



# Sun Java System Directory Server Enterprise Edition 6.0 Release Notes



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# Preface

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These release notes contain important information available at the time of release. New features and enhancements, known limitations and problems, technical notes, and other information are addressed here. Read this document before you begin using Directory Server Enterprise Edition.

## How This Book Is Organized

This book includes the following chapters.

[Chapter 1, “Compatibility Issues,”](#) addresses compatibility with previous component product versions, and with potential upcoming changes to Directory Server Enterprise Edition software.

[Chapter 2, “Installation Notes,”](#) covers topics related to installation, including hardware and software requirements.

[Chapter 3, “Directory Server Bugs Fixed and Known Problems,”](#) covers fixes and issues for Directory Server.

[Chapter 4, “Directory Proxy Server Bugs Fixed and Known Problems,”](#) covers fixes and issues for Directory Proxy Server.

[Chapter 5, “Identity Synchronization for Windows Bugs Fixed and Known Problems,”](#) covers fixes and issues for Identity Synchronization for Windows.

[Chapter 6, “Directory Editor Bugs Fixed and Known Problems,”](#) covers fixes and issues for Directory Editor.

[Chapter 7, “Directory Server Resource Kit Bugs Fixed and Known Problems,”](#) introduces Directory Server Resource Kit. This chapter also covers fixes and issues for Directory Server Resource Kit.

## Directory Server Enterprise Edition Documentation Set

This Directory Server Enterprise Edition documentation set explains how to use Sun Java System Directory Server Enterprise Edition to evaluate, design, deploy, and administer directory services. In addition, it shows how to develop client applications for Directory Server Enterprise Edition. The Directory Server Enterprise Edition documentation set is available at <http://docs.sun.com/coll/1224.1>.

For an introduction to Directory Server Enterprise Edition, review the following documents in the order in which they are listed.

**TABLE P-1** Directory Server Enterprise Edition Documentation

Document Title	Contents
<i>Sun Java System Directory Server Enterprise Edition 6.0 Release Notes</i>	Contains the latest information about Directory Server Enterprise Edition, including known problems.
<i>Sun Java System Directory Server Enterprise Edition 6.0 Documentation Center</i>	Contains links to key areas of the documentation set.
<i>Sun Java System Directory Server Enterprise Edition 6.0 Evaluation Guide</i>	Introduces the key features of this release. Demonstrates how these features work and what they offer in the context of a fictional deployment that you can implement on a single system.
<i>Sun Java System Directory Server Enterprise Edition 6.0 Deployment Planning Guide</i>	Explains how to plan and design highly available, highly scalable directory services based on Directory Server Enterprise Edition. Presents the basic concepts and principles of deployment planning and design. Discusses the solution life cycle, and provides high-level examples and strategies to use when planning solutions based on Directory Server Enterprise Edition.
<i>Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide</i>	<p>Explains how to install the Directory Server Enterprise Edition software. Shows how to select which components to install, configure those components after installation, and verify that the configured components function properly.</p> <p>For instructions on installing Directory Editor, go to <a href="http://docs.sun.com/coll/DirEdit_05q1">http://docs.sun.com/coll/DirEdit_05q1</a>.</p> <p>Make sure you read the information in <i>Sun Java System Directory Server Enterprise Edition 6.0 Release Notes</i> concerning Directory Editor before you install Directory Editor.</p>
<i>Sun Java System Directory Server Enterprise Edition 6.0 Migration Guide</i>	Provides instructions for upgrading components from earlier versions of Directory Server, Directory Proxy Server, and Identity Synchronization for Windows.
<i>Sun Java System Directory Server Enterprise Edition 6.0 Administration Guide</i>	<p>Provides command-line instructions for administering Directory Server Enterprise Edition.</p> <p>For hints and instructions on using the Directory Service Control Center, DSCC, to administer Directory Server Enterprise Edition, see the online help provided in DSCC.</p> <p>For instructions on administering Directory Editor, go to <a href="http://docs.sun.com/coll/DirEdit_05q1">http://docs.sun.com/coll/DirEdit_05q1</a>.</p> <p>For instructions on installing and configuring Identity Synchronization for Windows, see Part II, "Installing Identity Synchronization for Windows," in <i>Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide</i>.</p>

TABLE P-1 Directory Server Enterprise Edition Documentation (Continued)

Document Title	Contents
<i>Sun Java System Directory Server Enterprise Edition 6.0 Developer's Guide</i>	Shows how to develop server plug-ins with the APIs that are provided as part of Directory Server Enterprise Edition.
<i>Sun Java System Directory Server Enterprise Edition 6.0 Reference</i>	Introduces the technical and conceptual foundations of Directory Server Enterprise Edition. Describes its components, architecture, processes, and features. Also provides a reference to the developer APIs.
<i>Sun Java System Directory Server Enterprise Edition 6.0 Man Page Reference</i>	Describes the command-line tools, schema objects, and other public interfaces that are available through Directory Server Enterprise Edition. Individual sections of this document can be installed as online manual pages.
<i>Sun Java System Identity Synchronization for Windows 6.0 Deployment Planning Guide</i>	Provides general guidelines and best practices for planning and deploying Identity Synchronization for Windows

## Related Reading

The SLAMD Distributed Load Generation Engine (SLAMD) is a Java™ application that is designed to stress test and analyze the performance of network-based applications. It was originally developed by Sun Microsystems, Inc. to benchmark and analyze the performance of LDAP directory servers. SLAMD is available as an open source application under the Sun Public License, an OSI-approved open source license. To obtain information about SLAMD, go to <http://www.slamd.com/>. SLAMD is also available as a java.net project. See <https://slamd.dev.java.net/>.

Java Naming and Directory Interface (JNDI) technology supports accessing the Directory Server using LDAP and DSML v2 from Java applications. For information about JNDI, see <http://java.sun.com/products/jndi/>. The *JNDI Tutorial* contains detailed descriptions and examples of how to use JNDI. This tutorial is at <http://java.sun.com/products/jndi/tutorial/>.

Directory Server Enterprise Edition can be licensed as a standalone product, as a component of Sun Java Enterprise System, as part of a suite of Sun products, such as the Sun Java Identity Management Suite, or as an add-on package to other software products from Sun. Java Enterprise System is a software infrastructure that supports enterprise applications distributed across a network or Internet environment. If Directory Server Enterprise Edition was licensed as a component of Java Enterprise System, you should be familiar with the system documentation at <http://docs.sun.com/coll/1286.2>.

Identity Synchronization for Windows uses Message Queue with a restricted license. Message Queue documentation is available at <http://docs.sun.com/coll/1307.2>.

Identity Synchronization for Windows works with Microsoft Windows password policies.

- Information about password policies for Windows 2003 is available in the [Microsoft documentation](#) online.
- Information about changing passwords, and about group policies in Windows 2003 is available the [Microsoft documentation](#) online.
- Information about the Microsoft Certificate Services Enterprise Root certificate authority is available in the [Microsoft support documentation](#) online.
- Information about configuring LDAP over SSL on Microsoft systems is available in the [Microsoft support documentation](#) online.

## Redistributable Files

Directory Server Enterprise Edition does not provide any files that you can redistribute.

## Default Paths and Command Locations

This section explains the default paths used in the documentation, and gives the locations of commands on different operating systems and deployment types.

### Default Paths

The table in this section describes the default paths that are used in this document. For full descriptions of the files installed, see also Chapter 15, “Directory Server File Reference,” in *Sun Java System Directory Server Enterprise Edition 6.0 Reference*, Chapter 26, “Directory Proxy Server File Reference,” in *Sun Java System Directory Server Enterprise Edition 6.0 Reference*, or Appendix A, “Directory Server Resource Kit File Reference,” in *Sun Java System Directory Server Enterprise Edition 6.0 Reference*.

TABLE P-2 Default Paths

Placeholder	Description	Default Value
<i>install-path</i>	<p>Represents the base installation directory for Directory Server Enterprise Edition software.</p> <p>The software is installed in directories below this base <i>install-path</i>. For example, Directory Server software is installed in <i>install-path/ds6/</i>.</p>	<p>When you install from a zip distribution using <code>dsee_deploy(1M)</code>, the default <i>install-path</i> is the current directory. You can set the <i>install-path</i> using the <code>-i</code> option of the <code>dsee_deploy</code> command. When you install from a native package distribution, such as you would using the Java Enterprise System installer, the default <i>install-path</i> is one of the following locations:</p> <ul style="list-style-type: none"> <li>■ Solaris systems - <code>/opt/SUNWdsee/</code>.</li> <li>■ HP-UX systems - <code>/opt/sun/</code>.</li> <li>■ Red Hat systems - <code>/opt/sun/</code>.</li> <li>■ Windows systems - <code>C:\Program Files\Sun\JavaES5\DSEE</code>.</li> </ul>

TABLE P-2 Default Paths (Continued)

Placeholder	Description	Default Value
<i>instance-path</i>	Represents the full path to an instance of Directory Server or Directory Proxy Server.  The documentation uses <code>/local/ds/</code> for Directory Server and <code>/local/dps/</code> for Directory Proxy Server.	No default path exists. Instance paths must nevertheless always be found on a <i>local</i> file system.  The following directories are recommended: <code>/var</code> on Solaris systems <code>/global</code> if you are using Sun Cluster
<i>serverroot</i>	Represents the parent directory of the Identity Synchronization for Windows installation location	Depends on your installation. Note the concept of a <i>serverroot</i> no longer exists for Directory Server.
<i>iisw-hostname</i>	Represents the Identity Synchronization for Windows instance directory	Depends on your installation
<i>/path/to/cert8.db</i>	Represents the default path and file name of the client's certificate database for Identity Synchronization for Windows	<i>current-working-dir/cert8.db</i>
<i>serverroot/iisw-hostname/logs/</i>	Represents the default path to the Identity Synchronization for Windows local logs for the System Manager, each connector, and the Central Logger	Depends on your installation
<i>serverroot/iisw-hostname/logs/central/</i>	Represents the default path to the Identity Synchronization for Windows central logs	Depends on your installation

### Command Locations

The table in this section provides locations for commands that are used in Directory Server Enterprise Edition documentation. To learn more about each of the commands, see the relevant man pages.

TABLE P-3 Command Locations

Command	Java ES, Native Package Distribution	Zip Distribution
cacaoadm	Solaris -  /usr/sbin/cacaoadm	Solaris -  <i>install-path/dsee6/ cacao_2.0/usr/lib/cacao/bin/cacaoadm</i>
	Red Hat, HP-UX -  /opt/sun/cacao/bin/cacaoadm	Red Hat, HP-UX -  <i>install-path/dsee6/ cacao_2.0/cacao/bin/cacaoadm</i>
	Windows -  <i>install-path\share\ cacao_2.0\bin\cacaoadm.bat</i>	Windows -  <i>install-path\ dsee6\cacao_2.0\bin\cacaoadm.bat</i>
certutil	Solaris -  /usr/sfw/bin/certutil	<i>install-path/dsee6/bin/certutil</i>
	Red Hat, HP-UX -  /opt/sun/private/bin/certutil	
dpadm(1M)	<i>install-path/dps6/bin/dpadm</i>	<i>install-path/dps6/bin/dpadm</i>
dpconf(1M)	<i>install-path/dps6/bin/dpconf</i>	<i>install-path/dps6/bin/dpconf</i>
dsadm(1M)	<i>install-path/ds6/bin/dsadm</i>	<i>install-path/ds6/bin/dsadm</i>
dscmcom(1M)	<i>install-path/dscc6/bin/dscmcom</i>	<i>install-path/dscc6/bin/dscmcom</i>
dsccreg(1M)	<i>install-path/dscc6/bin/dsccreg</i>	<i>install-path/dscc6/bin/dsccreg</i>
dscctest(1M)	<i>install-path/dscc6/bin/dscctest</i>	<i>install-path/dscc6/bin/dscctest</i>
dsconf(1M)	<i>install-path/ds6/bin/dsconf</i>	<i>install-path/ds6/bin/dsconf</i>
dsee_deploy(1M)	Not provided	<i>install-path/dsee6/bin/dsee_deploy</i>
dsmig(1M)	<i>install-path/ds6/bin/dsmig</i>	<i>install-path/ds6/bin/dsmig</i>
entrycmp(1)	<i>install-path/ds6/bin/entrycmp</i>	<i>install-path/ds6/bin/entrycmp</i>
filddif(1)	<i>install-path/ds6/bin/filddif</i>	<i>install-path/ds6/bin/filddif</i>
idsktune(1M)	<i>install-path/dsrk6/bin/idsktune</i>	<i>install-path/dsrk6/bin/idsktune</i>
insync(1)	<i>install-path/ds6/bin/insync</i>	<i>install-path/ds6/bin/insync</i>
ns-accountstatus(1M)	<i>install-path/ds6/bin/ns-accountstatus</i>	<i>install-path/ds6/bin/ns-accountstatus</i>
ns-activate(1M)	<i>install-path/ds6/bin/ns-activate</i>	<i>install-path/ds6/bin/ns-activate</i>
ns-inactivate(1M)	<i>install-path/ds6/bin/ns-inactivate</i>	<i>install-path/ds6/bin/ns-inactivate</i>



TABLE P-3 Command Locations (Continued)

Command	Java ES, Native Package Distribution	Zip Distribution
repldisc(1)	<i>install-path/ds6/bin/repldisc</i>	<i>install-path/ds6/bin/repldisc</i>
schema_push(1M)	<i>install-path/ds6/bin/schema_push</i>	<i>install-path/ds6/bin/schema_push</i>
smcwebserver	Solaris, Linux, HP-UX - <i>/usr/sbin/smcwebserver</i>	This command pertains only to Directory Service Control Center, which is not available in the zip distribution.
	Windows - <i>install-path\share\webconsole\bin\smcwebserver</i>	
wcadmin	Solaris, Linux, HP-UX - <i>/usr/sbin/wcadmin</i>	This command pertains only to Directory Service Control Center, which is not available in the zip distribution.
	Windows - <i>install-path\share\webconsole\bin\wcadmin</i>	

## Typographic Conventions

The following table describes the typographic changes that are used in this book.

TABLE P-4 Typographic Conventions

Typeface	Meaning	Example
AaBbCc123	The names of commands, files, and directories, and onscreen computer output	Edit your <code>.login</code> file. Use <code>ls -a</code> to list all files. <code>machine_name% you have mail.</code>
<b>AaBbCc123</b>	What you type, contrasted with onscreen computer output	<code>machine_name% su</code> Password:
<i>AaBbCc123</i>	A placeholder to be replaced with a real name or value	The command to remove a file is <code>rm filename</code> .
<i>AaBbCc123</i>	Book titles, new terms, and terms to be emphasized (note that some emphasized items appear bold online)	Read Chapter 6 in the <i>User's Guide</i> . A <i>cache</i> is a copy that is stored locally. Do <i>not</i> save the file.

## Shell Prompts in Command Examples

The following table shows default system prompts and superuser prompts.

