

IBM Platform Symphony 6.1

Supported System Configurations

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About

This document defines the compatibility for all tested and qualified technologies relating to all IBM Platform Symphony version 6.1 editions. It defines hardware and operating system configurations supported by the various IBM Platform Symphony features, as well as supported versions of 3rd party technologies such as databases and distributed file systems.

Within each operating system section, compatibility for each OS version is defined according to the following headings:

- Management, Compute, and Client node packages.
 - These refer to Standard and Express editions. Advanced edition support if indicated.
 - Compute node compatibility implies the service API unless otherwise indicated.
 - Client compatibility implies the session callback API unless otherwise indicated.
- Development Edition / SDK
 - In each case compatibility with the development edition implies SDK support for the indicated languages, development platforms, and compiler versions.
 - The only platform on which there is no development edition support is AIX.
 - In each case, Advanced Edition support implies that the MapReduce application is also supported in the Development Edition
- Advanced Edition
 - Indicates support for the MapReduce application (in grid and development editions if applicable), and the Data Affinity feature.

New in IBM Platform Symphony 6.1

Version 6.1 adds support for the following system configurations beyond previous editions:

- **PowerLinux 6** - support for all editions, including support for running both 32-bit and 64-bit applications on a 64-bit architecture.
- **Solaris 10 on Sparc 64 bit** – In addition to Symphony client and compute hosts support, Symphony standard edition management host services are now supported *excluding* the GUI. Consult the *Solaris 64-bit* table for applicability.
- **MS SQL Server 2005** - database now supported on Symphony Advanced Edition (excluding MapReduce GUI).

Windows x86 32-bit

Operating Systems	Management Node	Compute Node	Client Node	Development Edition / SDK				MapReduce
				C++	Java	.NET ^{4,5}	COM	
Windows 2000 Pro SP4 ^{a,b}	No	On Demand				No		
Windows 2000 Server SP4 ^b								
Windows 2000 Advanced Server SP4 ^b								
Windows XP Pro ^a	Yes ¹	Yes ²	Visual Studio C++ 6 with SP5 ³	JDK 1.4.2 JDK 1.5 JDK 1.6	C# .NET 1.1 / Visual Studio .NET 2003		Visual Basic 6 / VBA ⁶	
Windows Server 2003 SE ^c			VC 7.0 / Visual Studio .NET 2002	Sun JVM BEA JRockit IBM JVM	C# .NET 2.0 / Visual Studio .NET 2005			
Windows Server 2003 SE (R2) ^c			VC 7.1 / Visual Studio .NET 2003	Eclipse 3.2.2 Eclipse 3.3.0	C# .NET 3.5 / Visual Studio .NET 2008			
Windows Server 2003 EE ^c			VC 8.0 / Visual Studio .NET 2005					
Windows Server 2003 EE (R2) ^c			VC 9.0 / Visual Studio .NET 2008		C# .NET 4.0 / Visual Studio .NET 2010			
Windows Server 2008 SE			VC 10.0 / Visual Studio .NET 2010					
Windows Server 2008 EE								
Windows 7								
Windows Vista			No					

- 1 - Service API does not have COM support
- 2 - Client session callback API does not have COM support
- 3 - Not supported on Windows 2008
- 4 - VB.NET and Managed C++ are not supported
- 5 - The WSDL implementation does not support generating .NET 1.1 API using the WSE2.0 that comes with VS2003. It supports .NET 2.0 using the WSE3.0 that comes with VS2005.
- 6 - Limited features supported. Refer to COM API Reference Guide.

- a - Can only simultaneously connect up to 10 other computers over the network. Refer to the following for more information:
<http://support.microsoft.com/?scid=kb;en-us;314882>
<http://support.microsoft.com/kb/122920/EN-US/>
<http://proprietary.clendons.co.nz/licenses/eula/windowsxpprofessional-eula.htm>
- b - Requires the memory heap functions from kernel32.dll version 5.0.2195.7006 dated December 30, 2004 or later.
- c - Default system policies prevent users who do not have administrative permissions from installing IBM Platform Symphony. To work around the problem, have your Windows administrator perform the following steps:

1. Open a group policy.
2. Select Run > mmc > add/remove snap-in > Group policy object editor > ok.
3. Edit the local computer policy.
4. Go to local computer policy > computer configuration > Administrative Template > Windows component > Windows installer.
5. Open Disable Windows Installer policy.
6. Set it to enable.
7. Select Never on the drop-down list.
8. Click Apply. You may need to log out or restart the host.

