

Silk Performer 15.5

Release Notes

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Silk Performer 15.5 Release Notes

These release notes contain information that might not appear in the Help. Read them in their entirety before you install the product.



Note: This document contains a number of links to external web sites. Micro Focus cannot be responsible for the contents of the website or for the contents of any site to which it might link. Web sites by their nature can change very rapidly and although we try to keep our links up-to-date, we cannot guarantee that they will always work as expected.

System Requirements

The following tables identify the system requirements for installing and running Silk Performer. For details about Silk Performer performance and scalability, see the *Performance and Scalability Matrix*.

Hardware Requirements

To run the Silk Performer agent software, or both controller and agent software, and to use the full potential of Silk Performer to run large-scale load-tests, your system must meet the following minimum requirements:

Table 1: Load Testing

System Area	Requirement
Processor	Pentium IV or equivalent CPU
RAM	1 GB recommended minimum
Virtual memory	Three times as much virtual memory as RAM
Hard disk space	1 GB for controller software installation. 450 MB for agent-only installation. Depending on the size of your load tests, make sure you have enough space on your hard disk for result files.
Network	Windows network with TCP/IP (when using remote Silk Performer Agent computers)
Network adapter	10 MBit recommended minimum fast Ethernet recommended

Software Requirements

To install and run Silk Performer, your system requires a minimum set of software components:

The specific components that are required vary based on installation type. For example, to run Silk Performer Java Explorer, your system must be equipped with either of 32-bit Java Development Kit 1.4, 1.5, 1.6, 1.7. Download components from their respective vendors' Web sites.

- Internet Explorer 7, 8, 9, 10, 11 for browser-driven recording
- Adobe Acrobat Reader to view documentation
- Citrix XenApp Client 11.x, 12.x or Citrix Receiver to test Citrix applications
- 32-bit Java Development Kit 1.4, 1.5, 1.6, 1.7 to test Java applications with Java Explorer

Installation

For information about installation, deployment, and licensing issues, refer to the [Silk Performer Installation Help](#).

What's New in Silk Performer 15.5

Silk Performer 15.5 introduces significant enhancements and changes.

CloudBurst VPN

Silk Performer CloudBurst VPN allows you to comfortably load test a machine or an application on the machine that is part of your company network using cloud agents. Since company networks are usually protected by a firewall, cloud agents that are supposed to put load on a company machine are not able to connect to the system under test. The incoming traffic is blocked by the firewall. Configuring a CloudBurst VPN resolves this problem.

Optimize Web Pages with PageSpeed

The PageSpeed integration helps you identify areas for potential performance optimization by comparing your web pages against proven best practices for web site development. TrueLog Explorer displays an additional tab, containing the PageSpeed score rating along with recommendations about how the performance of the web page in focus can be optimized.

The PageSpeed functionality in TrueLog Explorer is currently only available for web protocol TrueLogs.

Trying Out Agents

Silk Performer 15.5 introduces the new **Try Agents** functionality, which allows you to verify that your test scripts work on all agents you are planning to use for your load test. This new feature resembles the **Try Script** functionality, which is used to verify that a recorded or written script works correctly during replay, whereas **Try Agents** is used to ensure that the script works on a variety of local and cloud agents. The **Try Agents** feature is typically executed before you start the actual load test to ensure that your test environment is setup correctly.

Graceful Ramp Down

In Silk Performer 15.5, you can define Ramp Down parameters, which allows you to gradually stop the running virtual users. Consequently, the virtual users' end transactions are not executed all at once, but in a staggered fashion.

WebSockets

The WebSocket Protocol

With Silk Performer 15.5 you can now also test connections that make use of the WebSocket protocol. The WebSocket protocol allows to establish a full-duplex (bidirectional) connection between client and server and is an alternative to communication models such as polling and long-polling.

You can use the following new BDL API functions in your script to test WebSocket communication or you can use the Silk Performer Recorder to do the scripting work for you.

