

HP Diagnostics

For the Windows, Solaris and Linux operating systems

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Diagnostics System Requirements and Support Matrixes

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Chapter 1: Introduction

The Diagnostics System Requirements and Support Matrixes guide contains system requirement, support matrix, and software compatibility information for the Diagnostics platform and the various HP components and software that work with Diagnostics.

The information in this document can be used to aid in:

- planning Diagnostics system architecture
- establishing hardware, operating system and other software requirements required to run Diagnostics and its components
- understanding compatibility among the various components of Diagnostics
- planning integrations with other HP products

Note:

- HP does not support server, database, browser, or other software versions that have been declared EOL (end-of-life) by their manufacturer.
- While Diagnostics 9.23 servers can work with Collectors and Agents from earlier versions (8.0x, 9.1x, and 9.2x), we recommend that you use the 9.23 versions whenever possible.
- If you are monitoring environments that are not supported by Diagnostics 9.23 (for example, NET Framework 1.1), you can use older versions of Diagnostics Agents, provided that they are still officially supported by HP.

Chapter 2: System Requirements for Diagnostics Components

Read the information in the chapter to understand the system configurations required for Diagnostics.

This chapter includes:

- ["Diagnostics Platform Support Summary" below](#)
- ["Requirements for the Diagnostics Server Host" on the next page](#)
- ["Scalability Example for Diagnostic Mediator Servers" on page 14](#)
- ["Requirements for the Diagnostics Enterprise UI" on page 15](#)
- ["Requirements for the Diagnostics Collector Host" on page 16](#)
- ["IPv6 Environments" on page 17](#)

Diagnostics Platform Support Summary

The table below lists the platforms supported by the various Diagnostics Servers and Collector.

Operating System	<p>Windows:</p> <ul style="list-style-type: none">• Microsoft Server 2003: 32 & 64-bit (64-bit OS highly recommended)• Microsoft Server 2008: 32 & 64-bit (64-bit OS highly recommended)• Microsoft Server 2008 R2: 64-bit• Microsoft Server 2012: 64-bit• Microsoft Server 2012 R2: 64-bit <p>Linux:</p> <ul style="list-style-type: none">• Novell SUSE Linux: 10 SP2, 11• Red Hat Enterprise Linux: 5.5 or any later 5.x version, 6.x• Oracle Linux (OEL): 6.x <p>Solaris:</p> <p>Solaris: 10</p>
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Requirements for the Diagnostics Server Host

Some requirements for the host of a Diagnostics server depend on how the server is configured. A server can be configured as follows:

- As a Diagnostics mediator server.
- As a Diagnostics commander server.
- As both a Diagnostics mediator server and Diagnostics commander server. In this case, the server takes the system requirements of a Diagnostics mediator server.

The sections that follow indicate whether the requirements are specific to a Diagnostics mediator server or Diagnostics commander server.

Note:

- A Diagnostics mediator server with more than 20 probes typically requires additional configuration. See "Configuring the Diagnostics Server for a Large Installation: in the HP Diagnostics Server Installation and Administration Guide.
- A Diagnostics mediator server uses the **archive** sub-directory to store data. This data is managed according to a data retention strategy. The default data retention strategy is appropriate for initial deployments but you need to monitor and adjust this strategy over time. Consider your data retention strategy when configuring a Diagnostics mediator server host. See "Diagnostics Data Management" in the HP Diagnostics Server Installation and Administration Guide.

Supported Platform Versions for Diagnostics Servers

Diagnostics mediator servers and Diagnostics commander servers have the same requirements regarding platforms (operating systems).

For the list of supported platforms, see "[Diagnostics Platform Support Summary](#)" on the previous page.

Caution: While both 32-bit and 64-bit operating systems are listed in the Compatibility Matrix, a 64-bit operating system is required for larger deployments such as those with more than 100 probes.

Other Diagnostics Components on the Host

The Server cannot run on a host that also has a Diagnostics Collector installed.

Diagnostics Commander Server Host Sizing Requirements

The Diagnostics commander server does not have any additional sizing requirements.

Diagnostics Mediator Server Host Sizing Requirements

The host requirements are grouped by type of probe—Java, .NET, or Python. If the Diagnostics mediator server gets data from more than one type of probe, use the greater of the requirements.

Diagnostics Mediator Server Receiving Data from Java Probes

The following table lists sizing recommendations for the host of a Diagnostics mediator server receiving data from Java probes. These recommendations are based on the call profile size and number of unique server requests as listed in the "Test Environment Notes" at the bottom of the table. As the number of monitored server requests per probe, server request depth (methods in the call profile), number of trended methods, and number of out-bound calls increase, so do the system requirements. The type of server request also affects the requirements. Web services require more resources for example.

