Sun Java™ System Web Server Release Notes for Microsoft Windows

Version 6.1 SP4 2005Q1

Part Number 819-1587-10

Sun Java™ System Web Server 6.1 2005Q1 SP4 for Windows (hereafter referred to as Sun Java System Web Server 6.1 SP4) contains important security vulnerability fixes. All users of Sun Java System Web Server, especially those with web sites that utilize Secure Sockets Layer (SSL) version 3 or Transport Security Layer (TLS), are encouraged to install this Service Pack. This release provides support for the Windows platforms.

This release notes contain important information available at the time of release of Sun Java System Web Server 6.1 SP4, including information about features, known limitations and problems, technical notes, and pointers to additional resources. Review the release notes prior to installing and configuring your software, and then periodically thereafter for the most up-to-date information.

The up-to-date version of this release notes can be found at the Sun Java System Web Server 6.1 documentation web site found at the following location:

http://docs.sun.com/app/docs/coll/WebServer_05q1

Check the web site prior to installing and setting up your software and then periodically thereafter to view the most up-to-date release notes and product documentation.

These release notes contain the following sections:

- Release Notes Revision History
- About Web Server SP4 2005Q1
- Bugs Fixed in This Release
- Important Information
- Known Issues and Limitations
- How to Report Problems and Provide Feedback
- Additional Sun Resources

Release Notes Revision History

Table 1   Revision History

Date	Description
February, 2005	Initial release of Sun Java™ System Web Server Release Notes for Microsoft Windows.
July, 2005	Release of RR version of Sun Java™ System Web Server Release Notes for Microsoft Windows.

About Web Server SP4 2005Q1

This section covers the following topics:

- Features of Web Server
- Supported Platforms
- Required Patches

Features of Web Server

Sun Java System Web Server provides the following features:

- Java Servlet 2.3 and JavaServer Pages (JSP) 1.2 Support
- J2SE Platform 1.4.2_04 Support/J2SE Platform 1.5.0 Support
- WebDAV Support
- NSAPI Filters Support
- HTTP Compression Support
- Search Engine Support
- Security
- JNDI Support
- JDBC Support

- Sun ONE™ Studio 5 Support

- Active Server Pages Support

- PHP Compatibility

- NSS 3.9.3 and NSPR 4.5.0 Support

Java Servlet 2.3 and JavaServer Pages (JSP) 1.2 Support

Sun Java System Web Server includes a Java 2 Platform, Enterprise Edition (J2EE)-compliant implementation of the Java Servlet 2.3 and JavaServer Pages (JSP) 1.2 specifications. A J2EE-compliant web container provides the flexibility and reliability needed to design and deploy web applications that comply with Java™ technology standards. You can deploy web applications on a per virtual server basis.

For information about these technologies, see the following resources:

- Java Servlets
  http://java.sun.com/products/servlet/index.html

- JavaServer Pages
  http://java.sun.com/products/jsp/index.html

For information about developing servlets and JSPs in Sun Java System Web Server, see the Sun Java System Web Server 6.1 *Programmer's Guide to Web Applications*.

J2SE Platform 1.4.2_04 Support/J2SE Platform 1.5.0 Support

Sun Java System Web Server supports Java 2 Platform, Standard Edition (J2SE) 1.4.2_04 and greater (32-bit only; 64-bit is not supported). If you plan to use the Administration server, a JDK must be installed. The Web Server also supports J2SE Platform 1.5.0.

Note: Sun Java System Web Server 6.1 for Windows platform includes JDK 1.5.

WebDAV Support

Sun Java System Web Server supports the Web-based Distributed Authoring and Versioning (WebDAV) protocol, which enables collaborative web publishing with the following features:

- Compliance with RFC 2518 and interoperability with RFC 2518 clients

- Security and access control for web publishing

- Basic publishing operations on file-system-based WebDAV collections and resources

WebDAV provides integrated support for content metadata, name space management, and overwrite protection. These technologies, combined with the many authoring tools that support WebDAV, provide an ideal development platform for collaborative environments.

NSAPI Filters Support

Sun Java System Web Server 6.1 release extends the Netscape Server Application Programmer's Interface (NSAPI) to support NSAPI filters.

Filters enable the custom processing of HTTP request and response streams, allowing a function to intercept and potentially modify the content presented to or generated by another function. For example, a plugin could install an NSAPI filter to intercept an XML page generated by another plugin's Server Application Function (SAF), then transform that XML page into an HTML, XHTML, or WAP page appropriate for the client. Alternatively, an NSAPI filter can decompress data received from a client before presenting it to another plugin.