WebSocket BDL Functions

- `WebSocketConnect`
- `WebSocketConnectSync`
- `WebSocketClose`
- `WebSocketSendTextMessage`
- `WebSocketSendBinaryMessage`
- `WebSocketReceiveMessage`

Browser-Driven Web Load Testing Enhancements

Browser-driven Synchronization Function

Silk Performer offers a new BDL API function (`BrowserWaitForNewWindow`), which waits until a new browser window is created and then returns the handle to this window. This function is especially useful when you record web applications with asynchronous communication.

Core engine upgrade for browser-driven projects

The core engine for browser-driven projects has been upgraded to the latest Silk Test web tech-domain.

Oracle ADF Project Type

Silk Performer now provides the new project type **Oracle ADF**, which includes specific recording rules and project settings for Oracle ADF applications.

Usability Enhancements

Usability enhancements have been implemented throughout Silk Performer:

JavaScript Pop-ups in TrueLog Explorer no longer visible

When navigating from node to node in TrueLog Explorer, occasionally JavaScript messages pop up. As these messages are of no use in this case, Silk Performer 15.5 suppresses them. This is true for the messages caused by the JavaScript events `onbeforeunload`, `alert`, `prompt`, `input`, and `confirm`.

Automatically Remove Used Data from a Data File

You can now let Silk Performer remove used data from a data or CSV file. The Parameter Wizard allows you to enable this option or you can manually script the BDL function `FileGetNextUniqueRow` and set the new parameter `bRemoveUsedRow` to `true`.

Rule-Based Content Rendering in TrueLog Explorer

For web protocol-based TrueLogs, TrueLog Explorer now allows rule-based content filtering, for example for displaying HTML fragments.

Improved Script Generation Workflow for AMF3 and Granite DS Application Types

When recording AMF3 or Granite DS applications, the captured traffic is stored in a capture file. Using the offline script generation approach, Silk Performer now helps you to adjust Java related settings correctly, so that fully readable and customizable scripts can be generated.

Technology Updates

Internet Explorer 11 for browser-driven load testing

Silk Performer now supports Internet Explorer 11 for browser-driven load testing.

Improved OCR for Citrix Testing

Silk Performer now uses the Textract OCR library version 3.0 for font-based OCR. Additionally, fuzzy OCR has been introduced to parse and verify texts rendered using font smoothing techniques.

Support for multiple WSDL endpoints in .NET Explorer

.NET Explorer now allows you to choose from the endpoints defined in the WSDL and therefore create a test script, which tests the associated service endpoint. You can even change the endpoint URLs if necessary.

Upgrade to OpenSSL 1.0.1g

Due to the heartbleed vulnerability, the OpenSSL third-party module has been upgraded to version 1.0.1g throughout Silk Performer including CloudBurst.

Known Issues in Silk Performer

This list contains known issues in Silk Performer and provides work-arounds where available:

General Silk Performer Issues

Multi-byte character set support limitations

Problem:

The protocol / testing support of the Multi-Byte Character Set / UTF-8 / EUC-JP is limited to certain application types.

Resolution:

The protocol / testing support of the Multi-Byte Character Set / UTF-8 / EUC-JP is limited to the following application types:

- Web application testing, both protocol-level and browser-driven level
- SAPGUI testing
- Oracle Forms/Oracle Applications testing
- Citrix testing

Optical character recognition (OCR) does not work for multibyte characters

Problem:

Optical character recognition (OCR) does not work for multibyte characters

Resolution:

Unfortunately there is no solution to this. Silk Performer uses a third-party DLL for optical character recognition which only supports ASCII characters.

How can I get Silk Performer "What's This" contextual Help to work on Windows Vista or later?

Problem:

How can I get Silk Performer "What's This" contextual Help to work on Windows Vista or later Windows versions?

Resolution:

In Silk Performer it is possible to get information about GUI functionality by right-clicking GUI controls and choosing **What's This?**. This contextual help does not work on Windows Vista or later Windows versions.

This is a known issue related to the fact that the Windows Help program `winHlp32.exe` is no longer included with newer Windows versions. To resolve this, a download for 32-bit `.hlp` files can be downloaded from the Microsoft Download Center. For more information, see: <http://support.microsoft.com/kb/917607>.