Platform	Item	Up to 50 Java Probes	Up to 100 Java Probes	Up to 200 Java Probes
Windows	CPU	2x 2.4 GHz	2x 2.8 GHz	2x 3.4 GHz
Windows	Memory	4 GB	4 GB	4 GB
Solaris	CPU	2x Ultra Sparc 3	2x Ultra Sparc 4	2x Ultra Sparc 4
Solaris	RAM	4 GB	4 GB	4 GB
Linux	CPU	2x 2.0 GHz	2x 2.4 GHz	2x 2.8 GHz
Linux	Memory	2 GB	4 GB	4 GB
All	Heap Size	512 MB	1400 MB	3000 MB (64-bit)
		See also "Adjusting the Heap Size" in the HP Diagnostics Server Installation and Administration Guide.		
All	Disk	4 GB per probe See also "Additional Disk Requirements for Diagnostics Mediator Servers" on the next page.		
Test Environment Notes				
<ul style="list-style-type: none"> • Call profile (depth of method calls) for each Server Request: 5 • Number of unique Server Requests per probe: 23 				

Diagnostics Mediator Server Receiving Data from .NET or Python Probes

The following table lists system requirements for the host of a Diagnostics mediator server receiving data from .NET probes or Python probes.

Platform	Item	Up to 10 .NET/Python Probes	Up to 20 .NET/Python Probes	Up to 50 .NET/Python Probes
Windows	CPU	1x 1.0 GHz	1x 2.0 GHz	2x 2.4 GHz
Windows	Memory	768 MB	1 GB	3 GB
Solaris	CPU	1x Ultra Sparc 2	2x Ultra Sparc 2	2x Ultra Sparc 3
Solaris	RAM	1 GB	1.5 GB	3 GB
Linux	CPU	1x 1.0 GHz	1x 2.0 GHz	2x 2.4 GHz
Linux	Memory	768 MB	1 GB	3 GB
All	Heap Size	350 MB	700 MB	1400 MB
		See also "Adjusting the Heap Size" in the HP Diagnostics Server Installation and Administration Guide.		
All	Disk	3 GB per probe See also " Additional Disk Requirements for Diagnostics Mediator Servers " below.		

Additional Disk Requirements for Diagnostics Mediator Servers

The bulk of the data in an installed and operating Diagnostics mediator server is in its archive sub-directory. The archive sub-directory contains the TSDB which is the data collected from the probes. This sub-directory can be mapped to a separate disk or partition to allow easier data management, especially in larger deployments. The disk requirements in this section apply to whichever disk or partition contains the archive sub-directory.

The disk for the Diagnostics mediator server has these requirements:

- If the disk is a SAN storage device, it must have adequate read and write speed comparable to a mid- to high-end drive.

For large deployments such as those with more than 100 probes reporting to a single Diagnostics mediator server, the disk for the Diagnostics mediator server has the following additional requirements:

- Install onto an empty or a recently defragmented disk or partition dedicated to the Diagnostics mediator server.

- Install onto a high-performance disk or array. The better the raw performance of the disk that you dedicate to the Diagnostics mediator server, the more load it can handle.
- Do not install onto a network file system such as NFS or Samba.
- Disable virus scanning or other intensive background disk processes on the disk or partition. These can cause the Diagnostics mediator server to disconnect from the Diagnostics commander server.

JRE Included with Diagnostics Servers

Diagnostics mediator servers and Diagnostics commander server each come bundled with the Java SE Java Runtime Environment (JRE) 7 from Oracle. This JRE provides the JVM used by the Diagnostics Server when it is started. This JRE can co-exist with other JREs that you may already have on the same host, however the Diagnostics components can only use the JRE included with them.

Library Packages Required on Linux

Diagnostics Servers and Collectors on Linux machines require certain library packages to run. Installing a Server or Collector by running the installation program in graphical mode on Linux requires additional library packages.

Each vendor and architecture category of Linux has its own set of required libraries as listed in the tables below. To determine if your Linux machine is running a 32- or 64-bit version of Linux, run "uname -a". If the results show "x86_64", "x64", or "AMD64", then Linux is running on a 64-bit architecture. Otherwise it is running on a 32-bit architecture.

