siebel) CRM	N/A	8, 8.1, 8.2.2 (OpenUI)	Y	N	N	Y	Y	Y	Any supported OS	Y	
Web - HTTP/HTML	MS Internet Explorer	IE 11	N/A	Y	N	Y	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	GWT: GWT Request Factory requires GWT 2.7.0 or 2.8.0 and Java 1.8. DFE is not supported in Linux OSs.
	MS Edge	Edge - latest Chromium-based Edge - latest		Y								
	Google Chrome	latest		Y								
	Firefox	latest		N								
	PCAP	libpcap tcpdump		N/A								
	Network Sniffer	WinPcap 4.1.3 Wireshark 2.6.0 - 3.2.7 Fiddler 4.5.x - 5.0.x HAR file 1.2										
Web Services	MS Internet Explorer	IE 11	WSDL 1.0, 1.1 SOAP 1.1, 1.2 WCF UDDI 2, 3 WS-Security 1.0, 1.1 Attachments: Dime, Mime, MTOM, Base64Binary JMS	Y	N	Y	Y	Y	Y	Any supported Windows OS Supported on Windows Dockerized LGs	Y	Supported SOAP features: WS HTTP-binding, Net TCP Binding, Named Piped, Basic HTTP Binding and various custom binding, Federation scenarios, WS-SecureConversation, WS-ReliableMessaging, WS-Addressing, Username Token, X509 Certificate Token, Kerberos Token, Message signature, Message encryption. JMS does not support IP Spoofing or NV.
	MS Edge	Edge - latest Chromium-based Edge - latest										
	Google Chrome	latest										
	Firefox	latest										
DevWeb	N/A	N/A	N/A	N/A	Y	Y	N	N	N	Any supported Windows OS RHEL 8.4 64-bit Ubuntu 20.04 64-bit Oracle Enterprise Linux 8 64-bit Supported on Dockerized LGs	N	Replay is supported only in 64-bit mode.
IoT protocols												
MQTT	MQTT protocol 3.1, 3.1.1 (built-in version with LoadRunner Professional)		RabbitMQ Mosquitto EMQ HiveMQ	N/A	N	N	N	Y	Y	Any supported OS Supported on Dockerized LGs	Y	
.NET/Java protocols												
.NET	.NET Framework	3.5 SP1* 4.6.2* - 4.7.2*, 4.8	N/A	Y**	Y	N	N/A	N	Y	Any supported Windows OS Supported on Windows Dockerized LGs	N	* Supported on backward compatibility level. ** AUTs compiled in "AnyCPU" mode only.
Java Record Replay	Oracle JDK, Common OpenJDK distributions (32/64-bit)	1.8.x, 11.x, 17.x	WebLogic 11.x, 12.1.3 Generic	Y	Y	N	N/A	N	Y	Any supported OS Supported on Dockerized LGs	N	Network Virtualization supports Load Generator mode only.

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Java over HTTP	Oracle JDK, Common OpenJDK distributions (32/64-bit)	1.8.x, 11.x, 17.x	N/A	Y	Y	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	N	
	Browser support: IE	Same as in Web - HTTP/HTML										
Java Vuser	Oracle JDK, Common OpenJDK distributions (32/64-bit)	1.8.x, 11.x, 17.x	N/A	N/A	Y	N	N/A	N	Y	Any supported OS Supported on Dockerized LGs	N	Network Virtualization supports Load Generator mode only.
Kafka	Oracle JDK, Common OpenJDK distributions (32/64-bit)	1.8.x, 11.x, 17.x	kafka-clients-2.8.1.jar	Y	Y	N	N/A	N	Y	Any supported OS Supported on Dockerized LGs	N	Network Virtualization supports Load Generator mode only.
Mail protocols												
IMAP (Internet Messaging)	N/A	N/A	N/A	N	N	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	
MAPI (Microsoft Exchange)	Outlook	2013, 2016	Exchange Server 2013, 2016	N/A	.	N	N/A	N	Y	Any supported Windows OS	N	Network Virtualization supports Load Generator mode only.
POP3 (Post Office Protocol)	N/A	N/A	N/A	N	N	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	POP3 S: SSL support.
SMTP (Simple Mail Protocol)	N/A	N/A	N/A	N	N	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	SMTP S: SSL support.
Database protocols												
ODBC	ODBC	ODBC Driver Mgr 6.1 - 10.0	N/A	Y	Y	N	N	N	Y	Any supported OS Supported on Dockerized LGs	Y	
Oracle - 2 Tier	Oracle Client	12c 19c	Oracle 12c Oracle 19c	Y	N	N	N	N	Y	Any supported OS Supported on Dockerized LGs	Y	
Non-Web protocols												
C Vuser	N/A	N/A	N/A	N/A	Y	N	N/A	Y	Y	Any supported OS Supported on Dockerized LGs	N	Replay only.
DNS (Domain Name Resolution)	N/A	N/A	N/A	N	N	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	N	Replay only.

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FTP (File Transfer Protocol)		N/A	N/A	Y	N	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	FTPS is supported in passive mode only. Dockerized LG supports passive mode only.
LDAP (Listing Directory Service)	Based on Microsoft API Based on Mozilla API		(Oracle) Sun ONE 5.2 Oracle DS 11	Y	N	N	N	N	Y	Any supported OS Supported on Dockerized LGs	Y	
Tuxedo	Tuxedo	8.1	8.1	N	N	N	N	N	N	Any supported Windows OS	N	
Windows Sockets	Winsock	2.x	N/A	Y	N	N	Y	Y	Y	Any supported OS Supported on Dockerized LGs	Y	
Third-party protocols												
SMP (SAP Mobile Platform)			2.3	N/A	N/A	N	N/A	Y	Y	Any supported Windows OS Supported on Windows dockerized LGs	N	Same as .NET protocol support.
CoAP	Refer to AppDelivery Marketplace for details: https://marketplace.microfocus.com/appdelivery/content/coap-protocol			N/A	N/A	N	N	N	Y	Any supported Windows OS	Y	Third-party solution by Endpoint IOT.
Open source protocols												
JMeter	Apache JMeter	5.4.1 (built-in version)	N/A	N/A	N/A	N	N/A	N	N	Any supported OS Supported on Dockerized LGs	N	Apache JMeter requires Java JRE or JDK to be installed. Supported JRE or JDK versions are aligned with JMeter.
Gatling	Gatling	3.7.4 (built-in version)*	N/A	N/A	N/A	N	N/A	N	N	Any supported OS Supported on Dockerized LGs	N	Gatling requires Java JDK and Gatling to be installed. Supported JRE or JDK versions are aligned with Gatling. *Gatling 3.7 is not binary compatible with previous versions. Gatling Jar scripts compiled with a previous version must be recompiled in order to run in 2022 R1.
Selenium	Selenium	3.x, 4.x	Selenium Standalone server 3.141.59 Selenium server 4.0.0 alpha 6 (built-in version)	N/A	Y	N	N/A	N	N	Any supported OS	N	
Silk Performer												
Silk	Silk Performer Workbench	Silk Performer 21.0 and later	Silk Agent 21.0 and later	N/A	Y	N	N/A	N	N	Any supported Windows OS		The Silk Performer agent must be installed to run Silk scripts.