TrueLog Explorer Issues

On-access virus scanner software may cause TrueLog Explorer to crash

Problem:

On-access virus scanner software may cause TrueLog Explorer to crash.

Resolution:

Virus scanner software may cause a variety of problems including TrueLog Explorer crashes or performance degradation. We recommend disabling virus scanner software on the agent computers and on the controller computer for the duration of load tests.

Visual script modifications fail if the related transaction is in an include file

Problem:

Visual script modifications fail if the related transaction is in an include file.

Resolution:

Do not move transactions to BDH files.

Visual user data customization does not work for browser-level scripts

Problem:

Visual user data customization does not work for browser-level scripts

Resolution:

This behavior is by design, as TrueLog Explorer only considers forms submitted by `WebPageSubmit` calls (page-based browser-level API), because the HTML form names are required to match HTML and BDL forms. If you want to customize your script using TrueLog Explorer Visual User Data Customization, you need to record a page-based browser-level API script.

SAPGUI Issues

Control position information cannot be retrieved correctly from SAP

Problem:

In rare instances, control position information can not be retrieved correctly from SAP. Therefore TrueLog Explorer might not be able to display the selected control rectangle at the correct position on the screenshot.

Resolution:

Use the control tree instead of the screenshot.

Citrix Issues

Citrix scripts run into timeout when UAC is turned on

Problem:

When recording or replaying Citrix scripts, a 30 second delay causes a timeout error. This delay only occurs when UAC is turned on.

Resolution:

Turn off UAC to successfully record and replay Citrix scripts.

Connecting to existing session during Citrix recording results in unusable script

Problem:

Connecting to existing session during Citrix recording results in unusable script

Resolution:

When connecting to an existing Citrix session, the Citrix client does not recognize any windows and therefore no synchronization functions are scripted. You should always record a new session.

Oracle Forms Issues

After hooking into main Oracle Forms applet classes, JInitiator cannot load additional jar files that rely on those classes

Problem

After hooking into main Oracle Forms applet classes, JInitiator cannot load additional jar files that rely on those classes

Resolution

When recording Oracle Forms or Oracle Applications, define the following Java Runtime Options on the **JInitiator Properties** Dialog: "-noverify -mx128m" NoVerify prevents these loading issues. Additionally, the default **Virtual Memory Size** of JInitiator 1.1.7.x is between 16 and 64 MB. The option -mx128m increases the virtual memory size to 128MB. This additional memory is needed as there is some extra memory overhead caused by recording. If you run into an OutOfMemory error you can further increase this value.

Browser crashes during recording of Oracle Forms

Problem

Browser crashes during recording of Oracle Forms.

Resolution

When recording Oracle Forms 6i it is recommended that you disable Java JIT (Just-In-Time compiling) in the Java Runtime settings. This is because the JIT library of the Java Virtual Machine (symcjit.dll) may crash your browser.

Java JIT can be disabled using one of the following options:

Option 1: Define - DJAVA.COMPILER=NONE in the Java runtime settings of the Oracle **JInitiator Properties** dialog. This must be done using the JInitiator control panel, which is installed with JInitiator (available in the Windows control panel).

1. Launch the JInitiator Control Panel.
2. Add DJAVA.COMPILER=NONE to the **Java Run Time Parameters** text field.
3. Click **Apply**.

Option 2: Use the check box on the Oracle JInitiator Properties dialog to disable the Just In Time Compiler (only available since version 1.1.8.x).

1. Launch the JInitiator Control Panel.
2. Select the **Advanced** tab.
3. Uncheck the **Enable Just In Time Compiler** checkbox.
4. Click **Apply**.

Option 3: Define environment variable: JAVA_COMPILER=NONE.

1. Right-click **My Computer** and choose **Properties**.
2. Choose **Advanced**.
3. Choose **Environment Variables**.
4. Under **System Variables** click **New**.

5. For **Variable Name** enter `JAVA_COMPILER`.
6. For **Variable Value** enter `NONE`.
7. Click **OK** to exit out of dialogs.