RedHat Enterprise Linux, 32-bit

Package	How to Check If it is Installed
glibc	<code>rpm -qa --qf '%{NAME}\n' grep glibc</code>
compat-libstdc++-33	<code>rpm -qa --qf '%{NAME}\n' grep compat-libstdc++-33</code>
libstdc++	<code>rpm -qa --qf '%{NAME}\n' grep libstdc++</code>
libgcc	<code>rpm -qa --qf '%{NAME}\n' grep glibc</code>
libXp ¹	<code>rpm -qa --qf '%{NAME}\n' grep libXp</code>
libXtst ¹	<code>rpm -qa --qf '%{NAME}\n' grep libXtst</code>
libXrender ¹	<code>rpm -qa --qf '%{NAME}\n' grep libXrender</code>
libXmu ¹	<code>rpm -qa --qf '%{NAME}\n' grep libXmu</code>
¹ Only required for running the Server or Collector installation program in graphical mode.	

If the **rpm** command to check if a library package is installed returns the library name, this indicates that the library is installed. To install a missing library, run the following command:

```
yum install <package_name>
```

RedHat Enterprise Linux, 64-bit

Note: Be sure to use the 32-bit version of these packages even when installing on a 64-bit platform. The installation program runs as a 32-bit application even when installing a 64-bit version of the Diagnostics component.

Package	How to Check If it is Installed
glibc.i686	rpm -qa --qf '%{NAME}.%{ARCH}\n' grep -E 'glibc\.(i686 i386)'
compat-libstdc++-33.i686	rpm -qa --qf '%{NAME}.%{ARCH}\n' grep -E 'compat-libstdc++-33\.(i686 i386)'
libstdc++.i686	rpm -qa --qf '%{NAME}.%{ARCH}\n' grep -E 'libstdc++\.(i686 i386)'
libgcc.i686	rpm -qa --qf '%{NAME}.%{ARCH}\n' grep -E 'glibc\.(i686 i386)'
libXp.i686 ¹	rpm -qa --qf '%{NAME}.%{ARCH}\n' grep -E 'libXp\.(i686 i386)'
libXtst.i686 ¹	rpm -qa --qf '%{NAME}.%{ARCH}\n' grep -E 'libXtst\.(i686 i386)'
libXrender.i686 ¹	rpm -qa --qf '%{NAME}.%{ARCH}\n' grep -E 'libXrender\.(i686 i386)'
libXmu.i686 ¹	rpm -qa --qf '%{NAME}.%{ARCH}\n' grep -E 'libXmu\.(i686 i386)'

¹ Only required for running the Server or Collector installation program in graphical mode.

If the **rpm** command to check if a library package is installed returns the library name, this indicates that the library is installed. To install a missing library, run the following command:

```
yum install <package_name>
```

Novell SUSE Linux Version 10, 32-bit

Package	How to Check If it is Installed
glibc	rpm -qa --qf '\${NAME}\n' grep glibc
libstdc++33	rpm -qa --qf '\${NAME}\n' grep libstdc++33

Package	How to Check If it is Installed
libstdc++	rpm -qa --qf '\${NAME}\n' grep libstdc++
libgcc	rpm -qa --qf '\${NAME}\n' grep libgcc
xorg-x11-libs ¹	rpm -qa --qf '\${NAME}\n' grep xorg-x11-libs
¹ Only required for running the Server or Collector installation program in graphical mode.	

If the **rpm** command to check if a library package is installed returns the library name, this indicates that the library is installed. To install a missing library, enter the following command:

```
yast2 -i <package_name>
```

Novell SUSE Linux Version 10, 64-bit

Note: Be sure to use the 32-bit version of these packages even when installing on a 64-bit platform. The installation program runs as a 32-bit application even when installing a 64-bit version of the Diagnostics component.

Package	How to Check If it is Installed
glibc-32bit	rpm -qa --qf '\${NAME}\n' grep glibc-32-bit
libstdc++33-32bit	rpm -qa --qf '\${NAME}\n' grep libstdc++33-32-bit
libstdc++-32bit	rpm -qa --qf '\${NAME}\n' grep libstdc++-32-bit
libgcc	rpm -qa --qf '\${NAME}\n' grep libgcc
xorg-x11-libs-32bit ¹	rpm -qa --qf '\${NAME}\n' grep xorg-x11-libs-32-bit
¹ Only required for running the Server or Collector installation program in graphical mode.	

If the **rpm** command to check if a library package is installed returns the library name, this indicates that the library is installed. To install a missing library, enter the following command:

```
yast2 -i <package_name>
```

Novell SUSE Linux Version 11, 32-bit

Package	How to Check If it is Installed
glibc	rpm -qa --qf '%{NAME}\n' grep glibc
libstdc++33	rpm -qa --qf '\${NAME}\n' grep libstdc++33
libstdc++43	rpm -qa --qf '\${NAME}\n' grep libstdc++43
libgcc43	rpm -qa --qf '\${NAME}\n' grep libgcc43

Package	How to Check If it is Installed
xorg-x11-libs ¹	<code>rpm -qa --qf '\${NAME}\n' grep xorg-x11-libs</code>
xorg-x11-libXp ¹	<code>rpm -qa --qf '\${NAME}\n' grep xorg-x11-libXp</code>
xorg-x11-libXrender ¹	<code>rpm -qa --qf '\${NAME}\n' grep xorg-x11-libXrender</code>
xorg-x11-libXmu ¹	<code>rpm -qa --qf '\${NAME}\n' grep xorg-x11-libXmu</code>
¹ Only required for running the Server or Collector installation program in graphical mode.	

