

Sun™ ONE Application Server 7 Enterprise Edition Release Notes

The Sun™ Open Net Environment (ONE) Application Server 7, Enterprise Edition release notes contain last-minute details, new features and enhancements, product requirements, known problems, and other late-breaking issues.

Information in this document updates and extends information in the component readme files included with this release.

This document contains the following sections:

- What's New
- Platform Summary
- Sun ONE Application Server 7 Documentation
- Software and Hardware Requirements
- Known Problems and Limitations
- How to Report Problems
- Revision History

What's New

The *Sun ONE Application Server What's New* document describes the new enterprise, developer, and operational features. The *What's New* document is available at <http://docs.sun.com/db/prod/s1appsrv>

Platform Summary

The *Sun ONE Application Server Platform Summary* document describes the supported operating systems, and other essential platform information. The *Platform Summary* is available at <http://docs.sun.com/db/prod/s1appsrv>

Sun ONE Application Server 7 Enterprise Edition Documentation

Sun™ Open Net Environment (ONE) Application Server 7 Enterprise Edition documentation can be found at: <http://docs.sun.com/db/prod/s1appsrv>

The Sun ONE Application Server 7, Enterprise Edition documents include:

- *Product Introduction*—(817-2143-10) Describes Sun ONE Application Server 7, including the features available with each edition of the product.
- *System Architecture Overview*—(817-2144-10) Presents diagrams and descriptions of server architecture; discusses benefits of the Sun ONE Application Server architectural approach.
- *What's New*—(817-2142-10) Lists the new enterprise, developer, and operational features of Sun ONE Application Server 7.
- *Platform Summary*—(817-2145-10) Provides a comprehensive, table-based summary of supported hardware, operating system, JDK and JDBC/RDBMS.
- *Getting Started Guide*—(817-2147-10) Describes how to get started with the Sun ONE Application Server 7, Enterprise Edition. Includes new features, architectural overview, and sample application tutorial.
- *Installation Guide*—(817-2146-10) Provides instructions for installing the Sun ONE Application Server, sample applications, the Administration interface, and the installation and configuration of the high-availability components.
- *System Deployment Guide*—(817-2163-10) Provides a foundation for evaluating your system needs to ensure you deploy Sun ONE Application Server in a manner that best suits your site.
- *Developer's Guide*—(817-2148-10) Provides general information about how to create J2EE applications to run on the Sun ONE Application Server.
- *Developer's Guide to Web Applications*—(817-2149-10) Describes how to use servlets and JavaServer Pages (JSPs) within J2EE applications.

- *Developer's Guide to Enterprise Java Beans Technology*—(817-2152-10) Describes how to develop and deploy various types of enterprise beans in the Sun ONE Application Server environment.
- *Developer's Guide to J2EE Services and APIs*—(817-2154-10) Describes J2EE features such as Java Database Connectivity (JDBC), Java Naming and Directory Interface (JNDI), Java Transaction Service (JTS), Java Message Service (JMS), and JavaMail.
- *Developer's Guide to NSAPI*—(817-2153-10) Describes how to create NSAPI plugins.
- *Developer's Guide to Web Services*—(817-2151-10) Describes how to develop and deploy web services in the Sun ONE Application Server environment.
- *Developer's Guide to Clients*—(817-2150-10) Describes how to develop and deploy Application Client Container (ACC) clients that access J2EE applications on Sun ONE Application Server 7.
- *Migrating and Deploying Server Applications*—(817-2158-10) Provides instructions for migrating your applications to the new Sun ONE Application Server 7 programming model.
- *Application Design Guidelines for Storing Session State*—(817-2162-10) Provides strategies for HTTP session availability.
- *Administrator's Guide*—(817-1881-10) Provides instructions on the configuration, management, and deployment of the Sun ONE Application Server subsystems via the Administration interface and the command-line interface.
- *Administrator's Configuration File Reference*—(817-2155-10) Describes the contents of the Sun ONE Application Server configuration files.
- *Administrator's Guide to Security*—(817-2156-10) Describes how to configure and administer security for the Sun ONE Application Server operational environment.
- *J2EE CA SPI Administrator's Guide*—(817-7157-10) Describes how to configure and administer JCA SPI Implementation features for the Sun ONE Application Server environment.
- *Performance Tuning and Sizing Guide*—(817-2157-05) Describes how and why to tune your Sun ONE Application Server to improve performance.
- *Troubleshooting Guide*—(817-2161-10) Provides information on solving Sun ONE Application Server problems.

- *Error Message Reference*—(817-2159-10) Compilation of messages that you may encounter while running Sun ONE Application Server 7 Enterprise Edition.
- *Utility Reference Manual*—(817-2160-10) Describes the utility and command-line interface commands available with the Sun ONE Application Server.

Referenced Documentation

The Sun ONE Message Queue, Platform Edition is integrated with the Sun ONE Application Server, Enterprise Edition. Sun ONE Message Queue includes a documentation set that can be found at:

<http://docs.sun.com/db?p=prod/sl.s1msgqu>

Software and Hardware Requirements

The *Sun ONE Application Server Platform Summary* document describes the platform information. The *Platform Summary* is available at <http://docs.sun.com/db/prod/slappsrv>

Sun ONE Application Server 7, Enterprise Edition has a high-availability database (HADB) component for persistent session store which can be installed separately on the same machine or on a different machine. The HADB component is certified to scale up to 28 nodes, where 24 of them are active and 4 are spare.

Before installation, refer to the *Sun ONE Application Server Installation Guide* and *Administrator's Guide* for details on the HADB.

The following topics are addressed in this section:

- Enterprise Edition Configurations
- Solaris Patches

Enterprise Edition Configurations

The following tables summarize the Sun ONE Application Server 7, Enterprise Edition requirements for the various high-availability configurations.

Configuration 1

- * Machine 1—Web Server

- ** Machine 2—Sun ONE Application Server instance 1, HADB Node 1
- *** Machine 3—Sun ONE Application Server instance 2, HADB Node 2

Platform Requirements for Configuration 1

Machine	Configuration	Operating System	Architecture	Minimum Memory	Recommended Memory	Minimum Disk Space	Recommended Disk Space
1	*	Solaris 8, 9 for SPARC	32 and 64 bit	96 MB	128 MB	250 MB	500 MB
2	**	Solaris 8, 9 for SPARC	32 and 64 bit	512 MB (256 MB for AppServ; 256 MB HADB)	768 MB	500 MB (250 MB for AppServ; 250 MB for HADB)	750 MB
3	***	Solaris 8, 9 for SPARC	32 and 64 bit		768 MB	500 MB (250 MB for AppServ; 250 MB for HADB)	750 MB

Configuration 2

- * Machine 1—Web Server/Sun ONE Application Server (1 Admin Server instance, 1 Sun ONE Application Server instance)
- ** Machine 2—Sun ONE Application Server instance 2 (1 Admin Server instance, 1 Sun ONE Application Server instance), 2 HADB Nodes

Platform Requirements for Configuration 2

Machine	Configuration	Operating System	Architecture	Minimum Memory	Recommended Memory	Minimum Disk Space	Recommended Disk Space
1	*	Solaris 8, 9 for SPARC	32 and 64 bit	352 MB	640 MB	500 MB	1 GB
2	**	Solaris 8, 9 for SPARC	32 and 64 bit	768 MB	1 GB	750 MB	1 GB

Configuration 3

- * Machine 1—Web Server/Sun ONE Application Server (1 Admin Server instance, 2Sun ONE Application Server instances), 2 HADB Nodes

Platform Requirements for Configuration 3

Machine	Config uration	Operating System	Archite cture	Minimum Memory	Recommen d Memory	Minimum Disk Space	Recommend Disk Space
1	*	Solaris 8, 9 for SPARC	32 and 64 bit	992 MB	1.5 GB	1.128 GB	1.75 GB

Solaris Patches

Solaris 8 users must install the Sun recommended patch cluster, available in the *Recommended and Security Patches* section at: <http://sunsolve.sun.com/>

The required patches for Solaris 8 are 109326-06, 108827-26, and 110934 (any revision, for package based installation only). Without these patches, which the installer checks for, you won't be able to install or run the Sun ONE Application Server software. These patches are already contained in the latest recommended patch cluster.

Known Problems and Limitations

This section describes known problems and associated workarounds for the Sun ONE Application Server 7 Enterprise Edition.

NOTE	If a problem statement does not specify a particular platform, the problem applies to all platforms.
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This information is organized into the following sections:

- Installation and Uninstallation
- Server Startup and Shutdown
- Database Driver
- Web Container

- EJB Container
- Container-Managed Persistence
- Message Service and Message-Driven Beans
- Java Transaction Service (JTS)
- Application Deployment
- Verifier
- Configuration
- Deployment Descriptors
- Monitoring
- Load Balancer
- High Availability
- Server Administration
- Sample Applications
- ORB/IIOP Listener
- Localization

Installation and Uninstallation

This section describes the known installation and uninstallation issues and associated solutions.

ID	Summary
4719600	<p>Warning messages occur during installation.</p> <p>During installation, some invalid error messages may occur. For example:</p> <pre>WARNING: Couldn't flush system prefs: java.util.prefs.BackingStoreException: Couldn't get file lock. WARNING: Could not lock System prefs.Unix error code -223460600.</pre> <p>Solution</p> <p>Ignore these warnings or, alternatively, you can create a system preferences directory (typically <code>/etc/.java/.systemPrefs</code>). This is normally done by the JDK install script.</p>

ID	Summary
4742038	<p data-bbox="239 241 1186 300">Sun ONE Application Server does not start if the install directory contains non alpha-numeric characters.</p> <p data-bbox="239 322 1219 465">Sun ONE Application Server startup fails if the install directory contains characters such as #, spaces, or any other non alpha-numeric characters. In this case, the server log files are not created. The Sun ONE Application Server install directory can contain only the following characters: alphanumerics, - (dash) or _ (underscore). This also applies to entering existing Java 2 SDK directory during installation.</p> <p data-bbox="239 487 344 508">Solution</p> <p data-bbox="239 531 1176 586">During installation, specify a directory where names contain only alphanumeric, dash, or underscore characters.</p>
4742828	<p data-bbox="239 609 822 630">Silent installer is not checking user permissions.</p> <p data-bbox="239 652 1219 739">Although interactive installers (GUI or command-line) check for appropriate user permissions (UNIX root user), this check is not done during silent installation. As a result, installation will fail later in the process because you will not have sufficient permissions to install packages.</p> <p data-bbox="239 762 344 782">Solution</p> <p data-bbox="239 805 968 826">Make sure that silent installation is being run as the appropriate user.</p>
4742171	<p data-bbox="239 855 1172 876">Installing over an existing installation in silent mode does not report an error.</p> <p data-bbox="239 899 1219 986">Affects installers running in silent mode. If user attempts to install over an existing installation of Sun ONE Application Server 7 (in the same directory), silent installation does not report any errors and proceeds normally. Existing installation files are preserved.</p> <p data-bbox="239 1008 344 1029">Solution</p> <p data-bbox="239 1052 1148 1072">Uninstall existing installations before installing a new installation in the same location.</p>
4746410	<p data-bbox="239 1102 1210 1161">On Solaris, when installing the Sun ONE Application Server in non-default locations, the package-based installer on does not check disk space in the correct locations.</p> <p data-bbox="239 1183 1200 1288">When installing the Sun ONE Application Server on Solaris (using the package-based installer) in a non-default location, the installation program does not check for disk space in the specified target directory. Instead, it checks for disk space only in the default directory location (/opt).</p> <p data-bbox="239 1310 334 1331">Solution</p> <p data-bbox="239 1354 1215 1440">Before installation, verify that you have adequate disk space (85 MB) in /opt directory; even if you do not plan to install in /opt. In addition, make sure you have adequate disk space (85 MB) in the target directory.</p>

