

Sun Java™ System Identity Synchronization for Windows Release Notes

Version 1 2004Q3 SP1

Part Number 819-3220

These release notes contain important information available at the time of the release of Sun Java™ System Identity Synchronization for Windows 1 2004Q3 SP1. New features and enhancements, known limitations and problems, technical notes, and other information are addressed here. Read this document before you begin using Sun Java System Identity Synchronization for Windows 1 2004Q3 SP1.

These release notes contain the following sections:

- [Revision History](#)
- [About Identity Synchronization for Windows 1 2004Q3 SP1](#)
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- [Important Information](#)
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- [Redistributable Files](#)
- [How to Report Problems and Provide Feedback](#)
- [Additional Sun Resources](#)

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

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Revision History

Table 1 Revision History

Date	Description of Changes
March 27, 2006	Updated the section on Known Issues and Limitations. Added information on bug 6379804.
June 15, 2005	Service Pack 1 (SP1) Release Notes.
30 September 2004	Initial release of the Release Notes.

About Identity Synchronization for Windows 1 2004Q3 SP1

Identity Synchronization for Windows provides bidirectional password synchronization between the following directories:

- Sun Java™ System Directory Server 5 2005Q1/5 2004Q2 and Microsoft Windows 2000/2003 Active Directory
- Sun Java™ System Directory Server 5 2005Q1/5 2004Q2 and Windows NT SAM Registry

There are two separate packages available with this release. A full installation package and a patch installation. The full installation is to be used by new customers or customers wishing to deploy onto Solaris 10. The patch installation is to be used by existing customers that already have Identity Synchronization for Windows 1 2004Q3 installed.

When synchronizing Sun Java System Directory Server (Directory Server) and Windows 2000/2003 Active Directory, you can install and run all Identity Synchronization for Windows components on the Solaris Operating System and Windows 2000 Server operating system environments. When synchronizing Directory Server and Windows NT, you must run the Windows NT components in the Windows NT environment.

This section includes:

- [What's New in This Release](#)
- [Hardware and Software Requirements](#)

What's New in This Release

New Features

New features in Identity Synchronization for Windows 1 2004Q3 SP1 include:

- **Solaris 10 Support:** Identity Synchronization for Windows 1 2004Q3 SP1 software fully supports Solaris 10 systems on Sun SPARC and x86 platforms. For details on installing Identity Synchronization for Windows software on Solaris 10 systems, see “Installing Identity Synchronization for Windows on Solaris 10.” The Identity Synchronization for Windows installation package also contains bug fixes for this release.
- **Account Lockout Synchronization:** Identity Synchronization for Windows supports account lockout/unlockout synchronization between AD and DS. For details, see “Enabling account lockout on Identity Synchronization for Windows”. This feature is available in the full installer (“fresh bits”) as well as in the patch for existing Identity Synchronization for Windows 1 2004Q3 setup.
- **Bugs Fixed:** Bugs related to installation of the product and Active Directory Connector has been fixed. For details, see the section entitled “Bugs Fixed.” If you are running Identity Synchronization for Windows 1 2004Q3 on Solaris 8 or 9 and Windows systems, Sun Java System Identity Synchronization for Windows 1 2004Q3 SP1 also brings new features provided in this release.

Performance Enhancements

- A fix has been incorporated in this release to address the memory leak issue for Windows NT connectors, observed in earlier release of Identity Synchronization for Windows. Hence, this release provides significant improved Synchronization performance for the Windows NT connectors.

Hardware and Software Requirements

Operating System Requirements

The following tables describe the operating system requirements for this release of Identity Synchronization for Windows:

Table 2 Solaris Requirements

Component	Solaris Requirement
Core Components	Solaris 8™ for UltraSPARC® (32-bit and 64-bit) Solaris 9™ SPARC® Platform Edition (32-bit and 64-bit) Solaris 9™ Operating System (x86 Platform Edition for Pentium II or later) IA-32 Solaris 10™ SPARC? Platform Edition (32-bit and 64-bit) Solaris 10™ Operating System (x86 Platform Edition for Pentium II or later) IA-32
Connectors for Sun Java™ System Directory Server and for Windows Active Directory	Solaris 8 for UltraSPARC (32-bit and 64-bit) Solaris 9 for SPARC platforms (32-bit and 64-bit) Solaris 9™ Operating System (x86 Platform Edition for Pentium II or later) IA-32 Solaris 10™ SPARC? Platform Edition (32-bit and 64-bit) Solaris 10™ Operating System (x86 Platform Edition for Pentium II or later) IA-32
Sun Java™ System Directory Server plug-in	Solaris 8 for UltraSPARC (32-bit and 64-bit) Solaris 9 for SPARC platforms (32-bit and 64-bit) Solaris 9™ Operating System (x86 Platform Edition for Pentium II or later) IA-32 Solaris 10™ SPARC? Platform Edition (32-bit and 64-bit) Solaris 10™ Operating System (x86 Platform Edition for Pentium II or later) IA-32

Table 3 Windows Requirements

Component	Windows Requirement
Core	Windows 2000 Server SP4 Windows 2000 Advanced Server SP4 Windows Server 2003 Standard or Enterprise Edition
Connectors for Sun Java™ System Directory Server and for Windows Active Directory	Windows 2000 Server SP4 Windows 2000 Advanced Server SP 4 Windows Server 2003 Standard or Enterprise Edition
Sun Java™ System Directory Server plug-in	Windows 2000 Server SP4 Windows 2000 Advanced Server SP 4 Windows Server 2003 Standard or Enterprise Edition
NT connectors and plug-ins (subcomponents)	Windows Primary Domain Controller NT 4.0 Server SP 6A (for x86 only)
To Synchronize with Active Directory on Windows 2003 Standard and Enterprise Server	Windows Server 2003 Standard Edition (with latest security updates) Windows Server 2003 Enterprise Edition (with latest security updates)

Hardware Requirements

Your hardware (all platforms) must meet the following minimum requirements to run Identity Synchronization for Windows:

- Approximately 400 MB of disk space for a minimal installation
- A minimum of 512 MB of RAM for servers running any Identity Synchronization for Windows component. (1 GB of RAM preferred)

Sun Java System Software Requirements

To run Identity Synchronization for Windows, you must install the following Sun Java System software components:

- Sun Java System Message Queue Enterprise Edition version 3.5 SP 1 or Sun Java System Message Queue Enterprise Edition version 3.6.

Message Queue Enterprise Edition version must be installed prior to installing Identity Synchronization for Windows. It is also recommended that you install Message Queue Enterprise Edition version prior to installing Sun Java System Directory Server.

To install the Identity Synchronization for Windows core on an *existing* Sun Java System Message Queue installation, you must be using Message Queue Enterprise Edition 3.5 SP1. Trying to install Identity Synchronization for Windows core on an improper version of Message Queue will cause synchronization failures.

To support Identity Synchronization for Windows 1 2004Q3 SP1 on Solaris 10 SPARC and x86 version, you must install and configure Sun Java System Message Queue Enterprise Edition version 3.6 (formerly Sun ONE Message Queue).

- Sun Java System Directory Server version 5 2004Q2 or higher

To install Identity Synchronization for Windows 1 2004Q3 SP1 you must be running Directory Server 5 2004Q2 (5.2 Patch 2) or Directory Server 5 2005Q1 (5.2 Patch 3).

For more information on the Solaris Package installation or the patches to be applied, refer to the [Sun Java System Directory 5 Server 2004Q2 Release Notes](#) or the [Sun Java System Directory Server 5 2005Q1 Release Notes](#).

For more information on the compressed archive (“ZIP”) installation, how to patch, and known bugs in the compressed archive version, refer to the [Sun ONE Directory Server 5.2 Release Notes](#) or the [Sun Java System Directory Server 5 2005Q1 Release Notes for Compressed Archive](#).

The complete list of bugs fixed for Directory Server 5 2004Q2 are available at <http://docs.sun.com/source/817-5216/index.html#wp34970> and bugs fixed for Directory Server 5.2 2005Q1 are available at: <http://docs.sun.com/source/817-7611/index.html#wp44347>

You must install a Directory Server plug-in (subcomponent of Identity Synchronization for Windows) on every Directory Server master, replica, and hub in your deployment.

For the latest information about patches required to install Directory Server on Solaris systems, refer to the *Directory Server Installation and Migration Guide* as well as the *Release Notes* for your version which can be found at one of the following locations:

http://docs.sun.com/db/coll/DirectoryServer_04q2
http://docs.sun.com/coll/DirectoryServer_05q1

- Java Runtime Environment

A J2SE Java Runtime Environment (JRE) is not provided with this product.

- You must install JRE 1.4.2_04 (or later) to run the Identity Synchronization for Windows installer on Solaris or Windows Active Directory. You can also install the J2SE v 1.4.2_04 SDK which has performance improvements over the JRE.
- You must install JRE 1.4.1_03 (or later) on Windows NT.

Also, you must set `JAVA_HOME` to a 1.4.2_04 JRE (or later) on Solaris before installing Identity Synchronization for Windows or the installer might report `JAVA_HOME` as not set.