For more information, see the Sun Java System Web Server 6.1 *NSAPI Programmer's Guide*.

HTTP Compression Support

Sun Java System Web Server 6.1 supports content compression, which allows you to increase delivery speed to clients and serve higher content volumes without incurring a corresponding increase in hardware expenses. Content compression reduces content download time, a benefit most apparent to the users of dial-up and high-traffic connections.

For more information, see the Sun Java System Web Server 6.1 *Administrator's Guide*.

Search Engine Support

Sun Java System Web Server supports a Java-based search engine that provides full-text search indexing and retrieval. The search feature allows users to search documents on the server and display results on a web page. Server administrators create the indexes of documents against which users will search, and can customize the search interface to meet specific needs.

The default URL end-users can use to access search functionality is:

```
http://<server-instance>:port number/search
```

Example:

```
http://plaza:8080/search
```

When the end-user invokes this URL, the Search page, which is a Java web application, is launched.

For detailed information about conducting basic and advanced searches, including information about keywords and optional query operators, see the online Help provided with the search engine. To access this information, click the Help link on the Search page.

For more information, see the Sun Java System Web Server 6.1 *Administrator's Guide.*

Security

Sun Java System Web Server allows you to restrict access using flat file authentication. Sun Java System Web Server 6.1 supports the Java Security Manager. The Security Manager is disabled by default when you install the product, which may improve performance significantly for some types of applications. Enabling the Security Manager can improve security by restricting the rights granted to your J2EE web applications. To enable the Security Manager, "uncomment" entries in the server.xml file:

```
<JVMOPTIONS>-Djava.security.manager<\JVMOPTIONS>
```

```
<JVMOPTIONS>-Djava.security.policy=instance_dir\config\server.policy<\JVMOPTIONS>
```

where instance_dir is the path to the installation directory of this server instance.

For more information about server.xml, see the Sun Java System Web Server 6.1 *Administrator's Configuration File Reference*.

JNDI Support

Sun Java System Web Server supports the Java Naming and Directory Interface™ (JNDI), which provides seamless connectivity to heterogeneous enterprise naming and directory services.

JDBC Support

Sun Java System Web Server provides out-of-the-box, seamless Java DataBase Connectivity (JDBC™), and supports a wide range of industry-standard and customized JDBC drivers.

Sun ONE™ Studio 5 Support

Sun Java System Web Server supports Sun ONE Studio 5, Standard Edition. Sun ONE Studio technology is Sun's powerful, extensible, integrated development environment (IDE) for Java technology developers. Sun ONE Studio 5 is based on NetBeans™ software, and integrated with the Sun ONE platform. (Sun Java System Web Server 6.1 and greater version also supports NetBeans 3.5 and 3.5.1.)

Sun ONE Studio support is available on all platforms supported by the Sun Java System Web Server 6.1 SP4. The plugin for the Web Server can be obtained in the following ways:

- From the Companion CD in the Sun Java System Web Server Media Kit

- By using the AutoUpdate feature of Sun ONE Studio

- From the download center for Sun Java System Web Server at
  http://wwws.sun.com/software/download/products/3f567f91.html

Please note that the Sun ONE Studio 5 plugin for Sun Java System Web Server 6.1 SP4 works only with a local Web Server (that is, with the IDE and the Web Server on the same machine).

The behavior of the Sun ONE Studio 5 plugin for Sun Java System Web Server is the same as that for Sun ONE Application Server 7. For information about using the web application features in Sun ONE Studio 5, see the following tutorial
http://developers.sun.com/prodtech/javatools/jsenterprise/learning/tutorials/cdshop.pdf

Set the Sun Java System Web Server 6.1 SP4 instance as the default, and then take the tutorial.

Also see the following NetBeans tutorial

http://usersguide.netbeans.org/tutorials/webapps/index.html

For more information about Sun ONE Studio 5, visit

http://www.sun.com/software/sundev/jde/

For additional developer resources, see Additional Sun Resources in these release notes.

Using Sun ONE Studio 5 for Debugging

Sun ONE Studio 5 can be used for "remote debugging" if you want to manually attach the IDE to a remote Web Server started in debug mode. The steps are as follows:

1. Using the Sun Java System Web Server Administration interface, restart the server instance in debug mode (Server Manager > JVM General > Debug Enabled).