If the **rpm** command to check if a library package is installed returns the library name, this indicates that the library is installed. To install a missing library, enter the following command:

```
yast2 -i <package_name>
```

Novell SUSE Linux Version 11, 64-bit

Note: Be sure to use the 32-bit version of these packages even when installing on a 64-bit platform. The installation program runs as a 32-bit application even when installing a 64-bit version of the Diagnostics component.

Package	How to Check If it is Installed
glibc-32bit	<code>rpm -qa --qf '\${NAME}\n' grep glibc-32-bit</code>
libstdc++33-32bit	<code>rpm -qa --qf '\${NAME}\n' grep libstdc++33-32-bit</code>
libstdc++43-32bit	<code>rpm -qa --qf '\${NAME}\n' grep libstdc++43-32-bit</code>
libgcc43-32bit	<code>rpm -qa --qf '\${NAME}\n' grep libgcc43-32-bit</code>
xorg-x11-libs-32bit ¹	<code>rpm -qa --qf '\${NAME}\n' grep xorg-x11-libs-32-bit</code>
xorg-x11-libXp-32bit ¹	<code>rpm -qa --qf '\${NAME}\n' grep xorg-x11-libXp-32-bit</code>
xorg-x11-libXrender-32bit ¹	<code>rpm -qa --qf '\${NAME}\n' grep xorg-x11-libXrender-32-bit</code>
xorg-x11-libXmu-32bit ¹	<code>rpm -qa --qf '\${NAME}\n' grep xorg-x11-libXmu-32-bit</code>
¹ Only required for running the Server or Collector installation program in graphical mode.	

If the **rpm** command to check if a library package is installed returns the library name, this indicates that the library is installed. To install a missing library, enter the following command:

```
yast2 -i <package_name>
```

Scalability Example for Diagnostic Mediator Servers

As mentioned in the previous section, the system requirements for a Diagnostics mediator server depend on the number of probes reporting to the Diagnostics mediator server as well as the volume of data reported by each probe. These two factors affect one another; as one scales up the other scales down.

The scalability example below is based on the following reference hardware configuration:

Platform:	Windows
Operating System:	Windows Server 2008, 64-bit
CPU:	Intel Xeon 5160 @ 3.00Ghz (quad core)
Memory:	8 GB
Disk I/O:	Smart Array P400i, 2SCSI drives in RAID 0 (136 GB) [130 MB/S, sequential read and write]
Java Heap:	5.9 GB (-Xmx6096m); 64-bit JVM
Disk Space:	2-4 GB per probe (overall disk space can be adjusted by changing retention intervals)
Network:	1 Gbps

Diagnostics mediator server scalability example:

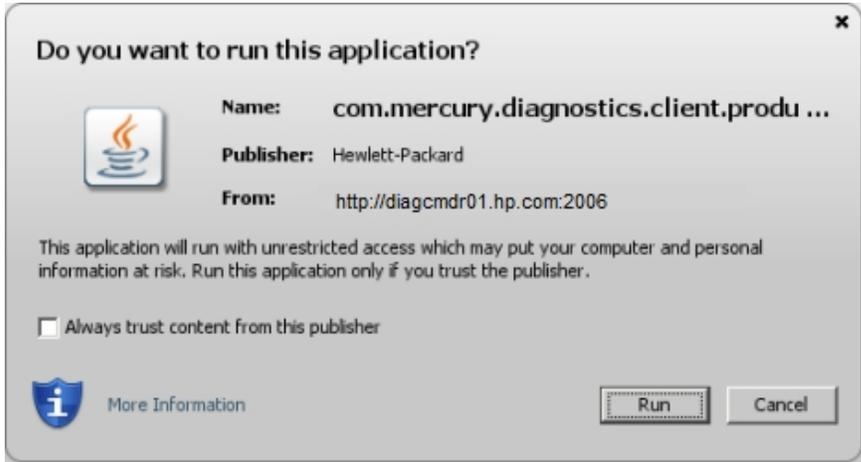
Up to 100 Java probes:	100 Server Requests per probe, 78 methods per Call Profile pulled every 45s (default)
Up to 400 Java probes:	25 Server Requests per probe, 78 methods per Call Profile pulled every 45s (default)
Up to 150 Java probes:	150 Server Requests per probe, 25 methods per Call Profile pulled every 240s
Up to 230 Java probes:	100 Server Requests per probe, 25 methods per Call Profile pulled every 240s
Up to 40 Java probes:	75 Web Service Operations, 10 unique consumers per Web Service Operation, 25 methods per Call Profile pulled every 45s (default) Note, this load configuration requires 7 GB disk space per probe.