Windows x86 64-bit

Operating Systems	Management Node	Compute Node	Client Node	Development Edition / SDK				MapReduce		
				C++	Java	.NET ³	COM			
Windows XP Pro x64 ^a	Yes	Yes ¹	Yes ²	VC 7.1 / Visual Studio .NET 2003 + MS PSDK	JDK 1.5	C# .NET 2.0 / Visual Studio .NET 2005	Visual Basic 6 / VBA ⁴	No		
Windows Server 2003 SE x64 ^b					JDK 1.6					
Windows Server 2003 R2 SE x64 ^b				Sun JVM BEA JRockit	C# .NET 3.5 / Visual Studio .NET 2008					
Windows Server 2003 EE x64 ^b						VC 8.0 / Visual Studio .NET 2005				
Windows Server 2003 R2 EE x64 ^b				VC 9.0 / Visual Studio .NET 2008	C# .NET 4.0 / Visual Studio .NET 2010					
Windows Server 2003 CCE ^b				VC 10.0 / Visual Studio .NET 2010						
Windows Server 2008 SE x64										
Windows Server 2008 EE x64										
Windows HPC Server 2008										
Windows Server 2008 R2 SE x64										
Windows Server 2008 R2 EE x64										
Windows HPC Server 2008 R2										
Windows 7				No	No					
Windows Vista										

- 1 - Service API does not have COM support
- 2 - No asynchronous client for COM
- 3 - VB.NET and Managed C++ are not supported
- 4 - Limited features supported. Refer to COM API Reference Guide.

a - Can only simultaneously connect up to 10 other computers over the network. Refer to the following for more information:
<http://support.microsoft.com/?scid=kb;en-us;314882>
<http://support.microsoft.com/kb/122920/EN-US/>
<http://proprietary.clendons.co.nz/licenses/eula/windowsxpprofessional-eula.htm>

b - Default system policies prevent users who do not have administrative permissions from installing IBM Platform Symphony
 To work around the problem, have your Windows administrator perform the following steps:

1. Open a group policy.
2. Select Run > mmc > add/remove snap-in > Group policy object editor > ok.
3. Edit the local computer policy.
4. Go to local computer policy > computer configuration > Administrative Template > Windows component > Windows installer.
5. Open Disable Windows Installer policy.
6. Set it to enable.
7. Select Never on the drop-down list.
Click Apply. You may need to log out or restart the host.

Linux x86 32-bit

Operating Systems	Management Node	Compute Node	Client Node	Development Edition / SDK		MapReduce	
				C++	Java		
Red Hat Enterprise Linux AS 3.x (Kernel 2.4.x compiled with glibc 2.3.x)	No	On Demand					No
Red Hat Enterprise Linux AS 4.x (Kernel 2.6.x compiled with glibc 2.3.x)		Yes	Yes	gcc/g++ 3.4 gcc/g++ 4.0 gcc/g++ 4.1	JDK 1.4.2 JDK 1.5 JDK 1.6		
Red Hat Enterprise Linux AS 5.x (Kernel 2.6.x compiled with glibc 2.3.x)				Intel C++ 9.1	Sun JVM BEA Jrockit IBM JVM		
Red Hat Enterprise Linux AS 6.x (Kernel 2.6.x compiled with glibc 2.3.x)							
SUSE Linux Enterprise Server 9.x (Kernel 2.6.x compiled with glibc 2.3.x)					Eclipse 3.2.2 Eclipse 3.3.0		
SUSE Linux Enterprise Server 10.x (Kernel 2.6.x compiled with glibc 2.3.x)							
SUSE Linux Enterprise Server 11.x (Kernel 2.6.x compiled with glibc 2.3.x)							