2. Note the JPDA port number.

3. Start the IDE.

4. Choose Debug > Start.

5. Select the dt_socket method, and then enter the remote machine name and the JPDA port number.

6. At that moment, any breakpoint created in the IDE on servlet source code of a deployed application will be active.

Active Server Pages Support

Sun Java System Web Server 6.1 SP4 supports the Active Server Pages 3.0 specification through Sun ONE Active Server Pages version 4.0.1 (formerly Sun ChiliSoft ASP). Sun ONE Active Server Pages adds a secure, enterprise-grade Active Server Pages engine to the Sun Java System Web Server.

Sun Java System Web Server 6.1 SP4 provides support for Sun ONE Active Server Pages 4.0.1 on the following platforms:

• Windows 2000 and XP

A license is not required for Sun ONE Active Server Pages if you are installing to the Sun Java System Web Server. The Sun ONE Active Server Pages installer is available on the companion CD if you purchase the Sun Java System Web Server Media Kit, or download from the following location:

http://wwws.sun.com/software/chilisoft/index.html

Please note the following:

- The Sun ONE Active Server Pages plugin requires an additional 50 Mbytes (approximately) of disk space after Sun Java System Web Server 6.1 SP4 is installed.

- Before you begin installation, make sure you are logged in as administrator.

For more information about Sun ONE Active Server Pages, visit the URL listed above.

PHP Compatibility

PHP, the popular page scripting language available from The PHP Group (http://www.php.net/), can be used with the Sun Java System Web Server using one of three supported APIs: CGI, NSAPI, and FastCGI. The PHP Group provide detailed instructions on their web site for configuring the PHP software to use any of the three supported APIs.

The CGI API is the most stable interface that can be used but will suffer from performance limitations inherent in CGI.

NSAPI utilizes the Sun Java System Web Server's native API to run the PHP software within the Web Server's memory. This configuration will provide the best performance, but risks crashing the server if non-thread safe PHP modules are used.

The FastCGI interface provides a compromise between performance and stability by allowing the PHP software to remain running after serving requests while continuing to run outside of the Web Server's memory. If an unstable PHP module is used it will not cause the Web Server to crash. For this reason Sun recommends use of the FastCGI interface with the PHP software.

The FastCGI interface is supported with the Web Server via the installation of the FastCGI Add-On available from: http://www.sun.com/download/products.xml?id=3f567f91

For detailed information about installation and configuration of the FastCGI Add-On, refer to the FastCGI Add-On documentation at: http://docs.sun.com/source/819-1809/fcgi61.html

NOTE that the PHP software makes use of two environment variables to control the life cycle of PHP processes when run as a FastCGI process. PHP_FCGI_CHILDREN determines the number of PHP processes that will be created to respond to requests. PHP_FCGI_MAX_REQUESTS determines the number of requests a PHP process can respond to before terminating itself and being replaced with a new PHP process. Sun recommends against the use of PHP_FCGI_CHILDREN and recommends instead the FastCGI Add-On configuration parameter min-procs to control the minimum number of PHP processes.

NSS 3.9.3 and NSPR 4.5.0 Support

NSS support in Sun Java System Web Server 6.1 SP4 has been upgraded from 3.3.10 (in version 6.1 SP3) to 3.9.5. NSS is a set of libraries designed to support cross-platform development of security-enabled server applications. Sun Java System Web Server 6.1 SP4 also supports NSPR 4.5.1.

Supported Platforms

Sun Java System Web Server 6.1 SP4 can be installed on the Solaris, HP-UX, AIX, Linux, and Windows platforms. The following table summarizes platform support. For more information about installation requirements, see Required Patches in these release notes, and Chapter 2 in the Sun Java System Web Server 6.1 Installation and Migration Guide.

Note: HP-UX 11i is supported only on PA-RISC platforms.

Table 2   Sun Java System Web Server 6.1 SP4 Supported Platforms

Vendor	Architecture	Operating System	Minimum Required Memory	Recommended Memory	Recommended Disk Space
IBM	PowerPC	IBM AIX 5.1, 5.2*	64 MB	192 MB	256 MB
Hewlett-Packard	PA-RISC 2.0	HP-UX 11i	64 MB	192MB	256 MB
Microsoft	Intel x86	Windows 2000 Server SP4, Windows XP, Windows Server 2003, Enterprise Edition	64 MB	192MB	256 MB
Sun	UltraSPARC* Solaris 8, 9, 10	Solaris 8, 9, 10	64 MB	192MB	256 MB
Sun	x86	Solaris 9, 10	64 MB	192MB	256 MB
Sun	x86 and SPARC	Trusted Solaris 8 (Pro Serve Only)**	64 MB	192MB	256 MB