A Diagnostics mediator server supporting large numbers of probes require special configurations. See "Configuring the Diagnostics Server for a Large Installation" in the HP Diagnostics Server Installation and Administration Guide.

Requirements for the Diagnostics Enterprise UI

The Diagnostics Enterprise UI is accessed through a web browser. The Diagnostics Enterprise UI has the following client requirements.

Resolution	For optimal display of the details in the graphs and charts of the Diagnostics views, set the screen resolution to a minimum of 1024x768.
Supported Browsers	<ul style="list-style-type: none">• Microsoft Internet Explorer (IE) 10.0• Microsoft Internet Explorer (IE) 9.0• Microsoft Internet Explorer (IE) 8.0• Mozilla Firefox 24 ESR <p>Note:</p> <ul style="list-style-type: none">• If using IE, to achieve optimal viewing and application performance, it is recommended to use IE 9.0.• The browser must be set to accept third-party cookies and allow session cookies.• The browser must be set to enable JavaScript execution.• The browser must allow pop-ups from the Diagnostics application.• Internet Explorer users must set browser caching to automatically check for newer versions of stored pages.

Java Runtime Environment	<p>Version 7 (update 45), Version 8</p> <p>The Java plug-in must be enabled in the web browser to allow the Diagnostics Enterprise UI's applets to be run by the JRE. Typically the browser prompts for the enabling as follows:</p> <div data-bbox="451 405 1312 867"></div> <p>Note: You may not be able to view all Diagnostics applets with an earlier version of Java and you will need to download the latest version from the Java download site (http://www.java.com/en/download/manual.jsp) and install it. You may also have to disable earlier versions after download.</p> <p>To verify/manage running Java versions in Internet Explorer: Select Tools > Internet Options > Programs > Manage add-ons > Toolbars and Extensions, and locate the Oracle section. After making any changes close and reopen the browser.</p> <p>For details about how to verify the Java version, see https://www.java.com/en/download/installed.jsp.</p>
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Requirements for the Diagnostics Collector Host

The Collector must be installed on a host that can access the host machines of the applications from which it is collecting data: SAP NetWeaver-ABAP, Oracle, SQL Server, IBM WebSphere MQ, TIBCO EMS, Software AG webMethods Broker or VMware.

350MB free disk space is required for the Collector install. More space might be required during runtime due to the creation of logfiles or for large environments.

The Collector can run on a host that also has a Diagnostics Agent installed. However, the Collector cannot run on a host that also has a Diagnostics Server installed.

Supported Platform Versions for the Collector

For the list of supported platforms, see "[Diagnostics Platform Support Summary](#)" on page 6.

Supported Applications That the Collector Can Monitor

For the list of supported applications, see ["Systems That Can Be Monitored by Diagnostics" on page 19](#).

Library Packages Required on Linux

Diagnostics Servers and Collectors on Linux machines require certain library packages to run. See ["Library Packages Required on Linux" on page 10](#).

JRE Included with Diagnostics Collectors

The Diagnostics Server and Collector components each come bundled with the Java SE Java Runtime Environment (JRE) 7 from Oracle. This JRE provides the JVM used by the Diagnostics Server and Collector when they are started. This JRE can co-exist with other JREs that you may already have on the same host, however the Diagnostics components can only use the JRE included with them.

IPv6 Environments

Diagnostics components in an IPv6 environment have the following restrictions:

- All Diagnostic Server, Collector, and Java Probe configuration must be based on host names; IP addresses cannot be used.
- .NET Probes are not supported.
- Collectors must be running on IPv4 tunneled networks.
- Linux and Solaris operating systems must be explicitly configured to use the IPv6 network host/IP resolution. On dual hosts, update `/etcnsswitch.conf`. On Solaris, update `ipnodes`.

Chapter 3: Monitored Environments and Diagnostics Agents Requirements

Read the information in the chapter to understand the environments monitored by Diagnostics and additional requirements for the Diagnostics Agents.