TABLE P-5 Shell Prompts

Shell	Prompt
C shell on UNIX and Linux systems	machine_name%
C shell superuser on UNIX and Linux systems	machine_name#
Bourne shell and Korn shell on UNIX and Linux systems	\$
Bourne shell and Korn shell superuser on UNIX and Linux systems	#
Microsoft Windows command line	C:\

## Symbol Conventions

The following table explains symbols that might be used in this book.

TABLE P-6 Symbol Conventions

Symbol	Description	Example	Meaning
[ ]	Contains optional arguments and command options.	ls [-l]	The -l option is not required.
{   }	Contains a set of choices for a required command option.	-d {y n}	The -d option requires that you use either the y argument or the n argument.
\${ }	Indicates a variable reference.	\${com.sun.javaRoot}	References the value of the com.sun.javaRoot variable.
-	Joins simultaneous multiple keystrokes.	Control-A	Press the Control key while you press the A key.
+	Joins consecutive multiple keystrokes.	Ctrl+A+N	Press the Control key, release it, and then press the subsequent keys.
→	Indicates menu item selection in a graphical user interface.	File → New → Templates	From the File menu, choose New. From the New submenu, choose Templates.

## Documentation, Support, and Training

The Sun web site provides information about the following additional resources:

- Documentation (<http://www.sun.com/documentation/>)
- Support (<http://www.sun.com/support/>)
- Training (<http://www.sun.com/training/>)

## Third-Party Web Site References

Third-party URLs are referenced in this document and provide additional, related information.

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## Searching Sun Product Documentation

Besides searching for Sun product documentation from the docs.sun.com web site, you can use a search engine of your choice by typing the following syntax in the search field:

*search-term* site:docs.sun.com

For example, to search for Directory Server, type the following:

"Directory Server" site:docs.sun.com

To include other Sun web sites in your search, such as java.sun.com, www.sun.com, and developers.sun.com, use sun.com in place of docs.sun.com in the search field.

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# Compatibility Issues

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This chapter covers features that have been deprecated or removed from Directory Server Enterprise Edition component products. This chapter also covers features that are susceptible to removal, and functionality that is susceptible to deprecation for Directory Server Enterprise Edition component products.

This chapter includes the following sections:

- “Platform Support” on page 13
- “Administration Server and Console” on page 14
- “Directory Proxy Server Changes” on page 14
- “Directory Server Changes” on page 14
- “Directory Server Resource Kit Changes” on page 16
- “Identity Synchronization for Windows Changes” on page 16

Classifications of interface stability are provided per manual page entry in *Sun Java System Directory Server Enterprise Edition 6.0 Man Page Reference*.

## Platform Support

In a future release of Directory Server Enterprise Edition, support for Red Hat 2.1, Windows 2000, and J2SE platform 1.4 might be removed. To be prepared, start planning the transition to newer versions of Red Hat, Windows, and the Java SE platform.

## System Virtualization Support

System virtualization is a technology that enables multiple operating system (OS) instances to execute independently on shared hardware. Functionally, software deployed to an OS hosted in a virtualized environment is generally unaware that the underlying platform has been virtualized. Sun performs testing of its Sun Java System products on select system virtualization and OS combinations to help validate that the Sun Java System products continue to function on properly sized and configured virtualized environments as they do on non-virtualized systems. For information about Sun support for Sun Java System products in virtualized environments, see <http://docs.sun.com/doc/820-4651>.

## Administration Server and Console

Administration Server and the Java Swing-based Console used today for remote graphical administration of Identity Synchronization for Windows might be replaced. Directory Service Control Center has been implemented to allow full browser-based service management, with easier configuration for access through a firewall.

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**Note** – Directory Proxy Server and Directory Server already use Directory Service Control Center. *Directory Proxy Server and Directory Server no longer use the Server Root architecture, but instead the new administration framework.*

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As a result, the following commands might not be included in a future release, even for Identity Synchronization for Windows:

- `start-admin`
- `stop-admin`
- `startconsole`

In addition, everything in `o=NetscapeRoot`, might change. In particular, `o=NetscapeRoot` might no longer be present. The Server Root architecture might be replaced by the new administration framework.

Furthermore, Directory Server chaining cannot be configured through Directory Service Control Center.

## Directory Proxy Server Changes

No automatic migration path exists to move a previous configuration to Directory Proxy Server 6.0. Instead, see Chapter 6, “Migrating Directory Proxy Server,” in *Sun Java System Directory Server Enterprise Edition 6.0 Migration Guide* for details.

## Directory Server Changes

The legacy command-line tools for managing Directory Server instances are deprecated.

The following tools have already been removed.

- `db2index`
- `directoryserver`
- `monitor`
- `suffix2instance`
- `vlvindex`

The following tools might be removed from a future release.

- bak2db
- db2bak
- db2ldif
- ldif2db
- restart-slapd
- start-slapd
- stop-slapd

The new command line tools, `dsadm` and `dsconf`, and other commands replace the functionality provided by the tools listed. See “Command Line Changes” in *Sun Java System Directory Server Enterprise Edition 6.0 Migration Guide* for details.

For a detailed discussion of administration related Directory Server changes, see Chapter 5, “Architectural Changes in Directory Server 6.0,” in *Sun Java System Directory Server Enterprise Edition 6.0 Migration Guide*.

Before migrating a replicated server topology, review Chapter 4, “Migrating a Replicated Topology,” in *Sun Java System Directory Server Enterprise Edition 6.0 Migration Guide*. Support for legacy replication with Directory Server 4 has been removed from this release. Sun Microsystems ended support for Directory Server 4 in January 2004.

When you create a Directory Server instance, password policy is configured initially backwards-compatible. After upgrading, you change the compatibility mode to enable richer password policy configuration. Directory Server manages the conversion. In a future release, the backwards-compatible password policy configuration might be removed.

Also, when you create a Directory Server instance, support for the modify DN operation is disabled. After upgrade all server instances in your replication topology, the modify DN operation can be replicated properly. At that point, you can enable support for the modify DN operation on each server instances. Use the `dsconf set-server-prop moddn-enabled: on` command for this purpose.

Directory Server chaining is deprecated and might be removed in a future release. Chaining is not configurable through Directory Service Control Center, nor is chaining configurable through the new command line tools. Most deployments enabled by chaining are now enabled using features of Directory Proxy Server. For example, data distribution, global account lockout across an entire replication topology, and merging directory information trees can be done with Directory Proxy Server. For legacy applications that continue to rely on chaining, you can configure the chained suffix plug-in with the `ldapmodify` command to set attributes for chaining. The attributes are listed in `dse.ldif(4)`.

Chapter 2, “Changes to the Plug-In API Since Directory Server 5.2,” in *Sun Java System Directory Server Enterprise Edition 6.0 Developer’s Guide* and Chapter 3, “Changes to the Plug-In API From Directory Server 4 to Directory Server 5.2,” in *Sun Java System Directory Server Enterprise Edition 6.0 Developer’s Guide* detail plug-in API changes. Interfaces identified there as deprecated might be removed in a future release.

## Directory Server Resource Kit Changes

“[About Directory Server Resource Kit](#)” on page 75 explains what is provided in this release of Directory Server Resource Kit.

The LDAP utility manual pages on Sun Solaris systems do not document the version of the LDAP utilities `ldapsearch`, `ldapmodify`, `ldapdelete`, and `ldapadd` delivered with Directory Server Enterprise Edition. The commands might no longer be delivered separately on Solaris systems, but instead integrated with the commands provided by the operating system in a future version. See *Sun Java System Directory Server Enterprise Edition 6.0 Man Page Reference* for the manual pages for the LDAP client tools.

## Identity Synchronization for Windows Changes

The following changes were made to the product for the version.

Future releases of Identity Synchronization for Windows might discontinue support for all versions and service packs of Microsoft Windows NT. Microsoft ended support for Windows NT in June 2004.

Before upgrading Identity Synchronization for Windows, read Chapter 7, “Migrating Identity Synchronization for Windows,” in *Sun Java System Directory Server Enterprise Edition 6.0 Migration Guide*.



# Installation Notes

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This chapter tells you where to download Directory Server Enterprise Edition software, and lists primary installation requirements.

This chapter includes the following sections:

- “Getting the Software” on page 17
- “Hardware Requirements” on page 18
- “Operating System Requirements” on page 19
- “Software Dependency Requirements” on page 22
- “Installation Privileges and Credentials” on page 26
- “Installation Notes for Identity Synchronization for Windows” on page 27

## Getting the Software

You can download Sun Java System Directory Server Enterprise Edition 6.0 software from the following location.

[http://www.sun.com/software/products/directory\\_srvr\\_ee/get.jsp](http://www.sun.com/software/products/directory_srvr_ee/get.jsp)

The download page serves as a starting point to direct you to the proper downloads depending on the distribution type you need to download. Directory Server Enterprise Edition 6.0 is available in the following distributions.

- The *Sun Java Identity Management Suite* distribution contains the native package distribution that is provided as part of Sun Java Enterprise System. The Java Enterprise System distribution does include Directory Service Control Center.
- The *zip* distribution is not based on native packages. The zip distribution does not include Directory Service Control Center.

For a comparison of the two distributions, see “Directory Server Enterprise Edition Software Distributions” in *Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide*.

## Hardware Requirements

This section covers hardware requirements for Directory Server Enterprise Edition component products.

- [“Directory Proxy Server Hardware Requirements” on page 18](#)
- [“Directory Server Hardware Requirements” on page 18](#)
- [“Identity Synchronization for Windows Hardware Requirements” on page 19](#)
- [“Directory Editor Hardware Requirements” on page 19](#)

### Directory Proxy Server Hardware Requirements

Directory Proxy Server software requires the following hardware support.

Component	Platform Requirement
RAM	1-2 GB for evaluation purposes 4 GB for production servers
Local disk space	300 MB disk space for binaries. By default, binaries installed from native packages are placed in <code>/opt</code> on UNIX® systems.  For evaluation purposes, an additional 2 GB local disk space per server instance is sufficient to hold server logs when the default configuration is used.  Directory Proxy Server does not support installation on NFS-mounted file systems. Sufficient space should be provided for the instance, and for all files used by the instance on a local file system in, for example, <code>/var/opt</code> or <code>/local</code> .

### Directory Server Hardware Requirements

Directory Server software requires the following hardware support.

Component	Platform Requirement
RAM	1-2 GB for evaluation purposes At least 4 GB and probably more for production servers
Local disk space	300 MB disk space for binaries. By default, binaries installed from native packages are placed in <code>/opt</code> on UNIX systems. For evaluation purposes, an additional 2 GB local disk space for server software might be sufficient.  If you are using Directory Server, consider that entries stored in Directory Server use local disk space. Directory Server does not support logs and databases installed on NFS-mounted file systems. Sufficient space should be provided for the database on a local file system in, for example, <code>/var/opt</code> or <code>/local</code> . For a typical production deployment with a maximum of 250,000 entries and no binary attributes such as photos, 4 GB might be sufficient.

## Identity Synchronization for Windows Hardware Requirements

Identity Synchronization for Windows software requires the following hardware support.

Component	Platform Requirement
RAM	512 MB for evaluation purposes wherever components are installed. More memory is preferred.
Local disk space	400 MB disk space for minimal installation alongside Directory Server.

## Directory Editor Hardware Requirements

Make sure you read [Chapter 6, “Directory Editor Bugs Fixed and Known Problems,”](#) in these release notes before you install Directory Editor.

Also, see the Directory Editor documentation at [http://docs.sun.com/coll/DirEdit\\_05q1](http://docs.sun.com/coll/DirEdit_05q1) for details.

## Operating System Requirements

This section covers operating systems, patches and service packs required to support Directory Server Enterprise Edition component products.

### Directory Server, Directory Proxy Server, and Directory Server Resource Kit Operating System Requirements

Directory Server, Directory Proxy Server, and Directory Server Resource Kit which includes Directory SDK for C and Directory SDK for Java share the same operating system requirements. These software components run on the operating system versions listed here. Certain operating systems require additional service packs or patches as shown in the following table.

Operating System	Supported OS Versions	Additional Required Software
Solaris™ Operating System	Solaris 10 Operating System for SPARC®, x86, and AMD x64 architectures	<p>Patches:</p> <ul style="list-style-type: none"> <li>■ (SPARC) 118833, 119689, 119963, and 122032 or substitute patches</li> <li>■ (x86/x64) 118855, 119964, 121208, and 122033 or substitute patches</li> </ul>
	Solaris 9 Operating System for SPARC, x86, and AMD x64 architectures	<p>Patches:</p> <ul style="list-style-type: none"> <li>■ (SPARC) 111711, 111712, 111722, 112874, 112963, 113225, 114344, 114370, 114371, 114372, and 114373 or substitute patches</li> <li>■ (x86/x64) 111713, 111728, 113986, 114345, 114427, 114428, 114429, 114430, 114432, 116545, and 117172 or substitute patches</li> </ul>
HP-UX	HP-UX 11.11 for PA-RISC 2.0	<p>Patches:</p> <ul style="list-style-type: none"> <li>■ PHSS_30966</li> <li>■ PHCO_29328</li> <li>■ PHKL_25842</li> </ul> <p>TOUR 3.1 depots</p>
Red Hat Linux (On 64-bit Red Hat systems, Directory Server runs in 32-bit mode.)	Red Hat Advanced Server 3.0 U4 for x86 and AMD x64	No additional software is required.
	Red Hat Advanced Server 4.0 U2 for x86 and AMD x64	<p>The following compatibility libraries are recommended:</p> <p>compat-gcc-32-3.2.3-47.3.i386.rpm</p> <p>compat-gcc-32-c++-3.2.3-47.3.i386.rpm</p> <p>The following compatibility library is required:</p> <p>compat-libstdc++-33-3.2.3-47.3.rpm</p> <p>Even when running Red Hat on a 64-bit system, you install 32-bit system libraries.</p>
Microsoft Windows (On 64-bit Windows systems, Directory Server runs in 32-bit mode.)	Windows 2000 Server	Service Pack 4
	Windows 2000 Advanced Server	Service Pack 4
	Windows 2003 Server Standard Edition	Service Pack 1
	Windows 2003 Server Enterprise Edition	Service Pack 1

You can obtain Solaris patch clusters and avoid downloading most individual patches. To obtain Solaris patch clusters, follow these steps:

1. Go to the SunSolve patch page at <http://sunsolve.sun.com/pub-cgi/show.pl?target=patchpage>.
2. Click the Recommended Patch Clusters link.
3. Download the patch cluster for your Solaris OS and Java ES versions.

Directory Server Enterprise Edition software is validated with full installations of the operating systems listed here, not with reduced “base” or “core” installations.

Directory Server runs on Solaris SPARC, on Solaris 10 AMD x64 systems, and on HP-UX PA-RISC systems in 64-bit mode. Directory Server runs on Solaris x86 systems, on Solaris 9 AMD x64 systems, on Red Hat systems, and on Windows systems in 32-bit mode.

### Identity Synchronization for Windows Operating System Requirements

Identity Synchronization for Windows components run on the operating system versions listed here. Certain operating systems require additional service packs or patches as shown in the following tables.

### Identity Synchronization for Windows Requirements for Core Components and Connectors

The following table lists operating system requirements for core components, and connectors for Directory Server and Active Directory.