Table 2   Sun Java System Web Server 6.1 SP4 Supported Platforms

Vendor	Architecture	Operating System	Minimum Required Memory	Recommended Memory	Recommended Disk Space

Linux***	RedHat Intel x86	Red Hat Linux Advanced Server 2.1
		
		`Kernel 2.4.9-e.3smp`
		`glibc-2.2.4-26`
		`ncurses-4-5.0-5.i386.rpm`
		You may also create a symbolic link from `libncurses5.so` to `libcurses4.so`, although we recommend that you install `ncurses4-5.0-5.i386.rpm`.
		and Red Hat Advanced Server 3.0
			64 MB	192MB	256 MB

*As of iPlanet Web Server 6.0, older SPARC CPUs are not supported. Sun Java System Web Server 6.1 continues to support the UltraSPARC architecture.

**Sun or iForce partner professional services highly recommended

***Support for the following Linux operating system is now listed as Deprecated and will be removed with the "next" release of the Sun Java System Web Server 6.0 product:

Sun Linux 5.0

Please take needed action to move or migrate your Web Servers to a supported operating system.

Required Patches

It is recommended that you update your operating system with the latest applicable patches. Required patches are listed by platform.

- Solaris Patches
- HP-UX Patches
- AIX Patches
- Windows Patches

Solaris Patches

Solaris users must have the Sun recommended patch cluster installed, available in the Recommended and Security Patches section at: http://sunsolve.sun.com

- Solaris 8 (SPARC)
- Solaris 8 Update 7

Sun recommended latest Security and Recommended patch cluster.

- Solaris 9 (SPARC and x86)
- Solaris 9 Update 4 or above.

Sun recommended latest Security and Recommended patch cluster.

HP-UX Patches

The following patches are required to use Sun Java System Web Server 6.1 SP4.

HP-UX 11i

Note: HP-UX 11i is supported only on PA-RISC platforms.

- HP-UX 11i Operating Environment Component B.11.11.0203
- Required patch bundle for 11i, June 2003 — B.11.11.0306.1
- Gold Base patches for HP-UX 11i, June 2003 — B.11.11.0306.4
- Gold Application patches for HP-UX 11i, June 2003 — B.11.11.0306.4
- Pthread enhancement and fixes — PHCO_29109
- Pthread.h fix and new enhancement — PHCO_27633
- libc manpage cumulative patch — PHCO_29328
- libc cumulative patch — PHCO_29495
- Java Out-of-Box — JAVAOOB, 1.0.00.02

The Java Out-of-Box tool is used to configure the necessary kernel tunable parameters. Use of this tool is the recommended method for modifying kernel values. If necessary, modify the following tunable parameters to reflect a value equal to or greater than the following:

- nkthreads — 3635
- maxfiles — 60
- maxfiles_lim — 1024

- max_thread_proc — 512

- maxswapchunks — 2048

- nfile — 4136

- ncallout — 3651

- nproc — 2068

CAUTION: MODIFYING THE KERNEL TUNABLE PARAMETERS CAN HAVE ADVERSE IMPACTS ON YOUR SYSTEM. DO NOT MODIFY THE PARAMETERS UNLESS YOU FULLY UNDERSTAND WHAT YOU ARE DOING.

AIX Patches

The following patches are required to use Sun Java System Web Server 6.1 SP4.

AIX 5.1

- Base-level OS — AIX 5.1

- Maintenance-level patches — 5100-05

- JDK APAR-IY46667 must be applied

AIX 5.2

- Base-level OS — AIX 5.2

- Maintenance-level patches — 5200-02

- JDK APAR-IY46668 must be applied

If Java web applications are deployed on the Web Server, then per the IBM JDK documentation the following environment variables must be set to the values specified below before the server is started:

- export AIXTHREAD_SCOPE=S

- export AIXTHREAD_MUTEX_DEBUG=OFF

- export AIXTHREAD_RWLOCK_DEBUG=OFF

- export AIXTHREAD_COND_DEBUG=OFF

The above snippet can be added directly to the Web Server start script.

Windows Patches

- Windows 2000 Advanced Server *SP4

Bugs Fixed in This Release

The table below describes the bugs fixed in Web Server 6.1 SP4 2005Q1.

Table 3   Fixed Bugs in Web Server 6.1 SP4 2005Q1

Bug Number	Description
6218946	Unable to use the Search feature

Important Information

This section covers the following topics:

- Installation Notes
- Product Documentation

Installation Notes

This section includes notes about installing your Sun Java System Web Server. For detailed information about these topics, review the information in the Sun Java System Web Server 6.1 *Installation and Migration Guide*. References to Sun Java System Web Server 6.1 in the guide also apply to Sun Java System Web Server 6.1 SP4. For known issues in this release of Sun Java System Web Server, see Known Issues in these release notes.

