Sun Java™ System Application Server Platform Edition 8 Update 1 Release Notes

June 2004

Part Number 817-7422

These release notes contain important information available at the time of the Update 1 release of the Sun Java™ System Application Server Platform Edition 8 product. Enhancements, installation notes, known problems, and other late-breaking issues are addressed here. Read this document before you begin using the Application Server Platform Edition 8 Update 1 product.

This document contains the following sections:

What's New in the Application Server

In addition to the features introduced with the Sun Java™ System Application Server Platform Edition 8 product, the Update 1 product provides the following additional enhancements:

- Many customer-escalated issues have been resolved.

- JavaServer Faces has been upgraded to version 1.1. For more information on changes and bug fixes, see the JavaServer Faces Release Notes at:

http://java.sun.com/j2ee/javaserverfaces/docs/ReleaseNotes.html

- Sun Java™ Studio Creator now includes the Application Server 8 Update 1 to address the needs of Java application developers. For more information on Sun Java Studio Creator see:

http://developers.sun.com/prodtech/javatools/jscreator/index.jsp

Bugs Fixed in This Release

This section lists the customer-escalated issues resolved for the Sun Java™ System Application Server Platform Edition 8 Update 1 product.

Table 1 Fixed Bugs in Application Server Platform Edition 8 Update 1

Bug Number	Description
4817526	Container resources unavailable outside of request thread
4963035	Negative Incorrect failure. Class cannot be found within this jar (WebEjbReferences)
4987274	Deployment fails if remote interface for the bean is named Util
4991198	Appserver logs user passwords in CLEAR TEXT in the log file
5004437	Redeployments can fail on Windows due to open file streams
5005189	Argument type mismatch error occurs with overridden MCF/RA methods during RAR deployment
5005572	stateful-simple.ear encounters verifier error for AppClientEjbReferencesElement
5005581	bmp-robean.ear encounters incorrect verifier warning for ASEjbIsReadOnlyBean test
5005808	samples.jar has a missing sample - jaxrpc-simple
5006160	ests.appclient.elements.AppClientEjbReferencesElement prints incorrect information
5006854	asadmin deploy --virtualservers fails to deploy
5008967	Application Server deletes tool provided data fields from sun-web.xml after deployment
5009555	asadmin with enable assertion (-ea) ON does not work and exits immediately
5010332	OSS/J IBP TCK tests have 9 failures
5012781	While inside service(), session shouldn't be invalid after setMaxInactiveInterval
5015554	update-file-user command removes group
5015922	Timer operations are not allowed after entity timed object finder exception
5016561	JSP debugger issues caused by server issues
5018278	javax.naming.NamingException after a Stop/Start cycle of a web application

Table 1 Fixed Bugs in Application Server Platform Edition 8 Update 1

Bug Number	Description
5026588	XA Connections are shared even outside transaction context
5030425	deploydir ignores security-role-mapping changes
5036455	Need to include Verisign CA certs in application server trust store
5036984	Keep Alive algorithm breaks SPECJ 2002

System Requirements

This section lists the requirements that must be met before installing the Sun Java System Application Server Platform Edition 8 Update 1 product.

- Platform Requirements

- JDBC Drivers and Databases

- Other Requirements

Platform Requirements

The following table lists the operating systems that are supported for Sun Java System Application Server product.

Operating System	Architecture	Minimum Memory	Recommended Memory	Minimum Disk Space	Recommended Disk Space	JVM
Sun Solaris 8, 9 (SPARC)	32 and 64 bit	256 MB	512 MB	250 MB free	500 MB free	JDK 1.4.2_04
Solaris 9 (x86)	32 and 64 bit	256 MB	512 MB	250 MB free	500 MB free	JDK 1.4.2_04
Sun Java Desktop System	32 bit	256MB	512MB	83 MB free	300 MB free	JDK 1.4.2_04
Redhat Enterprise Linux 2.1 and 3.0	32 bit	256 MB	512 MB	83 MB free	300 MB free	JDK 1.4.2_04
Microsoft Windows 2000 Professional Service Pack 4+	Intel 32 bit	256 MB	512 MB	250 MB free	500 MB free	JDK 1.4.2_04