ID	Summary
4748455	<p data-bbox="334 243 882 265">Directory error occurs during generic silent install.</p> <p data-bbox="334 288 1275 371">This issue affects silent installation on all platforms. If the installer finds a problem with a given installation directory, the generic error message <code>Invalid Installation Directory</code> is reported. This error message covers the following situations:</p> <ul data-bbox="334 394 1029 465" style="list-style-type: none"> • Selected directory is not writable. • Selected directory string is empty or contains space characters. <p data-bbox="334 487 429 510">Solution</p> <p data-bbox="334 532 1322 555">Check the supplied installation directory value for both issues to determine the cause of error.</p>
4749666	<p data-bbox="334 578 1200 630">Samples documentation is not published to initial server instance if the Sample Application component has been incrementally installed.</p> <p data-bbox="334 652 1275 822">This issue affects the development and operations installer on all platforms. If sample applications are installed in a separate installation session over an installed Sun ONE Application Server, the sample documentation will not be published to the initial server instance and will not be accessible through the <code>http://hostname:port/samples</code> URL. However, documentation is installed on the file system and can be accessed locally at this location: <code>file:///install_root/samples/index.html</code></p> <p data-bbox="334 845 429 868">Solution</p> <p data-bbox="334 890 782 913">Access the samples documentation locally.</p>
4754256	<p data-bbox="334 935 1275 987">On Solaris, Sun ONE Message Queue configuration files are not preserved during Sun ONE Message Queue upgrade performed by the installer.</p> <p data-bbox="334 1010 1315 1124">If an existing Sun ONE Message Queue 3.0 package has been detected on the system, the installer offers to upgrade this installation to version 3.0.1 which can be used by the Sun ONE Application Server. During this upgrade operation, the existing 3.0 Solaris package is removed, resulting in the removal of the following configuration files:</p> <pre data-bbox="334 1147 805 1199">/etc/imq/passwd /etc/imq/accesscontrol.properties</pre> <p data-bbox="334 1222 1305 1274">If these files have been modified, those modifications will be lost and the resulting Sun ONE Message Queue 3.0.1 installation will contain the default configuration values.</p> <p data-bbox="334 1296 429 1319">Solution</p> <p data-bbox="334 1341 1300 1421">Create a backup copy of any user-modified files and restore the backup copies of these files after the upgrade has been completed. For more details, consult <i>Sun ONE Message Queue 3.0 Installation Guide</i>.</p>

ID	Summary
4754824	<p data-bbox="239 241 1139 262">On Solaris, an installer error message occurs while running installation from a CD.</p> <p data-bbox="239 288 1222 487">When a volume is inserted into the CD-ROM drive, Solaris volume management assigns it the next symbolic name. For example, if two CD-ROMs match the default regular expression, they are named <code>cdrom0</code> and <code>cdrom</code>. Any that match the added regular expression would be named starting with <code>cdrom2</code>. This is documented on <code>vold.conf</code> man page. Every time you install the Sun ONE Application Server from the CD, the CD-ROM mount point appends a number after the label name. The first time the CD is mounted everything goes well. On subsequent mounts, the following error message occurs when the installer starts:</p> <pre data-bbox="239 513 1222 621">IOException:java.io.FileNotFoundException: /cdrom/appserver7 (No such file or directory) while loading default flavormap.properties file URL:file:/cdrom/appserver7#4/AppServer7/pkg/jre/lib/flavormap.properties</pre> <p data-bbox="239 644 334 664">Solution</p> <p data-bbox="239 690 1213 711">Installer functionality is not affected in any way. However, the following workaround exists:</p> <ol data-bbox="239 737 1222 907" style="list-style-type: none"> 1. Become the superuser by entering the command <code>su</code> and the root password at the command prompt, or log in as root. The command prompt changes to the pound sign (#). 2. If the <code>/cdrom</code> directory does not already exist, enter the following command to create it: # <code>mkdir /cdrom</code> 3. Mount the CD-ROM drive. <p data-bbox="239 933 1159 986">Note: The <code>vold</code> process manages the CD-ROM device and performs the mounting. The CD-ROM might automatically mount onto the <code>/cdrom/cdrom0</code> directory.</p> <p data-bbox="239 1008 1222 1060">If you are running File Manager, a separate File Manager window displays the contents of the CD-ROM.</p> <ol data-bbox="239 1086 1222 1447" style="list-style-type: none"> 4. If the <code>/cdrom/cdrom0</code> directory is empty because the CD-ROM was not mounted, or if File Manager did not open a window displaying the contents of the CD-ROM, verify that the <code>vold</code> daemon is running by entering: # <code>ps -e grep vold grep -v grep</code> 5. If <code>vold</code> is running, the system displays the process identification number of <code>vold</code>. If the system does not display anything, kill the daemon by typing the following: # <code>ps -ef grep vold grep -v grep</code> 6. Stop the <code>vold</code> process by entering: # <code>kill -15 process_ID_number</code> 7. Mount the CDRom manually: # <code>mount -F hsfs -r ro /dev/dsk/cxytyd0sz /cdrom/cdrom0</code> <p data-bbox="239 1473 1222 1525">where <code>x</code> is the CD-ROM drive controller number, <code>y</code> is the CD-ROM drive SCSI ID number, and <code>z</code> is the slice of the partition on which the CD-ROM is located.</p> <p data-bbox="239 1548 1200 1600">You have now mounted the CD-ROM drive. Refer to “Installing and Setting Up CD One on Solaris” for procedures on installation.</p>

ID	Summary
4757687	<p data-bbox="334 243 1315 326">On Solaris, incremental installation of the Sun ONE Application Server component on the system, with previously installed Administration Client component, may result in an unusable installation.</p> <p data-bbox="334 347 1315 578">This issue affects Solaris package-based installation. If you install the Sun ONE Application Server on a system where a standalone Administration Client component has already been installed, and select a different installation directory from the one originally used for Administration Client installation, the resulting Sun ONE Application Server installation will be unusable even though the installation outcome is reported as successful. This is because the Administration Client Solaris packages will be detected as already installed on the system, and will not be installed as the part of the Sun ONE Application Server installation process. As a result, files critical for product functionality will be missing.</p> <p data-bbox="334 598 429 621">Solution</p> <p data-bbox="334 642 1265 699">Uninstall the standalone Administration Client before attempting to install the Sun ONE Application Server on the same Solaris system.</p> <p data-bbox="334 720 1285 803">Alternatively, an incremental installation can be attempted; the same installation directory that was used for the Administration Client installation should be used for the subsequent Sun ONE Application Server installation.</p>
4762118	<p data-bbox="334 824 1300 881">On Solaris, installation fails if a selected custom configuration directory is a subdirectory of the selected installation directory and is called 'etc'.</p> <p data-bbox="334 902 1275 986">This issue affects Solaris package-based installation on a Solaris platform. If the following combination of custom directory locations has been selected, installation fail due to inconsistent group ownership information for the same directory:</p> <ul data-bbox="334 1006 793 1078" style="list-style-type: none"> • Installation directory: <i>install_dir</i> • Configuration directory: <i>install_dir/etc</i> <p data-bbox="334 1098 1270 1156">The pkgadd log file in the <i>/var/sadm/install/logs</i> directory will contain following error message:</p> <pre data-bbox="334 1177 991 1225">pkgadd: ERROR: duplicate pathname <i>/install_dir/etc</i> pkgadd: ERROR: unable to process pkgmap</pre> <p data-bbox="334 1246 429 1269">Solution</p> <p data-bbox="334 1289 1029 1312">Select a custom configuration directory other than <i>install_dir/etc</i>.</p>

ID	Summary
4762694	<p data-bbox="239 241 1136 296">On Solaris, Sun ONE Message Queue package SUNWiqsup is not removed during Message Queue upgrade process.</p> <p data-bbox="239 317 1200 430">This is only an issue on Solaris. The Sun ONE Application Server 7 installation process involves installing Sun ONE Message Queue version 3.0.1. On Solaris, if Sun ONE Message Queue version 3.0 is detected, it is first uninstalled (after user confirmation) and the 3.0.1 version is installed.</p> <p data-bbox="239 451 1218 564">There is a minor cleanup issue where the Solaris installer does not remove one of the Solaris packages (SUNWiqsup) for Sun ONE Message Queue 3.0 as part of this upgrade process. The presence of this package is harmless and does not affect Sun ONE Message Queue or Sun ONE Application Server 7.</p> <p data-bbox="239 585 334 605">Solution</p> <p data-bbox="239 626 1113 656">Manually remove the SUNWiqsup package using the following command (as root):</p> <pre data-bbox="239 677 482 699"># pkgrm SUNWiqsup</pre>
4823481	<p data-bbox="239 722 1193 777">For non-standard ports, transition between HTTP and HTTPS requests does not happen within the same session.</p> <p data-bbox="239 798 1222 911">If any server that directly receives requests from the browser (such as the web server) is configured for non-standard port numbers, a new session will be created during a protocol transition. This is not a defect, but rather a result of the fact that the browser will not return the session ID (and other) cookies to a non-standard port.</p> <p data-bbox="239 932 1222 987">NOTE: The browser does return such cookies if it is connecting to a URL that does not have a port number.</p> <p data-bbox="239 1008 334 1029">Solution</p> <p data-bbox="239 1050 749 1079">Use standard port numbers (http: 80, https: 443).</p>

ID	Summary
4834797	<p data-bbox="332 234 1215 269">Silent installer gives a wrong warning message for already installed components.</p> <p data-bbox="332 286 1129 321">This occurs when the following steps are executed in the user environment.</p> <ol data-bbox="332 329 1285 494" style="list-style-type: none"> <li data-bbox="332 329 1285 390">1. Perform installation using the Administration interface or Console mode and save the statefile for reuse. Note: the 'statefile' gets generated when 'setup' is run with the '-savestate' option. <li data-bbox="332 434 1285 494">2. Without uninstalling the components installed in the above step, re-run the installer in silent mode again using the statefile created in the step above. <p data-bbox="332 512 1263 572">Installer displays the following message then exits: "Incompatible or corrupted state file provided. Cannot continue."</p> <p data-bbox="332 581 1320 677">This message is erroneous and the correct message should be: "No available components have been selected for installation. Component list is either empty, or contains already installed components."</p> <p data-bbox="332 685 1206 720">But the installation process is stopped which is an expected and correct behaviour.</p> <p data-bbox="332 737 435 763">Solution</p> <p data-bbox="332 781 1320 841">Before running the silent installation, make sure that components specified in the statefile are not previously installed on the system.</p>
4883016	<p data-bbox="332 841 992 876">Apache plugin installer needs to bundle certificate DB files.</p> <p data-bbox="332 894 1235 928">User needs to create a directory for the DB files needed for the apache plugin to work.</p> <p data-bbox="332 946 435 972">Solution</p> <ol data-bbox="332 989 1163 1067" style="list-style-type: none"> <li data-bbox="332 989 1163 1024">1. Create a directory named <code>sec_mod_db</code> under your Apache root directory. <li data-bbox="332 1032 1163 1067">2. Copy the <code>cd_image/sec_db_files/*.db</code> files to the above directory.

ID	Summary
N/A	<p data-bbox="239 241 1222 331">On Solaris, if the Sun ONE Application Server installer upgrades an existing Sun ONE Message Queue 3.0 to 3.0.1, the resulting installation will be removed during Sun ONE Application Server uninstallation.</p> <p data-bbox="239 354 1222 465">Affects Solaris development and operations installer. If an installed Sun ONE Message Queue 3.0 is detected on the system, you are given the option of automatically upgrading this installation to version 3.0.1. If this option is chosen, the resulting Sun ONE Message Queue 3.0.1 installation will be uninstalled during Sun ONE Application Server uninstallation.</p> <p data-bbox="239 487 344 508">Solution</p> <p data-bbox="239 536 1222 588">To preserve the Sun ONE Message Queue installation after the Sun ONE Application Server is uninstalled:</p> <ol data-bbox="239 611 1222 755" style="list-style-type: none"><li data-bbox="239 611 922 631">1. Exit the installer when offered the automatic upgrade choice,.<li data-bbox="239 654 1222 706">2. Upgrade Sun ONE Message Queue to version 3.0.1 according to Sun ONE Message Queue documentation,.<li data-bbox="239 729 825 749">3. Run Sun ONE Application Server installation again.

Server Startup and Shutdown

This section describes the known startup and shutdown issues and the associated solutions.