Operating System	Supported OS Versions	Additional Required Software
Solaris Operating System	Solaris 10 Operating System for UltraSPARC®, and x86 (Pentium) architectures	No additional software is required.
	Solaris 9 Operating System for SPARC architectures	No additional software is required.
	Solaris 8 Operating System for UltraSPARC architectures	No additional software is required.
Red Hat Linux	Red Hat Advanced Server 3.0	No additional software is required.

Operating System	Supported OS Versions	Additional Required Software
Microsoft Windows	Windows 2000 Server	Service Pack 4
	Windows 2000 Advanced Server	Service Pack 4
	Windows 2003 Server Standard Edition	Latest security updates
	Windows 2003 Server Enterprise Edition	Latest security updates

### Identity Synchronization for Windows Requirements for Windows NT

The following table lists operating system requirements for Windows NT components and connectors.

Operating System	Supported OS Versions	Additional Required Software
Microsoft Windows	Windows NT 4.0 Server Primary Domain Controller, x86 architectures	Service Pack 6A

### Directory Editor Operating System Requirements

Make sure you read [Chapter 6, “Directory Editor Bugs Fixed and Known Problems,”](#) in these release notes before you install Directory Editor.

Also, see the Directory Editor documentation at [http://docs.sun.com/coll/DirEdit\\_05q1](http://docs.sun.com/coll/DirEdit_05q1) for details.

## Software Dependency Requirements

Directory Server relies on the Network Security Services, NSS, layer for cryptographic algorithms. NSS has been validated to work with the Sun cryptographic framework provided on Solaris 10 systems, which supports cryptographic acceleration devices.

On Windows systems, Directory Server requires ActivePerl software to use account activation and manual schema replication commands. Directory Server Enterprise Edition does not provide ActivePerl. The dependency concerns the following commands.

- ns-accountstatus(1M)
- ns-activate(1M)
- ns-inactivate(1M)
- schema\_push(1M)

Directory Proxy Server requires a Java runtime environment, JRE, version of at least 1.5.0\_09 on Solaris, Red Hat and Windows systems and 1.5.0\_03 on HP-UX systems. The zip

distribution installs JRE. When you install from the zip distribution with the `JAVA_HOME` environment variable set, the Java runtime environment specified by `JAVA_HOME` is used. If `JAVA_HOME` is set for your environment, make sure the version is up to date.

Directory Proxy Server has been validated with the following JDBC data sources, using the drivers provided with the software.

- DB2 9.
- JavaDB 10.1.3.1.
- MySQL 5.0.

When accessing a MySQL data source through Directory Proxy Server to create a JDBC data view, Directory Proxy Server requires a MySQL JDBC driver version of at least 5.0.4.

- Oracle 9i Database.

On Windows systems, the `dsee_deploy` command cannot properly register software with the Common Agent Container, `cacao`, when you run the command from an MKS shell. This can occur when your MKS `PATH` does not include the `system-drive:\system32` folder. Alternatively, run the command on the Windows native command line.

Although Part II, “Installing Identity Synchronization for Windows,” in *Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide* lists support only for Directory Server 6.0, Identity Synchronization for Windows directory server connectors do support Directory Server 5.2 Patch 5.

Before you can install Identity Synchronization for Windows, you must install the prerequisite Sun Java System software components, including JRE and Message Queue.

- No JRE is provided with Identity Synchronization for Windows.  
Identity Synchronization for Windows installer requires J2SE or JRE 1.5.0\_09.  
Identity Synchronization for Windows requires JRE 1.5.0\_09 on Windows NT.
- The Identity Synchronization for Windows bundle for this release includes Message Queue 3.6.

When installing Identity Synchronization for Windows, you must specify the path to the version of Message Queue to use. The Identity Synchronization for Windows installation program then installs a required broker into Message Queue, so that Identity Synchronization for Windows can use Message Queue for synchronization.

*On Windows systems, Identity Synchronization for Windows supports only Message Queue 3.6. You therefore install Message Queue 3.6 provided with the Identity Synchronization for Windows bundle.*

Message Queue 3.7 is, however, installed as a Java Enterprise System shared component. On Windows systems by default you can therefore end up with both Message Queue 3.6 and Message Queue 3.7 installed. If you install Java Enterprise System components alongside Identity Synchronization for Windows on a Windows system, be sure Message Queue 3.7 is not selected.

On Windows systems, the JRE installed with Console and Administration Server does not include fixes for daylight savings time changes. You must apply fixes for daylight savings time changes after installation. To fix the JRE, use the `tzupdater` tool, described at [http://java.sun.com/javase/tzupdater\\_README.html](http://java.sun.com/javase/tzupdater_README.html). The JRE to fix is found after installation under `ServerRoot/bin/base/jre/` where you installed the Console and Administration Server.

You can run Identity Synchronization for Windows in a firewall environment. The following sections list the server ports that you must expose through the firewall.

- “Identity Synchronization for Windows Message Queue Requirements in a Firewall Environment” on page 25
- “Identity Synchronization for Windows Installer Requirements in a Firewall Environment” on page 25
- “Identity Synchronization for Windows Core Component Requirements in a Firewall Environment” on page 25
- “Identity Synchronization for Windows Console Requirements in a Firewall Environment” on page 25
- “Identity Synchronization for Windows Connector Requirements in a Firewall Environment” on page 25
- “Identity Synchronization for Windows Directory Server Plug-in Requirements in a Firewall Environment” on page 26



## Identity Synchronization for Windows Message Queue Requirements in a Firewall Environment

By default, Message Queue uses dynamic ports for all services except for its port mapper. To access the Message Queue broker through a firewall, the broker should use fixed ports for all services.

After installing the core, you must set the `imq.<service_name>.<protocol_type>.port` broker configuration properties. Specifically, you must set the `imq.ssljms.tls.port` option. Refer to the Message Queue documentation for more information.

## Identity Synchronization for Windows Installer Requirements in a Firewall Environment

The Identity Synchronization for Windows installer must be able to communicate with the Directory Server acting as the configuration directory.

- If you are installing an Active Directory connector, the installer must be able to contact Active Directory's LDAP port, 389.
- If you are installing a Directory Server connector or a Directory Server plug-in (subcomponent), the installer must be able to contact the Directory Server LDAP port, default 389.

## Identity Synchronization for Windows Core Component Requirements in a Firewall Environment

The Message Queue, system manager, and command line interface must be able to reach the Directory Server where the Identity Synchronization for Windows configuration is stored.

## Identity Synchronization for Windows Console Requirements in a Firewall Environment

The Identity Synchronization for Windows console must be able to reach the following:

- Active Directory over LDAP, port 389, or LDAPS, port 636
- Active Directory Global Catalog over LDAP, port 3268, or LDAPS, port 3269
- Each Directory Server over LDAP or LDAPS
- Administration Server
- Message Queue

## Identity Synchronization for Windows Connector Requirements in a Firewall Environment

All connectors must be able to communicate with Message Queue.

In addition, the following connector requirements must be met.

- The Active Directory connector must be able to access the Active Directory Domain Controller over LDAP, port 389, or LDAPS, port 636.
- The Directory Server connector must be able to access Directory Server instances over LDAP, default port 389, or LDAPS, default port 636.

## Identity Synchronization for Windows Directory Server Plug-in Requirements in a Firewall Environment

Each Directory Server plug-in must be able to reach the Directory Server connector's server port, which was chosen when the connector was installed. Plug-ins that run in Directory Server Master replicas must be able to connect to Active Directory's LDAP, port 389, or LDAPS, port 636. The plug-ins that run in other Directory Server replicas must be able to reach the master Directory Server LDAP and LDAPS ports.

## Installation Privileges and Credentials

This section covers privileges or credentials required for installation of Directory Server Enterprise Edition component products.

- “Directory Server, Directory Proxy Server, Directory Service Control Center, and Directory Server Resource Kit Privileges” on page 26
- “Identity Synchronization for Windows Installation Privileges and Credentials” on page 26

### Directory Server, Directory Proxy Server, Directory Service Control Center, and Directory Server Resource Kit Privileges

You must have the following privileges when installing Directory Server, Directory Proxy Server, or Directory Service Control Center from the Java Enterprise System native package based distribution.

- On Solaris and Red Hat systems, you must install as root.
- On Windows systems, you must install as Administrator.

You can install Directory Server, Directory Proxy Server, and Directory Server Resource Kit from the zip distribution without special privileges.

See “Directory Server Enterprise Edition Software Distributions” in *Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide* for details.

### Identity Synchronization for Windows Installation Privileges and Credentials

To install Identity Synchronization for Windows, you must provide credentials for the following.

- Configuration Directory Server.
- Directory Server being synchronized.
- Active Directory.

See “Installing Core” in *Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide* for details.

In addition, you must have the following privileges to install Identity Synchronization for Windows.

- On Solaris and Red Hat systems, you must install as root.
- On Windows systems, you must install as Administrator.

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**Note** – When you enter passwords by using the text-based installer, the program automatically masks the passwords so passwords are not echoed in the clear. The text-based installer is supported on Solaris and Red Hat systems only.

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## Installation Notes for Identity Synchronization for Windows

Before installing fresh bits of Identity Synchronization for Windows, be sure to read Chapter 4, “Preparing for Installation,” in *Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide*.

### Enabling Account Lockout on Identity Synchronization for Windows

To enable the Account Lockout feature, you must map certain attributes, which are different in Directory Server and in Active Directory. Account Lockout must be enabled. Password policies must be the same on both AD and Directory Server. With this configuration, lockout and unlockout events can flow bidirectionally between Active Directory and Directory Server.

Identity Synchronization for Windows can synchronize the following events between Active Directory and Directory Server:

- Lockout events from Active Directory to Directory Server
- Lockout events from Directory Server to Active Directory
- Manual unlockout events from Active Directory to Directory Server
- Manual unlockout events from Directory Server to Active Directory

### Prerequisites for Account Lockout

The attribute `lockoutDuration` should be set to the same value at both the places before enabling the account lockout feature. Make sure that the system time is also uniform across the distributed setup. Otherwise, the lockout events can expire if the `lockoutDuration` is less than the difference in the system dates.

### Using the Account Lockout Feature

To enable Account lockout synchronization, you need to map attributes `accountUnlockTime` (Directory Server) and `lockoutTime` (AD). `accountUnlockTime` can be selected in the console after loading the schema with `passwordObject` object class.

### **Requirement to Use Account Lockout Feature**

Account Lockout policy should be similar on Active Directory and on Directory Server data sources.

- Duration of account lockout should be set to same value on the Active Directory and on the Directory Server data source.
- LockoutTime at Active Directory data source has to be mapped to AccountUnLockoutTime at Directory Server data source.

See the README that accompanies the software for installation details.

### **Using Windows 2003 Server and Identity Synchronization for Windows**

On Windows 2003 Server, the default password policy enforces strict passwords, which is not the default password policy on Windows 2000.

# Directory Server Bugs Fixed and Known Problems

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This chapter contains important, product-specific information available at the time of release of Directory Server.

This chapter includes the following sections:

- [“Bugs Fixed in Directory Server” on page 29](#)
- [“Known Problems and Limitations in Directory Server” on page 39](#)

## Bugs Fixed in Directory Server

This section lists bugs fixed for this release.

The following bugs were fixed since the last release of Directory Server.

- |         |   |
|---------|---|
| 2065190 | Issue with ;binary attributes and compliance with RFC 1274.                           |
| 2073877 | Console process grows when adding users.  |
| 2077615 | Console cannot display an access log greater than 60 MB when a filter is used.        |
| 2078936 | Log size settings over 2 GB do not work.  |
| 2081711 | Directory Server crashes when a client sends a certificate without an issuer DN.      |
| 2096858 | Adding an entry crashes Directory Server.   |
| 2096883 | Directory Server dumps core due to an incorrect search performed by a plug-in.        |
| 2096891 | Deadlock in access control plug-in.   |
| 2096903 | Unable to configure pass-through authentication with URLs containing the same suffix. |
| 2096910 | DN checking operation is not properly carried out by Directory Server.                |
| 2096948 | Regression related to ignoring referrals.   |
| 2096972 | ldapsearch -A fails against a chained database.                                       |

- 2096974 During shutdown, referential integrity plug-in can crash Directory Server.
- 2097033 VLV indexes are broken.
- 2097063 Binding with certificate authentication and a simple bind can cause Directory Server to hang.
- 2097069 Replicated updates can stop replication.
- 2097104 Crash while deleting a browsing index.
- 2097113 Subtree plug-in logs superfluous postoperation warnings.
- 2097137 Referential Integrity plug-in does not allocate enough space for internal search.
- 2097199 Password expiration does not completely prevent users from binding.
- 2097204 Strange reverse DNS request issued at startup.
- 2097230 All attribute subtypes get deleted from index.
- 2097291 Directory Server dumps core in `acl_access_allowed()`.
- 2097364 Wildcard searches work poorly with single character attribute values.
- 2097365 Some wildcard searches trigger problems.
- 2097370 `ldif2db -n userRoot -i test.ldif` causes a bus error.
- 2097382 ACIs and ACLs do not take extra whitespace into account.
- 2097440 Memory leak with persistent searches.
- 2097454 Directory Server dumps core when checking the history of a clear text password.
- 2097508 Persistent search returns tombstone purging events.
- 2097539 Start TLS is not thread safe.
- 2097566 bak2db fails with nested directory databases.
- 2097599 Buffer Overflow in `re_comp()`.
- 2097622 Significant memory leak.
- 2097653 Directory Server core dumps in `preop_modify()` when the attribute uniqueness plug-in is active.
- 2097856 Directory Server crashes on receipt of an invalid PDU.
- 2098089 Substring index becomes corrupt if one of similar multiple values is deleted.
- 2099319 Installation fails on HP-UX.
- 2099405 Replication commands should have a timeout parameter.
- 2099420 Crash when trimming the retro changelog.

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- 2099426 Duplicate uid attribute values arise when encryption is performed.
  - 2099434 db2ldif -r removes the guardian file.
  - 2101109 The audit log can fail to rotate as configured.
  - 2101130 Access log rotation does not occur upon restart.
  - 2101137 Some tombstone entries are not being purged.
  - 2101144 Could not set referrals for replica errors.
  - 2101156 Unable to release IDs on the consumer after the link is down for more than 5 minutes.
  - 2101162 VLV search based on empty container returns `err=1`.
  - 2101166 Memory leak in search on suffix containing referral subsuffix.
  - 2101187 Adding entry with "\*" chars in DN field incur full scan of tombstones.
  - 2101191 `repldisc` does not properly work with multiple instances on the same host.
  - 2101202 A modify or delete of more than five values deletes all values.
  - 2101217 Crash when removing a RUV when using multiple Solaris 9 x86 masters.
  - 2101232 DENY macro ACI applies to entries that should not be affected.
  - 2101246 Log settings for minimum free disk space do not work as expected.
  - 2101260 Directory Server stops responding when LDAP search with too many attributes is sent.
  - 2101264 Search operation with "-" char in filter leads to failure.
  - 2101312 Link loss longer than five minutes causes consumer not to sync after network recovery.
  - 2101314 ADD not replicated, DEL cannot be replayed when using multi-master replication over SSL.
  - 2101332 Expiration time unit does not take the right default value.
  - 2101395 Schema deletions not propagated correctly.
  - 2101399 Consumers hang when schema is pushed over replication.
  - 2106623 Transaction logs are not always deleted.
  - 2112994 Special DN with ; and , crashes Directory Server.
  - 2113363 Internal search causes Console to display warning.
  - 2115512 Directory Server crashes when changelog trimming is enabled.