Linux x86 64-bit

Operating Systems	Management Node	Compute Node	Client Node	Development Edition / SDK		MapReduce		
				C++	Java			
Red Hat Enterprise Linux AS 4.x (Kernel 2.6.x compiled with glibc 2.3.x)	Yes	Yes	Yes ¹	gcc/g++ 3.4 gcc/g++ 4.0 gcc/g++ 4.1	JDK 1.5 JDK 1.6	Yes		
Red Hat Enterprise Linux AS 5.x (Kernel 2.6.x compiled with glibc 2.3.x)							Intel C++ 9.1	Sun JVM BEA Jrockit IBM JVM
Red Hat Enterprise Linux AS 6.x (Kernel 2.6.x compiled with glibc 2.3.x)								
CentOS 6.x ^{a,b} (Kernel 2.6.x compiled with glibc 2.3.x)							Eclipse 3.3.0	
SUSE Linux Enterprise Server 9.x (Kernel 2.6.x compiled with glibc 2.3.x)								No
SUSE Linux Enterprise Server 10.x (Kernel 2.6.x compiled with glibc 2.3.x)								
SUSE Linux Enterprise Server 11.x (Kernel 2.6.x compiled with glibc 2.3.x)								Yes
Ubuntu 8.04 Server Edition ^c (Kernel 2.6.x compiled with glibc 2.3.x)				gcc/g++ 4.2.4	JDK1.6 Sun JVM	No		

1 - Supports both 32-bit and 64-bit applications on 64-bit OS

- a - If the master has a long host name (with domain name), the DNS IP address mapping information from `/etc/resolv.conf.eth0` must be copied to `/etc/resolv.conf`
- b - 32-bit glibc libraries are required even on 64-bit hosts and must be installed.
- c - No native installation package on this platform.

Linux on PowerPC 64-bit

Operating Systems	Management Node	Compute Node	Client Node	DE / SDK		MapReduce
				C++	Java	
PowerLinux 6 (Kernel 2.6.x compiled with glibc 2.5.x)	Yes	Yes	Yes ¹	gcc/g++ 4.1	JDK 1.5 JDK 1.6 Sun JVM BEA Jrocket IBM JVM Eclipse 3.3.0	Yes

1 - Supports both 32-bit and 64-bit applications

Linux on IBM Cell Blades (QS21 and QS22 on SDK3)

Operating Systems	Management Node	Compute Node	Client Node	DE / SDK		MapReduce
				C++	Java	
Red Hat Enterprise Linux AS 5.1 (Kernel 2.6.x compiled with glibc 2.3.x)	No	On Demand	No	On Demand gcc/g++ 4.1 ppu-g++ 4.1.1 spu-gcc 4.1.1	No	No

AIX 64-bit

Operating Systems	Management Node	Compute Node	Client Node	SDK		MapReduce
				C++	Java	
AIX 5.2 ML6 64-bit^{a,b}	No	No	Yes ^{1,2}	VisualAge C++ Professional / C for AIX Compiler, Version 7.0 ³	No	No

1 - Supports only 32-bit applications on 64-bit OS

2 - No native log4cxx support

3 - Certified to work with applications compiled with XLC7 or XLC8

a - Development Edition is not supported, just the Symphony SDK

b - No SSL support

Solaris 32-bit

Operating Systems	Management Node	Compute Node	Client Node	Development Edition / SDK		MapReduce
				C++	Java	
Solaris 8 on SPARC 32-bit Patch 108434-04 and 111297-01 or later ^a						
SDK compiled with Sun C++	No	No	Yes	Sun WorkShop 6 update 2 C++ 5.3 Patch 111685-03 2001/10/19	JDK 1.4.2 JDK 1.5 JDK 1.6	No
SDK compiled with GNU C++				gcc 3.4.6 Certified with applications compiled on gcc 3.4.6 and 4.1.1	Sun JVM	
Solaris 10 on x86 32-bit^b						
SDK compiled with Sun C++	No	No	Yes ²	Sun C++ 5.7 Patch 117831-11 2007/04/04 Certified with applications compiled with the stlport4 library	JDK 1.4.2 JDK 1.5 JDK 1.6 Sun JVM	No
SDK compiled with GNU C++			Yes ³	gcc version 3.4.3 Certified with applications compiled on gcc 3.4.3, 4.1.1 or 4.3.2	JDK 1.4.2 JDK 1.5 JDK 1.6 Sun JVM	