Do not install Web Server into a directory with spaces in the name.

Web Server cannot be installed or configured with folder names having space for the Beta Release. It is very important to note that the Web Server **will not start** if it is installed into a directory with spaces in the name, for instance, Program Files. You will not receive an error message about this during installation, but following installation the server will not start.

GUI configuration is not supported.

In this release GUI configuration is not supported.

Product Documentation

Sun Java System Web Server includes a complete set of product documentation, which can be found at the following location:

http://docs.sun.com/db/prod/s1websrv#hic

Sun Java System Web Server manuals are available as online files in PDF and HTML formats. References to Sun Java System Web Server 6.1 in the documentation also apply to Sun Java System Web Server 6.1 SP4. The following table lists the tasks and concepts described in each manual.

Table 4   Sun Java System Web Server Documentation Roadmap

For Information About	See the Following
Late-breaking information about the software and documentation	*Release Notes*
Getting started with Sun Java System Web Server, including hands-on exercises that introduce server basics and features (recommended for first-time users)	*Getting Started Guide*
• Performing installation and migration tasks: Installing Sun Java System Web Server and its various components, supported platforms, and environments • Migrating from a previous version of Sun Java System Web Server	*Installation And Migration Guide* The guide can also be accessed from your Web Server installation: server_root\manual\https\ig\
Performing the following administration tasks: • Using the Administration and command-line interfaces • Configuring server preferences • Using server instances • Monitoring and logging server activity • Using certificates and public key cryptography to secure the server • Configuring access control to secure the server • Using Java 2 Platform, Enterprise Edition (J2EE platform) security features • Deploying applications • Managing virtual servers • Defining server workload and sizing the system to meet performance needs • Searching the contents and attributes of server documents, and creating a text search interface • Configuring the server for content compression • Configuring the server for web publishing and content authoring using WebDAV	*Administrator's Guide* The guide can also be accessed from your Web Server installation: server_root\manual\https\ag\

Table 4   Sun Java System Web Server Documentation Roadmap

For Information About	See the Following
Using programming technologies and APIs to do the following:	*Programmer's Guide*
• Extend and modify Sun Java System Web Server	
• Dynamically generate content in response to client requests	
• Modify the content of the server	
Creating custom Netscape Server Application Programmer's Interface (NSAPI) plugins	*NSAPI Programmer's Guide*
Implementing servlets and JavaServer Pages™ (JSP™) technology in Sun Java System Web Server	*Programmer's Guide to Web Applications*
Editing configuration files	*Administrator's Configuration File Reference*
Tuning Sun Java System Web Server to optimize performance	*Performance Tuning, Sizing, and Scaling Guide*

Known Issues and Limitations

For a list of the known issues and limitations in the Web Server 6.1 2005Q1 SP4 component, refer to
http://docs.sun.com/app/docs/doc/819-0290.

How to Report Problems and Provide Feedback

If you have problems with Sun Java System Web Server, contact Sun customer support using one of the following mechanisms:

- Sun Software Support services online at
  http://www.sun.com/service/support/software/

- The telephone dispatch number associated with your maintenance contract

To assist you best in resolving problems, please have the following information available when you contact support:

- Description of the problem, including the situation where the problem occurs and its impact on your operation

- Machine type, operating system version, and product version, including any patches and other software that might be affecting the problem

- Detailed steps on the methods you have used to reproduce the problem

- Any error logs or core dumps

Sun Welcomes Your Comments

Sun is interested in improving its documentation and welcomes your comments and suggestions. Send your comments to Sun using the "Send comments" link at: http://docs.sun.com/

Please include identifying information with your comments, such as the book's part number and title.

Additional Sun Resources

Useful Sun Java System information can be found at the following locations:

- Documentation for Sun Java System Web Server 6.1 and Service Packs
  http://docs.sun.com/db/coll/S1_websvr61_en

- Sun Software Products and Service
  http://www.sun.com/software

- Sun Developer Information
  http://developers.sun.com/

- Sun Developer Support Services
  http://developers.sun.com/prodtech/support/

- Software Support Services
  http://www.sun.com/service/support/software/

- Sun Support and Training Services
  http://www.sun.com/supporttraining

- Sun Consulting and Professional Services
  http://www.sun.com/service/sunjavasystem/sjsservicessuite.html