- 2118489 Master and consumer expand superior object class differently.
- 2118767 Slow import with complex DIT.
- 2119156 Directory Server crashes at startup in ACI code.
- 2119159 Crash occurs when reading the replication agreement.
- 2119577 Chaining downcasts DNs.
- 2120295 ACL does not work as expected if nested group is specified as groupdn.
- 2120415 Directory Server exits after 4 GB `realloc()`.
- 2120445 Directory Server crashes during a specific search when adding a subsuffix.
- 2120502 Crash at startup when `nsslapd-binary-mode` is set.
- 2120542 Unexpected password is expiring on consumer in %d seconds message reported.
- 2120918 Inconsistency in replicated data between master and consumer.
- 2120950 Multiple password changes can lead to clear-text password.
- 2120951 Directory Server connection is unexpectedly down.
- 2121080 Crash when checking access control during modify operation.
- 2121115 Crash on consumer during schema replication if legacy replication is enabled.
- 2121137 Updates to the retro changelog lost on master.
- 2121247 Excess warning messages about replay of operation already seen.
- 2121679 Race condition occurs when closing connections.
- 2121953 Online index task request and simultaneous access control search leads to hang.
- 2122537 Index corruption with very large number of matches.
- 2122698 Memory leak in individual password policies.
- 2123206 Crash in replication when difference between system clock is greater than 24 hours.
- 2123826 Data inconsistency after restarting masters under load.
- 2123827 Crash when shutting down server as changelog is being trimmed.
- 2124111 Huge memory leak topology using old protocol with mixed versions.
- 2124113 Crash with DSML PDU larger than 2 KB.
- 2124476 Need a tool to check database integrity.
- 2124477 `fildif` cannot handle files larger than 2GB.



- 2124722 Replication halts and restarts with send update now.
- 2124725 Clean RUV task does not remove RUV with read-only replica ID.
- 2124727 Deadlock between replica and connection locks.
- 2124730 Schema replication can miss changes.
- 2124731 Substring searches very slow.
- 2124740 `mmldif` delta files do not contain LDIF update statements.
- 2124975 Crash while processing modification with retro changelog plug-in turned on.
- 2125068 Memory leak when DN normalization fails.
- 2125161 `db2ldif.pl -r` can cause hang.
- 2125445 Adding and deleting an attribute in a single modify operation is not replicated correctly.
- 2125722 Crash if resource limit for number of file descriptors is dynamically increased.
- 2125809 Performance problems when doing searches with the en-US collation rule.
- 2125848 Exit when allocating 4 GB to handle access control for a group member.
- 2126520 Checkpoint forced even when no updates are performed.
- 2126571 CoS does not take effect for entries in nested organization.
- 2126669 Error during the creation of subsuffix or clone under a search workload.
- 2126886 Deadlock in database while evaluating the ACLs during a modify operation.
- 2127020 Replication may be slow to restart after a network outage.
- 2127266 A consumer does not detect there is pending operation and when closing an idle replication connection.
- 2127456 Modification lost when using `ldapmodify`.
- 2127545 Performance issue when deleting non existent attribute.
- 2127627 Deleting multivalued attributes results in high `etime`.
- 2127691 Adding and deleting the same entry on replica can lead to replication issues.
- 2127692 Performance degradation when purging tombstones in multi master environment.
- 2128056 Deletion operation is not flagged as dependent on a previous modification.
- 2128417 Retro Changelog plug-in fails to record changes if regular replication is disabled.
- 2129137 Duplicate unique IDs can be generated.
- 2129138 Allow administrators to reset passwords.

- 2129139 Cannot stop or use master after total update fails when using multi master replication over SSL.
- 2129140 Add the return code for errors that could not be logged in the changelog.
- 2129141 Hub not replicating due to bad hub replica ID, 65535, in hub RUV.
- 2129142 Lack of disk space causes looping in db2bak internal task.
- 2129143 ACI returns incorrect results when fix is applied.
- 2129145 Bad server side sort performance when data contains many identical values.
- 2129147 passwordRetryCount does not get incremented when passwordResetFailureCount is set to 0.
- 2129148 Performance degradation in substring searches.
- 2129149 Memory leak with virtual attributes.
- 2129152 Searches for subtype attributes does not work correctly with nsslapd-search-tune enabled.
- 2129154 Restart of a fractional consumer breaks replication with configuration error.
- 2129155 Crash within SASL bind check.
- 2129159 Hang when replication agreement is initialized from another master.
- 2129161 Infrequent updates on standby replica can cause replication to stop for prolonged periods.
- 2131372 Crash when referential integrity log file is truncated.
- 2131955 Hang when an error occurs during error log rotation.
- 2131982 No further adds possible after first empty replace operation on single-valued, replicated attribute.
- 2132137 Crash in replicated operation.
- 2132359 Log rotation does not work correctly after restart.
- 2132568 Generated CSN is not systematically higher than previous CSN.
- 2132654 Some CoS attributes not generated for entries under nested organizations.
- 2132657 Classic CoS under nested organization does not work as configured.
- 2132929 Bad default value for nsslapd-maxbersize.
- 2133109 Tools needed to monitor completeness, status, and availability of servers in large, multi master deployments.
- 2133110 Schema checking on hubs should be enabled by default.

- 2133155 Invalid values are accepted for minimum password length in individual password policies.
- 2133168 LDIF containing encrypted attribute values corrupts indexes during import.
- 2133351 `ldif2db` has been seen to hang.
- 2133355 Deadlock between tombstone purging thread and access control plug-in.
- 2133503 On Windows systems, DSML request fails when instance path contains a space.
- 2134041 Crash when adding VLV index with incorrect `vlvFilter`.
- 2134409 Remote denial of service attack possible with large memory allocation.
- 2134467 Partial replication can break when several suppliers are configured for changelog trimming.
- 2134470 Merge during `ldif2db` skips keys due to incorrect continuation block prefix.
- 2134480 Memory leak when index contains a continuation block.
- 2134648 The `mmldif` command should support huge files.
- 2134901 Individual password policy specifies plain text, but password in new entry is replicated in encrypted form.
- 2134918 CoS attribute not found on entries after online initialization.
- 2136223 Memory leak in ACI group member evaluation.
- 2136224 When `nsslapd-db-transaction-batch-val` is set, transaction flush fails to enforce the limit.
- 2136869 Import can corrupt state of entries having `userPassword` attributes.
- 2138073 Incorrect page size computation creates indexes with many overflow pages after a reindexing operation.
- 2138081 Substring performance requires improvement.
- 2138837 Entries can be skipped while importing an LDIF file generated with `db2ldif.pl -r`.
- 2139899 `ioBlocktimeout` not always enforced when writing result over secure connection.
- 2139914 Potential crash when renaming corrupted child entry.
- 2140785 Memory leak when handling password histories.
- 2141919 Zero allocation error when retro changelog and TMR plug-in is enabled.
- 2142817 Memory leak during LDAP write operations upon failure to update a matching rule index.

- 2142904 Operational attribute `ent rydn` added before the entry is cached.
- 2143075 VLV searches leak memory.
- 2143076 Restore fails following binary copy when CN attribute does not match case.
- 2143790 Memory leak in decryption code.
- 4537541 Retro changelog plug-in should be executed for selected backends.
- 4538988 Performance issues when searching for tombstone entries.
- 4541437 No feedback from import during delay processing large entries.
- 4541499 Allow more database configuration attributes to be set over LDAP.
- 4542920 Provide a changelog purge vector over LDAP.
- 4738244 Allow a grace login period after passwords expire.
- 4748577 Allow complete replication configuration and management on the command line.
- 4877553 Enable support for `libwrap`.
- 4881004 Set default changelog maximum age to seven days.
- 4882951 Provide frozen mode to allow file system snapshot backups.
- 4883062 Make it possible to import additional entries without initialization.
- 4925250 Incorrect error message when exporting a subtree with `db2ldif -s`.
- 4951154 Modify performance degrades until all entries are modified.
- 4966365 Backend instances called `default` do not work.
- 4972234 Allow account validation through an LDAP bind without the user password.
- 5021269 Adding entries with object class `nsTombstone` can cause replication to fail.
- 5045529 Support required for SASL/GSS encryption.
- 5063150 Make the SNMP agent work with the native operating system agents.
- 5095192 Stopping Directory Server is sometimes slow during poll for results in a replication session.
- 6197516 Need a way or a tool to monitor progress during recovery after a crash.
- 6224962 More control needed over cache sizes.
- 6249904 Changelog database and other databases do not shrink even after data is removed.
- 6252422 Role fails to work on consumer after online initialization.
- 6264095 Allow disabling of anonymous binds.

- 6272729 Need an attribute that shows the groups to which an entry belongs.
- 6290382 Crash on startup with message trying to allocate 0 or a negative number of bytes.
- 6292118 Add port number in access log when a client connection is created.
- 6296288 Need a non-intrusive way to count the number of active persistent searches.
- 6321407 Document plug-in execution order.
- 6333657 Avoid traversing nscpent rydn index when purging tombstones.
- 6341364 Log an error when using connection based access control and the client list is not specified.
- 6343255 Remove the time bomb.
- 6370656 Display connection number under cn=monitor in same format as access log.
- 6394412 Support a plug-in for password syntax checking.
- 6407613 changeNumber is not indexed by default.
- 6411228 Maximum connection backlog queue incorrectly hard coded as 128.
- 6442106 Crash while enabling replication.

The following bugs were found during the beta program, and subsequently fixed.

- 6330266 A disorderly shutdown was detected when memory allocation failed.
- 6340943 Output from the idsync command is misleading.
- 6340950 Error when using an option to create a replication agreement on the command line.
- 6342427 Memory allocation issue leads to no more space message.
- 6342905 Setting the directory administrator password on the command line is confusing.
- 6343490 Password reset and password lockout interact incorrectly.
- 6343505 Result code is misleading for a bind where the password must be reset.
- 6344889 Log rotation subcommand name is not clear.
- 6344890 Command line tools should use the `--D bind-dn` option to specify the administrator.
- 6345610 Command line usage should always list global options.
- 6345613 Output after starting replication on the command line is misleading.
- 6346406 Allow binary copy from a master replica to a dedicated consumer.

- 6348095 Make subcommands for replication configuration easier to understand.
- 6348096 Some subcommands names are misleading.
- 6348098 Password lockout not working properly after a number of failed attempts.
- 6348099 Fix syntax validation property online help.
- 6348101 Make unit sizes consistent when setting configuration property values.
- 6348103 Error in option when listing indexes from the command line.
- 6349174 Import through `dsconf` fails.
- 6355804 Issues arise when configuring replication using the command line.
- 6383106 Directory Service Control Center page to configure server groups leads to JSP not found error.
- 6405227 Adding approximate and substring indexes causes equality indexes to stop working.
- 6412227 The `dsee_deploy` command should work with install directory names only one character in length.
- 6415248 The `uid` attribute is not displayed correctly in the Entry Overview tab of DSCC for POSIX users.
- 6416455 Changing `nsslapd-info` log-area does not change errors log contents.
- 6417038 Allow DSCC to create a server instance running as nobody.
- 6417541 Allow changes to client control settings in the Directory Server Configuration tab of DSCC.
- 6417617 Installation should not remove existing Java version.
- 6421070 Allow DSCC to delete replication agreements.
- 6424456 Clarify how to change the password with `ldapmodify` when `pwdSafeModify` is on.
- 6449394 Allow DSCC to register existing server instances.
- 6451067 Allow DSCC to edit a server location.
- 6451889 The path for the tool to register DSCC with Sun Java Web Console is not valid in the online help.
- 6451892 With a presence index configured, searches still appear unindexed in the access log.
- 6452544 Allow DSCC to work properly when creating servers on Solaris zones.
- 6459897 Fix errors after configuring a suffix through DSCC.

- 6459899 After a delete operation, the DSCC window does not close.
- 6460721 Deleting an index type leads to an Error null message.
- 6481268 Fix server instance registration issue that occurs when a DSCC session times out.

## Known Problems and Limitations in Directory Server

This section lists known problems and limitations at the time of release.

### Directory Server Limitations

This section lists product limitations. Limitations are not always associated with a change request number.

Do not change file permissions by hand.

Changes to file permissions for installed Directory Server Enterprise Edition product files can in some cases prevent the software from operating properly. Only change file permissions when following instructions in the product documentation, or following instructions from Sun support.

To work around this limitation, install products as a user having appropriate user and group permissions.

Do not replicate the cn=changeLog suffix.

Although nothing prevents you from setting up replication for the cn=changeLog suffix, doing so can interfere with replication. Do not replicate the cn=changeLog suffix.

On Windows 2003 systems, do not use software installed with dsee\_deploy from the zip distribution in the German locale.

Instead, when running on Windows 2003 in the German locale, install from native packages using the Java ES distribution.

Database cache may be outdated after failover on Sun Cluster.

When Directory Server runs on Sun Cluster, and nsslapd-db-home-directory is set to use a directory that is not shared, multiple instances share database cache files. After a failover, the Directory Server instance on the new node uses its potentially outdated database cache files.

To work around this limitation, either use a directory for nsslapd-db-home-directory that is shared, or systematically remove the files under nsslapd-db-home-directory at Directory Server startup.

The wrong SASL library is loaded when LD\_LIBRARY\_PATH contains /usr/lib.

When LD\_LIBRARY\_PATH contains /usr/lib, the wrong SASL library is used, causing the dsadm command to fail after installation.

Use the LDAP replace operation to change `cn=config` attributes.

An LDAP modify operation on `cn=config` can only use the replace sub-operation. Any attempt to add or delete an attribute will be rejected with `DSA is unwilling to perform`, error 53. While Directory Server 5 accepted adding or deleting an attribute or attribute value, the update was applied to the `dse.ldif` file without any value validation, and the DSA internal state was not updated until the DSA was stopped and started.

---

**Note** – The `cn=config` configuration interface is deprecated. Where possible use the `dsconf` command instead.

---

To work around this limitation, the LDAP modify replace sub-operation can be substituted for the add or delete sub-operation. No loss in functionality occurs. Furthermore, the state of the DSA configuration is more predictable following the change.

On Windows systems, Directory Server does not allow Start TLS by default.

This issue affects server instances on Windows systems only. This issue is due to performance on Windows systems when Start TLS is used.

To work around this issue, consider using the `-P` option with the `dsconf` command to connect using the SSL port directly. Alternatively, if your network connection is already secured, consider using the `-e` option with the `dsconf` command. The option lets you connect to the standard port without requesting a secure connection.

Replication update vectors may reference retired servers.

After you remove a replicated Directory Server instance from a replication topology, replication update vectors can continue to maintain references to the instance. As a result, you might encounter referrals to instances that no longer exist.

The Common Agent Container is not started at boot time.