This chapter includes:

- ["Systems That Can Be Monitored by Diagnostics"](#) on the next page
- ["Requirements for the Diagnostics Java Agent Host"](#) on page 21
- ["Requirements for the Diagnostics Java Profiler UI"](#) on page 24
- ["Requirements for the Diagnostics .NET Agent Host"](#) on page 25
- ["Requirements for the Diagnostics .NET Profiler UI"](#) on page 27
- ["Requirements for the Diagnostics Python Agent Host"](#) on page 27

Systems That Can Be Monitored by Diagnostics

The table below lists the systems that can me monitored by Diagnostics.

Java JVMs	<p>On Windows (2003, 2008, 2008 R2, 2012, and 2012 R2):</p> <ul style="list-style-type: none"> • Sun 1.5.x, 1.6.x, 1.7.x • JRockit 1.5.x, 1.6.x, • IBM 1.5.x, 1.6.x, 1.7 <p>On AIX (5.3, 6.1, 7.1):</p> <ul style="list-style-type: none"> • IBM 1.5.x, 1.6.x, 1.7.x <p>On HPUX (11i v2, 11i v3):</p> <ul style="list-style-type: none"> • HP 1.5.x, 1.6.x, 1.7.x <p>On Z/OS (1.9 - 1.12):</p> <ul style="list-style-type: none"> • IBM 1.5.x, 1.6.x <p>On Linux (RHEL 4 - 6, SUSE 10,11, and OEL 6):</p> <ul style="list-style-type: none"> • Sun 1.5.x, 1.6.x, 1.7.x • JRockit 1.5.x, 1.6.x, • IBM 1.5.x, 1.6.x, 1.7x • Azul Zing 1.6.x <p>On Solaris (9, 10, 11):</p> <ul style="list-style-type: none"> • Sun 1.5.x, 1.6.x, 1.7.x
.NET Systems	<ul style="list-style-type: none"> • .Net framework 2.0, 3.0, 3.5, 4.0, 4.5 • Microsoft Server 2003 R2 SP2: 32 & 64-bit • Microsoft Server 2008 SP1- SP2: 32 & 64-bit • Microsoft Server 2008 R2: 64-bit • Microsoft Server 2012: 64-bit • Microsoft Server 2012 R2: 64-bit

<p>Python Environments</p>	<p>On:</p> <p>Windows 2012, 2012 R2, 2008 64-bit, 2008 R2</p> <p>Ubuntu 11.10, 12.04</p> <p>RedHat 6.2</p> <p>SuSE 12.1</p> <ul style="list-style-type: none"> • Python 2.6.5, 2.6.6, 2.6.8, 2.7 • OpenStack Diablo, Essex • Django 1.3, 1.4
<p>Application Servers</p>	<p>Tomcat 5.5x, 6.x, 7.x, 8.x</p> <p>WAS 7.0, 8.0, 8.5</p> <p>JBoss 4.2x, 4.3x, 5.x, 6.1.x, 7.1.x</p> <p>JBoss EAP 6.1 (JBoss AS 7.2.x)</p> <p>Oracle Service Bus: 11gR1, 10gR3</p> <p>Oracle Aqualogic Service Bus : 2.6</p> <p>Oracle WebLogic 9.2, 10, 11gR1, 12</p> <p>Oracle Application Server 10gR3</p> <p>SAP NetWeaver 6.4, 7.0</p> <p>WebMethods 7.1, 8.2</p> <p>Tibco BusinessWorks 5.6, 5.7, 5.9</p> <p>Tibco Service Bus 2.x, 2.3.x, 3.1.x</p> <p>GlassFish 3.x, 4.x</p>

<p>Systems That Can Be Monitored by the Diagnostics Collector</p>	<p>MiddleWare:</p> <ul style="list-style-type: none">• WMQ 7.x• SAP ABAP 4.7+• webMethods Broker 7.x• Tibco EMS 6.0 <p>Database:</p> <ul style="list-style-type: none">• Oracle 10g, 11g• Microsoft SQL Server 2005, 2008, 2008 R2, 2012 <p>VMware:</p> <ul style="list-style-type: none">• vCenter Server 4.0.x, 5.0
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Requirements for the Diagnostics Java Agent Host

For details of the operating systems on which the Java Agent can run and the systems it can monitor, see the "Java JVMs" section in ["Systems That Can Be Monitored by Diagnostics" on page 19](#).

Note: If you are monitoring environments that are not supported by Diagnostics 9.23, you can use older versions of Diagnostics Agents, provided that they are still officially supported by HP. (For example, you can use Diagnostics Java agent 9.21 to monitor Java 1.4 based applications.)

Java Agents can also monitor application servers on the HP aPaaS and Stackato cloud platforms. For more information about Java Agents on Stackato, see the HP Diagnostics Java Agent Guide.