Operating System	Architecture	Minimum Memory	Recommended Memory	Minimum Disk Space	Recommended Disk Space	JVM
Microsoft Windows XP Professional Service Pack 1+	Intel 32 bit	256 MB	512 MB	250 MB free	500 MB free	JDK 1.4.2_04
Microsoft Windows 2000 Server SP4+	Intel 32 bit	256 MB	512 MB	250 MB free	500 MB free	JDK 1.4.2_04
Microsoft Windows Advanced Server Service Pack 4+, Microsoft Windows Server 2003	Intel 32 bit	256 MB	512 MB	250 MB free	500 MB free	JDK 1.4.2_04

On UNIX, you can check your operating system version using the `uname` command. Disk space can be checked using the `df` command.

Solaris Patch Requirements

It is recommended that Solaris 8 and 9 users have the Recommended Solaris Patch Cluster installed. This patch cluster is available under "Recommended and Security Patches" here:

```
http://sunsolve.sun.com/
```

RedHat Enterprise Linux 3.0 Additional Package Requirements

To run native components of this product, including installer, the following package, which is not part of the standard RedHat Enterprise Linux 3.0 distribution, should be installed:

```
compat-libstdc++-7.3-2.96.118.i386.rpm
```

The package can be downloaded from:

http://mirrors.kernel.org/redhat/redhat/linux/9/en/os/i386/RedHat/RPMS/compat-libstdc++
-7.3-2.96.118.i386.rpm

JDBC Drivers and Databases

The Sun Java System Application Server is designed to support connectivity to any DBMS with a corresponding JDBC driver. For a list of components that Sun has tested and found to be acceptable for constructing J2EE compatible database configurations, please refer to the following table:

Table 2 J2EE Compatible JDBC Drivers

JDBC Vendor	JDBC Driver Type	Supported Database Server
i-net Software	Type 4	Oracle (R) 9.2, 8.17
i-net Software	Type 4	Sybase ASE 12.5.1
i-net Software	Type 4	MS SQL Server 2000 Service Pack 1
IBM	Type 2	IBM DB2 8.1 Service Pack 3
PointBase	Type 4	PointBase Network Server 4.8

For more information about i-net Software, see:

http://www.inetsoftware.de/

The following table identifies additional supported JDBC drivers; however these drivers are not J2EE compatible.

Table 3 JDBC Drivers not J2EE compatible

JDBC Vendor	JDBC Driver Type	Supported Database Server
Oracle	Type 4	Oracle (R) 9.2
Sybase	jConnector	Sybase ASE 12.5.1

Additional drivers have been tested to meet the JDBC requirements of the J2EE 1.4 platform with the JDBC Driver Certification Program. These drivers can be used for JDBC connectivity with the Sun Java System Application Server. While Sun offers no product support for these drivers, we will support the use of these drivers with the Sun Java System Application Server.

Other Requirements

The following additional requirements should be met before installing the Sun Java System Application Server software.

- **Free space:** your temporary directory must have a minimum of 35MB free for Sun Java System Application Server installation, and 250 MB of free space for the SDK installation.

- **Using the uninstall program:** If you need to remove the application server from your system, it is important to use the uninstall program that is included with the software. If you attempt to use another method, problems will arise when you try to reinstall the same version, or when you install a new version.

- **Free ports:** You must have seven unused ports available.

  - The installation program automatically detects ports in use and suggests currently unused ports for the default settings. By default, the initial default ports are 8080 for the HTTP server, and 4848 for the Admin Server.

  - The installation program will detect used ports and assign two others for you: Sun Java™ System Message Queue (by default, 7676), and IIOP (by default, 3700 for IIOP and 1060 and 1061 for IIOP/SSL). If these default port numbers are in use, the installation program will assign a random port number from the dynamic port range (note that this may not be the next available port number).

- **Starting previously-installed servers** (UNIX) — unless you are replacing the previously installed server, you should start it before you begin the Sun Java System Application Server installation process. This allows the installation program to detect ports that are in use and avoid assigning them for other uses.