To work around this issue when installing from native packages, use the `cacoadm enable` command as root.

Enabling password expiration can cause mass expiration.

Directory Server now updates the `pwdChangedTime` operational attribute whenever a password is modified. As this attribute is updated even before you enable password expiration, old passwords expire immediately when you enable password expiration.

An additional condition can cause immediate expiration when you run Directory Server in version 5 password policy mode. If you enabled password expiration in the past, and then turned expiration off, Directory Server still has timestamps on `passwordExpirationTime` operational attributes. Therefore, when you enable password expiration again, passwords with old `passwordExpirationTime` operational attributes can expire immediately.

You can give users grace logins to change their password with `pwdGraceAuthNLimit`. Alternatively, when running Directory Server in version 5 compatible mode for password



policy, you can configure Directory Server to warn users before their passwords expire. Set `passwordExpireWithoutWarning` to off. Also, set `passwordWarning` appropriately.

`max-thread-per-connection-count` is not useful on Windows systems.

The Directory Server configuration property `max-thread-per-connection-count` does not apply for Windows systems.

A Microsoft Windows bug shows service startup type as disabled.

A [Microsoft Windows 2000 Standard Edition bug](http://support.microsoft.com/kb/287516/en-us)

(<http://support.microsoft.com/kb/287516/en-us>) causes the Directory Server service to appear as disabled after the service has been deleted from Microsoft Management Console.

### Known Directory Server Issues

This section lists known issues. Known issues are associated with a change request number.

2113177 Directory Server has been seen to crash when the server is stopped while performing online export, backup, restore, or index creation.

2133169 When entries are imported from LDIF, Directory Server does not generate `createTimeStamp` and `modifyTimeStamp` attributes.

LDIF import is optimized for speed. The import process does not generate these attributes. To work around this limitation, add rather than import the entries. Alternatively, preprocess the LDIF to add the attributes before import.

2134435 The `pwdChangedTime` attribute and `usePwdChangedTime` attribute are defined in Directory Server 5 2004Q2, 2005Q4, and the current version. These attributes are not defined in earlier versions. When an entry is defined with password expiration in a version where these attributes are defined, the entry contains the `pwdChangedTime` attribute and `usePwdChangedTime` attribute. When that entry is replicated to a supplier that runs an earlier version, the supplier cannot process any modifications to that entry. A schema violation error occurs because the supplier does not have the `pwdChangedTime` attribute in its schema.

---

**Note** – `usePwdChangedTime` is no longer used. Instead, the operational attribute `pwdChangedTime` is updated whenever the password is modified.

---

To work around this issue, define the `pwdChangedTime` attribute and `usePwdChangedTime` attribute in the `00core.ldif` file. You must define these attributes for all servers in the replication topology that run a version that does not define these attributes. The attribute type definitions are as follows.

```
attributeTypes: ( 1.3.6.1.4.1.42.2.27.8.1.16
  NAME 'pwdChangedTime'
```

```
DESC 'Directory Server defined password policy attribute type'
SYNTAX 1.3.6.1.4.1.1466.115.121.1.24
SINGLE-VALUE
USAGE directoryOperation
X-DS-USE 'internal'
X-ORIGIN 'Sun Directory Server' )
```

```
attributeTypes: ( 1.3.6.1.4.1.42.2.27.9.1.597
NAME 'usePwdChangedTime'
DESC 'Directory Server defined attribute type'
SYNTAX 1.3.6.1.4.1.1466.115.121.1.15
SINGLE-VALUE
X-DS-USE 'internal'
X-ORIGIN 'Sun Directory Server' )
```

Do not migrate new servers to the new password policy while older servers are still present in the replication topology.

- 2144251 Demoting a replica to be a dedicated, read-only consumer, then promoting the server again can break replication.
- 4703503 If you use a zero-length password to bind to a directory, your bind is an anonymous bind. This bind is not a simple bind. Third party applications that authenticate users by performing a test bind might exhibit a security hole if such applications are not aware of this behavior.
- 4979319 Some Directory Server error messages refer to the *Database Errors Guide*, which does not exist. If you cannot understand the meaning of a critical error message that is not documented, contact Sun support.
- 6358392 When removing software, the `dsee_deploy uninstall` command does not stop or delete existing server instances.  
  
To work around this limitation, follow the instructions in the *Sun Java System Directory Server Enterprise Edition 6.0 Installation Guide*.
- 6366948 Directory Server has been seen to retain `pwdFailureTime` values on a consumer replica, even after the attribute values have been cleared on the supplier replica. The values remain after the modification of `userPassword` has been replicated.
- 6395603 When installing software from the zip distribution, do not use the `-N` (`--no-cacao`) option if you intend subsequently to manage servers with Directory Service Control Center. The Common Agent Container cannot be installed separately later.
- 6401484 The `dsconf accord-repl-agmt` command cannot align authentication properties of the replication agreement when SSL client authentication is used on the destination suffix.

To work around this issue, store the supplier certificate in the configuration on the consumer, following these steps. The examples command shown are based on two instances on the same host.

1. Export the certificate to a file.

The following example shows how to perform the export for servers in `/local/supplier` and `/local/consumer`.

```
$ dsadm show-cert -F der -o /tmp/supplier-cert.txt /local/supplier defaultCert
$ dsadm show-cert -F der -o /tmp/consumer-cert.txt /local/consumer defaultCert
```

2. Exchange the client and supplier certificates.

The following example shows how to perform the exchange for servers in `/local/supplier` and `/local/consumer`.

```
$ dsadm add-cert --ca /local/consumer supplierCert /tmp/supplier-cert.txt
$ dsadm add-cert --ca /local/supplier consumerCert /tmp/consumer-cert.txt
```

3. Add the SSL client entry on the consumer, including the `supplierCert` certificate on a `usercertificate;binary` attribute, with the proper `subjectDN`.
4. Add the replication manager DN on the consumer.

```
$ dsconf set-suffix-prop suffix-dn repl-manager-bind-dn:entryDN
```

5. Update the rules in `/local/consumer/alias/certmap.conf`.
6. Restart both servers with the `dsadm start` command.

6410741 Directory Service Control Center sorts values as strings. As a result, when you sort numbers in Directory Service Control Center, the numbers are sorted as if they were strings.

An ascending sort of 0, 20, and 100 results in the list 0, 100, 20. A descending sort of 0, 20, and 100 results in the list 20, 100, 0.

6415184 Directory Server instances with multibyte names can not be registered in Directory Service Control Center.

To work around this issue, configure the Common Agent Container as follows.

```
# cacaoadm stop
# cacaoadm set-param java-flags="-Xms4M -Xmx64M -Dfile.encoding=utf-8"
# cacaoadm start
```

6416407 Directory Server does not correctly parse ACI target DN's containing escaped quotes or a single escaped comma. The following example modifications cause syntax errors.

```
dn:o=mary\red\doe,o=example.com
changetype:modify
add:aci
aci:(target="ldap:///o=mary\red\doe,o=example.com")
(targetattr="*")(version 3.0; acl "testQuotes";
allow (all) userdn ="ldap:///self";)
```

```
dn:o=Example Company\, Inc.,dc=example,dc=com
changetype:modify
add:aci
aci:(target="ldap:///o=Example Company\, Inc.,dc=example,dc=com")
(targetattr="*")(version 3.0; acl "testComma";
allow (all) userdn ="ldap:///self";)
```

Examples with more than one comma that has been escaped have been observed to parse correctly, however.

- 6428448 The `dsconf` command has been seen to display the Enter "cn=Directory Manager" password: prompt twice when used in interactive mode.
- 6435416 When running server management commands in the French locale, some messages displayed by the commands are missing apostrophes.
- 6443229 Directory Service Control Center does not allow you to manage PKCS#11 external security devices or tokens.
- 6446318 SASL authentication has been seen to fail on Windows systems when SASL encryption is used.
- 6448572 Directory Service Control Center fails to generate a self-signed certificate when you specify the country.
- 6449828 Directory Service Control Center does not properly display `userCertificate` binary values.
- 6468074 The configuration attribute name, `passwordRootdnMayBypassModsCheck`, does not reflect that the server now allows any administrator to bypass password syntax checking when modifying another user's password when the attribute is set.
- 6468096 Do not set `LD_LIBRARY_PATH` before installing from the zip distribution or using the `dsadm` command.
- 6469296 The Directory Service Control Center feature that allows you to copy the configuration of an existing server does not allow you to copy the plug-in configuration.
- 6469688 On Windows systems, the `dsconf` command has been seen to fail to import LDIF with double-byte characters in the LDIF file name.

- To work around this issue, change the LDIF file name so that it does not contain double-byte characters.
- 6475244 When using a browser running in Chinese, Japanese, or Korean locales, logs generated by Directory Service Control Center when creating a server instance contain garbage.
- To work around this issue perform the following commands on the Common Agent Container where the new server instance is to be created.
- ```
cacaoadm stop
cacaoadm set-param java-flags="-Xms4M -Xmx64M -Dfile.encoding=utf-8"
cacaoadm start
```
- 6478568 The `dsadm enable-service` command does not work correctly with Sun Cluster.
- 6478586 When using a browser running in the French locale, duplicate apostrophes appear in Directory Service Control Center.
- 6480753 The `dsee_deploy` command has been seen to hang while registering the Monitoring Framework component into the Common Agent Container.
- 6482378 The `supportedSSLCiphers` attribute on the root DSE lists NULL encryption ciphers not actually supported by the server.
- 6482888 Unless you start Directory Server at least once, the `dsadm enable-service` fails to restart Directory Server upon system reboot.
- 6483290 Neither Directory Service Control Center nor the `dsconf` command allows you to configure how Directory Server handles invalid plug-in signatures. Default behavior is to verify the plug-in signatures, but not to require that they are valid. Directory Server logs a warning for invalid signatures.
- To change the server behavior, adjust the `ds-require-valid-plugin-signature` and `ds-verify-valid-plugin-signature` attributes on `cn=config`. Both attributes take either `on` or `off`.
- 6485560 Directory Service Control Center does not allow you to browse a suffix that is configured to return a referral to another suffix.
- 6488197 After installation and after server instance creation on Windows systems, the file permissions to the installation and server instance folder allow access to all users.
- To work around this issue, change the permissions on the installations and server instance folders.
- 6488262 The `dsadm autostart` command fails when multiple instances are specified, and the command fails for one of the instances.

- 6488263 The `dsadm autostart` command does not support white space in the instance file name.
- 6488303 The `dsmig` command has been seen not to migrate values for some configuration attributes that are not identified in the upgrade and migration documentation.
- The following configuration attributes are concerned:
- `nsslapd-db-durable-transaction`
  - `nsslapd-db-replication-batch-val`
  - `nsslapd-disk-low-threshold`
  - `nsslapd-disk-full-threshold`
- 6489776 After a total update on master replica bearing significant write load, in some cases the generation ID for the master having undergone total update is not set properly. As a result, replication fails.
- 6490653 When enabling referral mode for Directory Server by using Directory Service Control Center through Internet Explorer 6, the text in the confirm referral mode window is truncated.
- To work around this issue, use a different browser such as Mozilla web browser.
- 6490762 After creating or adding a new certificate, Directory Server must be restarted for the change to take effect.
- 6491849 After upgrading replica, and moving servers to new systems, you must recreate replication agreements to use new host names. Directory Service Control Center lets you delete the existing replication agreements, but does not allow you to create new agreements.
- 6492894 On Red Hat systems, the `dsadm autostart` command does not always ensure that the server instances start at boot time.
- 6492939 Directory Server does not properly handle Chinese multibyte character in strings for database names, file names, and path names.
- To work around this issue when creating a Directory Server suffix having Chinese multibyte characters, specify a database name that has no multibyte characters. When creating a suffix on the command line, for example, explicitly set the `--db-name` option of the `dsconf create-suffix` command.
- ```
$ dsconf create-suffix --db-name asciiDBName multibyteSuffixDN
```
- Do not use the default database name for the suffix.
- 6493957
- 6493977 On Windows systems when Directory Server is enabled as a service, do not use the `dsadm cert-pwd-prompt=on` command.

- 6494027 The following replication error messages have been seen to persist on agreements with a consumer even after a total update is performed on the consumer.
- Error sending replication updates. Error Message: Replication error updating replica: Unable to start a replication session : transient error - Failed to get supported proto. Error code 907.
- Operational Status Error sending updates to server *host:port*. Error: Replication error updating replica: Incremental update session abored : fatal error - Send extended op failed. Error code: 824.
- To eliminate the messages, disable the replication agreement, and then enable the replication agreement.
- 6494448 When stopping multiple master replica under heavy load in a multi master replication configuration, the servers may take several minutes to stop.
- 6494984 After an import operation is performed on a master where read-write-mode is set to read-only, Directory Server fails to restart.
- 6494997 The `dsconf` command does not prompt for the appropriate `dsSearchBaseDN` setting when configuring DSML.
- 6495004 On Windows systems, Directory Server has been seen to fail to start when the base name of the instance is `ds`.
- 6495459 You must configure DSML before you can monitor DSML with Java ES Monitoring Framework.
- 6496916 When using a browser running in a Chinese locale, the More on Server Groups link in Directory Service Control Center is incorrect, leading to an application error page.
- 6497053 When installing from the zip distribution, the `dsee_deploy` command does not provide an option to configure SNMP and stream adaptor ports.
- 6497894 The `dsconf help-properties` command is set to work properly only after instance creation. In addition, the correct list of values for the `dsml-client-auth-mode` command should be `client-cert-first | http-basic-only | client-cert-only`.
- 6498537 In order to use Directory Service Control Center on Windows XP systems, the guest account must be disabled. Additionally, the registry key `HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Lsa\ForceGuest` must be set to 0 in order for authentication to succeed.

- 6500297  
6500301 After installing from the zip distribution on Solaris and Red Hat systems, Directory Server does not appear through SNMP after the Common Agent Container, cacao, is restarted.
- To work around this issue on Solaris systems, apply all recommended patches listed in [“Directory Server, Directory Proxy Server, and Directory Server Resource Kit Operating System Requirements”](#) on page 19.
- 6501893 Output of the `entrycmp`, `fildif`, `insync`, `mml dif`, and `ns-accountstatus` commands are not localized.
- 6501900  
6501902  
6501904 Some output displayed by the `dsccon`, `dsccreg`, `dscsetup`, and `dscreg` commands is not localized.
- 6503595 After accessing Directory Service Control Center for the first time and registering a Directory Server instance, a warning and an exception are written to the Sun Java Web Console logs.
- You can safely ignore the warning, failed to retrieve "server-pid" from command output, and the exception. The exception output appears as follows.
- ```
StandardWrapperValve[wizardWindowServlet]: Servlet.service() for servlet wizardWindowServlet threw exception
java.lang.IllegalStateException: Cannot forward after response has been committed
```
- 6503558 When setting up Directory Service Control Center in a locale other than English, log messages concerning creation of the Directory Service Control Center Registry are not fully localized. Some log messages are shown in the locale used when setting up Directory Service Control Center.
- 6506020 After manual reboot following installation on a Windows system with the Java ES installer, Directory Server is not running. However, Directory Server can appear to be running in the Task Manager. When this occurs, Directory Server cannot be restarted from the Task Manager.
- To work around this issue, remove the process ID file from the logs folder.
- 6506043 The `dsmig migrate-data -R -N` command has been seen to fail when upgrading from Directory Server 5 2005Q1.
- To work around failures in automatic data migration, migrate the data manually as described in Chapter 3, “Migrating Directory Server Manually,” in *Sun Java System Directory Server Enterprise Edition 6.0 Migration Guide*.