ID	Summary
4738648	<p data-bbox="332 265 993 296">JMS service/Sun ONE Application Server startup fails.</p> <p data-bbox="332 314 1282 401">If the JMS provider (Sun ONE Message Queue broker) has a large number of undelivered persistent messages, a Sun ONE Application Server initialization failure may occur due to following problems:</p> <ol data-bbox="332 418 1296 473" style="list-style-type: none"><li data-bbox="332 418 1296 473">1. As it tries to load all the pending messages, the MQ broker may run out of memory and abort. <p data-bbox="332 491 458 522">Solution 1</p> <p data-bbox="332 539 1310 595">Use more Java heap space for the MQ broker process. To do this, set the <code>Start Arguments</code> attribute of the JMS service to <code>-vmargs -Xmx256m</code>.</p> <p data-bbox="332 612 1310 668">The procedure for setting this attribute is described in the "Using the JMS Service" chapter of the <i>Sun ONE Application Server Administrator's Guide</i>.</p> <ol data-bbox="332 685 1279 741" style="list-style-type: none"><li data-bbox="332 685 1279 741">2. If the MQ broker cannot complete its initialization sequence within a certain period of time, the Sun ONE Application Server times out and aborts. <p data-bbox="332 758 458 789">Solution 2</p> <p data-bbox="332 807 1319 894">Increase the value of the JMS service <code>Start Timeout</code> attribute. The procedure for setting this attribute is described in the "Using the JMS Service" chapter of the <i>Sun ONE Application Server Administrator's Guide</i>.</p>

ID	Summary
4762420	<p data-bbox="239 241 1005 262">Firewall rules may cause Sun ONE Application Server startup failures.</p> <p data-bbox="239 288 1219 458">If you have a personal firewall installed, you may experience this problem. The presence of strict firewall rules on the same machine as a Sun ONE Application Server installation may cause startup failures of the Admin Server and App Server instances. Specifically, the Admin Server and App Server instances attempt to establish local connections within the Sun ONE Application Server environment. Since these connection attempts access ports using the host name of the system rather than localhost, local firewall rules may block such attempts.</p> <p data-bbox="239 482 1219 652">The local firewall may also inadvertently generate alerts saying that either the "Portal of Doom Trojan" attack (for example, TCP connection attempts on port 3700) or similar attacks have occurred when, in fact, such access attempts have been made by the Sun ONE Application Server and are in no way a security threat to your machine. Under some conditions, the port number which the Sun ONE Application Server uses for various local communications may overlap with port numbers used in known popular attacks. Some symptoms of this problem:</p> <ul data-bbox="239 675 1219 727" style="list-style-type: none"> • The administrative and server instance log files contain connection exceptions followed by this message: CORE3186: Failed to set configuration <p data-bbox="239 749 334 770">Solution</p> <p data-bbox="239 793 1165 845">Modify the firewall policy to allow the Sun ONE Application Server to make connection attempts to ports on the local system.</p> <p data-bbox="239 868 1176 920">To avoid inaccurate alerts concerning possible attacks, either modify the relevant rules or change the conflicting port number(s) used by the Sun ONE Application Server.</p> <p data-bbox="239 942 1208 994">To determine the port numbers used by the Admin Server and App Server instances, see the <code>server.xml</code> file in the following location of your Sun ONE Application Server installation:</p> <p data-bbox="282 1003 1019 1024"><i>domain_config_dir</i>/domain1/admin-server/config/server.xml</p> <p data-bbox="282 1032 948 1053"><i>domain_config_dir</i>/domain1/server1/config/server.xml</p> <p data-bbox="239 1076 1162 1097">where <i>domain_config_dir</i> is the location of your initial server configuration. For example:</p> <p data-bbox="239 1105 891 1126">Solaris 9 integrated install: /var/appserver/domains/...</p> <p data-bbox="239 1135 1051 1156">Solaris 8, 9 unbundled install: /var/opt/SUNWappserver7/domains/...</p> <p data-bbox="239 1180 1219 1291">Look for the port settings in the <code><iioop-listener></code> and <code><jms-service></code> elements. You can either change these port numbers to other unused port numbers, or you can modify your firewall policy to allow connection attempts from clients on the local machine to these port numbers on the same machine.</p>

ID	Summary
4780076	On Solaris, the Sun ONE Application Server starts all instances as root thereby allowing non-root users root access.

There are several issues associated with application server startup when the Sun ONE Application Server is installed as part of a Solaris installation (bundled):

- All application server and administrative server instances are started automatically during Solaris system startup. In many environments, not all the instances are expected to be started automatically during Solaris system startup. Starting every defined instance can adversely impact the memory available on a system.
- When application server instances and administrative server instances are started automatically, the startup script for each instance is executed as root. Execution of non-root owned instance startup scripts can enable non-root users access to the root user through modification of the instance-level startup scripts.

Background

During installation of the Sun ONE Application Server as part of a Solaris installation, the `/etc/init.d/appserv` script and symbolic links to the `S84appserv` and `K05appserv` scripts in the `/etc/rc*.d/` directories are installed. These scripts cause all the application server and administrative server instances defined as part of the application server installation to be started and stopped automatically during Solaris system startup and shutdown.

The `/etc/init.d/appserv` script contains the following section of code:

```
...
case "$1" in
'start')
    /usr/sbin/asadmin start-appserv
    ;;
'stop')
    /usr/sbin/asadmin stop-appserv
    ;;
...

```

Execution of the `asadmin start-appserv` command causes the administration server instance and all application server instances defined in all administrative domains to be started during Solaris system startup. Since the system startup and shutdown scripts are executed as root, the startup script for each application server and administrative server instance is also executed as root. The instance-level startup script is named `startserv` and is located at `instance-dir/bin/startserv`. Since instances may be owned by users other than root, the `startserv` scripts could be modified by the non-root user to execute commands as the root user.

In cases where an instance is using a privileged network port, the instance's `startserv` script must be executed as root. However, in these cases, "run as user" is typically set in the instance's configuration to force the instance to run as the specified user after the instance has been initially started by the root user.

ID	Summary
(cont.)	Solution
	<p>Perform one of the following workarounds depending on your environment:</p> <ul style="list-style-type: none"> • If your environment does not require all application server and administrative server instances to be started as root, then you should comment out execution of the <code>asadmin start-appserv</code> and <code>asadmin stop-appserv</code> commands in the <code>etc/init.d/appserv</code> script. • If your environment requires starting either specific administrative domains (including the administrative server instance and all application server instances of each domain) or specific instances within one or more administrative domains, then you should either modify the <code>/etc/init.d/appserv</code> script to start the domains and/or instances of interest or define new <code>/etc/rc*.d/</code> scripts that suit the needs of your environment. • Starting a specific domain. If you require to start either an administrative domain or specific instances as non-root users, then you should ensure that the <code>su</code> command with the <code>-c</code> option is used to start the domains and/or instances of interest. <p>Examples</p> <p>Starting a specific administrative domain—If you want to start the administrative server instance and all application server instances of a specific administrative domain as the root user, you can modify the <code>/etc/rc*.d/</code> scripts as follows:</p> <pre>... case "\$1" in 'start') /usr/sbin/asadmin start-domain --domain production-domain ;; 'stop') /usr/sbin/asadmin stop-domain --domain production-domain ;; ... </pre>

ID	Summary
(cont.)	<ul style="list-style-type: none">• If you want to start specific application server instances as a non-root user, modify the <code>/etc/rc*.d/</code> scripts to use the <code>su</code> command with the <code>-c</code> option: ... case "\$1" in 'start') su - usera -c "/usr/sbin/asadmin start-instance --domain test-domain instance-a" su - userb -c "/usr/sbin/asadmin start-instance --domain test-domain instance-b" ;; 'stop') su - usera -c "/usr/sbin/asadmin stop-instance --domain test-domain instance-a" su - userb -c "/usr/sbin/asadmin stop-instance --domain test-domain instance-b" ;; ... See the <i>Sun ONE Application Server Administrator's Guide</i> for more information on the startup and shutdown commands available through the <code>asadmin</code> command line interface.

Database Driver

This section describes the known database driver issues and associated solutions.

ID	Summary
4700531	<p>On Solaris, an ORACLE JDBC driver error occurs.</p> <p>This new Java Database Connectivity (JDBC) driver is for Oracle (R) working with JDK1.4. The problem is caused by a combination of the Oracle 9.1 database and ojdbc14.jar. Applying the patch will fix the problem on Solaris 32-bit machine, running an Oracle 9.0.1.3 database.</p> <p>Solution</p> <p>Obtain and apply the patch to your server from the Oracle Web site for Bug 2199718. Perform the following steps:</p> <ol style="list-style-type: none">1. Go to the Oracle Web site.2. Click the 'patches' button.3. Type 2199718 in the patch number field.4. Click the 32-bit Solaris OS patch.Go to <code>Metalink.oracle.com</code>.5. Click patches.6. Under patch number, enter 2199718.7. Click the 32 bit Solaris OS patch.
4707531	<p>On Solaris, accessing an Oracle 9.1 database with an Oracle 9.2 Client may cause data corruption.</p> <p>If you use an Oracle (R) 9.2 client to access an Oracle 9.1 database, data corruption might occur when a number column follows a timestamp column.</p> <p>The problem might be caused by using the <code>ojdbc14.jar</code> file with an Oracle 9.1 database. Applying the patch might assist in addressing the situation on Solaris 32-bit machines, running an Oracle 9.1 database. This JDBC driver is for Oracle working with JDK1.4.</p> <p>Solution</p> <p>Obtain the patch that Oracle might make available from the Oracle web site for Bug 2199718 and apply it to your server.</p>

Web Container

This section describes the known web container issues and associated solutions.

ID	Summary
4740477	The web cache example in sun-web-app_2_3-0.dtd file provides incorrect syntax for the timeout element.
	<p>The <code>timeout</code> element is specified to use in XML cache object as:</p> <pre><timeout> 60 </timeout></pre>
	<p>Because the <code>name</code> parameter is a required field, it should be written as:</p> <pre><timeout name="foo">60</timeout></pre>
	Solution
	<p>Do not use with verifier.</p>

EJB Container

This section describes the known Enterprise JavaBeans™ (EJB™) container issues and associated solutions.

ID	Summary
4735835	Cannot properly handle null PKs returned from ejbFind methods.
	<p>The following container-managed persistence (CMP) examples might return one or more nulls from an <code>ejbFind</code> (assumed called from <code>EmployeeEJB</code> bean, as they must return the same instance type as the bean):</p>
	<ol style="list-style-type: none"> 1. <code>find insurance.employee where insurance.id == 10</code>
	<p>This returns null if such insurance does not have an employee associated with it.</p>
	<ol style="list-style-type: none"> 2. <code>find all insurance.employee where insurance.id > 10</code>
	<p>This returns a collection that might contain nulls for those insurances that do not have an employee.</p>
	<p>For the first occurrence of a null PC in the result set, the CMP client will get <code>JDOFatalInternalException "param0 cannot be null"</code>.</p>
	<p>The BMP client will get <code>EJBException "Null primary key returned from ejbFind method"</code> for a single object finder, and (possibly) a <code>NullPointerException</code> for a multi object finder.</p>
	Solution
	<p>None.</p>

ID	Summary
4744434	<p>The Sun ONE Application Server occasionally throws Null Pointer Exception when using stateful session beans.</p> <p>The EJB container in the Sun ONE Application Server caches stateful session beans to improve performance. When the cache overflows (that is, the number of beans in the cache exceeds <code>max-cache-size</code>) the container passivates beans to the disk. Occasionally the server throws <code>NullPointerException</code>. The problem occurs when the difference between <code>max-cache-size</code> and <code>cache-resize-quantity</code> is less than 8.</p> <p>Solution</p> <p>Ensure that the difference between <code>max-cache-size</code> and <code>cache-resize-quantity</code> is greater than eight, or use an unbounded cache by setting <code>max-cache-size</code> to zero.</p>

Container-Managed Persistence

This section describes the known container-managed persistence (CMP) issues and the associated solutions.