<http://java.sun.com/j2se/1.4.2/download.html>

Bugs Fixed in This Release

The following table describes the bugs fixed in Identity Synchronization for Windows 1 2004Q3 SP1:

Table 4 Fixed Bugs in Identity Synchronization for Windows 1 2004Q3 SP1

Bug Number	Description
Installation/Uninstallation	
6234794	Identity Synchronization for Windows now supports Solaris 10 on Sun SPARC and x86 platforms
General	
6203945	Due to excess memory usage, Windows NT services used to stop responding
6247859	Java heap space error when trying to save config changes
6234794	Identity Synchronization for Windows support for Solaris10
Connector	
6206621	The Active Directory connector did not create users in Windows Server 2003 if the minimum password length policy is set to a non-zero value
6252283	Account lockout and unlockout events can flow bidirectionally between Active Directory and Directory Server
6247193	Failure to reset Identity Synchronization for Windows configuration password using console on Solaris 10 x86
6272943	Confusing 'invalid filter' error message for DS Plugin
Message Queue	
6247929	Selective installation of iMQ3.5SP1 on Solaris 10
6247208	Persistent 'unable to decrypt bytes' error messages observed
6249858	Identity Synchronization for Windows installer cannot configure iMQ3.6 for any port other than 7676

Important Information

This section contains the latest information that is not contained in the core product documentation. This section includes the following topics:

- [Installation Notes](#)
- [Compatibility Issues](#)
- [Performing Data Recovery When System or Application Fails](#)
- [Running Identity Synchronization for Windows in a Firewalled Environment](#)

Installation Notes

Before installing fresh bits of Identity Synchronization for Windows 1 2004Q3 SP1, be sure to read the “Preparing for Installation” chapter in the [Sun Java™ System Identity Synchronization for Windows 1 2004Q3 Installation and Configuration Guide](#). For more information on downloading the fresh bits, visit this site: <http://www.sun.com/download/products.xml?id=4332597d>.

Installing Identity Synchronization for Windows on Solaris 10

Download the installation package for Sun Solaris 10 on the SPARC and x86 platforms from the <http://www.sun.com/download>. Be sure to review the README file accompanying the product package before you install the product.

NOTE	The installation package for this release can be used to install Identity Synchronization for Windows on Solaris 8, Solaris 9 and Solaris 10 on both Sun SPARC and x86 platforms. It also includes the bugs fixed for this release of the product.
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Installing Identity Synchronization for Windows 1 2004Q3 SP1 Patch

If you have an existing installation of Identity Synchronization for Windows 1 2004Q3, visit the following site to download and install isw-12004Q3-SP1-patch: <http://www.sun.com/download/products.xml?id=4332597d>.

This patch contains updates for the Core, AD Connector, DS Connector, NT Connector and the Directory Server Plugin components. The patch will need to be run on all the machines on which Core, Connectors as well as the machine on which the Directory Server is installed.

Components	Contains all the necessary files to be updated on Windows and Solaris.
Solaris	<p>Contains three Shell scripts:</p> <ul style="list-style-type: none"> •updateCore - updates the core installation on a Solaris SPARC/x86 box. •updateConnector - updates the connector.jar for DS Connector/AD Connector installed on a Solaris SPARC/x86 box. •updateDSPlugin - updates the psw-plugin.so (DS Plugin) for a Directory Server data source installed on Solaris SPARC/x86.
WINNT	<p>Contains three batch files:</p> <ul style="list-style-type: none"> •updateCore.bat - updates the core installation on a Windows box. •updateConnector.bat - updates the connector.jar for DS Connector/AD Connector installed on a Windows box. •updateDSPlugin.bat - updates the psw-plugin.dll (DS Plugin) for a Directory Server data source installed on a Windows box.
NT	<p>Contains two batch files:</p> <ul style="list-style-type: none"> •updateNTConnector.bat - updates the connector.jar for DS Connector/AD Connector installed on a Windows box. •updateNTAccessor.bat - Do not call it explicitly, as it is called internally from updateNTConnector.bat.

Installing Identity Synchronization for Windows 1 2004Q3 SP1 Patch on Solaris

To the install the patch on Solaris, do the following:

- Install patch for Identity Synchronization for Windows Core
 - Install patch for the AD/DS connectors
 - Install patch for the Directory Server plugin
- **To install the Patch for Identity Synchronization for Windows Core**
1. Cd Solaris.
 2. Run the shell script *updateCore*.

```
sh updateCore <ADMIN SERVER ROOT> <LDAP HOSTNAME> <LDAP HOST PORT>
<CONFIGURATION SUFFIX> <BIND DN> <PASSWORD> <DOMAIN NAME>
```

<ADMIN SERVER ROOT>	Is the path to the location on which the Admin Server is installed.
<LDAP HOSTNAME>	The host name of the Sun Java System Directory Server installation that Identity Synchronization for Windows is using.
<LDAP HOST PORT>	The port number of the above mentioned Sun Java System Directory Server installation
<CONFIGURATI ON SUFFIX>	The configuration directory suffix for the Identity Synchronization for Windows installation.
<BIND DN>	The Bind DN for the Directory Host
<PASSWORD>	The password for the Directory Host
<DOMAIN NAME>	Domain Name/DNS Suffix that the Sun Java System Directory Server is configured for

For example, if the admin server is installed in the `/var/Sun/mps` directory and the fully qualified hostname of your machine is `iswhost.sun.com` use `sh updateCore /var/Sun/mps dssserver.sun.com 1389 isw_config "cn=Directory Manager" abc123 sun.com`.

► To install the patch for the AD/DS Connectors

1. Cd Solaris
2. Run the shell script `updateConnector`.

```
sh updateConnector <ISW SERVER ROOT>
```

where `<ISW SERVER ROOT>` is the path to the location on which the connector has been installed.

For example, if the connector is installed in the `/opt` directory run the following command

```
sh updateConnector /opt
```

► To install the patch for the NT Connectors

1. Cd `WINNT\NT`.
2. Run the script `updateNTConnector.bat`.

```
updateNTConnector <ISW SERVER ROOT>
```

where *<ISW SERVER ROOT>* is the path to the location on which Connector has been installed.

For Example, if Connector is installed in *C:\Program Files\Sun\mps* run the following command `updateNTConnector "C:\Program Files\Sun\mps"`.

NOTE if you have spaces in the installation path string, you must enclose it within quotes shown in the example.

This batch file also calls *updateNTAccessor*. Hence *updateNTAccessor* should not be called explicitly.

➤ **To install the patch for the Directory Server Plugin**

1. Cd solaris.
2. Run the shell script `updatedSPlugin`.

```
sh updatedSPlugin <SERVER ROOT> <ISW SERVER ROOT>
```

where *<SERVER ROOT>* is the location where DS has been installed and *<ISW SERVER ROOT>* is the location where Identity Synchronization for Windows DS Plugin has been installed.

For example, if the Directory Server is installed in the */var/Sun/mps* directory and DS Plugin is installed in the */opt/SUNWiswdp* directory, run the following command

```
sh updatedSPlugin /var/Sun/mps /opt/SUNWiswdp.
```

Installing Identity Synchronization for Windows 1 2004Q3 SP1 Patch on Windows

NOTE To install the patch in windows you will need to be currently logged in as the administrator or an user with administrative privileges.

To the install the patch on Windows, do the following:

- Install patch for Identity Synchronization for Windows Core
- Install patch for AD/DS connectors
- Install patch for NT connectors
- Install patch for Directory Server plugin

➤ **To install patch for Identity Synchronization for Windows Core**

1. Cd WINNT.
2. Run the script `updateCore.bat`.

```
updateCore <ADMIN SERVER ROOT> <LDAP HOSTNAME> <LDAP HOST PORT>
<CONFIGURATION SUFFIX> <BIND DN> <PASSWORD> <DOMAIN NAME>
```

<ADMIN SERVER ROOT>	Is the path to the location on which the Admin Server is installed.
<LDAP HOSTNAME>	The host name of the Sun Java System Directory Server installation that Identity Synchronization for Windows is using.
<LDAP HOST PORT>	The port number of the above mentioned Sun Java System Directory Server installation
<CONFIGURATI ON SUFFIX>	The configuration directory suffix for the Identity Synchronization for Windows installation
<BIND DN>	The Bind DN for the Directory Host
<PASSWORD>	The password for the Directory Host
<DOMAIN NAME>	Domain Name/DNS Suffix that the Sun Java System Directory Server is configured for

For example, if the admin server is installed in the *C:\Program Files\Sun\mps* directory and the fully qualified hostname of your machine is *iswhost.sun.com*, run the following command

```
updateCore C:\Program Files\Sun\mps dsserver.sun.com 1389 isw_config
"cn=Directory Manager" "abc123" sun.com"
```

NOTE If you have spaces in the installation path string, you must enclose it within quotes shown in the example.

► To install the patch for the AD/DS Connectors

1. Cd WINNT.
2. Run the script `updateConnector.bat`.

```
updateConnector <ISW SERVER ROOT>
```

where <ISW SERVER ROOT> is the path to the location on which the Connector has been installed.

For example, if the connector is installed in the *C:\Program Files\Sun\mps* directory, run the following command

```
updateConnector "C:\Program Files\Sun\mps"
```

NOTE If you have spaces in the installation path string, you must enclose it within quotes as shown in the example above.

► **To install the patch for the NT Connectors**

1. Cd WINNT\NT.
2. Run the script `updateNTConnector.bat`.

`updateNTConnector <ISW SERVER ROOT>`

where *<ISW SERVER ROOT>* is the path to the location on which Connector has been installed.