- **Replacing previously-installed servers** (UNIX) — if you have an older version of the Sun Java System Application Server 7 installed that you wish to replace with the current Application Server, you should stop it before installing the new server. Use the installation program upgrade wizard to upgrade the server.

- **Shutting down firewall** (Microsoft Windows) — You must stop any firewall software before installing the Sun Java System Application Server software, because some of this software disables all ports by default. The installation program must be able to accurately determine which ports are available.

For further compatibility information, see the Compatibility Guide available at:

```
http://docs.sun.com/db/doc/817-6084
```

Documentation

In addition to these release notes, the Application Server product includes an entire set of documentation that can be found at this location:

```
http://docs.sun.com/db/prod/s1appsrv#hic
```

The following list provides a brief description of the documentation in the Application Server collection:

- *Quick Start Guide*—Describes how to get started with the Application Server product. Focuses on initial developer exposure; is also suited for users evaluating the product.

- *Installation Guide*—Provides instructions for installing or uninstalling the Application Server software and its components. Supported platforms are listed.

- J2EE 1.4 Tutorial—Describes how to develop software using the technologies provided in the Application Server product. You can find the J2EE 1.4 Tutorial here:

      http://java.sun.com/j2ee/1.4/docs/tutorial/doc/index.html

- *Compatibility Guide*—Provides information on backward compatibility issues.

- *Utility Reference*—Documentation for all command-line interface commands and the Application Server utility commands.

- Online help for the Admin Console—Provides content-specific online help for the Application Server Administration Console web-based interface.

- Online help for the `deploytool` utility—Provides content-specific online help for the Application Server `deploytool` utility.

- Online help for the `Migrationtool` utility—Provides content-specific online help for the Application Server `Migrationtool` utility. The Migration Tool is available for a separate download.

- *Troubleshooting Guide*—Provides information on solving problems associated with the Application Server product.

Known Problems and Limitations

This section describes known problems and associated workarounds for the Sun Java System Application Server 8 product. If a summary statement does not specify a particular platform, the problem applies to all platforms.

ID	Summary
none	**A slight behavioral change in the client stubs generation.**
	The client stubs are generated during deployment process. The deploy operation does not return until the client subs are fully generated.
	For performance concerns, the client stubs generation has been modified to be an asynchronous operation within deployment when the retrieval of client jars is not explicitly requested by the user; the client stubs are no longer guaranteed to be ready for use upon return of the deployment operation.
	Solution
	Do not copy any client jars directly out of the repository post deployment. Instead, the following ways are the recommended ways to retrieve client stubs with guaranteed integrity:
	Command-line interface:
	1. asadmin deploy --retrieve=true
	2. asadmin get-client-stubs
	Deploytool:
	1. Specify retrieval of client jars on the deploy screen.
	2. Check the client jar retrieval screen for any deployed applications.
5002049	**Manpages are incorrect for the create-jvm-options and update-connector-security-map.**
	Solution
	1. The EXAMPLE for the `create-jvm-options` command should read:
	./asadmin create-jvm-options --user admin -w adminadmin --profiler=false --host localhost --port 4848 -- "-Debug=true":"-Xmx256m":"-Dcom.sun.aas.imqBin=⁄export⁄as8pe⁄imq⁄bin"
	Command create-jvm-options executed successfully
	2. The SYNOPSIS for the `update-connector-security-map` command should read:
	update-connector-security-map --user admin_user [--password admin_password] [--host localhost] [--port 4848] [--secure|-s] [--passwordfile filename] [--terse=false] [--echo=false] [--interactive=true] --poolname connector_connection_pool_name [--addprincipals principal-name[, principal-name]*]| [--addusergroups user-group[, user-group]*] [--removeprincipals principal-name[, prinicpal-name]*] [--removeusergroups user-group[, user-group]*] [--mappedusername user_name] [--mappedpassword password] mapname

ID	Summary
5002174	**On Microsoft Windows, intermittent corruption of PATH environment variable content after product uninstallation.**
	If the "Add bin directory to PATH" installation option is selected during installation, content of PATH environment variable may get corrupted after installation.
	The corrupted PATH variable will have a random set of characters appended as the last entry in the PATH. This additional PATH entry generally will not affect system functioning.
	Solution
	Use the Windows Control Panel, System, Advanced, Environment variables tool to edit the content of the PATH environment variable and remove the superfluous characters.
5003356	**Missing entries in server.policy file after upgrade.**
	User chooses to upgrade from Sun ONE Application Server 7.x Platform Edition to Sun Java System Application Server Platform Edition 8. After the upgrade process is complete, the updated server.policy file looses two entries that were existing prior to the upgrade.