- 1 - Supports only 32-bit applications on 64-bit OS
- 2 - Client API only
- 3 - SDK only

a - If you are planning on using SSL security, you will need to apply Solaris patch 112438. This is so that SSL works properly. See: <http://www.openssl.org/support/faq.html#USER1>

b - No SSL support

Solaris 64-bit

Operating Systems	Management Node	Compute Node	Client Node	Development Edition / SDK		MapReduce
				C++	Java	
Solaris 8 on SPARC 64-bit Patch 108434-04 and 111297-01 or later^{a,c}						
SDK compiled with Sun C++	No	Yes ¹	Yes ¹	Sun WorkShop 6 update 2 C++ 5.3 Patch 111685-03 2001/10/19	JDK 1.4.2 (32-bit) JDK 1.5 JDK 1.6 Sun JVM	No
SDK compiled with GNU C++		No		gcc 3.4.6 Certified with applications compiled on gcc 3.4.6 and 4.1.1		
Solaris 10 on SPARC 64-bit						
SDK compiled with Sun C++	Yes ⁴	Yes ²	Yes ²	Sun C++ 5.7 2005/01/07 Certified with applications compiled with C++ 5.7 or 5.8	JDK 1.4.2 (32-bit) JDK 1.5 JDK 1.6 Sun JVM	No
SDK compiled with GNU C++	No	No		gcc 3.4.3 Certified with applications compiled on gcc 3.4.3 or 3.4.6		
Solaris 10 on x86 64-bit^b						
DE^d SDK compiled with Sun C++	Yes	Yes ²	Yes ²	Sun C++ 5.7 Patch 117831-11 2007/04/04 Certified with applications compiled on C++ 5.7 or 5.8	JDK 1.4.2 (32-bit) JDK 1.5 JDK 1.6 Sun JVM	No
Applications compiled with stlport4 library	No	No	Yes ^{1,3}	Sun C++ 5.7 Patch 117831-11 2007/04/04		

- 1 - Supports only 32-bit applications on 64-bit OS
- 2 - Supports both 32-bit and 64-bit applications
- 3 - Client API only
- 4 - WEBGUI service is not supported

- a - If you are planning on using SSL security, you will need to apply Solaris patch 112438. This is so that SSL works properly. See: <http://www.openssl.org/support/faq.html#USER1>
- b - If you are planning on using SSL security, you will need to apply Solaris patch 112439. This is so that SSL works properly. See: <http://www.openssl.org/support/faq.html#USER1>
- c - Symphony client applications and commands need to preload /usr/lib/libCstd.so.1 to work.
Set the LD_PRELOAD environment variable to /usr/lib/libCstd.so.1 before running Symphony client or commands.

Supported Distributed File Systems for MapReduce

Distributed File System	Version	Notes
IBM GPFS	3.4	
Hadoop HDFS	1.0.3 (PowerLinux) 1.0.1 1.0.0 0.21.0 0.20.2 0.20.202 0.20.203	<ul style="list-style-type: none"> On PowerLinux, only 1.0.3 and 0.20.2 have been tested. Versions 1.0.1 and 1.0.3 are configured identically to version 1.0.0
Cloudera CDH	v3u1 v3u2	
Appistry Cloud IQ	4.5	