For example, if the connector is installed in the *C:\Program Files\Sun\mps* directory, run the following command `updateNTConnector "C:\Program Files\Sun\mps"`.

NOTE if you have spaces in the installation path string, you must enclose it within quotes as shown in the example.

This batch file also calls *updateNTAccessor*. Hence *updateNTAccessor* should not be called explicitly.

► **To install the patch for the Directory Server Plugin**

1. Cd WINNT.
2. Run the script `updateDSPlugin.bat`.

`updateDSPlugin <SERVER ROOT>`

where *<SERVER ROOT>* is the path to the location on which the Directory Server has been installed.

For example, if the Directory Server is installed in the *C:\Program Files\Sun\mps* directory, run the following command `updateDSPlugin "C:\Program Files\Sun\mps"`.

NOTE If you have spaces in the installation path string, you must enclose it within quotes as shown in the example.

Uninstalling Identity Synchronization for Windows 1 2004Q3 SP1 Patch from Solaris or Windows

► **To uninstall the patch from a Solaris or Windows box, do the following:**

1. To uninstall from the Core, run the script with `-uninstall` option:

```
updateCore <ADMIN SERVER ROOT> <LDAP HOSTNAME> <LDAP HOST
PORT><CONFIGURATION SUFFIX> <BIND DN> <PASSWORD> <DOMAIN
NAME>-uninstall>
```

<ADMIN SERVER ROOT>	Is the path to the location on which the Admin Server is installed.
<LDAP HOSTNAME>	The host name of the Sun Java System Directory Server installation that Identity Synchronization for Windows is using.
<LDAP HOST PORT>	The port number of the above mentioned Sun Java System Directory Server installation
<CONFIGURATI ON SUFFIX>	The configuration directory suffix for the Identity Synchronization for Windows installation
<BIND DN>	The Bind DN for the Directory Host
<PASSWORD>	The password for the Directory Host
<DOMAIN NAME>	Domain Name/DNS Suffix that the Sun Java System Directory Server is configured for

2. To uninstall the patch for the Connectors, run the script with the `-uninstall` option:

```
updateConnector <ISW SERVER ROOT> -uninstall.
```

<ISW SERVER ROOT> is the path to the location on which AD/DS connector has been installed.

3. To uninstall the patch for the NT Connector:

```
run updateNTConnector <ISW SERVER ROOT> -uninstall.
```

4. To uninstall the patch for the DS Plugin:

```
Run updateDSPlugin <SERVER ROOT> -uninstall.
```

Message Queue 3.6

This patch installation does not support Message Queue 3.6 version. Current installation supports only Message Queue 3.5. You cannot upgrade an existing installation of Message Queue 3.5 to 3.6 without losing all of the data associated with Identity Synchronization for Windows. If you need to run on Message Queue 3.6 then you will need to un-install Identity Synchronization for Windows 2004Q3 SP1 and then re-install using the full install package for Identity Synchronization for Windows 2004Q3 SP1. This will allow you to configure Identity Synchronization for Windows for use with Message Queue 3.6.

Sun Java System Directory Server 5.2 Patch3 Hot fix

If full installation of Identity Synchronization of Windows uses Directory Server 5.2 Patch3, then it is mandatory to install the retrochange log fix provided with this release for successful Installation of Identity Synchronization for Windows. Review the Sun Java System Directory Server section in the README file for further details.

In case of Identity Synchronization patch installation apply the hotfix Sun Java System Directory Server version 5.2 Patch 3 patchzip-6242270 available at <http://www.sun.com/download/>

If Installing in MMR (Multi Master Replication) setup, ensure to turn on the “passwordisglobalpolicy” at the Sun Java System Directory Server for flowing Account Lockout/Unlockout.

Enabling Account Lockout on Identity Synchronization for Windows

To enable the Account Lockout feature, you must map certain attributes, which are different in Active Directory and Directory Server. When Account Lockout is enabled and password policies are same on both AD and DS, lockout and unlockout events can flow bidirectionally between Active Directory and Directory Server.

Identity Synchronization for Windows 1 2004Q3 SP1 will be able to synchronize the following events between AD and DS:

- Lockout events from AD to DS
- Lockout events from DS to AD
- Manual unlockout events from AD to DS
- Manual unlockout events from DS to AD

Prerequisites

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 may expire if the “lockoutDuration” is lesser than the difference in the systems’ date.

Using the Account lockout Feature

To enable Account lockout synchronization, you need to map attributes “accountUnlockTime” (DS) and “lockoutTime” (AD). “accountUnlockTime” can be selected in the console after loading the schema with passwordObject objectclass.

Requirement to Use Account Lockout Feature

Account Lockout policy should be similar on AD and DS data source:

- Duration of account lockout should be set to same value on AD and DS data source

- “LockoutTime” at Active Directory data source has to be mapped to “AccountUnLockoutTime” at Directory Server data source.

See the README accompanying the software for installation details.

Using Windows 2003 Server

- You can now use Windows 2003 Server Standard or Enterprise edition as a platform for installing and configuring Identity Synchronization for Windows 1 2004Q3 SP1.
- On Windows 2003 Server, the default password policy enforces strict passwords, which is not the default password policy on Windows 2000.

Windows 2003 Server Issues

Windows 2003 Server behavior for ‘user must change pw at next login’ is different from Windows 2000. (4997513)

On Windows 2003 the flag indicating the user must change his password at the next login is set by default, which is not the case on Windows 2000.

When you create users on Windows 2000/2003 with the ‘user must change pw at next login’ flag set, users will be created on Directory Server with no password. The next time the users log into Active Directory, they will be forced to change their password, which will invalidate their passwords on Directory Server and force on-demand synchronization the next time those users authenticate to Directory Server.

Until users change their password on Active Directory they will not be able to authenticate to Directory Server.

Compatibility Issues

Compatibility issues when using certain Remote Console products to access the Identity Synchronization for Windows console. (5077227)

Problems could occur when attempting to view the Identity Synchronization for Windows console using PCAnywhere 10.x or Remote Administration2.1. (However, PCAnywhere version 9.2 may not cause errors.) If problems persist, remove the remote administration software. Alternatively, VNC could be used; it is not known to cause any issues displaying the Identity Synchronization for Windows console.

Performing Data Recovery When System or Application Fails

In case of a hardware or application failure it may be necessary to restore the data from a backed up in some of the synchronized directory sources.

After completing the data recovery, however, it is necessary to perform an additional procedure to ensure that the synchronization can proceed normally.

The connectors - in general - maintain information about the last change propagated to the message queue.

This data - referred as the connector state - is used to determine the subsequent change 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 may no longer be valid.

Windows-based connectors (Active Directory or Windows NT) also maintain an internal database. This database is a copy of the synchronized data source, and is used to determine what has changed in the connected data source. It is easy to see that the internal database will no longer be valid once the connected Active Directory source or Windows NT system 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 <code>-i ALL_USERS</code> option can be used to invalidate passwords in Sun Java Systems Directory Server systems if the resynchronization data source is Windows (and the SUL list includes only Active Directory systems).
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Using `idsync resync`, however, may not be an acceptable option in every situation.

CAUTION	Before executing any of the steps detailed below, make sure that synchronization is stopped.
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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. There is no need to change the synchronization flow settings in the Identity Synchronization for Windows configuration, `idsync resync` allows setting synchronization flow independent of the configured flows using the `-o <Windows|Sun>` option.

Consider the following scenario as an example:

Bidirectional synchronization is setup between a Sun Java Systems 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.
1. Stop synchronization `idsync stopsync -w - -q -`
 2. Resynchronize Active Directory Source and 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

Microsoft Active Directory

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

It may become necessary, however, 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:

1. Start the Identity Synchronization for Windows management console.
2. Select the Configuration tab.
3. Expand the Directory Sources node.
4. Select the appropriate Active Directory Source.
5. Click Edit controller...
6. Select the new domain controller.

It is recommended to make the selected domain controller the NT PDC FSMO role owner of the domain

7. Save the configuration.

8. Stop the Identity Synchronization service on the host where the Active Directory Connector is running.
9. Delete all the files (but not the directories) under `<serverroot>/isw-<hostname>/persist/ADPxxx`, where xxx is the number portion of the Active Directory Connector identifier (for example, 100 if the Active Directory Connector identifier is CNN100).
10. Start the Identity Synchronization service on the host where the Active Directory Connector is running.
11. Follow the steps based on your synchronization flow in the unidirectional or the bidirectional synchronization sections.

Sun Java System Directory Server

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

1. Retro-Changelog Database.

There may have been changes in the Retro- Changelog database that the Directory Server connector could not process. Restoring the Retro Changelog database only makes sense if the backup contains some unprocessed changes. This can be done by comparing the most recent entry in the `<serverroot>/isw-<hostname>/ADPxxx/accessor.state` file with the last changenumber in the backup. If the value in `accessor.state` larger or equal than the changenumber in the backup, then it is not necessary to restore the database, but the database should be recreated.

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

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

2. Synchronized Database.

If there is no backup 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 described in the bidirectional or unidirectional synchronization sections.