Solution

Edit *install_dir*/domains/*domain_name*/config/server.policy file as follows:

1. Add the following lines to the end of the file:

```
//ANT classes get all permissions by default
grant codeBase "file:${com.sun.aas.antLib}/-" {
  permission java.security.AllPermission;
};
```

2. Locate "// Basic set of required permissions granted..." block in the file. Add the following lines inside this grant block:

```
// work-around for pointbase bug 4864405
permission java.io.FilePermission "${com.sun.aas.instanceRoot}${/}-", "delete";
```

The original server.policy file, before upgrading, is saved in the same directory with file named server.policy.back. Please refer to this file to identify where the missing lines were placed.

ID	Summary
5004911	**Using Deploytool, unable to deploy an application with database mappings that were automatically created.**

The problem occurs after creating database mappings and then trying to deploy the application.

Create database mappings:

1. Select a CMP EJB in the Files tree view.

2. Click on the Sun-specific Settings button in the EJB JAR General tab to display the CMP Database dialog.

3. Click on the Create Database Mappings button to display the dialog.

4. In the Create Database Mappings dialog, select Automatically Generate Necessary Tables.

5. Select OK.

6. Close the CMP Database dialog.

Deploy the application:

1. Select the application in the Files tree view.

2. Select Deploy from the Tools menu.

The application is not deployed and the following error is displayed:

Referenced schema is not present in jar: RosterAppJ2DB_team-ejb
Adding the schema and saving the archive
or replacing the mapping, by triggering the Create Database Mapping action, will correct this.

Solution

Dismiss the error dialog.

Save the application:

1. Select the application in the Files tree view.

2. Select Save from the File menu.

Deploy the application:

1. Select the application from the Files tree view.

2. Select Deploy from the Tools menu.

ID	Summary
5005059	**Using Deploytool, when two CMP EAR files are opened with the same name, the mapping is not displayed for the second EAR.**
	To view the mapping, select the Sun-specific Settings button in the EJB JAR General tab to display the CMP Database dialog. A Packaging Warning message is displayed: Referenced schema not present in jar... No mapping is displayed for the second EAR opened.
	If you attempt to perform the mapping again, another error message is displayed: Cannot create schema from cmproster.dbschema. Please check the schema file...
	Solution
	Close the first application and remove *earname.dir* under the deploytool temporary directory. The temporary directory location is displayed on the General panel of the Edit Preferences dialog. Select Preferences under the Edit menu to display the Edit Preferences dialog.
5005168	**On Microsoft Windows, while using Deploytool, after adding a CMP EJB to an EAR file, it may not be possible to create database mappings for that EJB.**
	When adding a CMP EJB that has a dbschema file to an EAR, an exception is thrown and the mappings dialog cannot be closed. Deploytool must be terminated externally.
	Add CMP EJB that has a dbschema file to an EAR:
	1. Select Add to Application --> Enterprise JavaBean JAR from the File menu.
	Create database mappings:
	1. Click on the Sun-specific Settings button on the EJB JAR General tab to bring up the CMP Database dialog.
	2. Click on the Create Database Mappings button.
	3. Select Map to Tables in Database Schema File and choose the schema file.
	When trying to create database mappings, an exception is thrown and the mappings dialog cannot be closed: javax.ejb.EJBException: nested exception is: java.lang.ClassNotFoundException
	Solution
	After adding the CMP EJB to an EAR, save the application:
	1. Select the application in the Files tree view.
	2. Select Save from the File menu.
	Restart deploytool:
	1. Select Exit from the File menu.
	2. Start deploytool.
	Create database mappings:
	1. Click on the Sun-specific Settings button on the EJB JAR General tab to bring up the CMP Database dialog.
	2. Click on the Create Database Mappings button.
	3. Select Map to Tables in Database Schema File and choose the schema file.