ID	Summary
4732684	<p>Oracle JDBC driver optimizations are not being initiated.</p> <p>To take advantage of Oracle (R) database optimizations with container-managed persistence (CMP) beans, the <code>classes12.zip</code> file must be specified in the <code>classpath-suffix</code> attribute of the <code>server.xml</code> file rather than placed in the instance's <code>/lib</code> directory which is the default for third-party libraries.</p> <p>Solution</p> <p>Add the <code>classes12.zip</code> file to the <code>classpath-suffix</code> attribute of the <code>server.xml</code> file.</p>
4734963	<p>Self-referencing CMRs cause problem during deployment.</p> <p>The parser of the EJB deployment descriptor, <code>ejb-jar.xml</code>, does not correctly handle self-referencing container-managed relationships (CMRs), that is, <code>ejb-relationship-role</code>. The One side field is skipped.</p> <p>Solution</p> <p>Switch the <code>ejb-relationship-role</code> sections so that the One side (with <code><multiplicity> Many</code>) is the first in <code>ejb-relation</code>.</p>

ID	Summary
4747222	<p data-bbox="332 234 1256 269">On Oracle, the capture-schema utility does not work if -schemaname is not specified.</p> <p data-bbox="332 286 1306 338">The capture-schema utility has the following problems if the -schemaname option is not specified when capturing database schema information from the Oracle (R) database:</p> <ol data-bbox="332 355 1149 390" style="list-style-type: none"> <li data-bbox="332 355 1149 390">1. If you attempt to capture all tables (that is, no tables are explicitly chosen): <pre data-bbox="332 407 1220 494">bin/capture-schema -dburl jdbc:oracle:thin:@oraserver:1521:ora -username scott -password tiger -driver oracle.jdbc.driver.OracleDriver -out test.dbschema</pre> <p data-bbox="332 512 506 538">You will receive:</p> <pre data-bbox="332 546 892 598">java.sql.SQLException ORA-00942: table or view does not exist.</pre> <p data-bbox="332 616 692 642">The resulting output file is broken.</p> <ol data-bbox="332 659 992 694" style="list-style-type: none"> <li data-bbox="332 659 992 694">2. If one or more tables are specified with the -table option: <pre data-bbox="332 711 1220 798">bin/capture-schema -dburl jdbc:oracle:thin:@oraserver:1521:ora -username scott -password tiger -driver oracle.jdbc.driver.OracleDriver -table DEPT -out test.dbschema</pre> <p data-bbox="332 815 1292 868">The resulting file has the specified tables, but no column information, which means the file can't be used for CMP mapping.</p> <p data-bbox="332 885 428 911">Solution</p> <p data-bbox="332 928 1285 989">When capturing a schema from the Oracle database, always use the -schemaname option with the user name in uppercase letters as the value:</p> <pre data-bbox="332 1006 1313 1093">bin/capture-schema -dburl jdbc:oracle:thin:@oraserver:1521:ora -username scott -password tiger -driver oracle.jdbc.driver.OracleDriver -schemaname SCOTT -out test.dbschema)</pre>
4751235	<p data-bbox="332 1102 1313 1171">For capture-schema utility: If values for the -table option are not specified in uppercase on Oracle and/or PointBase, the resulting file is broken.</p> <p data-bbox="332 1189 1313 1362">Oracle (R) and PointBase internally translate case-insensitive identifiers into uppercase letters, unless the identifier are enclosed in " "). The capture-schema utility does not correctly handle table names in lowercase or mixed-case letters as arguments to the -table option when capturing a database schema from Oracle or PointBase (such as -table student or -table Student). The generated database schema file will not contain any columns information for the corresponding table.</p> <p data-bbox="332 1380 428 1406">Solution</p> <p data-bbox="332 1423 1106 1449">Use uppercase letters to specify table names (such as -table STUDENT).</p>

ID	Summary
4895236	<p data-bbox="239 241 1208 296">When the persistence scope is specified as session, and the persistence frequency is set to time-based, under load; sometimes the server reports the following exception:</p> <pre data-bbox="239 319 1196 369">java.io.IOException: Error from HA Store: HADB-E-11939: Primary key constraint violation</pre> <p data-bbox="239 392 1212 447">Under load, when the persistence scope is specified as session and the persistence-frequency is time-based, the following exception is reported from time to time:</p> <pre data-bbox="239 470 1226 1052">java.io.IOException: Error from HA Store: HADB-E-11939: Primary key constraint violation at com.sun.appserv.ee.web.sessmgmt.HAStore.executeStatement(HAStore.java:2202) at com.sun.appserv.ee.web.sessmgmt.HAStore.insertSessionBlob(HAStore.java:1957) com.sun.appserv.ee.web.sessmgmt.HAStore.save(HAStore.java:1409) at org.apache.catalina.session.PersistentManagerBase.writeSession(PersistentManagerBase.java:759) at org.apache.catalina.session.PersistentManagerBase.processMaxIdleBackups(PersistentManagerBase.java:1097) com.sun.appserv.ee.web.sessmgmt.HAManagerBase.processPersistenceChecks(HAManagerBase.java:88) org.apache.catalina.session.PersistentManagerBase.run(PersistentManagerBase.java:1182) at java.lang.Thread.run(Thread.java:536)</pre> <p data-bbox="239 1074 334 1095">Solution</p> <p data-bbox="239 1117 297 1138">None</p>
4898075 4900759	<p data-bbox="239 1164 644 1185">Client held transaction open too long</p> <p data-bbox="239 1208 1176 1291">The performance and stability of the web-container with modified-attribute session persistence scope depends upon the J2EE application being executed, and the load on the cluster.</p> <p data-bbox="239 1314 334 1334">Solution</p> <p data-bbox="239 1357 1222 1558">Ensure that your application is suitable for modified-attribute session persistence scope. Please refer to “Application Design Guidelines for Storing Session State.” In particular, applications which do not use <code>setAttribute</code> and <code>removeAttribute</code> calls to modify the session contents, cannot be configured for <code>persistence-scope='modified-attribute'</code>. Evaluate the performance / stability of the web-container under expected peak load with this persistence scope. Also compare the performance / stability with other persistence scopes (session and modified-session), before making the appropriate choice.</p>

ID	Summary
4908285	<p>Web-method as persistence frequency and modified-attribute as scope does full gc</p> <p>The session persistence scope “modified-attribute is not certified as a full production quality feature.</p> <p>Solution</p> <p>Evaluate the performance / stability of the web-container under expected peak load with this persistence scope. If under the expected peak load exceptions are logged and/or response time is too high, do not use this persistence scope for your production environment. Instead use “session” or “modified-session” as the persistence scope.</p>

Message Service and Message-Driven Beans

This section describes the known Java Message Service (JMS), Sun ONE Message Queue, and message-driven beans issues, and the associated solutions.

ID	Summary
4683029	<p>The -javahome flag in all MQ Solaris scripts does not work if the value has a space.</p> <p>The command-line utilities in Sun ONE Message Queue have a <code>-javahome</code> option that allows you to specify an alternate Java runtime. Using this option exposes a limitation where the path of the specified alternate Java runtime must not contain spaces. Examples of paths that have spaces are:</p> <pre>/work/java 1.4</pre> <p>This problem occurs at Sun ONE Application Server instance startup. When a Sun ONE Application Server instance is started, by default its corresponding Sun ONE Message Queue broker instance is also started. The broker always starts using the <code>-javahome</code> command-line option to ensure that it uses the same Java runtime used by the Sun ONE Application Server. If the Java runtime that is configured for use by the Sun ONE Application Server (and therefore passed on for use by the broker) is located at a path that contains spaces, broker startup fails, which also causes the Sun ONE Application Server instance startup to fail.</p> <p>Solution</p> <p>Make sure that the Java runtime used by the Sun ONE Application Server is located at a path that does not contain spaces.</p>

Java Transaction Service (JTS)

This section describes the known Java Transaction Service (JTS) issues and the associated solutions.

Recovery

There are some known problems with the recovery implementations of some of the JDBC drivers. For these known problems, Sun One Application Server provided some workarounds. By default, these workarounds will not be used unless you explicitly indicate that these workarounds are to be used.

- Issue with the Oracle (R) JDBC driver—Oracle XA Resource implementation's recover method repeatedly returns the same set of in-doubt Xids regardless of the input flag. According to the XA specs, the Transaction Manager should initially call `XAResource.recover` with `TMSTARTSCAN` and then call `XAResource.recover` with `TMNOFLAGS` repeatedly until no Xids are returned.

Oracle XA Resource's commit method also has some problems, which are addressed in a workaround provided by the Sun ONE Application Server. To enable this workaround, the following property should be added to the transaction-service subelement in the `server.xml` file:

```
oracle-xa-recovery-workaround
```

This property value should be set to true.

- Issue with Sybase JConnect 5.2—There are some known problems with JConnect 5.2 driver which are resolved in JConnect 5.5. If the JConnect 5.2 driver is used, to make recovery to work, the following property should be added to the transaction-service subelement in the `server.xml` file:

```
sybase-xa-recovery-workaround
```

This property value should be set to true.

Transactions

In the `server.xml` file, `res-type` is used to demarcate the connection as non-XA or XA. This demarcation is used to identify the configuration of the data source to drive data. For example, in the Datadirect driver, the same data source can be used as either XA or non-XA.

The default behavior of the data source is non-XA. To make the data source behave as XA with the `connpool` element for transactions, `res-type` is needed. For the `connpool` element to work and participate in transactions, add the following for the attributes `res-type` in the `server.xml` file:

```
res-type="javax.sql.XADataSource"
```

ID	Summary
4689337	<p>The connection from XADataSource in non-txn context cannot be used.</p> <p>This is a known database driver issue. When there is a connection in a non-txn context, with XADataSource the <code>Autocommit</code> is set to false by default.</p> <p>Solution</p> <p>Use the non-XA datasource class to call the commit/rollback programs explicitly rather than through transactions.</p>
4700241	<p>Non-zero transaction timeout setting causes slow local transactions.</p> <p>Currently, the Local Transaction Manager does not support transactions with definite timeouts. If you set the <code>timeout-in-seconds</code> attribute in <code>transaction-service</code> element to a value greater than 0, all local transactions will be processed as a global transactions, and will take longer to complete. A local transaction may also fail, if the data source driver does not support global transactions. A timeout value of 0 means that the transaction manager will wait indefinitely if it does not hear back from a participating data source.</p> <p>Solution</p> <p>Reset the <code>timeout-in-seconds</code> value to its default value of 0.</p>

Application Deployment

This section describes the known application deployment issues and associated solutions.

ID	Summary
4725147	<p>Cannot choose a particular virtual server for deployment.</p> <p>In this case, two virtual servers are configured with exactly the same host and listener. If an application is deployed only for second virtual server, it cannot be reached because combination host:port leads to the first virtual server.</p> <p>Solution</p> <p>The virtual server hostname should not be the same as the original hostname, especially when the same HTTP listener is used.</p>

ID	Summary
4734969	<p data-bbox="244 243 1079 265">Can't deploy application with user's Query class in the bean package.</p> <p data-bbox="244 291 1222 374">Container-managed persistence (CMP) code-gen does not use the fully qualified name for the JDO Query variable in <code>concreteImpl</code>. If you have a Query class in the same package as the abstract bean, a compilation error occurs.</p> <p data-bbox="244 395 348 418">Solution</p> <p data-bbox="244 444 825 466">Move the Query class into another or separate package.</p>
4750461	<p data-bbox="244 491 1162 513">On SPARC, the Sun ONE Application Server might crash during dynamic reloading.</p> <p data-bbox="244 539 1172 649">For a large application (with many enterprise beans), a crash may occur during dynamic reloading of the application. The dynamic reloading feature is used, in the development environment, to quickly test minor changes to an application. The crash is caused by attempting to use more file descriptors than are available.</p> <p data-bbox="244 670 339 692">Solution</p> <ol data-bbox="244 718 1219 769" style="list-style-type: none">1. Increase the file descriptors limit by adding lines, in this format, to the <code>/etc/system</code> file. Depending on the size of the application, the values can be set higher or lower. <pre data-bbox="272 791 558 841">set rlim_fd_max=8192 set rlim_fd_cur=2048</pre>2. Reboot the system.