Supported Browsers

Platform	Supported Browsers	Notes
Windows x86 32-bit Windows x86 64-bit	Internet Explorer 7 Internet Explorer 8 Internet Explorer 9 Firefox 3.6 Firefox 12	For IE 8 and IE 9, enable active scripting or add the WEBGUI server to Trusted Sites.
Linux x86 32-bit Linux x86 64-bit	Mozilla 3.0.6 and up	<p>Need to upgrade Mozilla on Linux for the following platforms:</p> <ul style="list-style-type: none"> Mozilla Firefox 3.6.17 (RHEL 6) Mozilla Firefox 3.6.13 (RHEL 5) Mozilla Firefox 3.0.7 (RHEL 4) Mozilla Firefox 3.0.6 (SLES 11) <p>See the following:</p> <p>https://bugzilla.mozilla.org/show_bug.cgi?id=261998 https://bugzilla.mozilla.org/show_bug.cgi?id=67873</p>

Supported Databases

Symphony Edition	Supported Databases
Symphony Express and Standard Edition	Oracle 9i, 10g, 11g MS SQL Server 2005
Symphony Advanced Edition	Oracle 9i, 10g, 11g MS SQL Server 2005 (MapReduce GUI not supported)

Plug-in Reference Platforms

Eclipse 3.2.2 Plug-in Reference Platforms

Platform	Version	Window System	Java 2 Platform
Windows 32-bit	Windows XP Professional	Win32	Sun Java 2 Standard Edition 5.0 Update 6 for Microsoft Windows IBM 32-bit SDK for Windows, Java 2 Technology Edition 5.0, service release 1
Linux x86	Red Hat Enterprise Linux 4.x	GTK	Sun Java 2 Standard Edition 5.0 Update 6 for Linux x86 IBM 32-bit SDK for Linux on Intel, Java 2 Technology Edition 5.0, service release 1

Eclipse 3.3.0 Plug-in Reference Platforms

Platform	Version	Window System	Java 2 Platform
Windows 32-bit	Windows XP Professional	Win32	Sun Java 2 Standard Edition 5.0 Update 11 for Microsoft Windows IBM 32-bit SDK for Windows, Java 2 Technology Edition 5.0, SR4 BEA JRockit 5.0, for Microsoft Windows
Linux x86	Red Hat Enterprise Linux 5.x	GTK	Sun Java 2 Standard Edition 5.0 Update 11 for Linux x86 IBM 32-bit SDK for Linux on Intel Architecture, Java 2 Technology Edition 5.0, SR4 BEA JRockit 5.0, for Linux x86
Linux x86-64	Red Hat Enterprise Linux 4.x Update 2	GTK	Sun Java 2 Standard Edition 5.0 Update 11 for Linux x86_64

Visual Studio .NET Plug-in Reference Platforms

Platform	Windows	Visual Studio .NET
Windows 32-bit	Windows XP Professional Windows 7 Windows Server 2003 Windows Server 2003 R2 Windows Server 2008	Visual Studio .Net 2008 Visual Studio .Net 2010
Windows 64-bit	Windows XP Professional Windows 7 Windows Server 2003 Windows Server 2003 R2 Windows Server 2008 Windows Server 2008 R2	Visual Studio .Net 2008 Visual Studio .Net 2010

IBM Platform Symphony Add-ons

The following add-on products are available only available for IBM Platform Symphony Standard and Advanced editions, and only on the indicated operating systems:

- **Desktop, Server & VM Harvesting** - Supports harvesting of non-dedicated systems, including Desktop, Server and Virtual Server machines. Virtual Server Harvesting support is available for clusters with Windows or Linux master hosts, not Solaris master hosts.
- **GPU application support** - Supports GPU applications on Red Hat Enterprise Linux 5.x x86 64-bit compute hosts in clusters with any supported Windows or Linux/UNIX master hosts.
 - Supported GPU capability version: 1.0, 1.1, 1.2, 1.3, 2.0.
 - Supported CUDA API version: 3.2, 4.0.

Tested and Qualified Third Party Applications

- **IBM Platform Symphony Connector for Microsoft Excel (Windows 64-bit)** - Supported on Microsoft Excel 2000, 2002, 2003 SP2, 2007.
- **IBM Platform Symphony Connector for MATLAB** - Supports MATLAB R2010b on Red Hat Enterprise Linux 5.x x86 64-bit.