ID	Summary
5005169	**Using Deploytool, cannot Create Database Mappings from a dbschema file that has been added to a CMP EJB which is embedded in an EAR and already contains a dbschema file.**

The problem happens when a second dbschema file is added to a CMP EJB which is embedded in an EAR and already contains a dbschema file. The database mappings cannot be created from the second dbschema file.

Solution

1. Save the application.

2. Restart the deploytool.

3. Create database mappings using the newly added dbschema file:

   •Click on the Sun-specific Settings button on the EJB JAR General tab to display the CMP Database dialog.

   •Click on the Create Database Mappings button.

   •Select Map to Tables in Database Schema File and choose the newly added schema file.

   •Click OK.

5005792	**Unsupported: RedHat Fedora (core 1) requires the libstdc++ package to be installed in order to install J2EE1.4SDK.**

Solution

The install package named `compat-libstdc++-7.3-2.96.118.i386.rpm` can be found on disk 3 of the Fedora ISO installation CD image for corel.

5009854	**Intermittent Power User installation failure on Windows platform while creating server domain**

Installation run by Power User on Windows platforms fails during the domain creation and the following error is logged in installation log file:

```
ERROR - default domain creation returned following exception: abnormal
subprocess termination: Detailed Message:'?#' is not recognized as an
internal or external command, operable program or batch file.
```

Solution

Since this problem happens intermittently, another installation can be attempted after uninstalling the content of the original installation using provided uninstaller.

Since all necessary product files will be installed by such installation, another option is to create missing default domain manually using `asadmin` command. In order to create the domain, the *install_dir*\domains\domain1 folder should be deleted and the following command should be run:

```
install_dir\bin\asadmin create-domain --adminport admin_port --adminuser
admin_user --adminpassword admin_password --instanceport http_port domain1
```

Values for `admin_port`, `admin_user`, `admin_password`, and `http_port` should match the values that were originally supplied at product installation.

ID	Summary
5013585	**On Windows,adding the Application Server /bin directory to the PATH doesn't take effect immediately.**
	If the installation option to add Application Server /bin directory to the user's PATH environment variabe is selected, installer will correctly update the variable value, but the new value will not automatically take effect.
	Solution
	To force a refresh of the environment settings any one of following actions can be taken after the installation:
	• Apply environment changes by selecting Start->Settings->Control Panel->System. Select the "Advanced" tab. Click on "Environment Variables" button. Click on "OK" button.
	• Logout of the current user session and log back in.
5014416	**Documentation neglects to provide directions for supporting unknown Primary Key in CMP beans.**
	Solution
	To use unknown Primary Key feature for a CMP bean, do the following:
	1. Do not define primary key fields in your bean.
	2. Define primary key class as `java.lang.Object` in deployment descriptor.
	If you map your CMP bean to an existing table, make sure the table:
	• has only one primary key column
	• is not mapped to any other CMP field
	• is a NUMERIC type with precision 19 or higher (to store a long value)
	If you rely on the CMP module to generate the mapping, you do not need to perform any other steps. When such a bean is created, the primary key value will be populated by the Persistence Manager.
5014452	**Addendum to the Sun Java System Application Server 8 Developer's Guide.**
	Solution
	Added support for CMP beans with `java.lang.String` primary key fields mapped to a fixed length character.

ID	Summary
5014466	**Addendum to the Sun Java System Application Server 8 Developer's Guide.**

Solution

Supporting join table to map all types of CMP relationships:

CMR field that represents 1-N (0r 1-1) relationship between CMP beans can now be mapped to join table.

For example:

- Department bean is mapped to a DEPARTMENT table with a primary key column "deptid".

- Employee bean is mapped to an EMPLOYEE table with primary key column "empid".

- CMR field "employees" in a Department bean is a 1-N relationship to an Employee bean, and represents a Collection of employees in this department.