Web Issues

Recording of browser traffic does not work when browser window is already open.

Problem

Recording of browser traffic does not work when browser window is already open.

Resolution

Close all browser windows before recording a script.

Resolved Issues

The following issues have been resolved in Silk Performer 15.5:

Issue #	Description	Notes
RPI 599785	When running a browser-driven load test and using the <code>MeasureSetBound</code> function, the parameter value <code>MEASURE_PAGE_PAGETIME</code> does not work. This parameter value works just for protocol-level load tests. Instead, the parameter value <code>MEASURE_PAGE_ACTIONTIME</code> must be used. This is not made clear in all respective documentation topics.	
RPI 601268	When opening raw measure data files (.csv files with raw measure data) in Excel, all data displays in the first column, because the raw measure data files use a semi-colon as separator.	
RPI 601467	When recording a script, the following error occurs: <code>Error: Failed to determine whether hooking is installed. Reinstalling may solve the problem.</code> This error is caused when the <code>Common AppData</code> registry key is missing or blank during the installation of Silk Performer.	
RPI 603020	When using the function <code>Silk4JExecuteTestcase</code> in a script, the parameter <code>sTimer</code> does not display in the overview report.	
RPI 603195	When recording a BDLT script, the certificate dialog box appears when there is a client certificate installed. Whether you click OK or Cancel , the recording works in any case and the page is loaded. However, if you click Cancel , the replay will fail.	
RPI 603243	In the Help topic <i>Configuring Windows 2003 for GUI-Level Testing</i> and in other Help topics, the following sentence is incorrect: <code>Click the Logon Settings tab and make sure that Always prompt for password is enabled.</code> Correct is: <code>... is disabled.</code>	

Issue #	Description	Notes
RPI 1081285	The overview report in Performance Explorer does not display the correct application type.	
RPI 1084381	Page size of transformed traffic is inconsistent in TrueLog Explorer statistics tab.	
RPI 1089637	The parameter <code>nIndex</code> of the BDL function <code>OdbcGetString</code> does not retrieve a value.	This issue occurred because the <code>OdbcFetch</code> function was not used correctly. The <code>OdbcGetString</code> function works flawlessly.
RPI 1090343	When the project type Citrix Web Interface is used, the check boxes Visible client and Step by step execution are missing in the Try Script dialog box.	
RPI 1090603	For the BDL function <code>WebGetPageInfo</code> , the Documentation lists the data type <code>boolean</code> for the return value. The <code>WebAPI.bdh</code> file does not list the data type <code>boolean</code> for this BDL function.	This was fixed in <code>WebAPI.bdh</code> .
RPI 1090974	A relative start time of more than 24 hours cannot be displayed in the monitor window of the workbench.	
RPI 1091318	TrueLog Explorer crashes when using OCR to verify, synchronize or parse text.	
RPI 1091347	In the Help topic <code>BrowserSetOptionFunction</code> , the following parameter is not listed: <code>BROWSER_OPT_LEGACY_INPUT_MODE</code>	
RPI 1091395	In Performance Explorer, performance counters are named differently when detected by the Data Source Scanner and when selected manually.	
RPI 1091410	When replaying a BDLT script, actions on a newly opened window cannot be executed. This can be caused by an asynchronous response, which does not open the window immediately but at a later point of time.	
RPI 1092039	Replaying a BDLT script including the following code causes a <code>BrowserEngine: 29 error</code> : <code>BrowserGetProperty("//OPTION[@spellcheck = 'false']", "spellCheck", bP);</code> When <code>false</code> is replaced by <code>0</code> , replaying the script works.	
RPI 1092080	When recording a BDLT script, the browser application cannot detect TinyMCE objects	