Running Identity Synchronization for Windows in a Firewalled Environment

You can run Identity Synchronization for Windows in a firewalled environment. This section describes which server ports you must expose through the firewall, as follows:

- [Message Queue Requirements](#)
- [Installer Requirements](#)
- [Core Component Requirements](#)
- [Console Requirements](#)
- [Connector Requirements](#)
- [Directory Server Plug-in Requirements](#)

Message Queue Requirements

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 *Sun Java™ System Message Queue Administrator's Guide* for more information.

Installer Requirements

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 (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's LDAP port (default port 389).

Core Component Requirements

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.

Console Requirements

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
- Sun Java System Administration Server
- Message Queue

Connector Requirements

All connectors must be able to communicate with Message Queue. In addition:

- The Active Directory connector must be able to access the Active Directory Domain Controller via LDAP (port 389) or LDAPS (port 636).
- The Directory Server connector must be able to access Directory Server(s) via LDAP (port 389 default) or LDAPS (port 636 default).

Directory Server Plug-in Requirements

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 running in Directory Server Master replicas must be able to connect to Active Directory's LDAP (port 389) or LDAPS (port 636). The plug-ins running in other Directory Server replicas must be able to reach the Master's Directory Server LDAP or LDAPS ports.

Known Issues and Limitations

This section contains a list of the known issues with Identity Synchronization for Windows 1 2004Q3 SP1. The following product areas are covered:

- [Installation and Uninstallation](#)
- [Connectors and Plug-Ins](#)
- [Console and Command Line](#)
- [Password Synchronization](#)
- [Sun Java System Message Queue](#)
- [General Issues](#)

Installation and Uninstallation

Instructions for manually scrubbing the product registry. (5050004)

If you need to remove references to Identity Synchronization for Windows from the product registry, use the procedures described for the Windows NT and Windows 2000 platform in Chapter 7, “*What to Do if the 1.0 Uninstallation Fails*” section of the *Identity Synchronization for Windows Installation and Configuration Guide*.

Solaris scripts will not work if you install core in a directory with spaces in its name. (4801643)

The command line scripts on Solaris will not work if you install Identity Synchronization for Windows core in a directory with a space in its pathname.

Message Queue broker cannot start if the Base DN contains spaces. (4892332 and 4892490)

Do not install core on a suffix containing spaces or the Message Queue broker will fail to authenticate.

Side-effects of installing core with an existing Message Queue instance. (4882194)

Installing core with an existing Message Queue broker instance can affect the existing instance. For example, an existing configuration was modified as follows:

- The `/etc/imq/imqbrokerd.conf` file was modified to start the broker automatically on start-up, which prevented other broker instances launched from `/etc/init.d/imq` script from being launched on reboot.

Message Queue broker requires a minimum of 512MB of memory. (4819519)

The Message Queue broker requires a minimum of 512 MB of memory. Because the broker is installed as part of core, the machine where core is installed should have at least 1GB of RAM.

Uninstalling plug-ins if a multi-Directory Server instance installation removes the uninstaller. (4916035)

You cannot uninstall multiple plug-ins if two Directory Server instances have the same file system installation root (for example, `/usr/sunone/servers/slapd-foxhead` and `/usr/sunone/servers/slapd-foxhead2`).

Workaround:

1. Open the Directory Server console (for the Directory Server where you installed the plug-in).
2. Click on the Configuration tab.
3. Double-click on the `Plugins` folder to expand the plug-in tree.
4. Click on `pwsync` and uncheck the Enable plug-in checkbox.
5. Restart Directory Server.

Indeterminate behavior of Active Directory connector if installation is cancelled before completion and when attempted to reinstall again. (5038905)

If the installation program is cancelled while it is configuring the connector and when the installation program is executed again, the connector option is not available for installation.

Workaround

Run the `idsync resetconn` from the command-line prompt to reset the connector's configuration, and then re-run the installer to re-install the connector. For details on running `idsync resetconn` command, see the *Sun Java System Identity Synchronization for Windows Installation and Configuration Guide*.

Registry keys pertaining to the product are not removed when the product is uninstalled. (5045237)

After performing an uninstallation of core, the Sun Java System Identity Synchronization for Windows related nodes in the product registry file are not removed. To successfully reinstall the product, you must manually remove the nodes from the product registry keys. For more details on removing these product registry keys, see the *Identity Synchronization for Windows Installation and Configuration Guide*. This situation only occurs on Solaris 8.

Identity Synchronization for Windows related references are displayed in the Console when the Core is uninstalled without connecting to the config registry. (5049700)

An error message is displayed when the Console is started after performing a blind uninstallation (without connecting to the config registry) of Identity Synchronization for Windows.

The 'temp' directory, where install logs are logged could be a hidden directory. (5051905)

The under C:\ Documents and Settings > Administrator > Local Settings folder could be a hidden folder on some Window systems.

Workaround

To view Local Setting folder and Temp subfolder, the Windows Explorer option Show Hidden files should be selected. Alternately, type either cd %TEMP or cd %TMP on the command prompt to view installation related log files in the directory. The logs can then be viewed using Notepad.

Authentication to Message Queue broker fails if the root suffix contains spaces. (4892903)

The Identity Synchronization for Windows configuration must be stored in root suffix that does not have any spaces due to a limitation of Message Queue.

Workaround

Create a new root suffix to store the Identity Synchronization for Windows configuration before installing Core.

After a failed Directory Server plug-in installation, the To Do list displays that the installation of the plug-in is complete. (5081912)

In certain scenarios, the To Do list may display that the Directory Server plug-in has been installed although the installation of the plug-in actually failed.

During the uninstallation of a connector, the uninstallation program does not accurately display the disk space it will recover. (5081823)

The uninstallation program inaccurately displays 0 bytes (as the number of bytes it will recover after the uninstallation procedure), when uninstalling a connector. When the properties of the disk space is viewed, the actual disk space size recovered will not be zero.

Installation program does not enforce you to install components in the same directory where the Directory Server plug-in installation directory is located. (5080178)

If the Directory Server plug-in is the first component installed on a machine, then all succeeding component installations, on that particular machine, must be installed in the same installation directory (of the Directory Server plug-in). However, the installation program does not enforce this criteria during installation.

Uninstallation program may display incorrect information when uninstalling components. (5079489)

When a connector is uninstalled from a machine where the Core component is not installed, then the installer incorrectly reports that it is uninstalling the Core component. This message can be ignored. Identity Synchronization for Windows console references is not removed if a uninstallation procedure is performed when the configuration directory does not exist. (5077156)

When the option to uninstall the product without the configuration directory is selected, then the Sun Server Console retains all references to the Identity Synchronization for Windows console. After uninstalling the product, the icon for the Identity Synchronization for Windows will still exist in the topology tree. On attempting to display the console, an error occurs. For more information on removing the console's references, see Chapter 8, in the “Uninstalling the Console Manually” section of the *Identity Synchronization for Windows Installation and Configuration Guide*.

Uninstallation does not remove the ‘server-root/isw-*/lib’ directory and the jar files. (5038284)

The uninstallation operation does not remove the lib directory containing the *.jar files. These files and the directory must be manually deleted.

Indeterminate behaviour of Active Directory connector when the installation operations is cancelled and reinstalled. (5038905)

When installing the Active Directory connector if the installation operation is cancelled abruptly and then a re-installation of the connector is attempted, the Active Directory connector displays an incorrect status as ‘Installed’. This status does not change and the synchronization operation does not occur nor a reinstallation of the Active Directory connector is possible - when attempted.

Workaround

You must run the `idsync resetconn` command to reinstall the connector. For details on running the `idsync resetconn` command, see the *Identity Synchronization for Windows Installation and Configuration Guide*.

The installation list prompts to install the Directory Server Plug-in on the secondary master even after installation. (5096593)

The To Do list is almost always accurate, but sometimes it might fail to report the required steps nor does it not recognize that some steps have already been performed. For instance, it may not always reflect which Directory Server plug-ins have been or need to be installed.

Identity Synchronization for Windows installation on FAT32 system does not have ACLs. (5097751)

After installing Identity Synchronization for Windows on a FAT32 formatted drive and when the you check ACLs for the folders and files, the ACLs do not exist. It is recommended to avoid installing on non-NTFS partitions.

Plug-in only uninstallation may fail when using the Directory Server zip version. (5101589)

When attempting to perform a plug-in only uninstallation operation, the operation fails when the compressed archive package of the Directory Server is used.

Identity Synchronization for Windows 1.1 SP1 on Windows: start/stop admin failed during applying SP1(updateCore.bat) (6379804)

This error occurs during upgradation of core components of Identity Synchronization for Windows to version 1.1 SP1. The `updateCore.bat` file contains hard coded incorrect reference to Sun Java System Administration Server. As a result of this, the upgradation process does not completely successfully.

Workaround

To resolve this problem, users need to replace two instances of references to Sun Java System Administration Server from the upgrade script.

Replace the following instructions on lines 51 and 95 of the upgrade script from:

```
net stop "Sun Java(TM) System Administration Server 5.2"
```

to:

```
net stop admin52-serv
```

On making the above changes, rerun the upgrade script.

Connectors and Plug-Ins

Deleting a pre-existing entry starts NT connector synchronization. (4864009)

Installations with existing Windows users (Active Directory or NT) must run an `idsync resync` command before starting synchronization to prevent undefined behaviors (such as existing Windows users being synchronized to Directory Server at any time).

Restart connectors if they are inactive. (4938309)

If the central error log reports a message similar to `No response from connector [CNN100]` for 10 minutes, you might have to stop and restart the Identity Synchronization for Windows daemon/service where the connector is running.