ID	Summary
4744128	<p data-bbox="339 239 1082 262">The EJB compiler fails to generate valid JAVA code for inner classes.</p> <p data-bbox="339 284 1305 340">The EJB compiler fails to generate valid JAVA code for the implementation of the enterprise bean that uses inner classes as the return type.</p> <pre data-bbox="339 362 1279 843"> public interface IStateServer { public StateProperties getProperties(String objectID, String variantName, IToken securityToken) throws RemoteException; public class StateProperties implements Serializable { public StateProperties() { } public String description = ""; public String owner = ""; public Date modifyTime = new Date(); public String accessPermissions = ""; } } public interface IStateServerEJB extends EJBObject, IStateServer { } </pre> <p data-bbox="339 866 1033 888">Note method <code>getProperties</code> returns an inner class.</p> <p data-bbox="339 911 562 933">Example of the error:</p> <p data-bbox="339 956 1305 1038">D:\AppServer7a\appserv\domains\domain1\server1\generated\ejb\j2ee-apps\smugglercom\spss\ssp\state\ejb\StateServerEJB_EJBObjectImpl.java:133:</p> <p data-bbox="339 1060 925 1083">Direct use of synthetic inner class names is not allowed:</p> <p data-bbox="339 1091 1008 1114">com.spss.ssp.state.IStateServer\$StateProperties</p> <p data-bbox="339 1137 654 1159">The generated code should be</p> <p data-bbox="339 1168 1008 1190">com.spss.ssp.state.IStateServer.StateProperties</p> <p data-bbox="339 1213 444 1236">instead of</p> <p data-bbox="339 1244 1008 1267">com.spss.ssp.state.IStateServer\$StateProperties</p> <p data-bbox="339 1289 434 1312">Solution</p> <p data-bbox="339 1334 1056 1357">Move <code>StateProperties</code> to a separate (standalone not inner) class.</p>

ID	Summary
4756093	<p>Redeployment of a deployed application fails after Sun ONE Application Server restart.</p> <p>If an application is redeployed while the Sun ONE Application Server instance is running, the application may fail.</p> <p>Solution</p> <p>Stop the App Server instance, redeploy the application, then restart the App Server instance. The application can be redeployed as many times as necessary if the App Server instance is not running.</p>
4756981	<p>Permission problem occurs during dynamic reloading and invocation of applications.</p> <p>When the Admin Server is owned by root and the App Server instance is owned by a non-root user, there may be permission problems during dynamic reloading and invocation of applications.</p> <p>Solution</p> <p>After deploying/redeploying the module or application (with or without precompile option), change the directory owner from root to the non-root user. The change-of-owner should to be applied recursively to each of the directories in the following list based on the application type.</p> <p><i>domain_root/server_instance/applications/j2ee-apps/application_name</i> <i>domain_root/server_instance/applications/j2ee-modules/module_name</i> <i>domain_root/server_instance/generated/ejb/j2ee-apps/application_name</i> <i>domain_root/server_instance/generated/jsp/j2ee-apps/application_name</i> <i>domain_root/server_instance/generated/jsp/j2ee-modules/module_name</i></p> <ol style="list-style-type: none">1. Become superuser.2. Type the following command for each of the directories that apply to your situation: <pre># chown -R non_root_instance_owner directory_name</pre>

ID	Summary
4834004	<p data-bbox="339 241 1200 262">A <code>java.lang.OutOfMemoryError</code> exception occurs while deploying applications.</p> <p data-bbox="339 286 1286 369">While deploying applications, the Sun ONE Application Server throws a <code>java.lang.OutOfMemoryError</code> exception in the <code>server.log</code>. To deploy a large number of applications, a small JVM heapsize causes problems.</p> <p data-bbox="339 392 429 413">Solution</p> <p data-bbox="339 437 776 458">In the <code>server.xml</code> file, do the following:</p> <p data-bbox="339 482 811 503">Set the JVM heapsize to 512MB (default=256)</p> <pre data-bbox="339 527 1019 548">[<jvm-options> -Xms128 -Xmx512 </jvm-options>]</pre> <p data-bbox="339 572 1315 621">Set the default pool size to a very small value (for example, 25). This may affect performance, but should be usable for functionality testing:</p> <pre data-bbox="339 645 1250 843">[<server> <availability-service> <persistence-store> <property name="ha-store-pool-size" value="25"/> ... </server>]</pre>

Verifier

This section describes the known verifier issues and associated solutions.

ID	Summary
4742545	<p data-bbox="239 270 896 288">Standalone verifier shows EJB Class Not Found errors.</p> <p data-bbox="239 319 1222 574">The verifier indicates some failed tests with the following test description message: <code>EJB Class Not Found</code>. The test failures occur when an EJB JAR file uses an enterprise bean with a reference to another enterprise bean that is packaged in a separate EJB JAR file within the same EAR application. The failure messages are also observed if you try to validate the connector (RAR) dependent EAR files. This is because the RAR bundle need not be packaged within the EAR file that houses the enterprise bean with dependency on the RAR bundled files. The failures (exception to this are the connector-related failures) are only observed with the standalone verifier. The verifier invoked through the deployment command or the Administration interface does not show the failures.</p> <p data-bbox="239 600 344 618">Solution</p> <p data-bbox="239 649 1222 847">Make sure that the packaging of the application EAR is correct and if you are using any utility JAR file, it is packaged within the EAR file. To resolve the referencing errors, you can shift to the verifier invoked through the deployment backend using <code>asadmin</code> or the Administration interface. For the connector-related failures, place the JAR file containing the required classes into the class path for the verifier. You can open the <code>install_root/bin/verifier[.bat]</code> file and add a <code>LOCAL_CLASSPATH</code> variable to the end of the <code>JVM_CLASSPATH</code> variable. Locally add the classes to the <code>LOCAL_CLASSPATH</code> variable, then run the verifier.</p>
4743480	<p data-bbox="239 873 1168 925">Verifier cannot detect the methods declared in the super interface of the local home interface.</p> <p data-bbox="239 951 1222 1149">The verifier performs tests on the local home interface to check the interface for conformance to the J2EE specification. Some of the tests for the <code>findByPrimaryKey</code> method fail if you have a derived local home interface and the required method is declared in the super interface of the home interface. The failed tests are those performed by the tests named <code>HomeInterfaceFindByPrimaryKeyArg</code>, <code>HomeInterfaceFindByPrimaryKeyName</code>, <code>HomeInterfaceFindByPrimaryKeyReturn</code>, and <code>PrimaryKeyClassOpt</code>. Deployment would also fail if you use the <code>-verify</code> option with the module or application.</p> <p data-bbox="239 1175 344 1192">Solution</p> <p data-bbox="239 1223 1222 1333">The test results can be ignored if the function has been properly declared in the super interface for the local home interface. In this case, do not use the <code>-verify</code> option with the deployment command. The deployment will complete correctly. A workaround is to declare the same function again in the derived home interface to pass the verification tests.</p>

Configuration

- The default value of the `env-classpath-ignored` attribute of the `java-config` element is `true`.

- Not Implemented for this release:
 - The `bytecode-preprocessors` attribute in `java-config` element in `server.xml` (It is likely that it will become available in a future performance patch.)
- Deprecated for this release:
 - `is-cache-overflow-allowed`
 - `max-wait-time-in-millis`
- Due to J2EE 1.4 architecture changes, some elements may not be supported in future releases, such as:
 - `cmt-max-runtime-exceptions` property of the `mdb-container` element

The following table describes the known Sun ONE Application Server 7, Enterprise Edition configuration issues and their solution.

ID	Summary
4742559	<p data-bbox="239 270 1015 288">If IPv6 is not used in your network, this problem does not apply to you.</p> <p data-bbox="239 314 1072 331">NOTE: If IPv6 is not used in your network, this problem does not apply to you.</p> <p data-bbox="239 357 1222 444">By default, the Sun ONE Application Server uses IPv4. This is supported by all platforms on which the Sun ONE Application Server is available. In certain platforms, IPv6 is supported. In this case, Sun ONE Application Server configuration changes are required for conformance.</p> <p data-bbox="239 470 1222 548">NOTE: If these configuration changes are to be made, it is essential to be absolutely sure of IPv6 support on the platforms. Server instances may not start if the IPv6-related configuration is applied to a system that has only IPv4 support.</p> <p data-bbox="239 574 344 591">Solution</p> <p data-bbox="239 618 715 635">Perform the following configuration changes:</p> <ol data-bbox="239 661 1222 956" style="list-style-type: none"> 1. Start the Admin Server. 2. Start the Administration interface. (Connect to Admin Server http host/port in a browser). 3. Select the App Server instance to configure for IPv6, such as server1. 4. Expand the HTTP Listeners node in the tree view. 5. Select the HTTP Listener to configure for IPv6, such as http-listener1. 6. In the General section, change the value of the IP Address field to ANY. 7. In the Advanced section, change the value of the Family field to INET6. <p data-bbox="239 982 1222 1034">Setting the Family field to INET6 does not disable IPv4 functionality unless an IPv6 address is selected for IP address. Selecting an IP address of ANY will match any IPv4 or IPv6 address.</p> <ol data-bbox="239 1060 965 1260" style="list-style-type: none"> 8. Click Save. 9. In the left pane, select your server instance. 10. Click Apply Changes. 11. .Click Stop. 12. Click Start. This restarts the server and implements your changes.

Deployment Descriptors

This section describes the known Sun ONE Application Server 7, Enterprise Edition deployment descriptor issues.

sun-cmp-mapping.xml Issues

- Not Implemented for this release:
 - check-modified-at-commit
 - lock-when-modified

sun-ejb-jar.xml Issues

- Deprecated for this release:
 - is-cache-overflow-allowed
 - max-wait-time-in-millis

Monitoring

This section describes the known 7 monitoring issues and associated solutions.

ID	Summary
4734595	<p>Total-connections-failed-validation does not show correct values.</p> <p>The issue is with the inherent double pooling problem in the reference implementation (RI).</p> <p>Solution</p> <p>None.</p>
4737227	<p>FlagAsyncEnabled does not set to 1 in http-server.</p> <p>This is a known the Sun ONE Web Server issue.</p> <p>Solution</p> <p>None.</p>
4752199	<p>Monitoring bean method attribute values are not shown for getPrimaryKey(), getEJBMetaData(), getHomeHandle() methods.</p> <p>The monitoring tool lists methods in an enterprise bean that can be monitored. For <code>getPrimaryKey()</code>, <code>getEJBMetaData()</code>, and <code>getHomeHandle()</code>, the method level monitoring attributes always show zero.</p> <p>Solution</p> <p>None</p>

High Availability

This section describes the known high availability issues and associated solutions.

ID	Summary
4828779	<p>When an active node is stopped, spare doesn't pickup.</p> <p>When an active node without any data is stopped, the spare node cannot complete a repair and the repair hangs. The repair requires some data to be copied to the spare node.</p> <p>Solution</p> <p>Perform a refragment to redistribute data on newly added nodes such that no active nodes remain empty.</p>
4831332	<p>HADB create doesn't work when superuser becomes root.</p> <p>When using "su" to become root, HADB may report access problems on specific paths. HADB needs the environment information for user "root."</p> <p>Solution</p> <p>Use "su -" and retry.</p>
4842677	<p>On Netscape 4.79, a request sent during failover will be lost when the request is sent.</p> <p>Situation: In a two-machine cluster configuration with each machine having an application server instance running, a session-based application is deployed on both instances of application server. For example:</p> <p>Assume that the session-based application is taking an attribute/value pair, storing it in session, and displaying what was stored in session. After sending a request, shut down the application server instance that served the request. Now from the browser try to send a request with a different attribute/value pair. Since the application server instance that served the first request is shut down, the request fails and shows an error message with an option to resubmit the request. Clicking the Resubmit link will resubmit the request. However, using the Netscape 4.79 browser, the resulting page will only show the first attribute/value pair; the second attribute/value pair will not be added to the session.</p> <p>If Netscape 7.0 or Internet Explorer 6.0 is used, the second attribute/value pair is added correctly.</p> <p>Solution</p> <p>Use the Netscape 7.0 browser or the Internet Explorer 6.0 browser.</p>

ID	Summary
4842830	<p data-bbox="334 239 793 262">ComStream is closed, reaches JDBC client.</p> <p data-bbox="334 284 1319 401">This is an internal message that is used to synchronize internal processing of SQL commands. Due to some unresolved error, this error message will occasionally be sent to an application client, instead of a more specific user error. This problem will be resolved in future releases of HADB.</p> <p data-bbox="334 418 429 440">Solution</p> <p data-bbox="334 463 544 491">Retry the operation.</p>
4843422	<p data-bbox="334 508 1150 531">HADB connection pool is lost and recreated when you deploy applications.</p> <p data-bbox="334 553 1265 612">Deploying many applications could exhaust the maximum number of connections to the HADB, causing applications to fail.</p> <p data-bbox="334 630 429 652">Solution</p> <p data-bbox="334 675 965 704">After deploying your applications, restart the HADB server.</p>
4846432, 4846691, 4861489	<p data-bbox="334 722 1319 779">Miscellaneous hadbm commands don't work when running hadbm from another machine than used to create the database.</p> <p data-bbox="334 798 1319 881">Management client should be started from the same client machine. The clients track configurations, and information about starting and stopping the server. If different clients and servers are used to start and stop, this information is not distributed to all the nodes.</p> <p data-bbox="334 899 429 921">Solution</p> <p data-bbox="334 944 879 973">Retry from the machine used to create the database.</p>
4861396	<p data-bbox="334 991 679 1013">Unrecoverable failure of cursor.</p> <p data-bbox="334 1036 779 1065">Hides another failure; most likely of locks.</p> <p data-bbox="334 1083 429 1105">Solution</p> <p data-bbox="334 1128 1308 1156">Use a different isolation level for transactions if appropriate; or increase the number of locks.</p>
4861405	<p data-bbox="334 1173 1165 1196">Problems connecting to machines with two IP interfaces on the same subnet.</p> <p data-bbox="334 1218 1296 1277">Connection to a server with multiple network interfaces, with different IP addresses, on the same subnet fails. HADB does not support multiple interfaces on the same subnet.</p> <p data-bbox="334 1295 429 1317">Solution</p> <p data-bbox="334 1340 1319 1394">Disconnect one or more of the network interfaces so that only one interface exists on any given subnet.</p>

