



Sun OpenDS Standard Edition 2.0 Release Notes



Sun Microsystems, Inc.
4150 Network Circle
Santa Clara, CA 95054
U.S.A.

Part No: 820-6167
July 2009

Copyright 2009 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. All rights reserved.

Sun Microsystems, Inc. has intellectual property rights relating to technology embodied in the product that is described in this document. In particular, and without limitation, these intellectual property rights may include one or more U.S. patents or pending patent applications in the U.S. and in other countries.

U.S. Government Rights – Commercial software. Government users are subject to the Sun Microsystems, Inc. standard license agreement and applicable provisions of the FAR and its supplements.

This distribution may include materials developed by third parties.

Parts of the product may be derived from Berkeley BSD systems, licensed from the University of California. UNIX is a registered trademark in the U.S. and other countries, exclusively licensed through X/Open Company, Ltd.

Sun, Sun Microsystems, the Sun logo, the Solaris logo, the Java Coffee Cup logo, docs.sun.com, Java, and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. or its subsidiaries in the U.S. and other countries. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. in the U.S. and other countries. Products bearing SPARC trademarks are based upon an architecture developed by Sun Microsystems, Inc.

The OPEN LOOK and SunTM Graphical User Interface was developed by Sun Microsystems, Inc. for its users and licensees. Sun acknowledges the pioneering efforts of Xerox in researching and developing the concept of visual or graphical user interfaces for the computer industry. Sun holds a non-exclusive license from Xerox to the Xerox Graphical User Interface, which license also covers Sun's licensees who implement OPEN LOOK GUIs and otherwise comply with Sun's written license agreements.

Products covered by and information contained in this publication are controlled by U.S. Export Control laws and may be subject to the export or import laws in other countries. Nuclear, missile, chemical or biological weapons or nuclear maritime end uses or end users, whether direct or indirect, are strictly prohibited. Export or reexport to countries subject to U.S. embargo or to entities identified on U.S. export exclusion lists, including, but not limited to, the denied persons and specially designated nationals lists is strictly prohibited.

DOCUMENTATION IS PROVIDED "AS IS" AND ALL EXPRESS OR IMPLIED CONDITIONS, REPRESENTATIONS AND WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT, ARE DISCLAIMED, EXCEPT TO THE EXTENT THAT SUCH DISCLAIMERS ARE HELD TO BE LEGALLY INVALID.

Copyright 2009 Sun Microsystems, Inc. 4150 Network Circle, Santa Clara, CA 95054 U.S.A. Tous droits réservés.

Sun Microsystems, Inc. détient les droits de propriété intellectuelle relatifs à la technologie incorporée dans le produit qui est décrit dans ce document. En particulier, et ce sans limitation, ces droits de propriété intellectuelle peuvent inclure un ou plusieurs brevets américains ou des applications de brevet en attente aux Etats-Unis et dans d'autres pays.

Cette distribution peut comprendre des composants développés par des tierces personnes.

Certains composants de ce produit peuvent être dérivées du logiciel Berkeley BSD, licenciés par l'Université de Californie. UNIX est une marque déposée aux Etats-Unis et dans d'autres pays; elle est licenciée exclusivement par X/Open Company, Ltd.

Sun, Sun Microsystems, le logo Sun, le logo Solaris, le logo Java Coffee Cup, docs.sun.com, Java et Solaris sont des marques de fabrique ou des marques déposées de Sun Microsystems, Inc., ou ses filiales, aux Etats-Unis et dans d'autres pays. Toutes les marques SPARC sont utilisées sous licence et sont des marques de fabrique ou des marques déposées de SPARC International, Inc. aux Etats-Unis et dans d'autres pays. Les produits portant les marques SPARC sont basés sur une architecture développée par Sun Microsystems, Inc.

L'interface d'utilisation graphique OPEN LOOK et Sun a été développée par Sun Microsystems, Inc. pour ses utilisateurs et licenciés. Sun reconnaît les efforts de pionniers de Xerox pour la recherche et le développement du concept des interfaces d'utilisation visuelle ou graphique pour l'industrie de l'informatique. Sun détient une licence non exclusive de Xerox sur l'interface d'utilisation graphique Xerox, cette licence couvrant également les licenciés de Sun qui mettent en place l'interface d'utilisation graphique OPEN LOOK et qui, en outre, se conforment aux licences écrites de Sun.