Workaround

- On Solaris, issue the `/etc/init.d/isw stop` and then `/etc/init.d/isw start` commands.
- On Windows, restart the Sun Java System Identity Synchronization for Windows service.

Restart Directory Server after enabling Secure Sockets Layer for the Directory Server plug-in. (4944804)

You must restart Directory Server after enabling Secure Sockets Layer (SSL) for the Directory Server plug-in (subcomponent) and adding the Active Directory CA certificate to the Directory Server's certificate database or OnDemand synchronization may fail trying to authenticate a user whose password changed on Active Directory (see sample log messages).

If Active Directory searches time out, administrators should increase search limit. (4881182)

If the Active Directory error log reports a time-limit-exceeded error for a connector, use `ntdsutil` from the Windows 2000 resource kit to increase the maximum search time out, as follows:

```
C:\dif>ntdsutil
ntdsutil: ldap policies
ldap policy: connections
server connections: set creds example.sun.com administrator password
server connections: connect to server matar
Binding to matar as user(administrator) in domain(example.sun.com) ...
Connected to matar as user(administrator) in domain(example.sun.com) ...

server connections: quit
ldap policy: show values
```

Policy	Current(New)
MaxPoolThreads	4
MaxDatagramRecv	1024
MaxReceiveBuffer	10485760
InitRecvTimeout	120
MaxConnections	5000
MaxConnIdleTime	900
MaxActiveQueries	20
MaxPageSize	1000
MaxQueryDuration	120
MaxTempTableSize	10000
MaxResultSetSize	262144
MaxNotificationPerConn	5

```
ldap policy: Set InitRecvTimeout to 2400
```

```
ldap policy: Commit Changes
```

Binary-valued attributes created without the ;binary subtype will not be processed by Sun Java System Directory Server. (5029226)

Certain attributes such as `userCertificate` require the `;binary` option at the instance of creation. Identity Synchronization for Windows can synchronize the values of such attributes, but it does not set the `;binary` option at creation time. This may cause problems for clients communicating with the Sun Java System Directory Server. Sun Java System Directory Server does not return such an attribute if the attribute was created without the binary option and the client requests the attribute with the binary option.

Identity Synchronization for Windows does not validate the number of characters used when creating the `user_name` attribute. (5021886)

NT SAM has a limit of 20 characters for the `'user_name'` attribute, however, Sun Java Directory Server does not have a restriction on the number of characters used create the user name. The entry mapped to `'user_name'` attribute on NT SAM cannot be used although the successfully flows from NT SAM to Sun Java Directory Server. An error message is displayed when the properties of the entry is edited or viewed on the NT SAM.

Identity Synchronization for Windows does not lock the user at DS if an account lockout flows from AD for a recently unlocked user during resync.

If an account has been recently unlocked at DS, and a lockout flows from AD as a result of resync, account doesn't get locked at DS.

Identity Synchronization for Windows logs invalid credentials messages when a lockout event flows from AD to DS for a new user.

When a new user is created, or the password gets changed at AD, `dspsvalidate` flag is set to true. As the connector uses failed ldap binds to lock the account, DS Plugin tries to validate the user at AD using the wrong credentials, hence the messages are printed in the log files.

The automatic unlock event at AD, does not flow to DS through resync even after logging in at DS. (6277030)

Automatic unlockout at DS/AD doesn't generate any events. As a result, an automatic unlock event doesn't get flown during resync.

If the attribute modification flow has been set off, a valid authentication attempt at DS for a locked account at AD, fails for a newly created user.

When a new user is created at AD, `dspsvalidate` flag is set to true. As a result, when the user does a login attempt at DS, On-demand synchronization does a password validation at AD. But, irrespective of the validity of credentials, AD returns the same error code because the account is locked. However, this is an expected behaviour and it goes away when the lockout duration expires at AD.

Account Lockout does not flow from consumer to master.

Due to limitation in DS, account Lockout does not flow from consumer to consumer and consumer to master.

Console and Command Line

Run `idsync prepds` if Retro Change Log database files are re-created, corrupted, or missing. (4921114 and 4832355)

If the Retro Change Log (RCL) database is ever deleted or corrupted, the Directory Server or the Directory Server connector will issue warning messages. When you see these messages, you must re-create the Retro Changelog and rerun the `idsync prepds` command before synchronization will resume.

Browse button choices for Base DN may not change after choosing a new naming context. (4944711)

If you configure Identity Synchronization for Windows from the console to use more than one Directory Server source and more than two Active Directory (AD) sources, when you configure a new Synchronized Users List (SUL), the Browse button choices presented for the base DN may not accurately reflect the proper Directory Server or Active Directory sources.

Workaround

Manually type the Base DN name into the Base DN field.

Console schema host should point to configuration directory. (4877996)

When specifying a schema host, it is recommended that you use the core configuration directory only. Do not use a stand-alone Directory Server or any other remote configuration directory.

Console Status window does not provide 508 accessibility for viewing log files. (4874361)

The Log File Viewer in the Console Status window does not permit a mouseless interface to view the log files.

Workaround

To view the log files, copy the files to a preferred text editor (outside of the Console Log Viewer).

Console status for Message Queue does not correctly indicate the actual status of the system components. (4937312)

If the network connectivity is interrupted between the Console and MessageBroker, the Console may incorrectly report the status of system components.

Workaround

If network problems occur, make sure that you restart the Console. You could also execute the `idsync printstat` command to receive a more accurate view of the message queue status.

A message is prompted to prepare the Directory Server although the Directory Server has already been prepared, when adding a new Directory Server data source. (5029558)

Whenever you create a new Sun Java System Directory Server source, you will be prompted to prepare the Directory Server source. If you have already prepared the directory source you can safely click the 'No' option.

A message 'Resetting...' is displayed, when the CLI command `resetconn` is executed. Reset password fails and all information about the Directory Server source, configuration, and so on are removed. (5039655)

The Console should not be running when the `resetconn` command-line function is executed. If you do not exit the Console prior to executing the command, the "Resetting..." message is displayed. You should now exit the Console and restart it.

The 'startsync' command fails to execute. The error 'Failed to start synchronization for some of the requested directory sources...' message is displayed. (5050443)

Under certain conditions (for example in case of insufficient memory), it is possible that the command line or the management console reports that "Start synchronization" was successful even if some components could not start synchronization. If you encounter synchronization issues, check the error log for memory related messages.

Parameterized attribute fails in case of multiple values for single-value attributes. (5069907)

The synchronization fails when multiple values are specified instead of a single value for single-value attributes. An error nor a warning message will be displayed when the values are being saved to the Directory Server.

When the `idsync` command is executed, passwords are displayed in clear text on the screen. (4900126)

When the `idsync` command prompts for the bind and config passwords, on entering the passwords, they are displayed as clear text and are not encrypted.

Workaround

To avoid passwords being displayed on the screen, store each password in a protected file and then redirect it to the command line. If the '-' option is provided for any password argument, the `idsync` command prompts for the password values in the order the options appear on the command line. For example, if the administrator password is `adminPw` and the configuration password is `configPw`, then create a file (`passwords.txt`) whose contents are:

```
adminPw
configPw
```

And then execute `idsync printstat -w - -q - < passwords.txt` to run the command.

Error while loading log files. (5091787)

In some cases, while loading the `audit.log` file in the Console in the Status tab, this error could be displayed: 'Cannot retrieve log entries due to unknown error. Admin server may need to be restarted.'

Workaround

The `audit.log` file will be loaded, when it is accessed, on subsequent attempts to load the file.

Prepds displays an error message in MMR setup on migration. (5093124)

During migration of a replicated environment, `idsync prepds` may incorrectly reports that schema replication has failed. (For example, the error message could be: "The preferred Sun Java System Directory Server at `ldap://preferred.example.com:389` failed to replicate schema changes to secondary Sun Java(TM) System Directory Server at `ldap://secondary.example.com:389`. Check the replication settings.'). In this case, run `idsync prepds` with the same arguments again. Investigate the replication settings only if the second run of `idsync prepds` results in the same error message.

Using Reflection X 10.0 to access the Console may not be usable. (5095013)

Some of the dialog boxes may not be unusable because the buttons or text boxes cannot be viewed nor can the dialog boxes be resized.

Password Synchronization

Password policy issues. (4834865 and 4811572)

It is possible for password policies used on different directories to cause synchronization errors. Examples include password length and minimum maximum required characters. Administrators must change the incompatible password policy manually to match that of other systems.

Corresponding attributes or passwords that are modified concurrently may not synchronize properly. (4854183 and 4808601)

If an entry that is being synchronized between two directory sources and concurrent modifications are made to an attribute, the attribute may not be synchronize properly. For example, consider this sequence of events.

- John Smith changes his telephone number to 555-1111 in Active Directory (AD).
- This change is propagated to Directory Server; but before this change arrives, an administrator erroneously sets John Smith's telephone number to 555-1112 in Directory Server.

- Next, the change made in Active Directory is applied to Directory Server and John Smith's telephone is set to 555-1111.
- Likewise, the change made in Directory Server is propagated to AD, and John Smith's telephone number is set to 555-1112.

The two directory sources have swapped values and have become unsynchronized.

Similarly, if a user's password is modified on Active Directory (AD) and Directory Server at approximately the same time, the password may not synchronize properly in certain situations.