Supported Browsers for Client Monitoring

The following web browsers are supported for monitoring by the Java Agent's Client Monitoring feature:

Browser	Navigation Timing API Support	Limitations
BlackBerry, all versions	No	<ul style="list-style-type: none">• First page hit to an instrumented application may only have the “front-end” time measured.• Subsequent navigations to an instrumented page will have all timings.• Overall, timings are “best-effort” and are based on the available browser's capabilities.
Safari, all versions/all platforms	No	
Internet Explorer 8.0 or later	No	
Android 4.0	Yes	None
Internet Explorer 9.0 or later	Yes	None
Chrome 6.0 or later	Yes	None
Firefox 7.0 or later	Yes	None

For more information about Client Monitoring, see the HP Diagnostics Java Agent Guide.

Supported JRE for a Java Agent Installation

To enable installation of a Java agent, the host machine must have a valid JRE (version 1.5 and later) with a set **JAVA_HOME** system variable.

Memory and Disk Space Requirements for a Java Agent

The following are the recommendations for memory and disk space that support the agent's processing:

Platform	All platforms
Memory	<p>40 MB additional RAM (per probe)</p> <p>Adjusting heap size. The additional memory must be allocated to the max heap for the JVM by adding -Xmx<size>m to the Java settings in the application's startup script. See "Adjusting the Heap Size for the Java Agent in the Application Server" in the HP Diagnostics Java Agent Guide.</p> <p>Adjusting permgen size. Typically any increase in permgen size as a result of adding the Java Agent is small. However, in some cases the application, without the agent, uses almost all its permgen limit. In such cases you will need to adjust it. For example you could increase it by the existing limit * 1.05 +5MB. To adjust permgen for Hotspot JVM, use -XX:MaxPermSize option, for example: -XX:MaxPermSize=240m.</p>
Disk Space	<p>For installation of the Java Agent, 200MB free hard disk space is required.</p> <p>For each Java probe that is running on the host, more space may be required for logfiles and classmaps. For large applications, it is recommended to have an additional 200MB available per probe for this data.</p>

System Impact of a Java Probe

The system impact, or overhead, of a Java probe is typically very small. However the machine that you select to host the Diagnostics Java Agent must be able to accommodate the small increase in system resources.

The following table describes estimated changes on a system when configuring a Java application for monitoring by the Java Agent by using the default configuration. The actual impact on the system depends on the load on the monitored application and on the probe configuration. The greater the load and the more metrics collected, the greater the impact.

Platform	All platforms
Latency	+3% while CPU < 50%—once the CPU starts saturating latency overhead increases
CPU	+2% to +5%
Network I/O	+3% to +5% (assuming a normal Java EE application with a JDBC, RMI, or Web-services Backend)
Disk I/O	Impact should be statistically insignificant
Throughput	< 1% reduction while CPU < 50%
RAM utilization	Baseline footprint increase of up to 40MB

Tip: Once a Java probe is set up and running, you can view and monitor the CPU utilization of the probe through the Diagnostics Enterprise UI. From the Probe View, select the probe and in the Detail panel see the Overhead Estimate metric.

Requirements for the Diagnostics Java Profiler UI

The Diagnostics Java Profiler UI is accessed through a web browser. The Diagnostics Java Profiler has the following requirements:

- If the Diagnostics Profiler is to be launched standalone from a remote host, ensure that the web browser is able to access the following Diagnostics Profiler URL:

```
http://<probe_host>:<probeport>/profiler
```

Where <probe_host> is the IP address or host name of the monitored application host, and <probeport> is the port assigned to the probe. By default, probes are assigned to the first available port beginning at 35000.

For more information about accessing the Java Profiler UI, see "How to Access the Java Diagnostics Profiler" in the HP Diagnostics Java Agent Guide.

- If the Diagnostics Profiler is to be launched from within the Diagnostics Enterprise UI, access to the Diagnostics Profiler UI has no additional requirements.
- Use a web browser that meets the Enterprise UI requirements. See "[Requirements for the Diagnostics Enterprise UI](#)" on page 15.

Requirements for the Diagnostics .NET Agent Host

The machines that you select to host the Diagnostics .NET Agent must meet the requirements described below.

Supported Platform Versions for the .NET Agent

For the list of supported Microsoft Windows Servers, see "[Diagnostics Platform Support Summary](#)" on page 6.

Supported .NET Versions That the .NET Agent Can Monitor

For the list of versions of the .NET framework that are supported for monitoring by the .NET Agent, see "[Systems That Can Be Monitored by Diagnostics](#)" on page 19.