Issue #	Description	Notes
	underneath the parent and thus cannot provide a useful locator.	
RPI 1092212	In the documentation, the order for the last two parameters of the <code>CitrixWaitForText</code> function is wrong.	
RPI 1092308	Adding the IP address of a machine that does not exist results in the error message <code>The remote agent version differs from the local agent version. Full compatibility cannot be guaranteed.</code>	
RPI 1092531	When defining a global variable in .NET Explorer, the option <code>System Int64</code> is not available in the Variable Type list.	
RPI 1092584	When specifying a custom template in the Profile settings (Results > Time Series > Overview report template) in Silk Performer Workbench, this template is not used when generating the report in Performance Explorer.	
RPI 1092738	When creating a load test report within Performance Explorer, Performance Explorer crashes.	
RPI 1092751	When passing more than 20 parameters to a Java method, a <code>NoSuchMethod</code> error occurs.	
RPI 1092833	When enabling Add transaction name and an identifier to measure names in the Profile settings, the Overall Action Time is also altered.	
RPI 1092966	When using the Analyze Errors functionality in Performance Explorer, the timeline of errors does not match up with the graph on the error groups page.	
RPI 1092968	Two separate bound violations are reported when bounds are set for action time .	
RPI 1092971	Generating response time threshold attributes for more than one script is not possible as long as the baselines for all scripts have not been ran at the same time.	
RPI 1093048	When trying to logon to a certain domain with the function <code>WebPageSubmit</code> , the <code>PerfRun</code> process crashes.	
RPI 1093160	When testing against Remedy 7.6.04 SP5, a large amount of <code>JSESSIONID</code> cookies is recorded.	

Issue #	Description	Notes
RPI 1093433	When the text size in the Windows Display settings is set to medium or larger, the Next Steps actions on the Summary pages disappear.	
RPI 1093528	When clicking Outline Project in a Silk Essentials project, the OK button is disabled and the project name cannot be changed.	
RPI 1093572	In Silk Performer 15.0, the <code>SourceControlFileList</code> tag in the .ltp file is not filled correctly.	
RPI 1093867	When opening Performance Explorer in Silk Performer 15.0, adding any counter in a monitor window, and double-clicking inside the monitor window, an error occurs. (External exception E06D7363)	
RPI 1093917	When starting a TryScript run for a script that contains the function <code>StrSearchDelimited</code> , an error occurs.	
RPI 1094102	When using the raw measure data feature in Silk Performer 15.0 and an underscore is used within a transaction name, the generated .csv file contains a <code>MeasureType</code> with the value <code>invalid type</code> .	
RPI 1094128	When attempting to parse a JSON response from a server, the values do not appear correctly when writing them out.	

Updates and SupportLine

Our Web site gives up-to-date details of contact numbers and addresses.

Contacting Micro Focus

Micro Focus is committed to providing world-class technical support and consulting services. Micro Focus provides worldwide support, delivering timely, reliable service to ensure every customer's business success.

All customers who are under a maintenance and support contract, as well as prospective customers who are evaluating products, are eligible for customer support. Our highly trained staff respond to your requests as quickly and professionally as possible.

Visit <http://supportline.microfocus.com/assistedservices.asp> to communicate directly with Micro Focus SupportLine to resolve your issues, or email supportline@microfocus.com.

Visit Micro Focus SupportLine at <http://supportline.microfocus.com> for up-to-date support news and access to other support information. First time users may be required to register to the site.

Information Needed by Micro Focus SupportLine

When contacting Micro Focus SupportLine, please include the following information if possible. The more information you can give, the better Micro Focus SupportLine can help you.

- The name and version number of all products that you think might be causing an issue.
- Your computer make and model.
- System information such as operating system name and version, processors, and memory details.
- Any detailed description of the issue, including steps to reproduce the issue.
- Exact wording of any error messages involved.
- Your serial number.

To find out these numbers, look in the subject line and body of your Electronic Product Delivery Notice email that you received from Micro Focus.

Silk Performer Licensing

This section describes how to obtain a license policy for Silk Performer and how to install Silk Meter. You must have administrator privileges to install Silk Meter.



Note: Silk Performer requires Silk Meter version 2008 or later as well as a Silk Performer license policy.

Install Silk Meter once per license server. If you have multiple license servers, you need multiple license policy files, each one tied to a particular license server. A single Silk Meter license server can administer license policies for multiple products.