ID	Summary
4861465, 4855623	<p>NSUP wrongfully detects network partition during controlled stop.</p> <p>Controlled stop could not update the stop state file correctly. If the database is restarted after a controlled stop, the node hangs.</p> <p>Solution</p> <p>Use <code>hadbm status --nodes</code> command to determine which nodes are still alive. Then, run <code>hadbm stopnode -f <node_number></code> for each of the partially running nodes.</p>
4888728	<p>hadbm help does not work.</p> <p>When using a <code>tcsh/csh</code> shell, invoking HADBm help does not work.</p> <p>Solution</p> <p>In order to invoke HADBm from a <code>tcsh/csh</code> hell, you must identify the option as <code>- \?</code> or <code>" - ? "</code>.</p>
4899950	<p>HADBm write to the stty without checking whether it is a terminal causing error messages</p> <p>When using <code>stty check</code> to make sure <code>tty</code> is a terminal.</p> <p>Solution</p> <p>Check whether <code>tty</code> is a terminal. This error will not occur if HADBm is evoked from a shell.</p>
4897966	<p>HADBm manpage is missing from the product.</p> <p>You must copy <code>hadbm man page</code> to and set the <code>MANPATH</code>.</p> <p>Solution</p> <ol style="list-style-type: none"> 1. Create a directory named <code>man</code> under <i>installation directory</i>, if it does not already exist. 2. Create a directory named <code>sman1m</code> under <i>Installation Directory</i>/<code>man</code>, if it does not already exist. 3. Copy <code>cd_image/manpage/hadbm.1m</code> file to <i>Installation Directory</i>/<code>man/sman1m</code>. 4. Append <i>Installation Directory</i>/<code>man</code> to the existing value of <code>MANPATH</code> environment variable <p>The man page now can be accessed by running <code>man hadbm</code>.</p>

Server Administration

This section contains the following sections:

- Command Line Interface (CLI)
- Administration Infrastructure

- Administration Interface

Command Line Interface (CLI)

This section describes the known command-line interface issues and associated solutions.

ID	Summary
4676889	<p>CLI command overflows in single-mode if the command is more than 256 characters long.</p> <p>On UNIX(R), when executing a CLI command in single-mode that contains more than 256 characters, the command fails with this error: <code>...Command Not Found...</code></p> <p>This is a terminal restriction, not a CLI restriction.</p> <p>Example:</p> <pre>create-jdbc-connection-pool --instance server4 --datasourceuser admin --datasourcepassword adminadmin --datasourceclassname test --datasourceurl test --minpoolsize=8 --maxpoolsize=32 --maxwait=60000 --poolresize=2 --idletimeout=300 --connectionvalidate=false --validationmethod=auto-commit --failconnection=false --description test sample_connectionpoolid)</pre> <p>Solution</p> <ol style="list-style-type: none">1. For commands that require more than 256 characters, use CLI multi-mode.2. If you must use single-mode, run the command using OpenWin <code>cmdtool</code>.
4680409	<p>After configuring an instance to use SSL, the administrator cannot access the Admin Server from either the CLI or browser clients.</p> <p>Solution</p> <p>Import the Sun ONE Application Server certificate into each client that is to use SSL to access the Admin Server, and indicate that servers with such a certificate are to be trusted. How to do this on a browser is browser-specific; consult your browser's online help to see how to import a certificate to be trusted.</p> <p>For the CLI, if the server's certificate is in some <code>servercert.cer</code> file, and the installation directory is <code>/INSTALL</code>, the command is:</p> <pre>keytool -import -file servercert.cer -alias server -keystore /INSTALL/jdk/jre/lib/security/cacerts</pre> <p>NOTE: To avoid this problem in the future, ensure that the Admin Server certificate is installed in both the server <i>and</i> the client(s) before configuring the Admin Server to use SSL.</p>

ID	Summary
4688386	<p data-bbox="239 241 1093 300">Using the asterisk (*) character in single-mode CLI command results in unexpected behavior and/or error messages.</p> <p data-bbox="239 322 1218 435">The asterisk character is being expanded by the underlying shell into a list of names, and it is this list of names that is being seen by the command-line interface (CLI) command. Putting quote marks around the asterisk prevents the shell from expanding the asterisk, and thus the CLI gets to see the asterisk itself.</p> <p data-bbox="239 458 344 479">Solution</p> <p data-bbox="239 505 1005 526">Use quote characters (either single or double quotes) around the asterisk.</p>
4701361	<p data-bbox="239 552 1182 572">Repeated changes applied to any instance eventually results in an out of memory error.</p> <p data-bbox="239 595 1175 678">The Admin Server keeps a record of all changes performed to the system, which requires memory. This change record (but not the changes themselves) is discarded during a reconfiguration, thus releasing the memory for use.</p> <p data-bbox="239 701 344 722">Solution</p> <p data-bbox="239 748 1079 769">Use the <code>asadmin reconfig</code> command periodically to discard old change records.</p>
4704328	<p data-bbox="239 795 1100 815">Cleanup does not happen when a call to create a duplicate domain fails.</p> <p data-bbox="239 838 1179 921">When a domain that already exists is created, an appropriate error message is generated. However, a directory specified by the <code>-path</code> option in the <code>create-domain</code> command is created if it did not exist earlier. This should be removed since the command failed.</p> <p data-bbox="239 944 344 965">Solution</p> <p data-bbox="239 991 1162 1050">Remove any additional empty directory specified that might be created after the <code>-path</code> option is used.</p>

ID	Summary
4722007	<p data-bbox="332 234 1249 269">Monitoring: Execution times of less than 1 millisecond cannot be measured.</p> <p data-bbox="332 286 1306 347">When an entity bean method is monitored, the <code>execution-time-millis</code> attribute shows -1. For example, when running the command:</p> <pre data-bbox="332 364 1320 451">iasadmin>get -m server1.application.usecase1app.ejb-module.UseCase1Ejb_jar.entity-bea n.BeanOne.bean-method.method_create0.*</pre> <p data-bbox="332 468 735 494">The following attributes are returned:</p> <pre data-bbox="332 512 1263 746">Attribute name = total-num-errors Value = 0 Attribute name = method-name Value = public abstract com.ipplanet.ias.perf.jts.UseCase1.ejb.BeanOneRemote com.ipplanet.ias.perf.jts.UseCase1.ejb.BeanOneHome.create() throws javax.ejb.CreateException,java.rmi.RemoteException Attribute name = total-num-calls Value = 0 Attribute name = total-num-success Value = 0 Attribute name = execution-time-millis Value = -1</pre> <p data-bbox="332 763 1320 876">Before monitoring is started, the default value for <code>execution-time-millis</code> is set to -1 to indicate that the value for that attribute is invalid at that moment. A default value of 0 would give a false impression that the execution time has been measured, and that it has turned out to be a very small value.</p> <p data-bbox="332 894 442 928">Solution</p> <p data-bbox="332 946 399 972">None.</p>

ID	Summary
4724743	<p data-bbox="239 241 883 269">The <code>asadmin reconfig</code> command flags are misleading.</p> <p data-bbox="239 291 1219 461">In general, the <code>asadmin</code> options are stated as having two states: true and false. If you specify an option as true, it is exactly the opposite of specifying false. In contrast, the <code>asadmin reconfig</code> command has three states to deal with: a) check for manual changes and throw exception; b) keep manual changes c) discard manual changes. The command has only two options: <code>--keepmanualchanges</code> and <code>--discardmanualchanges</code>. Therefore, you can specify different combinations of these two options in the command.</p> <p data-bbox="239 484 1008 505">Not all combinations are documented. The actual valid combinations are:</p> <ol data-bbox="239 527 1019 1055" style="list-style-type: none">1. <code>discardmanualchanges=true --keepmanualchanges=false</code> Meaning: will discard manual changes (and use admin changes)2. <code>discardmanualchanges=false --keepmanualchanges=true</code> Meaning: will keep manual changes (and throw away admin changes)3. <code>discardmanualchanges=false --keepmanualchanges=false</code> Meaning: will throw exception if there is manual change4. <code>discardmanualchanges</code> Meaning: same as 1.5. <code>keepmanualchanges</code> Meaning: same as 2.6. (no options) Meaning: same as 3. <p data-bbox="239 1078 1053 1098">Invalid combinations are (<code>asadmin</code> will tell you that the combination is bad):</p> <pre data-bbox="239 1121 979 1190">--discardmanualchanges --keepmanualchanges --discardmanualchanges=true --keepmanualchanges=true</pre> <p data-bbox="239 1213 1219 1296">NOTE: The <code>--discardmanualchanges=false</code> option is NOT equal to the <code>--keepmanualchanges=true</code> option. The <code>--discardmanualchanges=false</code> is actually the same as not specifying the option.</p> <p data-bbox="239 1317 344 1338">Solution</p> <p data-bbox="239 1361 301 1381">None.</p>

ID	Summary
4733109	<p data-bbox="332 234 1350 303">Verifier error reported in Administration interface when viewing Persistence Manager Factory resource created from command-line interface.</p> <p data-bbox="332 303 1350 407">When a Persistence Manager Factory resource is viewed in the Administration interface, the following error is reported for the resource when it is created from the command-line interface:</p> <pre data-bbox="332 407 1350 477">ArgChecker Failure: Validation failed for jndiName: object must be non-null</pre> <p data-bbox="332 477 1350 546">Solution</p> <p data-bbox="332 546 1350 581">None.</p>
4742993	<p data-bbox="332 581 1350 651">On Solaris, the flexanlg command causes open failure when used on Sun ONE Application Server that is integrated into Solaris.</p> <p data-bbox="332 651 1350 755">If you are running a version that is integrated into the Solaris operating environment, and you use the flexanlg command from /usr/appserver/bin, an open failure error is displayed.</p> <pre data-bbox="332 755 1350 859">ld.so.1: /usr/appserver/bin/flexanlg: fatal: libplc4.so: open failed: No such file or directory Killed</pre> <p data-bbox="332 859 1350 928">Solution</p> <p data-bbox="332 928 1350 963">Complete these steps.</p> <ol data-bbox="332 963 1350 998" style="list-style-type: none"> <li data-bbox="332 963 1350 998">1. Add the following entry to LD_LIBRARY_PATH file: <pre data-bbox="332 998 1350 1032">usr/lib/mps</pre> <ol data-bbox="332 1032 1350 1067" style="list-style-type: none"> <li data-bbox="332 1032 1350 1067">2. Then run the flexanlg command. <pre data-bbox="332 1067 1350 1137">% /usr/appserver/bin/flexanlg</pre>
4750518	<p data-bbox="332 1137 1350 1171">Some CLI commands do not work on the target Admin Server.</p> <p data-bbox="332 1171 1350 1275">The create, delete, or list commands do not work in the CLI on the target Admin Server for creating/deleting/listing new elements (such as SSL, mime, profiler, resources, and so on) in the server.xml file of the Admin Server.</p> <p data-bbox="332 1275 1350 1345">Solution</p> <p data-bbox="332 1345 1350 1380">Use the Administration interface to create, delete, and list elements in the Admin Server.</p>

ID	Summary
4895449	<p>create-ssl command doesn't accept rsa_3des_sha as one of the values for ssl3Ciphers.</p> <p>Solution</p> <p>To set the ssl3Ciphers to rsa_3des_sha:</p> <ol style="list-style-type: none"> 1. Use the set command as follows: <pre>asadmin set --user <i>user</i> --password <i>password</i> --host <i>hostname</i> --port 4848 server1.http-listener.<i>http-listener-id</i>.ssl3Ciphers=rsa_3des_sha</pre> <ol style="list-style-type: none"> 2. Or, use the Administration Interface.
4897966	<p>Some of the 'hadbm' man pages are missing in the product.</p> <p>Solution</p> <ol style="list-style-type: none"> 1. Create a directory named <code>man</code> under <code>install_dir</code>, if it does not already exist. 2. Create a directory named <code>sman1m</code> under <code>install_dir/man</code>, if it does not already exist 3. Copy <code>cd_image/manpage/hadbm.1m</code> file to <code>install_dir/man/sman1m</code> 4. Append <code>install_dir/man</code> to the existing value of MANPATH environment variable <p>The man page can now be accessed by running <code>man hadbm</code></p>

Administration Infrastructure

This section describes the known administration infrastructure issues and associated solutions.