Under lightly loaded systems, the password modifications would have to occur within a few seconds of each other to become out of sync. Although this situation can occur even if the AD password is modified *after* it was set to the Directory Server value, it is unlikely — the AD password would have to be modified within a few milliseconds of being set to the Directory Server value.

Working with Active Directory's "user must change password at next login" function. (4827180)

If an administrator changes a user's password on Active Directory (AD) and specifies "user must change password at next logon," the password change will not be synchronized to Directory Server until the user logs on and changes their password.

A user authentication will fail under these circumstances:

1. A user changes their password on AD. (The password is propagated to Directory Server and the Directory Server password is invalidated).
2. The administrator resets the user's password and sets the "user must change password at next logon" flag.
3. If the user tries to log into Directory Server using the password from #1 or #2, the log on attempt will fail. Changing the password in AD or Directory Server will update the Directory Server password value.

Specifying a non-ASCII password in NT or Active Directory with the 7-bit check plug-in enabled will prevent the password from synchronizing to Directory Server. (4817344)

On Directory Server, the 7-bit check plug-in (subcomponent) is enabled for userpassword attribute values by default. See: <http://docs.sun.com/source/816-6699-10/plugattr.html>

If you synchronize passwords from Windows to Directory Server that are not 7-bit clean and then you enable and configure this plug-in for userpassword attribute values, synchronization will fail.

You must be careful about synchronizing passwords with non-ASCII characters because the character encoding of the password value is not persisted. Therefore, Windows-side clients and Directory Server clients must use the same character encoding when changing passwords (and in cases of authentication) or the operation will fail.

Multiple password values are not supported. (4807350)

Multiple user password values are not supported.

Resync does not automatically resume the resync process when the system manager is restarted. (5077660)

When the resync command is executed and the system manager is restarted, resync does not automatically recover and restart the process.

When resynchronization is performed, creation attributes may get deleted. (5085134)**Concurrent updates to an attribute do not get synchronized. (5077760)**

This issue occurs if a value is added to an attribute at approximately the same time a different value is also added to the attribute in a corresponding remote directory entry. The attribute may not get synchronized.

When performing resynchronization, the link actions are not received by the Directory Server connector even if the resynchronization operation had aborted. (4985505)

When the `resync -c -o Sun` is executed, LINK actions are sent to the Directory Server after new users are created in Active Directory. These LINK actions are not received by the Directory Server connector although the resync operation has aborted. Currently, these LINK actions are published on the same temporary MQ topic that all resync/linkusers actions are published.

Deleted entries may not get synchronized from Directory Server to Active Directory due to a known issues in Directory Server Retro-Change Log plug-in. (5077814)

The Directory Server Retro-ChangeLog plug-in may fail to store the `dspswuserlink` in the plug-in entry for a deleted entry. If this occurs, synchronization for the deleted entry of the Directory Server entry to Active Directory does not occur.

Workaround

To resolve this issue, make sure you have updated the Directory Server with the patch that resolves this issue.

Sun Java System Message Queue

Message Queue 3.6 is not supported with patch install of Sun Java System Identity Synchronization for Windows 1 2004Q3SP1

Patch installation of Sun Java System Identity Synchronization for Windows 1 2004Q3 SP1 supports only Message Queue 3.5 SP1 version. Migrating from existing Message Queue 3.5SP1 to 3.6 is not supported as it could corrupt the existing topology.

New installation of Sun Java System Identity Synchronization for Windows 1 2004Q3SP1 does support Message Queue 3.5 SP1 and 3.6 versions.

Message Queue 3.6 fails to respond on an upgrade to Solaris10. (6294093)

On Identity Synchronization for Windows 1 2004Q3 SP1 installation, upgrading Operating System from Solaris 9 to Solaris 10 results in shutdown of Message Queue 3.6 and fails to startup.

System manager cannot connect to Message Queue. (4907711)

The system manager cannot connect to Message Queue and the Message Queue is up.

Workaround

Restart the Identity Synchronization for Windows service/daemon where the core is installed.

Increase Message Queue broker's maximum memory for deployments of 100K+ users. (4924939)

Identity Synchronization for Windows configures the Message Queue broker to use a maximum of 512 MB of memory by default, which is sufficient for most installations. However, for installations larger than 100K users, you should increase the maximum memory to at least 1 GB to ensure optimal performance. For deployments of more than 200K users, increase the memory to 2 GB.

If the Identity Synchronization for Windows core is installed on *Solaris*, use the following steps to increase Message Queue broker's memory limit:

1. Issue the following command to stop the Message Queue broker:
`/etc/init.d/imq stop`
2. Edit the `/etc/imq/imqbrokerd.conf` file to change the current default memory setting of `-Xmx512m` to `-Xmx1024m` for 1 GB of memory or `-Xmx2048m` for 2 GB of memory.
3. Issue the following command to start the Message Queue broker:
`/etc/init.d/imq start`

If the Identity Synchronization for Windows core is installed on *Windows 2000*, use the following steps to increase Message Queue broker's memory limit:

1. Using the Windows Services Management console, stop the Message Queue broker service.

2. From the `<installation-root>/isw-<machine-name>/imq/bin` directory, issue the `imqsvcadmin query` command from the command line. The output will be similar to the following:

```
Service iMQ Broker is installed.

Display name: iMQ Broker

Start Type: Automatic

Binary location: C:\sunone\servers\isw-example\imq\in\imqbrokersvc

JREHome: c:/j2sdk1.4.2/jre/

VM Args: -Xmx512m

Broker Args: -passfile
"C:/sunone/servers/isw-example/imq/etc/passfile.properties"

-DimqConnectionType=TLS -port 7676 -name psw-broker
```

3. Save the output from this command to a file.
4. Uninstall the Message Queue broker service by issuing the `imqsvcadmin remove` command.
5. Before you can proceed, you must restart the Windows 2000 machine where core was installed.
6. From the `<installation-root>/isw-<machine-name>/imq/bin` directory, issue the following command using the output you saved from the `imqsvcadmin query` command issued earlier. For example:

```
imqsvcadmin install -jrehome c:/j2sdk1.4.2/jre/ -vmargs -Xmx1024m -args
"-passfile C:/sunone/servers/isw-example/imq/etc/passfile.properties
-DimqConnectionType=TLS -port 7676 -name psw-broker"
```

Where:

- The `-args` argument is filled in from the `Broker Args` field.
 - The `-jrehome` argument is filled in with the `JREHome` field.
 - To increase the memory to 1 GB, use `-vmargs -Xmx1024m`.
 - Only for 64bit Java VM: to increase the memory to 2 GB, use `-vmargs -Xmx2048m`
The highest memory value for a 32bit Java VM is `-Xmx1750m`
7. Use the Windows Services Management console to start the Message Queue broker service.

Starting and stopping Message Queue broker. (4809493)

On Windows, the Message Queue broker runs as a service, and administrators can control the Message Queue broker service through the service control panel.

To start and stop the broker, you must reboot the machine after installing the core because the service manager process cannot see the required `IMQ_JAVAHOME` environment variable until Windows is rebooted. This situation applies only if you installed Message Queue with the core (i.e. a pre-existing Message Queue was not used).

Use the following commands:

```
/etc/init.d/imq( stop or start)
```

No support for using Message Queue on a machine where core is not installed. (4943576)

Identity Synchronization for Windows Core components and Message Queue must be installed on the same host.

General Issues

Upgrade of Sun Java System Directory Server 5.2 patch 2 to Patch 3 fails on Windows. (6265750)

As a part of upgrade process for ISW1 2004 Q3 SP1, if the user has Sun Java System Directory Server 5.2 Patch 2 and wants to upgrade to Sun Java System Directory Server 5.2 Patch 3, this would fail on Windows due to bad log generation

Password of uid=pswconnector, Directory Server connector user can expire if the global password policy has password expiration.(6270381)

When preparing the Sun Directory for synchronization from the ISW management console (or using the `idsync prepds` command), it is recommended to create an individual password policy for the above user with no password expiration.

Errors can still exist when synchronization starts successfully. (4814324)

Even if `idsync startsync` returns success, you should check the central error log to verify that the connectors were able to connect to their directory sources.

Strongly recommend putting configuration directory and directory source in separate Directory Server instances for an MMR configuration. (4943470 and 4943480)

In a Multi-Master Replication (MMR) configuration, Sun strongly recommends that you put the configuration directory and directory source in separate Directory Server instances, and that you configure replication agreements *before* you install Identity Synchronization for Windows.

If you designate the same Directory Server instance as the configuration directory and the preferred Directory Server (user data), and you create Replication Agreements after installing Identity Synchronization for Windows, the schema elements created by the Identity Synchronization for Windows core installation may be deleted. If this happens, then Identity Synchronization for Windows will not run.

Workaround

To update the schema if you accidentally erase it:

1. Copy the `40so-psw.ldif` file (which contains the schema objects for the Configuration Registry for the install package only), to the Schema Directory of the Directory Server instance.

2. Change the `40so-psw.ldif` file name.

Some references in the schema are not loaded when the `40so-psw.ldif` is processed at start-up (consequence: the server does not start up).

3. Copy the renamed file to the Schema Directory of both masters. (From the server's point of view, the schema has not been changed over the protocol because the schema entry's change sequence number will remain the same).