Les produits qui font l'objet de cette publication et les informations qu'il contient sont régis par la législation américaine en matière de contrôle des exportations et peuvent être soumis au droit d'autres pays dans le domaine des exportations et importations. Les utilisations finales, ou utilisateurs finaux, pour des armes nucléaires, des missiles, des armes chimiques ou biologiques ou pour le nucléaire maritime, directement ou indirectement, sont strictement interdites. Les exportations ou réexportations vers des pays sous embargo des Etats-Unis, ou vers des entités figurant sur les listes d'exclusion d'exportation américaines, y compris, mais de manière non exclusive, la liste de personnes qui font objet d'un ordre de ne pas participer, d'une façon directe ou indirecte, aux exportations des produits ou des services qui sont régis par la législation américaine en matière de contrôle des exportations et la liste de ressortissants spécifiquement désignés, sont rigoureusement interdites.

LA DOCUMENTATION EST FOURNIE "EN L'ETAT" ET TOUTES AUTRES CONDITIONS, DECLARATIONS ET GARANTIES EXPRESSES OU TACITES SONT FORMELLEMENT EXCLUES, DANS LA MESURE AUTORISEE PAR LA LOI APPLICABLE, Y COMPRIS NOTAMMENT TOUTE GARANTIE IMPLICITE RELATIVE A LA QUALITE MARCHANDE, A L'APTITUDE A UNE UTILISATION PARTICULIERE OU A L'ABSENCE DE CONTREFACON.

Contents

- Installation Notes5
 - What's New in Sun OpenDS Standard Edition 2.0?5
 - Supported Operating Systems6
 - Java Requirements7
 - Supported Application Servers7
 - Supported Locales7
 - Software Environment Limitations and Recommendations8
- Related Documentation 11
- Known Issues 13

Installation Notes

The Sun OpenDS™ Standard Edition directory server is a high-performance, highly-extensible, pure Java™ directory server that supports the Lightweight Directory Access Protocol (LDAPv3). The Sun OpenDS Standard Edition 2.0 software also supports the Directory Services Markup Language (DSMLv2) through a DSML to LDAP Gateway.

For specific information on installing the Sun OpenDS Standard Edition 2.0 software, see [“Installing the Directory Server” in *Sun OpenDS Standard Edition 2.0 Installation Guide*](#).

What's New in Sun OpenDS Standard Edition 2.0?

The Sun OpenDS Standard Edition directory server is the newest member of the Sun Directory Server product family. This “next-generation” directory server includes an LDAP core that is designed for performance (fast reads and writes), scalability (vertical and horizontal), ease of use, robust availability, extensibility (numerous plug-in points), security, and maintenance.

The Sun OpenDS Standard Edition 2.0 release fixes a number of issues found in the 1.0 release and provides the following additional features:

- An administration connector that manages all administration traffic to the server. The administration connector enables the separation of user traffic and administration traffic to simplify logging and monitoring, and to ensure that administrative commands take precedence over commands that manipulate user data.
- A graphical control panel that displays server status information and enables you to perform basic server and data administration. The control panel replaces the status panel that was provided in previous releases. The `status-panel` command has been removed in this release.
- An assured replication mechanism that ensures high availability of data and immediacy of data availability for specific deployment requirements.
- Enhanced SASL encryption.
- Support for searching internationalized directory data.
- A DSML-to-LDAP gateway that can easily be deployed as a web application.
- Enhancement in the access control mechanism with the implementation of a new ACI bind rule keyword (`ssf`). This keyword allows users to control the level of access based on the level of security of the connection.

- Support for the configuration of recurring tasks.
- Support for the ;binary transfer option.
- Support for product registration using Sun Service Tags on platforms where this functionality is available and enabled.
- Addition of the standard schema files required for OpenSolaris LDAP naming services.
- Support for the Java Cryptography Extension keystore (JCEKS) in the setup command.
- Full standards-compliant support for UTF-8 character encoding in the directory data.

The new features in this release have been extensively tested on a variety of platforms (see [“Supported Operating Systems” on page 6](#)). Note that although the features tested in this release are known to be stable and working, the command-line interfaces and APIs are still evolving and are subject to change in future releases. The Sun OpenDS Standard Edition Java API is not a public interface and is subject to change in future releases of the product.

Supported Operating Systems

Sun OpenDS Standard Edition 2.0 is supported on the following systems.

TABLE 1 Supported Operating Systems

Operating System	Description
Solaris™ 10	SPARC® 64-bit, x86 and x64 architectures
OpenSolaris™ 2009.06	SPARC, x86 and x64 architectures
Microsoft® Windows® 2003 Server	for x86
Microsoft Windows 2008 Server	for x86 and x64 architectures
Red Hat® Linux® Advanced Server 5.3	for x86 and x64 architectures
SuSE® Linux Enterprise Server 10	for x86 and x64 architectures
Ubuntu® Linux 8.04	for x86 and x64 architectures
Sun Logical Domains (LDoms)	for SPARC processor-based systems running Solaris 10
VMWare® ESX Server™ 3.5	running Red Hat Linux 5.3 and Windows Server 2008 Enterprise

Note – x64 refers to both Intel® 64 and AMD® 64.