If you have received a Silk Performer license policy, install the license policy on your license server. If you have not received a license policy, generate a license policy.

Licensing Information

Silk Performer 15.5 needs a new 15.5 license. If you want to run a previous version of Silk Performer during the upgrade process to version 15.5, you may keep your old licenses for a period of 90 days.

Silk Performer's licensing model is based on Virtual User Types (VUser Types). The available VUser Types *Web*, *Standard*, and *Premium* include the following Silk Performer application types:

VUser Type	Application Type
Web	Web Browser-Driven
	HTTP(S) (Web browser low level)
	HTTP(S)/HTML (Web browser high level)
	HTTP(S)/XML (Web services, SOAP)
	Silverlight
	Mobile
	SAP NetWeaver
	WebDAV (MS Outlook Web Access)
	Email (SMTP/POP)
	FTP
	TCP/IP
	UDP
	AMF0/AMF3/FLEX
	DLL Interface
	Standard
.Net Add-On	
Java Add-On	
DB2-CLI Add-On	
OCI Add-On	
ODBC Add-On	
Visual Basic Add-On (Framework)	

VUser Type	Application Type
Premium	Directory server (LDAP) CORBA Add-On All of <i>Standard</i> , plus: GUI Level Testing (Silk Test 4Test Scripts) Remedy Web ARS SAPGUI Add-On for Silk Performer Oracle Applications/Forms Add-On PeopleSoft Add-On Siebel Add-On Citrix Add-On Terminal Emulation (Green-Screen) Add-On Tuxedo/ATMI Add-On

Tested Software

This section lists the software with which Silk Performer has been tested.

System Area	Tested With
Operating systems	<ul style="list-style-type: none"> • Microsoft Windows XP 32bit with Service Pack 3 • Microsoft Windows Server 2003 32bit with Service Pack 2 • Microsoft Windows Server 2003 64bit with Service Pack 2 • Microsoft Windows Server 2003 R2 32bit with Service Pack 2 • Microsoft Windows Server 2003 R2 64bit with Service Pack 2 • Microsoft Windows Vista 32bit • Microsoft Windows Vista 64bit • Microsoft Windows Server 2008 32bit • Microsoft Windows Server 2008 64bit • Microsoft Windows Server 2008 R2 • Microsoft Windows 7 32bit • Microsoft Windows 7 64bit • Microsoft Windows 8 32bit • Microsoft Windows 8 64bit • Microsoft Windows 8.1 32bit • Microsoft Windows 8.1 64bit • Microsoft Windows Server 2012 • Microsoft Windows Server 2012 R2
Web browsers	<p>For protocol-based load testing:</p> <ul style="list-style-type: none"> • Internet Explorer 6*, 7, 8, 9, 10, 11 (*is not supported on Microsoft Windows XP) • Mozilla Firefox • Google Chrome • Apple Safari <p>For browser-driven load testing:</p> <ul style="list-style-type: none"> • Internet Explorer 7, 8, 9, 10, 11
Terminal emulation support	<ul style="list-style-type: none"> • AttachMate Extra 8 • AttachMateWRQ 13.0 • Distinct IntelliTerm 8.1 • Ericom Powerterm Pro v8.8.1 • HummingBird_Exceed 11.0 (hooking via socks proxy) • JProtector 4.5.2.0 • MochaSoft 5.3 (hooking via socks proxy) • NetTerm 5.1.1 • Nexus Terminal 5.3 • PassportPC2Host 3 • Quick3270 3.73 • Rumba 7.4 • Rumba 8 • Rumba 9