- This field can be mapped:

    - Either by a foreign key "deptid" field in an EMPLOYEE table

    - Or a join table EMPLOYEE_DEPARTMENT with columns "empid" and "deptid" that are both foreign keys to the corresponding columns in EMPLOYEE and DEPARTMENT tables. you might consider a unique constraint on the "empid" column to guarantee that each Employee belongs to only one department.

| **5043719** | **Standalone web module gets loaded on all virtual servers after restart.** |

When a standalone web module is deployed to specific virtual servers (by specifying the `--virtualservers` option to the `asadmin deploy` command), the web module will be accessible only through those HTTP listeners associated with the specified virtual servers. However, after stopping and restarting the server, the web module will be deployed to all configured virtual servers (not just the previously specified ones) and accessible through their associated HTTP listeners.

Solution

When a web module is to be deployed to a subset of virtual servers only, it must be wrapped inside an EAR file.

| **5050743** | **Documentation neglects inform user of the clear-text passwords stored in the Application Server files.** |

Following files can contain clear-text passwords. Users should verify that these files have appropriate permission settings in order to avoid unauthorized access.

```
$HOME/.asadminprefs (Unix)
%USERPROFILE%˙asadminprefs (Windows)
installdir/domain.xml
```

ID	Summary
5052205	**Wrong error message for JSP pages whose java code has syntax errors.**

If a JSP page contains scriptlet code that is syntactically incorrect (e.g., opening brace does not have matching closing brace), the following error message may be returned to the client:

```
org.apache.jasper.JasperException: Unable to compile class for JSP
No Java compiler was found to compile the generated source for the JSP.
This can usually be solved by copying manually $JAVA_HOME/lib/tools.jar from
the JDK to the common/lib directory of the Tomcat server, followed by a
Tomcat restart. If using an alternate Java compiler, please check its
installation and access path.
```

This error message is misleading and should be ignored. It is being caused by a bug in the way compilation error messages for scriptlets are being propagated.

Solution

Check server log file for root cause of JSP compilation errors.

| 5052946 | **capture-schema with Oracle LOB data types.** |

The `capture-schema` utility will not successfully capture all of the table information needed by the CMP container if you are using the inet Oraxno 2.06 or later driver. The maximum size for a LOB DataType on Oracle is 4GB. Starting with inet Oraxno release 2.06, the JDBC driver will not return the correct size of 4GB for a LOB via `DatabaseMetaData.getColumns()`.

Solution

You may use a a previous version of the inet Oraxno driver with capture-schema as a workaround. This will not effect the use of the Oraxno 2.06 driver with the Sun Java System Application Server after you capture the information for the schema.

This issue will be addressed in a future Sun Java System Application Server release.

How to Report Problems

Use the following resources to handle problems you may encounter with the Application Server product:

- Feedback Submittal form—A form for submitting feedback on the Application Server product, here:

  ```
  http://java.sun.com/docs/forms/J2EE14SubmittalForm.html
  ```

- J2EE-INTEREST list—A mailing list for J2EE questions, here:

  ```
  http://archives.java.sun.com/archives/j2ee-interest.html
  ```

- Bug database on Java Developer Connection—To view bugs or to submit a bug, use the Java Developer Connection Bug Parade here:

  ```
  http://developer.java.sun.com/servlet/SessionServlet?url=/developer/bugPar
  ade/index.jshtml
  ```

- Java Technology Forums—An interactive message board for sharing knowledge and questions about Java technologies and programming techniques. Use the J2EE SDK forum here for discussions related to the Sun Java System Application Server 8 Platform Edition product:

  ```
  http://forum.java.sun.com/forum.jsp?forum=136
  ```

For More Information

Useful information can be found at the following locations:

- Application Server product information:

  http://wwws.sun.com/software/products/appsrvr_pe/index.html

- Java developer resources:

  ```
  http://developer.java.sun.com/
  ```

- Java 2 Platform, Enterprise Edition (J2EE) site:

  ```
  http://java.sun.com/j2ee/
  ```

- Application Server product documentation:

  ```
  http://docs.sun.com/db/prod/s1appsrv#hic/
  ```

- Sun Microsystems product documentation:

  ```
  http://docs.sun.com/
  ```

Revision History

This section lists the changes that have been made in these release notes after the initial release of the Application Server product

Revision Date	Description of Change
June 2004	Sun Java System Application Server Platform Edition 8 Update 1 release.

Revision History