- 6507312 On HP-UX systems, applications using NSPR libraries crash and dump core after investigation with gdb. The problem occurs when you attach gdb to a running Directory Server instance, then use the gdb quit command.
- 6507803 When accessing Directory Service Control Center through Internet Explorer 6, saving index configuration changes for a suffix causes a null error to appear. The progress window for the operation appears to freeze.
- To work around this issue, access Directory Service Control Center through a different browser, such as a Mozilla-based browser.
- 6507817 When you edit a directory entry through Directory Service Control Center, if the entry is simultaneously changed by some other method, refreshing the display does not show the changes.
- 6508042 Directory Service Control Center has been seen to show incorrect status for the User-Changeable field of Global Password Policy, `pwd-user-change-enabled`.
- To work around this issue, use the `dsconf(1M)` command to read the `pwd-user-change-enabled` server property.
- ```
$ dsconf get-server-prop -w /tmp/ds.pwd pwd-user-change-enabled
pwd-user-change-enabled : off
```
- 6510594 When upgrading from Directory Server 5.2, if you have a certificate database that contains no trusted certificates, the `dsmig migrate-config` command fails. This problem can occur when you have created a certificate database, but never used the database, nor set up SSL.
- To work around this issue, follow these steps.
1. Remove the new, empty Directory Server 6 instance.
  2. Rename the `ServerRoot/alias/slapd-serverID-cert8.db` and `ServerRoot/alias/slapd-serverID-key3.db` files that the Directory Server 5.2 instance uses.
- ```
$ cd ServerRoot/alias
$ mv slapd-serverID-cert8.db slapd-serverID-cert8.db.old
$ mv slapd-serverID-key3.db slapd-serverID-key3.db.old
```
3. Perform the upgrade and migration process again.
- 6513644 On HP-UX systems, Directory Service Control Center has been seen to show a null pointer exception error message when starting and stopping a Directory Server instance. The error affects Directory Service Control Center, not the Directory Server instance.

6519263 When migrating a Directory Server configuration, the `dsmig migrate-config` command fails if the `-R` option is used but not all suffixes in the existing configuration are replicated.

To work around this issue, perform the following steps.

1. Stop the old server.
2. In the old server instance, `dse.ldif` configuration file entry with DN `cn=changelog5,cn=config` comment out the following attributes using hash marks, `#`.

```
#nsslapd-changelogmaxage: ...  
#nsslapd-changelogmaxentries: ...
```

3. Make a note of the values for these attributes.
4. Migrate the server configuration using the `dsmig migrate-config` command.
5. On the new server instance, for every suffix that has a configuration entry with DN of the form `cn=replica,cn=suffix-dn,cn=mapping tree,cn=config`, run the following commands.

```
$ dsconf set-suffix-prop -p port suffix-dn repl-cl-max-age:old-value
```

Here *old-value* means the value of `nsslapd-changelogmaxage` in the old server instance.

```
$ dsconf set-suffix-prop -p port suffix-dn repl-cl-max-entry-count:old-value/nbr-suffixes
```

Here *old-value* means the value of `nsslapd-changelogmaxentries` in the old server instance. *nbr-suffixes* is the total number of replicated suffixes.

6523245 Directory Server does not allow you to enable password quality checking alone without at least one other password policy feature.

To work around this issue, enable at least one additional password policy feature when you enable password quality checking. The following example enables password quality checking, and also enforces a minimum age before the password is changed.

```
$ dsconf set-server-prop pwd-check-enabled:on pwd-min-age:1h
```

# Directory Proxy Server Bugs Fixed and Known Problems

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This chapter contains important, product-specific information available at the time of release of Directory Proxy Server.

This chapter includes the following sections:

- [“Bugs Fixed in Directory Proxy Server” on page 51](#)
- [“Known Problems and Limitations in Directory Proxy Server” on page 52](#)

## Bugs Fixed in Directory Proxy Server

This section lists bugs fixed for this release.

The following bugs were fixed since the last release of Directory Proxy Server.

- 4883696      Allow read and write requests to be chained separately.
- 4883701      Add alphabetic and hash based data distribution algorithms.
- 4951403      Directory Proxy Server cannot follow referrals in bind requests.
- 4975248      Directory Proxy Server log file cannot exceed 2 GB.
- 5014402      Directory Proxy Server file handles leak memory.

The following bugs were found during the beta program, and subsequently fixed.

- 6348105      Error arises when performing a search through Directory Proxy Server and password lockout occurs.
- 6445085      Directory Service Control Center does not allow you to create a certificate request.
- 6492361      LDAP searches through Directory Proxy Server are not abandoned by Directory Proxy Server after being abandoned by the client application.
- 6492368      Substring searches are not possible through a join data view.
- 6492371      Searching DB2 through Directory Proxy Server results in an `SQLException`.

- 6492375 When create a JDBC object class the secondary table is not optional.
- 6493640 Deleting an SQL database entry does not function properly.
- 6493643 Shared, multivalued attribute values in databases are ignored.

## Known Problems and Limitations in Directory Proxy Server

This section lists known problems and limitations at the time of release.

### Directory Proxy Server Limitations

This section lists product limitations. Limitations are not always associated with a change request number.

Do not change file permissions by hand.

Changes to file permissions for installed Directory Server Enterprise Edition product files can in some cases prevent the software from operating properly. Only change file permissions when following instructions in the product documentation, or following instructions from Sun support.

To workaround this limitation, install products as a user having appropriate user and group permissions.

Self-signed server certificates cannot be renewed.

When creating a self-signed server certificate, make sure you specify a validity long enough that you do not have to renew the certificate.

Directory Proxy Server enables SSLv2 by default.

SSLv2 is the oldest of the SSL/TLS family of security protocols. Although SSLv2 was considered a large step forward in security protocols when it was new, it is now widely regarded as comparatively weak and obsolete. Use of SSLv2 is supported, but discouraged. Directory Proxy Server leaves SSLv2 enabled by default. To disable SSLv2 for Directory Proxy Server, set the `enabled-ssl-protocols` property to include only SSLv3 and TLSv1, for example.

```
$ dpconf get-server-prop -w /tmp/dps.pwd supported-ssl-protocols
supported-ssl-protocols : SSLv2Hello
supported-ssl-protocols : SSLv3
supported-ssl-protocols : TLSv1
$ dpconf set-server-prop -w /tmp/dps.pwd enabled-ssl-protocols:SSLv3 enabled-ssl-protocols:TLSv1
$ dpconf get-server-prop -w /tmp/dps.pwd enabled-ssl-protocols
enabled-ssl-protocols : SSLv3
enabled-ssl-protocols : TLSv1
```

On Windows 2003 systems, do not use software installed with `dsee_deploy` from the zip distribution in the German locale.

Instead, when running on Windows 2003 in the German locale, install from native packages using the Java ES distribution.

## Known Directory Proxy Server Issues

This section lists known issues. Known issues are associated with a change request number.

- 5042517 The modify DN operation is not supported for LDIF, JDBC, join and access control data views.
- 6255952 When local proxy ACIs are defined, operations using the get effective rights control may not return the correct information.
- 6356465 Directory Proxy Server has been seen to reject ACIs that specify subtypes to the target attribute, such as (targetattr = "locality;lang-fr-ca").
- 6357160 The dpconf command does not reject new line and line feed characters in property values. Avoid using new line and line feed characters when setting property values.
- 6359601 When ACIs are configured, Directory Proxy Server has been seen not to return the same results as a search directly on the LDAP data source.
- 6374344 Directory Proxy Server has been seen to return an operations error, stating that the server is unable to read the bind response, after a Directory Server data source is restarted.
- 6383532 Directory Proxy Server must be restarted when the authentication mode configuration is changed.
- 6386073 After a CA-Signed Certificate request is generated for Directory Proxy Server, you can refresh Directory Service Control Center. Directory Service Control Center then labels the certificate as self-signed.
- 6388022 You can configure to use SSL connections when the client application connects using SSL. If the SSL port used by Directory Proxy Server is incorrect, Directory Proxy Server has been seen to close all connections after a secure search.
- 6390118 Directory Proxy Server fails to count the number of referral hops properly when configured to use authentication based on the client application credentials rather than proxy authorization.
- 6390220 Directory Proxy Server allows you to set the base-dn property of a data view to the root DN, "", only when initially creating the data view.
- 6410741 Directory Service Control Center sorts values as strings. As a result, when you sort numbers in Directory Service Control Center, the numbers are sorted as if they were strings.  
  
An ascending sort of 0, 20, and 100 results in the list 0, 100, 20. A descending sort of 0, 20, and 100 results in the list 20, 100, 0.
- 6439055 Do not use the dollar sign, \$, when defining attribute rules.

- 6439604 After configuring alerts, you must restart Directory Proxy Server for the change to take effect.
- 6445919 When you configure a virtual hierarchy with DN rules, Directory Proxy Server cannot always resolve searches based on the virtual DNs. For example, if the virtual DN is configured as `uid=${entry.uid},cn=${entry.cn},dc=example,dc=com`, searches with scope `cn=some-cn,dc=example,dc=com` fail.
- 6447554 Directory Proxy Server has been seen to fail to rename an entry moving to another data view when numeric or lexicographic data distribution is configured.
- 6458935 When working with join data views, Directory Proxy Server does not take data distribution algorithms in the views that make up the join.  
  
To work around this issue, configure data distribution at the level of the join data view when using joins and data distribution together.
- 6463067 The `dpadm autostart` command does not work when you install software from native packages, and you relocate the native packages at installation time.
- 6469780 After configuring a JDBC data source, you must restart Directory Proxy Server for the change to take effect.
- 6475156 The `dpconf` command erroneously claims a restart is required when you set the `bind-dn` and `num-write-init` properties.
- 6475710 The modify RDN operation is not supported for entries in JDBC data views.
- 6475727 After using the `dpconf delete-jdbc-object-class` command, you must restart Directory Proxy Server for the change to take effect.
- 6475743 Directory Proxy Server has been seen to retrieve only one of two attributes mapped through JDBC with both attributes are mapped to the same database table column.
- 6477261 Directory Proxy Server incorrectly returns error 32, no such object, when accessing a JDBC attribute not specified in the configuration.
- 6479264 One level searches through JDBC data views have been seen to fail.
- 6479766 Directory Proxy Server does not allow you to manage schema over LDAP.
- 6486526 On Windows systems when you install Directory Proxy Server after Directory Server using the `dsee_deploy` command, the command returns an error suggesting that some common files could not be removed.
- 6486578 Directory Proxy Server should ignore the `filter-join-rule` property when it is used in a primary table.
- 6488197 After installation and after server instance creation on Windows systems, the file permissions to the installation and server instance folder allow access to all users.

To work around this issue, change the permissions on the installations and server instance folders.

- 6490763 Access Manager, when accessing Directory Server through Directory Proxy Server, has been seen to encounter caching problems related to persistent searches after Directory Server is restarted.

To work around this issue, restart either Access Manager or Directory Proxy Server after restarting Directory Server.

For further fine tuning, you can increase the number of and delay between Access Manager attempts to reestablish persistent search connections. You can increase these parameters by changing the following properties in the `AMConfig.properties` file.

- Increase `com.ipplanet.am.event.connection.num.retries`, which represents the number of attempts. The default is 3 attempts.
- Increase `com.ipplanet.am.event.connection.delay.between.retries`, which represents the number of milliseconds delay between attempts. The default is 3000 milliseconds.

- 6491133 When creating a self-signed certificate using Directory Service Control Center, do not use multibyte characters for the certificate names.

- 6491845 The default LDAP controls allowed through Directory Proxy Server are not displayed by Directory Service Control Center.

- 6492355 Directory Proxy Server does not update JDBC data sources with transactions. Instead, Directory Proxy Server performs operations in stages. Therefore, part of an update operation against a relational database can succeed although another part of the operation fails.

- 6492376 After configuring JDBC syntax, you must restart Directory Proxy Server for the change to take effect.

- 6493349 Directory Service Control Center removes commas when changing the DN for an existing excluded subtree, or alternate search base.

- 6494259 Directory Proxy Server does not recompute the `alternate-search-base-dn` property when you change the `base-dn` property of a data view.

6494400

- 6494405 On Windows systems when Directory Proxy Server is enabled as a service, do not use the `dpadm cert -pwd-prompt=on` command.

- 6494412 To enable email alerts from Directory Proxy Server to mail users on the local host, specify an `email-alerts-message-from-address` property before you enable email alerts.

- \$ dpconf set-server-prop email-alerts-message-from-address:admin@localhost
- 6494513 Increasing the number of Directory Proxy Server worker threads can prevent the server from restarting. This problem manifests itself as a `java.lang.OutOfMemoryError` error when the server is started. This problem occurs when the memory available to the Java Virtual Machine is not sufficient to allocate space for all worker threads.
- To work around this issue, either use the `dpadm` command to allow the server to use more memory, or replace the server configuration file, `instance-path/config/conf.ldif`, with `instance-path/config/conf.ldif.startok` to use the previous configuration settings.
- 6494540 After enabling or disabling non secure LDAP access for the first time, you must restart Directory Proxy Server for the change to take effect.
- 6495395 Virtual directory macros using `split` do not work properly.
- 6497547 Time limit and size limit settings work only with LDAP data sources.
- 6497992 After using the command `dpadm set-flags cert-pwd-store=off`, Directory Proxy Server cannot be restarted using Directory Service Control Center.
- 6500275 When used with the `jvm-args` flag to allocate extra memory for the Java virtual machine, the `dpadm` command has been seen to return exit status 0 even though memory allocation fails. Error messages appear on the command line, however.
- 6500298 When using the `jvm-args` flag of the `dpadm` command and restarting the server, you cannot successfully allocate more than 2 GB memory for the Java virtual machine.
- To work around this issue, use `dpadm stop` and `dpadm start` instead of `dpadm restart`.
- 6501867 The `dpadm start` command has been seen to fail when used with a server instance name combining both ASCII and Japanese multiple-byte characters.
- 6505112 When setting the `data-view-routing-custom-list` property on an existing connection handler, an error occurs with data view names containing characters that must be escaped, such as commas.
- To work around this issue, do not give data views names that contain characters that must be escaped. For example, do not use data view names containing DNs.
- 6510583 Unlike previous versions, as stated in the manual page `allowed-ldap-controls(5dpconf)`, Directory Proxy Server does not allow the server side sort control by default.