ID	Summary
4686003	<p>HTTP Quality of Service limits are not enforced.</p> <p>Quality of Service (QOS) includes a means of specifying the maximum number of HTTP connections and the bandwidth limit. When these attributes are exceeded, a 503 error should be returned to the client. However, after enabling QOS through the Administration interface, the server does not enforce the QOS limits.</p> <p>Solution</p> <p>To fully enable QOS features, you must manually add an <code>AuthTrans fn=qos-handler</code> line to the top of the default object in the <code>obj.conf</code> file of the virtual server. The qos-handler Server Application Function (SAF) and <code>obj.conf</code> configuration file are described in the <i>Developer's Guide to NSAPI</i>.</p>

ID	Summary
4692673	<p data-bbox="332 234 1350 303">Restarting an instance in debug mode seems to fail if the instance is originally running in non-debug mode.</p> <p data-bbox="332 312 1350 442">If an instance is started without checking/selecting the 'Start/Restart in debug mode' check box, subsequent settings of this check box do not work. In the Administration interface, the Debug Enabled check box appears unchecked, even though it has been checked. The <code>server.xml</code> file also shows <code>debug-enabled=false</code>.</p> <p data-bbox="332 451 1350 486">Solution</p> <p data-bbox="332 494 1350 529">None.</p>
4723776	<p data-bbox="332 538 1350 607">On SPARC, server fails to restart when converting to an SSL-enabled environment.</p> <p data-bbox="332 616 1350 772">If you attempt to restart the Sun ONE Application Server after installing a certificate and enabling security, the restart fails. A message is displayed indicating that the server failed to receive a password. A second click of the Start button starts the server. When SSL is not enabled, passwords are not cached which results in the failure of restart. The restart command does not support the transition from non-SSL to SSL enabled mode.</p> <p data-bbox="332 781 1350 841">NOTE: This problem only occurs the first time the server is restarted. Subsequent restarts work fine.</p> <p data-bbox="332 850 1350 894">Solution</p> <p data-bbox="332 902 1350 937">If you have encountered this problem:</p> <p data-bbox="349 946 1350 980">Click the Start button.</p> <p data-bbox="332 989 1350 1032">To avoid this problem, perform the following steps instead of clicking the Restart button.</p> <p data-bbox="349 1041 1350 1076">Click the Stop button.</p> <p data-bbox="349 1085 1350 1111">Click the Start button.</p>
4724780	<p data-bbox="332 1119 1350 1154">Cannot start Admin Server if the domain is created in another system.</p> <ul data-bbox="332 1163 1350 1362" style="list-style-type: none"> <li data-bbox="332 1163 1350 1258">• If the domain is created on a PCNFS mounted drive, the Admin Server and any instances within such domains cannot be started due to a known Microsoft issue involving PCNFS drives. <li data-bbox="332 1267 1350 1362">• If the domain is created in the same local drive as the product installation but in a different directory path, the instances and the Admin Server work as expected, and are fully operational. <p data-bbox="332 1371 1350 1414">Solution</p> <p data-bbox="332 1423 1350 1458">None.</p>

ID	Summary
4736554	<p data-bbox="239 241 1193 300">After a secure httplistener has been removed from a server, the administrator is still prompted for the (no longer needed) password.</p> <p data-bbox="239 322 344 343">Solution</p> <p data-bbox="239 371 736 392">Remove the entire server and then add it again.</p> <p data-bbox="239 416 1222 468">NOTE: To avoid the problem in the future—Before removing the httplistener, disable security using the following command:</p> <pre data-bbox="239 493 1196 661">/export2/build/bin/> asadmin set --user admin --password adminadmin server1.http-listener.http-listener-1.securityEnabled=false Attribute securityEnabled set to false. /export2/build/bin/> asadmin delete-http-listener --user admin --password adminadmin ls2 Deleted Http listener with id = ls2</pre>
4739831	<p data-bbox="239 683 1225 704">A partially-deleted instance causes incorrect responses from some CLI commands.</p> <p data-bbox="239 732 1219 784">If a server instance is partially deleted, the following problems are known to occur with some CLI commands (solutions are provided with each problem description):</p> <ol data-bbox="239 808 1200 861" style="list-style-type: none">1. The <code>create-instance</code> command in local mode reports that the instance exists even if there are no sub-directories under the instance folder. <p data-bbox="239 883 344 904">Solution</p> <p data-bbox="239 932 1225 953">Manually remove the leftover instance directory, then run the <code>create-instance</code> command.</p> <ol data-bbox="239 977 1189 1029" style="list-style-type: none">2. The <code>list-instances</code> command in local mode includes the partially-deleted instance name and status. <p data-bbox="239 1052 344 1072">Solution</p> <p data-bbox="239 1100 1210 1121">Manually remove the leftover instance directory, then run the <code>list-instances</code> command.</p> <p data-bbox="239 1144 344 1164">Solution</p> <p data-bbox="239 1192 1122 1244">Manually remove the leftover instance directory, create a new instance, then run the <code>start-instance</code> command.</p> <p data-bbox="239 1269 1182 1355">On Solaris, the <code>stop-instance</code> command in local mode incorrectly reports that the user does not have permission to access the instance's <code>config</code> directory although the <code>config</code> directory does not exist.</p> <p data-bbox="239 1378 344 1399">Solution</p> <p data-bbox="239 1426 751 1447">Manually remove the leftover instance directory.</p>

ID	Summary
4739891	<p data-bbox="334 243 1255 300">Deletion of a virtual server fails if the default web module referred to by the virtual server does not exist or has been undeployed.</p> <p data-bbox="334 322 439 343">Solution</p> <p data-bbox="334 369 1305 427">Set the Default Web Module field of the virtual server to None Selected, click OK to save the changes, then delete the virtual server.</p>
4740022	<p data-bbox="334 446 1219 466">SNMP: END OF MIB is returned when adding and starting a new instance server.</p> <p data-bbox="334 491 1310 548">If you add and start a new instance without shutting down the instance server and subagent, an <code>END OF MIB</code> message is returned.</p> <p data-bbox="334 567 429 588">Solution</p> <ol data-bbox="334 612 1315 829" style="list-style-type: none"> 1. To view a new instance, make sure the subagent and all the instance server processes are shut down. Under each server ->Monitoring -> "Enable SNMP Statistics Collection: on", apply the change, then restart each instance server, and start only one subagent process again. 2. If the subagent is already running, don't start any extra subagent processes in any instance. There can only be one master agent and one subagent for a Sun ONE Application Server installation (common for all domains/instances).
4780488	<p data-bbox="334 850 908 871">Existence of multiple <code>obj.conf</code> files causes confusion.</p> <p data-bbox="334 895 1276 1067">Upon creation of a new Sun ONE Application Server instance, the <i>instance-dir/config/</i> directory will contain two <code>obj.conf</code> files, one named <code>obj.conf</code> and the other named <i>virtual-server-name-obj.conf</i>, where <i>virtual-server-name</i> is the same value as the instance name for the virtual server that is created automatically during instance creation. The documentation refers to "modification of the <code>obj.conf</code> file" when it should refer to "modification of the <code>obj.conf</code> file associated with the virtual server of interest."</p> <p data-bbox="334 1090 1310 1230">When the Sun ONE Application Server is installed, the <code>obj.conf</code> and <code>server1-obj.conf</code> files exist under the <i>/domains/domain1/server1/config/</i> directory. The content in the file named <code>obj.conf</code> is overridden by the content of the <code>server1-obj.conf</code> file specified at the virtual server level. In effect, the file named <code>obj.conf</code> is not used by the Sun ONE Application Server instance.</p> <p data-bbox="334 1253 1258 1334">For example, if you modified the file named <code>obj.conf</code> while configuring the Sun ONE Application Server passthrough plug-in, your passthrough settings will not take effect because the wrong <code>obj.conf</code> file has been modified.</p> <p data-bbox="334 1357 429 1378">Solution</p> <p data-bbox="334 1402 1293 1454">If and when you need to modify the <code>obj.conf</code> file for an instance, modify the file prefixed with the virtual server name of interest.</p>

ID	Summary
4825972	<p>After adding another virtual server and http listeners, SNMP data doesn't show the listeners.</p> <p>After adding another virtual server and http listeners, applying changes, and restarting the servers, newly added http listeners are not visible using the SNMP monitoring tool.</p> <p>Solution</p> <p>Restart the SNMP monitoring subagent after adding a new listener.</p>
4865739	<p>Negative test for instance port in server.xml corrupts domains.bin</p> <p>If the port number and/or IP Address includes a letter character, no new instances can be created and the current instances become unmanageable.</p> <p>Solution</p> <ol style="list-style-type: none"> 1. Edit the <code>server.xml</code> file and the backup <code>server.xml</code> and correct the port number and/or IP Address. 2. Execute the <code>asadmin reconfig</code> command using the <code>keepmanualchanges=true</code> option. 3. Using the Administration Interface, stop the instance by selecting the instance name in the Administration tree. 4. Restart the administration server and application server instance.
4898964	<p>CLI command delete-ssl does not work for admin-server.</p> <p>Solution</p> <ol style="list-style-type: none"> 1. Go to the appropriate <code>admin-server/config</code> directory 2. Backup <code>server.xml</code> file 3. Open <code>server.xml</code> file, remove line starting with <code><ssl</code> in the <code>http-listener</code> section and save file 4. Execute <code>asadmin reconfig</code> with <code>--keepmanualchanges=true</code> option

Administration Interface

When using Administration interface, make sure that the browser is configured to check for newer versions of pages from the server, instead of picking these from cache. Generally, default browser settings would not cause problems.

- On Internet Explorer, make sure that Tools->Settings...->Check for newer versions of stored pages: is not set to 'Never'.

- On Netscape, make sure that
Edit->Preferences...->Advanced->Cache->Compare the page in the cache to
the page on the network: is not set to 'Never'.

This section describes the known Sun ONE Application Server 7, Enterprise Edition administration graphical user interface issues, and the associated solutions.

ID	Summary
4725473	<p data-bbox="239 269 1192 321">External certificate nickname doesn't display on the Administration interface Nickname list.</p> <p data-bbox="239 338 1192 486">When you install an external certificate through the Sun ONE Application Server Administration interface, a problem is encountered when you attempt to enable SSL for the http-listener by using the certificate that is installed on the external cryptographic module. Although the installation of the certificate is successful, the certificate nickname does not display in the Administration interface.</p> <p data-bbox="239 503 335 529">Solution</p> <ol data-bbox="239 546 1220 711" style="list-style-type: none"> 1. Log in to the system where the Sun ONE Application Server software is installed as an Administrative User. 2. Link the http-listener to the certificate installed on the external cryptographic module. Execute the <code>asadmin</code> command. For more information on the <code>asadmin</code> command, see the <code>asadmin(1M)</code> man page. <pre data-bbox="239 729 828 1024">/sun/appserver7/bin/asadmin create-ssl --user admin --password <i>password</i> --host <i>host_name</i> --port 8888 --type http-listener --certname nobody@apprealm:Server-Cert --instance server1 --ssl3enabled=true --ssl3tlsciphers +rsa_rc4_128_md5 http-listener-1</pre> <p data-bbox="239 1041 1220 1128">This command establishes the link between the certificate and the server instance; it does not install the certificate (which was done using the Administration interface). Even though the certificate is linked with http-listener, the http-listener will be listening in non-SSL mode.</p> <ol data-bbox="239 1145 1156 1171" style="list-style-type: none"> 3. Enable the http-listener to listen in SSL mode by using the following CLI command. <pre data-bbox="239 1189 1113 1362">/sun/appserver7/bin/asadmin set --user admin --password <i>password</i> --host <i>host_name</i> --port 8888 server1.http-listener.http-listener-1.securityEnabled=true</pre> <p data-bbox="239 1380 1078 1414">This command switches the server instance listening state from non-SSL to SSL.</p> <p data-bbox="239 1432 1149 1484">After completing the preceding steps, the certificate is displayed in the Administration interface.</p> <ol data-bbox="239 1501 1128 1527" style="list-style-type: none"> 4. You can now use the Administration interface to edit the http-listener as needed.