Java Requirements

The directory server requires that your system have an installed version of at least Java SE 5.0 (Sun version 1.5.0_08) Java runtime environment (JRE). The preferred JRE is the latest version of Java SE 6.0. Java SE runtime environments for Solaris, Linux, and Windows systems are available online at the following web site: <http://java.sun.com/javase/downloads>.

Java Runtime Environment Tested up to Version:

Sun JRE 1.5.0_18 (32-bit and 64-bit)

Sun JRE 1.6.0_14 (32-bit and 64-bit)

(Works best on the latest revision of Sun Java 6.0)

Supported Application Servers

The DSML gateway that is provided with Sun OpenDS Standard Edition 2.0 is supported on the following application servers:

- Sun Web Server 7
- GlassFish™ v3
- Apache Tomcat 6.0.20

Supported Locales

Sun OpenDS Standard Edition 2.0 has been translated into the following languages:

- French
- German
- Japanese
- Simplified Chinese
- Spanish

Note – Certain error messages (specifically, the SEVERE and FATAL messages) are displayed in English only.

At this stage, only the *Sun OpenDS Standard Edition 2.0 Release Notes* are translated. The remainder of the documentation is available in English only for this release.

Software Environment Limitations and Recommendations

The Sun OpenDS Standard Edition 2.0 software has some limitations that might affect the initial deployment of your directory server. Follow the recommendations for deployments in this section.

Administrators also should appropriately tune the Sun OpenDS Standard Edition directory server and its Java Virtual Machine (JVM™) to ensure that adequately sized hardware is made available to support heavy write operations. For more information, see [“Configuring the JVM, Java Options, and Database Cache” in *Sun OpenDS Standard Edition 2.0 Installation Guide*](#).

Sun OpenDS Standard Edition 2.0 Limitations

- The Sun OpenDS Standard Edition directory server provides full LDAP v3 support, except for alias dereferencing, and limited support for LDAPv2.
- Account lockout is supported in a single-server environment only.
- The Sun OpenDS Standard Edition 2.0 directory server is not integrated into the Windows graphical interface.
- The Sun OpenDS Standard Edition 2.0 directory server is not currently designed to be a complete replacement for Sun Directory Server Enterprise Edition. In a future release, there will be a replication mechanism between the two products.
- Although the Sun OpenDS Standard Edition software has been designed for n-way multi-master replication, testing has focused on up to eight replication servers in a topology.

Sun OpenDS Standard Edition Software Recommendations

- The Sun OpenDS Standard Edition directory server provides better performance when the database files are cached entirely into memory.
- To fully benefit from the extensive testing of the Sun OpenDS Standard Edition software, use the Solaris 10 or Linux operating systems.
- The default settings of the Sun OpenDS Standard Edition directory server are targeted initially at evaluators or developers who are running equipment with a limited amount of resources. For this reason, you should tune the Java virtual machine (JVM) and the directory server itself to improve scalability and performance, particularly for write operations. For more information, see [“Configuring the JVM, Java Options, and Database Cache” in *Sun OpenDS Standard Edition 2.0 Installation Guide*](#).
- If you update the password policy in a replicated environment, make sure to update the password policy on all of the directory servers in the topology.
- You cannot use the `setup` command to configure replication in command-line mode. After you have set up your directory servers by using `setup`, use the `dsreplication` command to initialize the directory servers in your topology.

Note – You can use the GUI setup to configure replication, if you have configured all of the directory servers in the same manner.

- Due to a limitation of the GUI setup import feature, the GUI setup can import a maximum of 2000 entries at a time. To import more than 2000 entries, use the setup utility to perform the initial configuration and then use the `import -ldif` utility to import the remaining data.

Related Documentation

The Sun OpenDS Standard Edition 2.0 documentation is available at <http://docs.sun.com/coll/2508.1>, and includes the following documents:

- *Sun OpenDS Standard Edition 2.0 Installation Guide*
- *Sun OpenDS Standard Edition 2.0 Administration Guide*
- *Sun OpenDS Standard Edition 2.0 Configuration Reference*
- *Sun OpenDS Standard Edition 2.0 Architectural Reference*
- *Sun OpenDS Standard Edition 2.0 Command-Line Usage Guide*
- *Sun OpenDS Standard Edition 2.0 Glossary of LDAP and Directory Terminology*

Known Issues

This section lists the bugs that are known to exist at the time of the Sun OpenDS Standard Edition 2.0 release.