You can enable Directory Proxy Server support for the server side sort control by adding `server-side-sorting` to the list of allowed LDAP controls specified by the `allowed-ldap-controls` property.

```
$ dpconf set-server-prop \
  allowed-ldap-controls:auth-request \
  allowed-ldap-controls:chaining-loop-detection \
  allowed-ldap-controls:manage-dsa \
  allowed-ldap-controls:persistent-search \
  allowed-ldap-controls:proxy-auth-v1 \
  allowed-ldap-controls:proxy-auth-v2 \
  allowed-ldap-controls:real-attributes-only \
  allowed-ldap-controls:server-side-sorting
```

Notice that you must repeat the existing settings. Otherwise, only the server side sort control is allowed.

6511264 When using the DN renaming feature of Directory Proxy Server, notice that repeating DN components are renamed to only one replacement component.

Consider for example that you want to rename DN's that end in `o=myCompany.com` to end in `dc=com`. For entries whose DN repeats the original component, such as `uid=userid,ou=people,o=myCompany.com,o=myCompany.com`, the resulting renamed DN is `uid=userid,ou=people,dc=com`, and not `uid=userid,ou=people,o=myCompany.com,dc=com`.

6516261 When used with German and Chinese locales, Directory Service Control Center has been seen to fail to create new Directory Proxy Server instances. The `dscrcg add-server` also has been seen to fail to register Directory Proxy Server instances.

To work around this issue on a Windows system, switch to the U.S. English locale before creating the instance.

6517615 The JDBC connection configuration to access Oracle 9 through Directory Proxy Server might not be as straightforward as shown in the documentation.

Consider the following configuration. You have an Oracle 9 server listening on host `myhost`, port 1537 with the instance having system identifier (SID) `MYINST`. The instance has a database `MYNAME.MYTABLE`.

Typically, to configure access through to `MYTABLE`, you would set the following properties.

- On the JDBC data source, set `db-name:MYINST`.
- On the JDBC data source, set `db-url:jdbc:oracle:thin:myhost:1537:.`
- On the JDBC table, set `sql-table:MYNAME.MYTABLE`.

If these settings do not work for you, try configuring access through to MYTABLE with the following settings.

- On the JDBC data source, set  
db-name: (CONNECT\_DATA=(SERVICE\_NAME=MYINST)).
- On the JDBC data source, set db-url: jdbc:oracle:thin:@(DESCRIPTION=(ADDRESS\_LIST=(ADDRESS=(PROTOCOL=TCP)(HOST=myhost)(PORT=1537))).
- On the JDBC table, set sql-table: MYNAME.MYTABLE.

# Identity Synchronization for Windows Bugs Fixed and Known Problems

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This chapter contains important, product-specific information available at the time of release of Identity Synchronization for Windows.

This chapter includes the following sections:

- [“Bugs Fixed in Identity Synchronization for Windows” on page 59](#)
- [“Known Problems and Limitations in Identity Synchronization for Windows” on page 60](#)

## Bugs Fixed in Identity Synchronization for Windows

This section lists bugs fixed for this release.

- 6203357 Identity Synchronization for Windows must support Group Synchronization between Active Directory and Directory Server.
- 6255331 If the LDAP database is configured with subsuffix chaining, Identity Synchronization for Windows cannot be used to modify records of the chained database. Users can only create and delete entries in the chained database. All the operations, including creation, deletion, and update, are possible if the plug-in is not loaded.
- 6306868 The secondary failover server in a failover setup must have o=Net scapeRoot DIT to configure the server.
- 6308208 The command `prepsd` throws errors for multiple hosts options in a multi-master replication setup. As a result, users cannot perform the multi-master replication setup.
- 6312235 Information on Linux is missing in the list of supported platforms in the TO DO list when installing Identity Synchronization for Windows.
- 6331112 Account lockout and activation synchronization is not performed with the new password policy attributes.

- 6332185 Group Type mapping for synchronization between Active Directory and Directory Server should be implemented.
- 6332186 Identity Synchronization for Windows does not properly map user name attributes for groups.
- 6332189 Identity Synchronization for Windows does not check if the Group and Group members belong the same SUL.
- 6332300 Identity Synchronization for Windows fails to synchronize the user Creation, Modification, and Deletion from Secondary Masters to Windows Active Directory, when the Primary Master is down.
- 6332912 Identity Synchronization for Windows does not synchronize the user creation, modification, or deletion from Directory Server to Active Directory. The issue occurs when the primary and the Nth secondary, in a list of secondary hosts, are down.
- 6333957 Administration user created by Identity Synchronization for Windows is redundant as the administration user is no longer used. Creation of uid=admin user should be removed.
- 6333958 Identity Synchronization for Windows throws errors on clicking the Directory Information Tree to access the Directory Server console.
- 6334706 Identity Synchronization for Windows installer prompts for restart of Directory Server even when the configure Directory Server plug-in option is not selected.
- 6337005 The command line usage for Identity Synchronization for Windows erroneously references link users in the command line usage.
- 6339416 Uninstall program should prompt the user to uninstall Administration Server manually.
- 6339420 Administration Server is not listed in the list of components that are installed by the Identity Synchronization for Windows installer.
- 6388815 Active Directory connectors and Directory Server connectors crash when an attempt is made to synchronize nested groups as such synchronization is not currently supported.

## Known Problems and Limitations in Identity Synchronization for Windows

This section lists known problems and limitations at the time of release.

### Identity Synchronization for Windows Limitations

This section lists product limitations. Limitations are not always associated with a change request number.

Do not change file permissions by hand.

Changes to file permissions for installed Directory Server Enterprise Edition product files can in some cases prevent the software from operating properly.

To workaround this limitation, install products as a user having appropriate user and group permissions.

No failover for the Identity Synchronization for Windows core service.

If you lose the system where Identity Synchronization for Windows core services are installed, you need to install it again. There is no failover for the Identity Synchronization for Windows core service.

Take a backup of `ou=services` (configuration branch of Identity Synchronization for Windows DIT) in LDIF format and use this information while reinstalling Identity Synchronization for Windows.

Change in authentication behavior on Windows 2003 SP1.

When you install Windows 2003 SP1, by default users are allowed one hour to access their accounts using their old passwords.

As a result, when users change their passwords on Active Directory, the on-demand sync attribute `dspswvaldate` is set to true, and the old password can be used to authenticate against Directory Server. The password synchronized on Directory Server is then the prior, old password, rather than the current Active Directory password.

See the [Microsoft Windows support documentation \(http://support.microsoft.com/?kbid=906305\)](http://support.microsoft.com/?kbid=906305) for details on how to turn off this functionality.

Remove `serverroot.conf` before you remove Administration Server

To successfully uninstall Administration Server, remove `/etc/mps/admin/v5.2/shared/config/serverroot.conf` before you remove the Administration Server package.

### Performing Data Recovery When System or Application Fails

After hardware or application failure, you might have to restore the data from back up in some of the synchronized directory sources.

After completing the data recovery, however, you must perform an additional procedure to ensure that the synchronization can proceed normally.

The connectors generally maintain information about the last change that was propagated to the message queue.

This information, which is called the connector state, is used to determine the subsequent change that the connector has to read from its directory source. If the database of a synchronized directory source is restored from a backup, then the connector state might no longer be valid.

Windows-based connectors for Active Directory and for Windows NT also maintain an internal database. The database is a copy of the synchronized data source. The database is used to determine what has changed in the connected data source. The internal database is no longer valid once the connected Windows source is restored from a backup.

In general, the `idsync resync` command can be used to repopulate the recovered data source.

---

**Note** – Resynchronization cannot be used to synchronize passwords with one exception. The `-i ALL_USERS` option can be used to invalidate passwords in Directory Server. This works if the resynchronization data source is Windows. The SUL list must also include only Active Directory systems.

---

Use of the `idsync resync` command, however, might not be an acceptable option in every situation.



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**Caution** – Before executing any of the steps detailed that follow, make sure that synchronization is stopped.

---

### **Bidirectional Synchronization**

Use the `idsync resync` command with the appropriate modifier settings, according to the synchronization settings. Use the recovered directory source as the target of the `resync` operation.

### **Unidirectional Synchronization**

If recovered data source is a synchronization destination, then the same procedure can be followed as for bidirectional synchronization.

If recovered data source is a synchronization source, then `idsync resync` can still be used to repopulate the recovered directory source. You need not change the synchronization flow settings in the Identity Synchronization for Windows configuration. The `idsync resync` command allows you to set synchronization flow independent of the configured flows with the `-o Windows | Sun` option.

Consider the following scenario as an example.

Bidirectional synchronization is setup between Directory Server and Active Directory.

- The database of a Microsoft Active Directory server has to be recovered from a backup.
- In Identity Synchronization for Windows, this Active Directory Source is configured for the SUL AD.
- Bidirectional synchronization for modifies, creates and deletes is setup between this Active Directory Source and a Sun Directory Server Source.

## ▼ To Perform Unidirectional Synchronization

### 1 Stop synchronization.

```
idsync stopsync -w - -q -
```

### 2 Resynchronize Active Directory Source. Also, resynchronize modifies, creations, and deletes.

```
idsync resync -c -x -o Sun -l AD -w - -q -
```

### 3 Restart synchronization.

```
idsync startsync -w - -q -
```

## Directory Source Specific Recovery Procedures

The following procedures correspond to specific directory sources.

### Microsoft Active Directory

If Active Directory can be restored from a backup, then follow the procedures in the sections covering either bidirectional, or unidirectional synchronization.

You might, however, have to use a different domain controller after a critical failure. In this case, follow these steps to update the configuration of the Active Directory Connector.

## ▼ To Change the Domain Controller

### 1 Start the Identity Synchronization for Windows management console.

### 2 Select the Configuration tab. Expand the Directory Sources node.

### 3 Select the appropriate Active Directory Source.

### 4 Click Edit controller, and then select the new domain controller.

Make the selected domain controller the NT PDC FSMO role owner of the domain

### 5 Save the configuration.

### 6 Stop the Identity Synchronization service on the host where the Active Directory Connector is running.

### 7 Delete all the files except the directories, under *ServerRoot/isw-hostname/persist/ADPxxx*. Here, *xxx* is the number portion of the Active Directory Connector identifier.

For example, 100 if the Active Directory Connector identifier is CNN100.

- 8 **Start the Identity Synchronization service on the host where the Active Directory Connector is running.**
- 9 **Follow the steps according to your synchronization flow in the unidirectional or the bidirectional synchronization sections.**

### Fail Over and Directory Server

Either the Retro Changelog database, or the database with synchronized users, or both can be affected by a critical failure.

## ▼ To Manage Directory Server Fail Over

### 1 Retro-Changelog Database.

Changes in the Retro Changelog database might have occurred that the Directory Server connector could not process. Restoration of the Retro Changelog database only makes sense if the backup contains some unprocessed changes. Compare the most recent entry in the *ServerRoot/isw-hostname/persist/ADPxxx/accessor.state* file with the last changenumber in the backup. If the value in *accessor.state* is greater than or equal to the changenumber in the backup, do not restore the database. Instead, recreate the database.

After the Retro Changelog database is recreated, make sure that you run `idsync preps`. Alternatively, click Prepare Directory Server from the Sun Directory Source window in the Identity Synchronization for Windows management console.

The Directory Server connector detects that the Retro Changelog database is recreated and log a warning message. You can safely ignore this message.

### 2 Synchronized Database.

If no backup is available for the synchronized database, then the Directory Server connector has to be reinstalled.

If the synchronized database can be restored from a backup, then follow the procedures in either the bidirectional or the unidirectional synchronization sections.

### Known Identity Synchronization for Windows Issues

This section lists known issues. Known issues are associated with a change request number.

4997513     On Windows 2003 systems, the flag that indicates the user must change his password at the next login is set by default. On Windows 2000 systems, the flag is not set by default.

When you create users on Windows 2000 and 2003 systems with the `user must change pw at next login` flag set, users are created on Directory Server with no password. The next time the users log into Active Directory, the users must change



their passwords. The change invalidates their passwords on Directory Server. The change also forces on-demand synchronization the next time those users authenticate to Directory Server.

Until users change their password on Active Directory, users are not able to authenticate to Directory Server.

- 5077227 Problems can occur when attempting to view the Identity Synchronization for Windows console with PC Anywhere 10 with Remote Administration 2.1. PC Anywhere version 9.2 has been seen not to cause errors. If problems persist, remove the remote administration software. Alternatively, VNC can be used. VNC is not known to cause any issues when displaying the Identity Synchronization for Windows console.
- 5097751 If you install Identity Synchronization for Windows on a Windows system that is formatted with FAT 32 system, then no ACLs are available. Furthermore, no access restrictions are enforced for the setup. To ensure security, use only Windows NTFS system to install Identity Synchronization for Windows.
- 6254516 When Directory Server plug-in is configured on the consumers with command-line, the plug-in does not create a new subcomponent ID for the consumers. The plug-in configuration does not create new IDs for consumers.
- 6288169 The password synchronization plug-in for Identity Synchronization for Windows tries to bind to the Active Directory for accounts that have not been synchronized even before checking the account lock and passwordRetryCount.
- To resolve this issue, enforce a password policy on the LDAP server. Also, configure Access Manager to use the following filter on user search:
- ```
( | ( !(passwordRetryCount=*) ) (passwordRetryCount <=2) )
```
- This workaround, however, throws a user not found error when too many login attempts are made over LDAP. The workaround does not block the Active Directory account.
- 6331956 Identity Synchronization for Windows console fails to start if o=Net'scapeRoot is replicated.
- 6332197 Identity Synchronization for Windows throws errors when groups, with user information of users not yet created, are synchronized on Directory Server.
- 6336471 Identity Synchronization for Windows plug-in cannot search through chained suffixes. As a result, the modify and bind operations cannot be performed on the Directory Server instance.
- 6337018 Identity Synchronization for Windows should support exporting the Identity Synchronization for Windows Configuration to an XML file.

- 6386664 Identity Synchronization for Windows synchronizes user and group information between Active Directory and Directory Server when group synchronization feature is enabled. The synchronization should ideally happen only after issuing the `resync` command from the command line.
- 6452425 If you install Identity Synchronization for Windows on a Solaris system where the `SUNWt1s` package version 3.11.0 is installed, the Administration Server might not launch. To resolve this, uninstall the `SUNWt1s` package before you install Identity Synchronization for Windows.
- 6251334 User deletion synchronization cannot be stopped even after changing the Active Directory source. Deletion synchronization therefore continues when the Synchronized Users List has been mapped to a different organizational unit, OU, in the same Active Directory Source. The user appears to have been deleted on the Directory Server instance. The user appears as deleted even if the user is deleted from the Active Directory source which does not have a SUL mapping.
- 6335193 You might try to run the resynchronization command to synchronize users from Directory Server to Active Directory. The creation of the group entity fails if unsynchronized users are added to an unsynchronized group.
- To resolve this issue, you should run the `resync` command twice for the synchronization to happen correctly.
- 6339444 You can specify the scope of synchronization with the Synchronization Users List using the Browse button on the Base DN pane. When you specify the scope, the subsuffixes are not retrieved.
- To work around this issue, add ACIs to permit anonymous access for reads and searches.
- 6379804 This error occurs during upgrade of core components of Identity Synchronization for Windows to version 1.1 SP1 on Windows systems. The `updateCore.bat` file contains hard coded incorrect reference to Administration Server. As a result, the upgrade process does not completely successfully.
- To resolve this problem, users need to replace two instances of references to Administration Server from the upgrade script.
- Replace the following instructions on lines 51 and 95 of the upgrade script. Change lines as follows.
- ```
net stop "Sun Java(TM) System Administration Server 5.2"
```
- Instead, the lines should read as follows:
- ```
net stop admin52-serv
```

After making the specified changes, rerun the upgrade script.