WCF Requirements and Limitations: Monitoring .NET Windows Communication Foundation (WCF) services requires .NET Framework 3.0 SP1 or greater. WCF bindings using the following transports are supported:

- HTTP
- TCP

If your application uses a transport that is not supported, the .NET probe only creates a generic server request for each WCF method. It will not be a Web Service and there will be no cross VM correlation.

Note: If you are monitoring environments that are not supported by Diagnostics 9.23 (for example, NET Framework 1.1), you can use older versions of Diagnostics Agents, provided that they are still officially supported by HP.

Memory and Disk Space Recommendations

The following are the recommendations for memory and disk space that support the agent's processing:

Platform	All platforms
Memory	60 MB additional RAM (per probe)
Free Hard Disk Space	200 MB Additional Space

These recommendations assume that the .NET Agent's Probe Aggregator is disabled. When enabled on the .NET Agent machine, Probe Aggregator improves the scalability of the Diagnostics Server as it supports more probes per server and reduces network bandwidth usage but also typically increases the memory and CPU overhead on the .NET Agent system. By default, the Probe Aggregator is disabled. For more information, see "Probe Aggregator Service" in the HP Diagnostics .NET Agent Guide.

System Impact of a .NET Probe

The system impact, or overhead, of a .NET probe is typically very small. However the machine that you select to host the Diagnostics .NET Agent must be able to accommodate the small increase in system resources.

The following table describes estimated changes on a system when configuring a .NET application for monitoring by the .NET Agent by using the default configuration. The actual impact on the system depends on the load on the monitored application and on the probe configuration. The greater the load and the more metrics collected, the greater the impact.

Item	Minimum
Latency	+3% while CPU < 50%-once the CPU starts saturating, latency overhead increases
CPU	+5%
Network I/O	+3% to +5% (assuming a normal ASP.NET application with a remote database Backend)
Disk I/O	Impact should be statistically insignificant
Throughput	< 1% reduction while CPU < 50%
RAM utilization	Baseline footprint increase of up to 20MB per worker process Note: This is quite difficult to measure accurately.

These recommendations assume that the .NET Agent's Probe Aggregator is disabled. When enabled on the .NET Agent machine, Probe Aggregator improves the scalability of the Diagnostics Server as it supports more probes per server and reduces network bandwidth usage but also typically increases the memory and CPU overhead on the .NET Agent system. By default, the Probe Aggregator is disabled. For more information, see "Probe Aggregator Service" in the HP Diagnostics .NET Agent Guide.

Requirements for the Diagnostics .NET Profiler UI

The Diagnostics .NET Profiler UI is accessed through a web browser. The Diagnostics .NET Profiler UI has the following requirements:

- If the Diagnostics Profiler is to be launched standalone from a remote host, ensure that the host is able to access the following Diagnostics Profiler URL on the monitored application host:

```
http://<probe_host>:<probeport>/profiler
```

Where <probe_host> is the IP address or host name of the monitored application host, and <probeport> is the port assigned to the probe. By default, probes are assigned to the first available port beginning at 35000.

For more information about accessing the .NET Profiler UI, see the HP Diagnostics .NET Agent Guide.

- If the Diagnostics Profiler is to be launched from within the Diagnostics Enterprise UI, access to the Diagnostics Profiler UI has no additional requirements.
- The web browser you use must be Microsoft Internet Explorer 7 or later. The user interface for the .NET Diagnostics Profiler requires special Microsoft extensions that are only supported by Internet Explorer 7 or later.
- Compatibility View for Internet Explorer 7 must be enabled in Internet Explorer.

Requirements for the Diagnostics Python Agent Host

For details of the operating systems on which the Python Agent can run and the systems it can monitor, see the "Python Environments" section in ["Systems That Can Be Monitored by Diagnostics" on page 19](#)

Chapter 4: Compatibility Matrix

The following table provides details of other HP products with which Diagnostics 9.23 can be integrated:

Product Name	Supported Versions
Business Service Management	8.07, 9.13, 9.21, 9.22, 9.23
TransactionVision	9.01, 9.10, 9.22, 9.23
Business Process Monitor	9.03, 9.12, 9.22, 9.23
Real User Monitor	9.13, 9.21, 9.22, 9.23
Service Health Analyzer	9.23
LoadRunner	12.00
Performance Center	12.00
SiteScope	10.14, 11.01, 11.13, 11.23

You can find further information about supported Diagnostics integrations in the Integrations tab of the [HP Software Integrations site](http://support.openview.hp.com/sc/solutions/index.jsp#tab=tab3) (<http://support.openview.hp.com/sc/solutions/index.jsp#tab=tab3>).

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Feedback on Diagnostics System Requirements and Support Matrixes (Diagnostics 9.23)

Just add your feedback to the email and click send.

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