Attributes used during linking operation should be indexed in the Directory Server. (4814412)

When linking users using `idsync resync (-f <filename> option)`, the command searches the Directory Server for users that match Active Directory or Windows NT users. Every Directory Server attribute used in an `idsync resync` operation should be indexed for equality.

Central logger cannot be turned off. (4945507 and 4933217)

Although the Identity Synchronization for Windows central logger (which logs to files, the syslog, or both) appears to allow you to turn off logging, the central logger will continue to log to the previously specified location.

For example, if you specify syslog logging from the console (with file logging turned off) and then turn off syslog logging, the program will continue logging to syslog. If you specify file logging from the console (with syslog logging turned off) and then disable file logging, the program will continue logging to the file log.

The same behavior occurs if the “Write logs to file” is unchecked and syslog was never used. In this case, the program continues writing logs to the directory.

Restarting the Identity Synchronization for Windows service has no effect — logging will continue.

Synchronization User List Browse button may not function properly. (4944348)

If you browse for a Base DN from the Synchronization User List (SUL) creation wizard or editor panel, it is advisable to double-check the base DN derived by using the Browse button. In some cases, the button will browse the wrong directory and result in an invalid base DN.

Disabling user accounts on Active Directory. (4943785)

If a user invalidates a user account and changes the password on Active Directory (AD), they will not be able to authenticate via AD using the new password. However, after disabling a user account on AD, they will still be able to log-in through Sun Java System Directory Server.

Changing the configuration directory port. (4941271)

If you change the port for a Sun Java System Directory Server that is currently being used as an Identity Synchronization for Windows configuration directory, you also must adjust the Identity Synchronization for Windows configuration so the software recognizes the port change or the System Manager and Message Queue broker will not work.

Workaround

1. **Modify the port in**

```
<imq_installroot>\imq\var\instances\psw-broker\props\config.properties.
```

For example, `imq.user_repository.ldap.server=<host>\:<port>`

2. **Modify the port in** `<isw_installroot>\resources\SystemManagerBootParams.cfg`

For example, `<Parameter name="manager.configReg.hostPort" value="<port>" />`

3. Restart the Message Queue broker service/daemon.
4. Restart the Identity Synchronization for Windows service/daemon.

Support for unlike, multi-valued attributes is limited. (4987930 and 4807260)

Identity Synchronization for Windows provides only limited support for synchronizing unlike, multi-valued attributes because the results are undefined. The following restrictions apply:

- The values in a multi-valued attribute will be synchronized as a unit. For example, if you add a single value to a multi-valued attribute that already has four values, then all five values will be synchronized as a unit and the values of the corresponding remote attribute will be set to these five values.
- When pre-existing users are linked, their attributes will not be synchronized automatically. When a multi-valued attribute changes, the values of the attribute at the remote directory source will be overwritten with the values of the local directory source. For example, if you add a telephone number to an entry's previously empty `telephoneNumber` attribute in Active Directory (AD), then the `telephoneNumber` attribute for the corresponding entry in Directory Server will be set to this new value, overwriting any existing values.
- Concurrent updates to a multi-valued attribute might not be synchronized. If you add a value to a multi-valued attribute at approximately the same time that a different value is added to the multi-valued attribute in the corresponding remote directory entry, then the attribute might become out-of-sync. This situation is also true for single-valued attributes.
- When modifying or renaming the `cn` attribute, the `cn` is a multi-valued attribute type on Directory Server, but a single-valued attribute type on AD. AD uses this attribute type (and its value) to generate new DNs for the person entries to be renamed or modified. Because the connector does not know which value in a multi-valued `cn` should be used to construct the new DN, the connector sends the first value by default. Because the first value is generally not the correct value, the AD rename or modification fails.

If you specify renames (`ldap modrdns`) with `deleteoldrdn` flag set to 0 and the `rdn` component attribute type as `cn`, the operation will fail on the AD side. For example, if the following entry exists and is synchronized on both Directory Server and AD,

```
cn=old rdn, ou=example,com
cn=old rdn
```

and you rename the entry on Directory Server and set the `deleteoldrdn` flag to 0, Identity Synchronization for Windows will change the entry on the Directory Server side to

```
cn=new rdn, ou=example,com
cn= old rdn
cn= new rdn
```

but the rename will fail on the AD side because the entry will be created as:

```
cn=old rdn, ou=example.com not cn=new rdn, ou=example.com
```

resulting in an error message (found in the audit log) similar to the following:

```
[30/Jan/2004:16:41:14.831 -0600] WARNING 16 CNN100 dragon "The action does not have a
single value for attribute cn. The corresponding user at the remote repository might not
have been created with a corresponding attribute value, the attribute might have
multiple values, or cn is not a significant or creation attribute for this directory
source. See audit log for more information" (Action ID=CNN101-FA6784B526-787, SN=1)
```

For this operation to succeed, you must set the flag `deleteoldrdn=1`. Use the following example LDAP modification instructions to perform the rename operation successfully:

```
dn: cn=old rdn, ou=example.com
changetype: modrdn
newrdn: cn=new rdn
deleteoldrdn: 0
```

- When modifying a `cn` attribute using the `modify changetype` and `add` mode, if you add more than one `cn` attribute type *or* if a `cn` attribute type already exists and you add a new `cn` attribute type, the `modify` operation will fail. For example, if the following `cn` entry exists in both Directory Server and AD,

```
cn=example1, ou=example.com
cn=example1
```

You use the following LDAP modification instructions on the entry,

```
dn: cn=example1, ou=example.com
changetype: modify
add: cn
cn: new value
```

the Directory Server entry will change to

```
cn=example1, ou=example.com
cn=example1
cn=new value
```

However, the `modify` operation will fail on the AD side because AD is single-valued. The same error message noted in the previous case will display in the audit log, because the connector cannot distinguish between a rename or a modification.

Active Directory treats description attributes as single-valued even though AD schema describes them as multi-valued. (4938940)

When you add entries to Directory Server using a multi-valued description attribute, the following DSID-031D0809 error will result in the Active Directory (AD) connector `audit.log`:


```
[16/Oct/2003:10:02:54.998 -0500] SEVERE 29 CNN101 dragon "Unable to create user
"cn=Aaccf Amar1072,cn=users,dc=example,dc=sun,dc=com" at
ldaps://starlingvm0.example.sun.com:636. LDAP add operation failed. Error code: 19,
reason: 00002081: AtrErr: DSID-031D0809, #1: 0: 00002081: DSID-031D0809, problem 1005
(CONSTRAINT_ATT_TYPE), data 0, Att d (description)
" (Action ID=CNN100-F841CDBF2A-2568, SN=8)
```

The entry will exist in Directory Server but not in AD.

This issue appears to be an Active Directory defect. For more information, refer to the following article in Microsoft's knowledge base (286760):

<http://support.microsoft.com/default.aspx?scid=kb;en-us;286760&Product=win2000>

Workaround

Remove the entry from Directory Server, make the description attribute single-valued, and re-add the entry.

In addition, do not initialize more than one attribute for description in the Define Creation Attribute Mappings and Values dialog box.

No error message from plug-in when Secure Sockets Layer certificate is not trusted. (4924027 and 4924705)

In a Multi-Master Replication (MMR) configuration, if an Identity Synchronization for Windows plug-in (subcomponent) is communicating using Secure Sockets Layer (SSL) and an SSL problem causes a failure, if the plug-in does not provide error messages a CA certificate of the *peer* server's certificate (where the *peer* can be a preferred master, a secondary master, or an Active Directory) is probably missing from the certificate database of the Directory Server on which the plug-in is running.

You can use the `idsync certinfo` command line utility to identify missing certificates. This utility identifies which certificates are required in which database (which certificates the product expects).

Users created in Sun Java System Directory Server should include all attributes in Synchronized Users List filters. (4900568)

If you are synchronizing creates from Sun Java System Directory Server to Windows and the Directory Server Synchronized User List (SUL) definitions include filters, then try to create an entry with attribute values that do not match the SUL filter, the entry creation will not be propagated because the attributes are not in the SUL. And, because the original create was not propagated, the Directory Server entry will not be found on the Windows side.

Workaround

When this situation occurs, a warning will be logged and the administrator must run `idsync resync -c -o Sun` to create the Directory Server entry on Windows.

If you modify the entry so that the attributes match the SUL filter, modifications made to the entry will be propagated to the Windows side.

On-demand sync delay caused by NetBIOS. (4876741)

An attempt to synchronize two Active Directory (AD) domains using a Directory Server and core components configuration on Windows 2000, caused a delay when the Directory Server plug-in's on-demand password synchronization function was talking to AD. Most queries against AD normally take a few milliseconds. A packet trace identified some suspicious NBNS (NetBIOS Name Service) packets.

Workaround

To solve the problem, you must access the TCP/IP settings on the Directory Server machine and disable NetBIOS over TCP/IP.

Identity Synchronization for Windows namespaces (topics) used by message bus. (4827081)

- ConConfig_100
- CntrlLog_100
- SysMgr_100
- PSW_AuditLoggingTopic
- PSW_ErrorLoggingTopic
- PSW_LinkAuditLoggingTopic

In addition,

- For each connector in the system, there will be a CNN1XX_100 topic (such as CNN100_100, CNN101_100, and CNN102_100).
- For each Synchronization User List (SUL) in the system, there will be a topic based on the SUL name. (For example, an SUL named *people* will have a topic named *people_100*.)