System Area	Tested With
ERP/CRM support	<ul style="list-style-type: none"> • SDI TN3270 Plus v2.4 • SecureCRT 1.0 • TeraTermPro 2.3 • TN5250_sourceforge 0.17.3 • TNBridge <p>SAPGUI Clients:</p> <ul style="list-style-type: none"> • SAPGUI client 720 • SAPGUI client 730 <p>PeopleSoft Systems: PeopleSoft 8.0, 8.3, 8.4, 8.8, 9.0</p> <p>Siebel Systems:</p> <ul style="list-style-type: none"> • Siebel 6.3 using MS SQL Server • Siebel 6.3 using IBM DB2 • Siebel 6.3 using Oracle • Siebel 7 • Siebel 8.0, 8.1 <p>Clarify Systems: Clarify eFrontOffice 8, 10</p> <p>Remedy Web ARS: Remedy Web ARS 7.5, 7.6, 7.6.04 SP4 and SP5, 8.0, 8.1 SP1, 8.8</p>
Citrix support	<p>Citrix Clients:</p> <ul style="list-style-type: none"> • Citrix XenApp Client 11.x, 12.x • Citrix Web Interface 5.1, 5.2, 5.3 • Citrix Receiver <p>Citrix Servers:</p> <ul style="list-style-type: none"> • Citrix XenApp 6.5 <p>Operating Systems:</p> <ul style="list-style-type: none"> • Microsoft Windows XP • Microsoft Windows Server 2003 • Microsoft Windows Server 2008 • Microsoft Windows 7 with UAC turned off • Microsoft Windows Server 2008 R2 with UAC turned off
Oracle Forms support	<ul style="list-style-type: none"> • Oracle Forms 6i, 9i, 10g, 11g • Oracle Applications 11i, 12i
SOAP support	<ul style="list-style-type: none"> • Microsoft SOAP Toolkit 2.0 Service Pack 2 (SP2), Internet Information Server 5 • Apache-SOAP Version 2.1, TOMCAT Version 3.1
Web Service Support	<ul style="list-style-type: none"> • Axis 1.x

System Area	Tested With
Database support	<ul style="list-style-type: none"> • Axis2 1.4, 1.5 • GlassFish Metro 1.5 • IBM Universal Database Systems 5.2, 6.1, 7.1 • Microsoft SQL Server 2005, 2008, 2008 R2, 2012 • Oracle Database 10g Release 2 • Oracle Database 11g Release 2 • Sybase SQL Anywhere Network Server 5.5.04
Corba support	<ul style="list-style-type: none"> • Oracle WebLogic Enterprise 5.0.1, 6.0, 6.1 • Micro Focus VisiBroker • Micro Focus Orbix • IBM WebSphere
TUXEDO support	<ul style="list-style-type: none"> • Oracle TUXEDO Server 6.3, 6.4, 7.0, 7.1, 8.0, 9.0 • Oracle WebLogic Enterprise 4.2
Jolt support	Oracle Jolt 1.1 (including Oracle TUXEDO Server 6.4), 1.2
Java support	<ul style="list-style-type: none"> • Java Development Kit 1.4, 1.5, 1.6, 1.7 • IBM Java Development Kit • Eclipse 3.6, 3.7, 3.8, 4.2, 4.3
.NET support	<ul style="list-style-type: none"> • Microsoft .NET Framework 2.0, 3.0, 3.5, 4.0, 4.5 • Microsoft Visual Studio 2010 and 2012 • WCF Web Services
Rich Internet applications (Web 2.0)	<ul style="list-style-type: none"> • Microsoft Silverlight 4, 5 • Apache Flex 2, 3, 4 • GraniteDS 2.3.2 • BlazeDS 3.2.0 • Google Web Toolkit • ExtJS • Eclipse RAP • script.aculo.us
SNMP support	<ul style="list-style-type: none"> • SNMPv2-MIB • RFC1213-MIB • RDBMS-MIB • ORADB-MIB • httpServer-MIB • ftpServer-MIB • SUN-MIB • BEA-WEBLOGIC-MIB • APPSRV_MIB (NetDynamics) • SQUID-MIB
	 Note: To find RFCs and vendor MIBs on the Web, visit The Internet Engineering Task Force .

System Area	Tested With
Proxy servers for firewall tunneling	<ul style="list-style-type: none"><li data-bbox="511 220 649 252">• WinGate<li data-bbox="511 262 617 294">• Squid<li data-bbox="511 304 617 336">• Dante<li data-bbox="511 346 771 378">• Microsoft ISA Server