Note – The issue numbers in this section refer to issues logged in Issue Tracker. Numbers that begin with “CR...” refer to issues logged in BugTraq.

- | | |
|------|--|
| 4100 | On OpenSolaris 2009.06, 64-bit, using the default JVM (1.6.0_13), the GUI setup and GUI uninstall do not work correctly. This is caused by a known issue in OpenSolaris 2009.06.

Rename or remove the <code>\$JAVA_HOME/jre/lib/accessibility.properties</code> file and launch the setup or uninstall again. |
| 4082 | If the directory server is running as a Windows Service, running <code>stop-ds</code> as a task does not stop the service.

<i>Workaround:</i> Run the <code>stop-ds</code> command locally, without scheduling it as a task. |
| 4053 | On Windows systems, the output of non-ASCII characters is garbled in the French, Spanish, and German locales.

<i>Workaround:</i> Right-click on the title bar of the <code>cmd.exe</code> window and select Properties. On the Font tab, change the font to Lucida Console and click OK. In the <code>cmd.exe</code> window, run the following command:

<code>C:\> chcp 1252</code> |
| 4034 | Some error messages are not translated. Errors with level SEVERE and FATAL are available in English only. |
| 4030 | LDAP client connections record various monitoring statistics for total time and total requests. <code>etimes</code> are recorded in each LDAP connection handler monitor, using attributes of the form <code>ds-mon-resident-time-operation-operations-total-time</code> . Currently the |

etime-related statistics are calculated incorrectly and indicate the time spent queuing a request, rather than the time spent processing the request.

Note – etimes are recorded correctly in the access log.

- 4029 On Windows systems, recurring backups do not work as expected. While the recurring task is created successfully, the backup fails with the following error:
- An error occurred while attempting to back up backend *backendName* \ with the requested configuration
- Non-recurring scheduled backups work as expected.
- 3967 SASL encryption with a cipher strength of low does not work with a Java Runtime Environment (JRE) prior to version 1.6. With JRE 1.5, if a client requests a low cipher strength over a confidentiality quality of protection, the bind fails.
- Workaround:* Use JRE 1.6 or higher if you want to use a low cipher strength.
- 3901 Setup fails when adding a server to an existing replicated topology and importing a large volume of data. Because the new server uses the default JVM options, attempting to initialize the server with a large volume of data fails with an *out of memory* error. There is no way to configure the JVM options during the setup.
- Workaround:* Set up the server in the topology, without initializing it with data, first. Configure the JVM options to be able to handle large volumes of data (see “Configuring the JVM, Java Options, and Database Cache” in *Sun OpenDS Standard Edition 2.0 Installation Guide*). Initialize the server with data by using `dsreplication initialize` (see “Initializing a Replicated Server With Data” in *Sun OpenDS Standard Edition 2.0 Administration Guide*).
- 3435 On Windows systems no SNMP trap is sent if the server is stopped by using `stop-ds` with no credentials. The server is, however, stopped correctly. The SNMP trap is sent if the server is stopped by using `stop-ds -D bindDN -p password`.
- 3430 The `manage-account get-remaining-grace-login-count` subcommand returns a value of one less than the actual number of remaining grace logins.
- 3376 The output of the `--help` subcommand of all the command-line utilities is garbled in non-UTF-8 locales.

- 2798 In rare cases, on particularly slow hardware, the default connection timeout of 10 seconds for some command-line tools is too short. This can result in these commands timing out before a connection has been established.
- 2606 Running the `ldif-diff` command on LDIF files over a certain size (around 600 Kbytes on Windows systems, larger on UNIX systems) results in a memory error similar to the following: Exception in thread "main"
`java.lang.OutOfMemoryError: Java heap space`.
- Workaround:* Increase the heap size and rerun the command. For more information, see “[Configuring the JVM, Java Options, and Database Cache](#)” in *Sun OpenDS Standard Edition 2.0 Installation Guide*
- 1752 In a replicated topology, if a server crashes directly after receiving delete operations, the delete operations might not be replicated to the other servers in the topology.
- Workaround:* The delete operations must be replayed manually on another server in the topology.
- CR 6715991 There are links in the QuickSetup that point to the open source version of the documentation instead of to the corresponding Sun-supported documentation on docs.sun.com.
- Workaround:* Manually navigate to the Sun-supported documentation at <http://docs.sun.com/coll/2508.1>.