Specifying a host from the Global Catalog or Configuration Directory dialog may take some time. (4826109 and 4812651)

When you specify a host that is not resolvable, no progress indicator (such as a cursor busy or status bar) displays to indicate that something is working.

NT user names must be unique. (4825636)

When creating a user in Directory Server to flow to NT, you must ensure that the Directory Server attribute mapped to `USER_NAME` has unique values.

Advise users to secure XML configuration files using access control lists (ACLs). (4812824)

Use file-level protection for the XML configuration files. These files may contain cleartext password values so you should secure them using mechanisms provided on their system — such as file-level ACLs.

Supported Synchronization User List and database relationship. (4811577)

Identity Synchronization for Windows only supports a single Directory Server database. You must include all Synchronization User Lists under a single Directory Server database.

Number of logs can grow without bounds. (4807451)

Unless you save or delete old logs, the number of each log file type in Identity Synchronization for Windows will grow without bounds (one per day).

Logs are named in the following format:

- audit_YYYY_MM_DD.log
- error_YYYY_MM_DD.log

The following logs are kept:

- audit
- error

These logs are located in:

- **On Solaris:** /var/opt/SUNWisw/logs
- **On Windows:** <install-root>/isw-<machine-name>/logs

Entry with special characters will not synchronize from Directory Server to Active Directory. (4816867)

Either Identity Synchronization for Windows cannot resolve the special characters (due to mapping restrictions) or Active Directory (AD) cannot create the user because one or more special characters were used in the uid.

The AD console does not allow you to create a “user logon name” that

- Contains any of the following special characters: " / [] : | < > ; ? % \$ ^ & * () ! @ # - + = ~ `
- Exceeds 20 characters
- Ends with a period or include commas
- Includes characters in the range 1-31, which are non-printable characters.

useraccountcontrol attribute default prevents creation of non-user Active Directory objectclass. (5043156)

Users cannot be created in Active Directory if the selected objectclass for the new users does not allow the useraccountcontrol attribute. This limitation does not apply to scenarios where the user objectclass or any other user-derived objectclasses allows the useraccountcontrol attribute in Active Directory.

Workaround

Edit the configuration user using the Directory Server console. Find and remove the `useraccountcontrol` attribute.

For example:

```
dn: cn=130,ou=AttributeDescriptions,cn=active[2],ou=GlobalConfig,ou=1.1,ou=IdentitySynchronization,ou=Services,dc=central,dc=sun,dc=com
pswVersion: 2
pswName: useraccountcontrol
pswSyntax: 1.3.6.1.4.1.1466.115.121.1.5
pswValue: 512
pswPreferCreationAttributeDefaultToAction: false
cn: 130
objectClass: pswattributedescription
objectClass: top
```

Edit all references to `useraccountcontrol` attribute too, specifically, in the `pswCreationAttributeDefaultRef` attribute of the Active Directory global schema.

For example:

```
dn: cn=127,ou=ActiveDirectory,ou=Globals,cn=active[2],ou=GlobalConfig,ou=1.1,ou=IdentitySynchronization,ou=Services,dc=central,dc=sun,dc=com
```

No validation is done for default values. (5051725)

Default values can be specified for the attributes and it can be applied to the directory entries when the attributes are created (see “Creation Attributes” in the *Sun Java System Identity Synchronization for Windows Installation and Configuration Guide*). Currently no validation is performed on the attribute values you specify. Specifying multiple values for attributes that are single-valued will result in object creation failure during synchronization of the entries. When specifying attribute values, make sure that the values you specify conform to the LDAP schema of your enterprise.

Inconsistent handling of modifications if the user appears in the Synchronization User List (SUL). (4970664)

If a user gets into the scope of any Synchronization User List (SUL) as a result of a modification (for example, SUL has a filter `'l=Austin'` and user is modified to have the attribute `l` set to Austin), then Sun Java System Identity Synchronization for Windows treats this user update differently in Active Directory and Sun Java System Directory Server:

- If the user update occurred in Active Directory, then the Identity Synchronization Directory Server Connector will create the corresponding user.
- If the user update occurred in Sun Java System Directory Server, then the corresponding user is not created in Active Directory. Running `resync -c -o Sun` can help to work around this issue.

Entries that have a structural objectclass that inherit from the objectclass selected to synchronize gets synchronized too. (5046861)

For example, if the `organizationalperson` objectclass is selected, then users with the `inetorgperson` objectclass will also be synchronized because `inetorgperson` is a subclass of `organizationalperson`.

To prevent this from occurring, include a filter on the SUL that excludes the subclass:
`(!(objectclass=inetorgperson))`

This will normally cause a problem when using `resync` to synchronize deleted entries because subclasses will also be deleted. For example, with Active Directory the `computer` objectclass inherits from `user`, and `computer` entries might get deleted because they do not have a corresponding Directory Server entry. To prevent the `computer` entries from being synchronized include a filter on the SUL that excludes it:

`(!(objectclass=computer))`

Log files are not automatically removed after their expired date. (5069020)

Log files that are older than the specified number of days for removal are not removed.

Default creation attribute values could be incorrectly configured or fail validation logic. (5066657)

If a creation attribute name is the same for Directory Server and the Active Directory data source, then adding default values to one automatically adds the same defaults to the other source.

Workaround

Remove the creation attribute map and creation attributes in the console and add them again.

Before saving, do this:

If the names of the mapped attributes are the same and the syntaxes (OIDs) of the attributes is the schemas of Active Directory and Directory Server are the same:

- Ensure that default values that you add for the attributes are not the same. (Neither having a value is also going to cause this problem.)

NOTE If the defaults are exactly the same, then this problem may not occur. If they are the same, they cannot be separated without removing and then re-adding the creation attributes and maps.

The useraccountcontrol attribute's default prevents creation of non-user Active Directory objectclass. (5043156)

Users cannot be created in Active Directory if the selected objectclass for new users does not allow the `useraccountcontrol` attribute. The user objectclass or any other user-derived objectclasses allow the `useraccountcontrol` attribute in Active Directory and will not be affected by this limitation.

Unable to map InetOrgperson with a extended class which has a mandatory attribute. (5091959)

For instance, an error message is displayed: 'No Sun mappings or values are specified for Active Directory attribute mail,' where mail is the mandatory attribute and mail is mapped to Sun's mail attribute.

The Identity Synchronization for Windows Installation and Configuration Guide does not mention about the Next button and the Summary pane. (5104768)

The *Identity Synchronization for Windows Installation and Configuration Guide* states at the end of each invocation, that you must exit the wizard using a Close button on the Installation Summary pane. However, the Close button option does not exists on the pane. From the Installation Summary pane, you must click the Next button which moves to a pane describing the remaining installation and configuration steps to be performed. For all non-Core installation operations, this pane has a Finished button which when clicked, exits the wizard. For Core installation, this pane has the Next button which when clicked takes you to a pane prompting whether or not you would like to start the console. From this pane, you can exit the installation program using the Finished button.

WAN support limitations. (5097751)

Identity Synchronization for Windows can be deployed in a Wide Area Network (WAN) environment with certain restrictions.

With the exception of the Directory Server plug-in, all Identity Synchronization for Windows components must be installed on the same LAN (for example, on the same machine), that is, no Message Queue traffic should travel across the WAN. These components can communicate over a WAN with Directory Servers or Active Directory domain controllers.

Performance over the WAN depends on latency and link speeds. We recommend having at least a T1 (1.544Mbps) connection and no more than 300MS latency between each connectors and the directory it manages. In a deployment where Active Directory and the Directory Server are separated by a WAN, better performance can be achieved by installing the Directory Server connector on the same LAN as the Directory Server and having the Active Directory connector communicate with Active Directory across the WAN.

Redistributable Files

Sun Java System Identity Synchronization for Windows 1 2004Q3 SP1 does not contain any files that you can redistribute.

How to Report Problems and Provide Feedback

If you have problems with Sun Java System Identity Synchronization for Windows, contact Sun customer support using one of the following mechanisms:

- Sun Software Support services online at

<http://www.sun.com/service/sunone/software>

This site has links to the Knowledge Base, Online Support Center, and ProductTracker, as well as to maintenance programs and support contact numbers.

- The telephone dispatch number associated with your maintenance contract

So that we can best assist you in resolving problems, please have the following information available when you contact support:

- Description of the problem, including the situation where the problem occurs and its impact on your operation
- Machine type, operating system version, and product version, including any patches and other software that might be affecting the problem
- Detailed steps on the methods you have used to reproduce the problem
- Any error logs or core dumps

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Please provide the full document title and part number in the appropriate fields. The part number can be found on the title page of the book or at the top of the document, and is usually a seven or nine digit number. For example, the part number of these Identity Synchronization for Windows Version 1 2004Q3 SP1 Release Notes is 819-3220.

Additional Sun Resources

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

- Documentation for Sun Java System Identity Synchronization for Windows 1 2004Q3 SP1
http://docs.sun.com/coll/S1_IdSyncForWin_1.0
- Sun Java System Documentation
<http://docs.sun.com/prod/sunone>
- Sun Java System Professional Services
<http://www.sun.com/service/sunps/sunone>
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<http://www.sun.com/service/sunps/sunone>
- Sun Java System Developer Information
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