- 6388872 For Windows Creation Expressions in a Directory Server to Active Directory, the flow `cn=%cn%` works both for users and groups. For every other combination, Identity Synchronization for Windows throws errors during synchronization.
- 6332183 Consider a scenario where a user, `dn: user1, ou=isw_data`, is added to an existing group, `dn: DSGroup1, ou=isw_data`. When the user is deleted from the group, that is, a Delete operation is performed, the `uniquemember` of the group gets modified. Imagine the same user is added to the group that has the same DN. For `userdn: user1, ou=isw_data`, an Add operation is performed.
- Identity Synchronization for Windows might log exceptions stating that the user already exists, if the Add action flows from Directory Server to the Active Directory before the Delete can. A race condition might occur where the add operation is performed before the delete operation during synchronization, thus cause Active Directory to log an exception.
- 6444341 The Identity Synchronization for Windows uninstallation program is not localized. `WPSyncResources_X.properties` files fail to be installed in the `/opt/sun/isw/locale/resources` directory.
- To work around this issue, copy the missing `WPSyncResources_X.properties` files from the `installer/locale/resources` directory by hand.
- 6444878 Install and set up Java Development Kit version 1.5.0\_06 before running Administration Server.
- 6444896 When performing a text-based installation of Identity Synchronization for Windows, leaving the administrator password empty and typing return causes the installation program to exit.
- 6452538 On Windows platforms, Message Queue 3.5 used by Identity Synchronization for Windows requires a `PATH` value less than 1 kilobyte in length. Longer values are truncated.
- 6486505 On Windows, Identity Synchronization for Windows supports only English and Japanese locales.
- 6477567 In Directory Server Enterprise Edition 6.0, the Directory Server plug-in for Identity Synchronization for Windows is installed with Directory Server installation. The Identity Synchronization for Windows installer does not install the Directory Server plug-in. Instead Identity Synchronization for Windows only configures the plug-in.

In this release of Identity Synchronization for Windows, the text-based installer does not prompt you to configure the Directory Server plug-in for Identity Synchronization for Windows during the installation process. As a workaround,

- run the `Idsync dspluginconfig` command in the terminal window after the Identity Synchronization for Windows installation is completed.
- 6472296 After installation in the Japanese locale on Windows systems, Identity Synchronization for Windows user interfaces are not fully localized.
- To work around this issue, include `unzip.exe` in the `PATH` environment variable before starting the installation.
- 6485333 The installer and uninstaller on Windows systems are not internationalized.
- 6492125 The Identity Synchronization for Windows online help contents displays square boxes instead of multibyte characters for CCK locales.
- 6501874 Account lockout synchronization fails from Directory Server to Active Directory when Directory Server password compatibility mode, `pwd-compat-mode`, is set to `DS6-migration-mode`, or `DS6-mode`.
- 6501886 When the Active Directory domain administrator password changes, the Identity Synchronization for Windows Console has been seen to show a warning. The warning shown is `Invalid credentials for Host-hostname.domainname`, even when the password used is valid.

# Directory Editor Bugs Fixed and Known Problems

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This chapter contains important, product-specific information available at the time of release of Directory Editor.

This chapter includes the following sections:

- [“Bugs Fixed in Directory Editor” on page 69](#)
- [“Known Problems and Limitations in Directory Editor” on page 70](#)

## Bugs Fixed in Directory Editor

This section lists bugs fixed for this release.

The following bugs were fixed since the last release of Directory Editor.

- |         |   |
|---------|---|
| 6319791 | Cannot access Application Server administration console after login to Directory Editor.  |
| 6404788 | When you remove browse capabilities from the default user role, users can no longer change their directory information.                                       |
| 6421100 | Directory Editor does not properly handle entries containing the ampersand character, &.  |
| 6433198 | Directory Editor does not allow you to add members to a group that has a name containing an ampersand character, &, an equals sign, =, or a question mark, ?. |
| 6444426 | A basic search fails to account for the filter criteria. Instead, the search returns all entries in the managed directory that match the chosen type.         |
| 6444329 | Directory Editor does not allow you to login with a multibyte user ID.  |
| 6460611 | Directory Editor does not allow you to use a configuration suffix with a multibyte DN as the configuration suffix.  |

## Known Problems and Limitations in Directory Editor

This section lists known problems and limitations at the time of release.

### Directory Editor Limitations

This section lists product limitations. Limitations are not always associated with a change request number.

The following configuration requirements exist for using Directory Editor through Directory Proxy Server.

When configuring Directory Editor to access data through Directory Proxy Server, you must observe the following constraints.

- The Directory Editor configuration directory must be an instance of Directory Server, not Directory Proxy Server.

You specify the Directory Editor configuration directory when initially configuring Directory Editor through the Startup Properties page. The configuration directory must contain the entry with Bind DN and Password you provide in the Startup Properties page. The configuration directory must also already have the Configuration Suffix whose DN you select in the drop down list of the Startup Properties page.

- All Directory Proxy Server instances through which you access data using Directory Editor must be configured with a data view to allow access to search the directory schema. Schema are stored under `cn=schema` for Directory Server.

For example, the following command configures a schema view into the Directory Server instances in My Pool.

```
$ dpconf create-ldap-data-view -h localhost -p 1390 "schema view" \
  "My Pool" cn=schema
Enter "cn=Proxy Manager" password:
$
```

- All Directory Proxy Server instances through which you access data using Directory Editor must be configured to provide access through to the data sources. In particular, the Directory Proxy Server instances must have data views configured to allow the users logging in to Directory Editor at least to bind to the Directory Server data sources.

For example, the following command configures Directory Proxy Server to allow all LDAP operations through to the attached data source, My DS in My Pool.

```
$ dpconf set-attached-ldap-data-source-prop -h localhost -p 1390 \
  "My Pool" "My DS" add-weight:1 bind-weight:1 compare-weight:1 delete-weight:1 \
  modify-dn-weight:1 modify-weight:1 search-weight:1
Enter "cn=Proxy Manager" password:
$
```

## Known Directory Editor Issues

This section lists known issues. Known issues are associated with a change request number.

- 6257547 Directory Editor displays a configurable number of results for a search, with the default being 25. If a search returns more entries than the maximum number to display, refine the search to return fewer results.
- 6258793 When deploying on Sun Java Enterprise System Application Server 8, an error file is written. Also, login fails.

To work around this issue, ensure the following grant statement is included in the `Server.policy` file:

```
grant codeBase "file:${de.home}/-" {
  permission javax.security.auth.AuthPermission "getLoginConfiguration";
  permission javax.security.auth.AuthPermission "setLoginConfiguration";
  permission javax.security.auth.AuthPermission "createLoginContext.SunDirectoryLogin";
  permission javax.security.auth.AuthPermission "modifyPrincipals";
  permission java.lang.RuntimePermission "createClassLoader";
};
```

Use the grant statement shown here. The grant statement shown in *Sun Java System Directory Editor 1 2005Q1 Installation and Configuration Guide* is incorrect.

- 6397929 When deploying on Tomcat 5.5, login fails due to a missing JAAS configuration file.

To work around this issue, first create `tomcat-install-path/bin/setenv.sh` containing the following line:

```
JAVA_OPTS="-Djava.security.auth.login.config=$CATALINA_HOME/conf/jaas.conf"
```

Next create `tomcat-install-path/conf/jaas.conf`. Edit the file to contain the following lines:

```
SunDirectoryLogin {
  com.sun.dml.auth.SunDirectoryLoginModule required;
};
```

- 6436199 Directory Editor does not retain changes made to the Default User Form, Create. The issue occurs when the application container, where Directory Editor runs, is restarted before the changes have been validated.

To work around this limitation, do not restart the application container after restoring the configuration. Instead login, validate the Managed Directory setup under the Configure tab, save, and login again.

6441350 An application error appears after you save and continue beyond the startup page when running Directory Editor on Application Server in a locale other than English.

To work around this issue, start Application Server in the English locale on UNIX systems. On Windows systems, try restarting Application Server several times.

6456576 When you click the Help button in Directory Editor deployed in Application Server, the wrong help content is displayed.

To work around this issue, edit `WEB-INF/sun-web.xml` to correspond to the following, and then restart Application Server.

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE sun-web-app PUBLIC "-//Sun Microsystems, Inc.//DTD
Sun ONE Application Server 7.0 Servlet 2.3//EN"
"http://www.sun.com/software/sunone/appserver/dtds/sun-web-app_2_3-0.dtd">
<sun-web-app>
  <description>tomcat-test</description>
  <class-loader delegate="false"/>
</sun-web-app>
```

6469655 Installation of Directory Editor using the `install.sh` script has been seen to fail on HP-UX systems.

To work around this issue, install Directory Editor first on another system, then deploy the resulting `de.war` file in the web application container on your HP-UX system.

6480803 When deployed in Application Server running in a locale other than English, Directory Editor does not render English for `en` or `en_US` browser settings.

To work around this issue, issue the following commands.

```
# cd /var/opt/SUNWappserver/domains/domain1/applications/j2ee-modules/de/config
# cp DMLMessages.properties DMLMessages_en.properties DMLMessages_en_US.properties
```

6487652 When logged in as a user having multibyte characters in the user ID, you cannot edit your directory information. When you click Edit My Directory Information, you are presented with a blank page.

6488644 When you login to Directory Editor running in a locale other than English as a generic user, the Home and Change My Directory Password pages are not localized.

6489725 When you install Directory Editor in a locale other than English on Apache Tomcat on Windows, error pages are shown during configuration, save, and refresh operations.



- 6490590 When you install Directory Editor in a locale other than English, installer labels are not displayed properly.
- To work around this issue, change to the English locale on UNIX systems before running the installer. On Windows systems, switch the locale to English using Control Panel > Regional Options before running the installer.
- 6492259 When accessing Directory Editor through Internet Explorer 6 running in the Spanish locale, garbage characters appear in the online help.
- 6493975 Directory Editor does not allow you to view multiple suffixes through the same instance.
- To work around this issue, install additional instances of Directory Editor either in additional application servers or in separate domains on the same application server.



# Directory Server Resource Kit Bugs Fixed and Known Problems

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This chapter contains important, product-specific information available at the time of release of Directory Server Resource Kit.

This chapter includes the following sections:

- [“About Directory Server Resource Kit” on page 75](#)
- [“Bugs Fixed in Directory Server Resource Kit” on page 77](#)
- [“Known Problems and Limitations in Directory Server Resource Kit” on page 77](#)

## About Directory Server Resource Kit

This section provides an overview of Directory Server Resource Kit components.

Directory Server Resource Kit gives you tools for working with directory services in the laboratory, during deployment, and in the data center.

### Directory Subtree Deletion

Use the `ldapsubtree(1)` tool to delete an entire directory subtree over LDAP with one command.

### DSML v2 Access

Use the following tools to test directory access through DSML v2 when designing, developing, and testing web applications:

- The `dsmlmodify(1)` command to add, delete, modify, rename, and move entries
- The `dsmlsearch(1)` command to find and read entries

### LDAP Performance Measurements

Use the following tools to measure bind, read, and write performance when accessing the directory over LDAP:

- The `authrate(1)` command to measure LDAP bind performance
- The `modrate(1)` command to measure LDAP write performance

- The `searchrate(1)` command to measure LDAP read performance

#### LDIF Generation and Transformation

Use the following tools to generate sample LDIF for sizing and tuning. Use the tools also to transform, sort, and filter LDIF for interoperability:

- The `ldifxform(1)` command to transform, sort, and filter LDIF
- The `makeldif(1)` command to generate sample LDIF

#### Service Tuning

Use the `logconv(1)` command to examine how clients use directory services and to generate recommendations for indexing.

You can decide to set up and run Directory Server Resource Kit tools on the same system as your directory server, or on another system. The decision depends on your work environment. The decision also depends on the stage of deployment you have reached. The following questions and answers help you decide where to use Directory Server Resource Kit.

**Question:** Are you working to evaluate or to demonstrate directory technology prior to developing directory services?

**Answer:** For convenience, install and use Directory Server Resource Kit on the same system as your directory.

**Question:** Are you working to develop directory client applications or plug-ins?

**Answer:** For convenience, install and use Directory Server Resource Kit on the same system as your directory.

**Question:** Are you working to test directory performance characteristics?

**Answer:** The only command that you must run on the system that provides directory services is the `idsktune` command, which generates system-specific tuning recommendations.

**Answer:** Avoid perturbing the system that you measure by installing Directory Server Resource Kit and running commands, except for `idsktune`, on other systems.

Get accurate directory performance measurements by running clients such as `authrate`, `modrate`, and `searchrate` on separate systems. You can improve accuracy by carefully controlling the processes that run on the system you measure. You can also improve accuracy by controlling the sample data that you store in the directory. You can generate controlled data with `makeldif`.

**Question:** Have you already deployed your directory into the data center?

**Answer:** Avoid perturbing the deployed system by installing Directory Server Resource Kit and running commands on other systems.

Run analysis with `logconv`, LDIF conversions with `ldifxform`, and other operations from other systems as well.

## Bugs Fixed in Directory Server Resource Kit

This section lists bugs fixed for this release.

The following bugs were fixed since the last release of Directory Server Resource Kit.

- 4536646     The `searchrate` command should have an option to specify a timeout.
- 4994437     Fix usage for `authrate`.
- 5005829     Fix usage for `searchrate`.
- 5005834     Fix usage for `modrate`.
- 5009664     The `ldifxform` command does not properly convert when used with `to=cs`.
- 5034829     The `ldapsubtdel` command should allow a password to be read from a file.
- 5082075     The `authrate` command should signal bind errors.
- 5082493     The `dsmsearch` command should handle LDAP filter string syntax.
- 5083049     Fix usage for `dsmmodify`.
- 5083952     The `ldifxform` command crashes on Windows systems when using the `-cto=ascii` option.
- 5084253     The `logconv -d` option generates a divide by zero error.

## Known Problems and Limitations in Directory Server Resource Kit

This section lists known problems and limitations at the time of release.

- 5081543     `searchrate` crashes on Windows systems when using multiple threads.
- 5081546     `modrate` crashes on Windows systems when using multiple threads.
- 5081549     `authrate` crashes on Windows systems when using multiple threads.
- 5082507     The `dsmsearch` command `-D` option takes an HTTP user ID rather than a bind DN.  
  
To work around this issue, provide the user ID that is mapped to a DN in Directory Server.
- 6379087     NameFinder has been seen to fail to deploy in Application Server on Windows systems.
- 6393554     NameFinder has been seen to throw a page not found error after deployment.  
  
To work around this issue, rename `nsDSRK/nf` to `nsDSRK/NF`.
- 6393586     Cannot add more than two users to My Selections list in NameFinder.

- 6393596      NameFinder search should fetch entries for values other than Last Name, First Name, Email, and Given Name.
- 6393599      NameFinder search should allow searches for groups.