ID	Summary
4728718	<p data-bbox="334 243 1315 296">When creating a new virtual server and a value is given for the location of the log file, a File Not Found" error is reported.</p> <p data-bbox="334 317 1200 343">In the Administration interface, the log file field cannot be used to add any values.</p> <p data-bbox="334 362 429 385">Solution</p> <p data-bbox="334 407 1290 434">Delete the virtual server just created, create the needed file, then recreate the virtual server.</p> <p data-bbox="334 454 1315 508">NOTE: To avoid the problem in the future—Always create the log file first, before attempting to create the new virtual server.</p>
4741123	<p data-bbox="334 529 1322 555">On Solaris 9 update 2, default browser is incompatible with Sun ONE Application Server 7.</p> <p data-bbox="334 574 1315 628">When trying to use the Sun ONE Application Server Administration interface with the default browser, this error message is displayed:</p> <p data-bbox="334 651 819 677">Unsupported Browser: Netscape 4.78</p> <p data-bbox="334 696 1310 781">It is recommended that you upgrade your browser to Netscape 4.79 or Netscape 6.2 (or later) to run the Sun ONE Application Server Administration interface. If you choose not to upgrade, you may notice degraded performance and/or unexpected behavior.</p> <p data-bbox="334 800 429 822">Solution</p> <p data-bbox="334 845 1086 871">Use <code>/usr/dt/bin/netscape6</code> instead of <code>/usr/dt/bin/netscape</code>.</p>
4750616	<p data-bbox="334 892 1208 946">Access Control List (ACL) editing is not supported on some versions of Netscape Navigator.</p> <p data-bbox="334 966 1315 1052">If you attempt to edit ACL entries while using either Netscape Navigator, versions 6.x or 7.x, you might encounter intermittent problems, such as the browser disappearing or the ACL edit screen never displays.</p> <p data-bbox="334 1071 429 1093">Solution</p> <p data-bbox="334 1116 783 1142">Choose one of the following workarounds.</p> <ul data-bbox="334 1163 1315 1265" style="list-style-type: none"> <li data-bbox="334 1163 948 1189">• Use the supported 4.79 version of Netscape Navigator. <li data-bbox="334 1208 1315 1265">• Manually edit the ACL file. For details on ACL file formatting, see the <i>Sun ONE Application Server Administrator's Guide</i>.

ID	Summary
4752055	<p>Netscape 4.8 produces warning message on Administration interface.</p> <p>When using Netscape 4.8 to access the Administration interface, a warning appears indicating Netscape 4.8 is an unsupported browser. Although no issues have been identified when using Netscape 4.8 to run the Administration interface, more thorough testing needs to be completed on this version of the Netscape browser.</p> <p>Solution</p> <p>Select the Continue hyperlink from the warning message to continue using the Administration interface.</p> <p>Use Netscape 4.79, or upgrade to Netscape 6.2.</p>
4760714	<p>An invalid Help button appears in the Install Certificate screen.</p> <p>In the Install Certificate screen, which displays all the certificate information entered, an invalid Help button is present in the Administration interface. If you click this button, an error message is displayed indicating the help page was not found. Context-sensitive help is only available by clicking the Help link on the top frame of any page.</p> <p>Solution</p> <p>Click the Help link in the top pane for context-sensitive help.</p>
4760939	<p>SSL: A self-signed certificate generated by certutil is not displayed on the Certificate Nickname list.</p> <p>A self-signed certificate is generated by the certutil and Certificate Nickname is not displayed on the Administration interface.</p> <p>Solution</p> <p>To use a self-signed certificate, you must manually edit the <code>server.xml</code> file.</p>

Sample Applications

This section describes known sample application issues and associated solutions.

ID	Summary
4714439	<p>In PetStore, cannot add a user that already exists.</p> <p>In the PetStore sample application, trying to add a user that already exists displays a stack trace on the screen.</p> <p>Solution</p> <p>None.</p>

ID	Summary
4726161	<p data-bbox="332 234 932 269">Modified samples are not updated until redeployment.</p> <p data-bbox="332 286 1220 343">If users attempt to deploy a sample more than once, after making small changes and repackaging the application, the following error message is displayed.</p> <pre data-bbox="406 361 661 387">"Already Deployed"</pre> <p data-bbox="332 404 1315 491">This issue affects most of the samples since they use the Ant utility and the <code>common.xml</code> file, which have the "deploy" target, thus mixing deployment of applications with registration of resources.</p> <p data-bbox="332 508 439 543">Solution</p> <p data-bbox="332 560 785 586">Choose one of the following workarounds:</p> <p data-bbox="332 604 1292 661">For the majority of the sample applications that use the Ant utility <code>build.xml</code> files, which include the <code>common.xml</code> file, type the following command.</p> <pre data-bbox="332 678 621 704">%asant deploy_common</pre> <p data-bbox="332 722 1011 748">For all other sample applications, type the following commands.</p> <pre data-bbox="332 765 564 843">% asant undeploy % asant deploy</pre>
4733412	<p data-bbox="332 859 1168 894">Sample application converter has redundant JAR file in web module.</p> <p data-bbox="332 911 1268 998">The converter application has a redundant stateless-converter EJB JAR file under the <code>WEB-INF/lib</code> directory. The EAR file is located under the sample application directory. From the bundled Solaris build, it is here:</p> <pre data-bbox="332 1015 1222 1038">/usr/appserver/samples/ejb/stateless/converter/stateless-converter.ear</pre> <p data-bbox="332 1055 1285 1168">Extract this file and go to the <code>WEB-INF/lib</code> directory of the web module named <code>stateless-converter</code> and you will see the file. This redundant JAR file applies to all the web modules which call the EJB module. The root cause of the problem is the <code>common.xml</code> file used to build the application.</p> <p data-bbox="332 1185 439 1220">Solution</p> <p data-bbox="332 1237 1053 1263">None. Doesn't affect functionality when running sample application.</p>

ID	Summary
4739854	<p data-bbox="239 241 961 262">Instructions needed for deploying resources using asadmin.</p> <p data-bbox="239 288 1203 369">In the documentation for some samples, you are instructed to deploy the application using the <code>asadmin</code> command, but no explanation is provided on how to create the needed resources.</p> <p data-bbox="239 392 344 413">Solution</p> <p data-bbox="239 439 1222 520">You can deploy the application/resource by using the <code>asadmin</code> command and can get more information by referring to the sample's <code>build.xml</code> file. More information can also be found in the printout from running <code>asant deploy</code>.</p> <p data-bbox="239 543 1222 624">For JDBC/BLOB example, the following steps create the resources using <code>asadmin</code> (assuming the hostname is <code>jackiel2</code> and the username/password/port for the Admin Server is <code>admin/adminadmin/4848</code>):</p> <pre data-bbox="239 651 1222 928">asadmin create-jdbc-connection-pool --port 4848 --host jackiel2 --password adminadmin --user admin jdbc-simple-pool --datasourceclassname com.pointbase.jdbc.jdbcDataSource --instance server1 asadmin set --port 4848 --host jackiel2 --password adminadmin --user admin server1.jdbc-connection-pool.jdbc-simple-pool.property.DatabaseName=j dbc:pointbase:server://localhost/sun-appserv-samples</pre>
4747534	<p data-bbox="239 951 1215 972">The lifecycle-multithreaded sample application asks for the admin user password 8 times.</p> <p data-bbox="239 994 1215 1050">While deploying the sample application <code>lifecycle-multithreaded.jar</code> file using the <code>asant deploy</code> command, you are prompted to enter the admin user password eight times.</p> <p data-bbox="239 1072 344 1093">Solution</p> <p data-bbox="239 1119 301 1140">None.</p>

ID	Summary
4748535	<p data-bbox="334 243 736 263">Miscellaneous sample file issues.</p> <ol data-bbox="334 288 1218 406" style="list-style-type: none"> 1. Logging sample generates multiple log files, for the fourth logging option. 2. Logging sample has a redundant <code>log.properties</code> file. 3. Instructions for the security grant in sample documentation are not fully correct. <p data-bbox="334 427 429 447">Solution</p> <ol data-bbox="334 472 1048 524" style="list-style-type: none"> 1. Close the handler before removing it. See <code>initLog()</code> method in <code>GreeterServlet.java</code>. <pre data-bbox="334 548 891 808">private void initLog(String log_type) { //Remove all handlers Handler[] h = logger.getHandlers(); for (int i = 0; i < h.length; i++) { h[i].close(); //must do this logger.removeHandler(h[i]); } ... }</pre> <p data-bbox="334 829 1072 881">Also, open file handler with an append option. See <code>addHandler()</code> in <code>GreeterServlet.java</code>. Write:</p> <pre data-bbox="334 906 972 927">Handler fh = new FileHandler(log_file, true);</pre> <p data-bbox="334 947 439 968">instead of</p> <pre data-bbox="334 992 886 1013">Handler fh = new FileHandler(log_file);</pre> <ol data-bbox="334 1038 1226 1260" style="list-style-type: none"> 2. Edit the <code>build.xml</code> file as follows: <pre data-bbox="334 1086 1162 1183"><fileset dir="\${src.docroot}" excludes="cvs,annontation"/> <fileset dir="\${src.docroot}" excludes="cvs,annontation,log.properties"/></pre> 3. In "Running the Sample Application" section, remove <code>domains/domain1/</code> from instructions to adding security grant entries to the <code>server.policy</code> file.

ORB/IIOP Listener

This section describes known ORB/IIOP-Listener issues and associated solutions.

ID	Summary
4743366	<p>The address attribute in the <code>iiop-listener</code> element in the <code>server.xml</code> file does not support ANY.</p> <p>In the default configuration, the Sun ONE Application Server is configured with the address value of "0.0.0.0" in the <code>iiop-listener</code> element. This default configuration does not listen on IPv6 interfaces. It only listens on all IPv4 interfaces on a system. The value of ANY in the address element of the <code>iiop-listener</code>, that would allow the server to listen on all interfaces (IPv4 or IPv6) on a system, is not supported.</p> <p>The ANY value in the address attribute of the <code>iiop-listener</code> element in the <code>server.xml</code> file allows for listening on all interfaces available on a system. This support includes both the IPv4 and IPv6 interfaces.</p> <p>Solution</p> <p>For both IPv4 and IPv6 interfaces, use "::" in the address value of the <code>iiop-listener</code> element. This solution is only applicable to Solaris 8.0 and above.</p>
4743419	<p>RMI-IIOP clients will not work for IPv6 addresses where DNS address lookups fail for the IPv6 address.</p> <p>If a DNS lookup for an IPv6 address fails, clients of Remote Method Invocation-Internet Inter-ORB Protocol (RMI-IIOP) will not work for IPv6 addresses.</p> <p>Solution</p> <p>Domain Name Service (DNS) should be set up at the deployment site in order to look up an IPv6 address.</p>

Localization

This section describes known localization issues and associated solutions.

ID	Summary
4757859	<p>Console Output is corrupted if the system's default encoding is not UTF-8.</p> <p>If the system's default encoding is not UTF-8, the Sun ONE Application Server's output might cause multi-byte characters to display incorrectly.</p> <p>Solution</p> <p>Open the <code>server.log</code> file in your browser.</p>

ID	Summary
4763655	<p>The value in the "Only show entries with" field in the View Event log becomes corrupted when the application or system is not using UTF-8 encoding</p> <p>If the user enters multi-byte characters in the "Only show entries with" field and searches the event log, the value in the "Only show entries with" field becomes corrupted when the search result is displayed. The problem is caused by the conversion of the message format from UTF-16 to UTF-8.</p> <p>Solution</p> <p>None.</p>

How to Report Problems

Please use your support process for any:

- Product or documentation issues
- Submission of product defects

If you have general feedback on the product or documentation, email us at appserver-feedback@sun.com.

Revision History

This section lists the changes that have been made in these release notes after the initial release of the Sun ONE Application Server 7, Enterprise Edition.

Revision Date	Description of Change
September 2003	Final Release

Revision History