

Release Notes for Sun ONE Meta-Directory

Version 5.1

These release notes contain important information available at the time of the version 5.1 release of Sun ONE Meta-Directory. Read this document before you begin using Sun ONE Meta-Directory.

These release notes contain the following sections:

- **Previous Release Notes**
 - iPlanet Meta-Directory 5.0
 - iPlanet Meta-Directory 5.0 SP1
 - iPlanet Meta-Directory 5.0 SP1 Patch 1
 - iPlanet Meta-Directory 5.0 SP1 Patch 2
 - Installation Notes
- **Whats new in this release**
- **Supported Platforms**
 - Configuration Constraints
 - Connector Configuration Constraints
- **Known Problems and Limitations**
 - Installation and Uninstallation Notes
 - General Notes
 - Deployment Notes
 - Join Engine Notes
 - Universal Text Connector Notes
 - Database (Oracle) Connector Notes
 - Exchange Connector Notes
 - Active Directory Connector Notes
 - Windows NT Domain Connector Notes
 - UTF-8 Notes
- **Problems Solved**
 - Installation and Uninstallation
 - Oracle database Connector
 - UTF-8

- Special Character handling in OC, JE and UTC
- UTC Connectors
- UTP Connector
- Active Directory
- Join Engine
- NT Connector
- Console
- For More Information

Previous Release Notes

Previous release notes to Meta-Directory can be found at

iPlanet Meta-Directory 5.0

<http://docs.sun.com/db/doc/816-6096-10>

iPlanet Meta-Directory 5.0 SP1

<http://docs.sun.com/db/doc/816-6100-10>

iPlanet Meta-Directory 5.0 SP1 Patch 1

<http://docs.sun.com/db/doc/816-6335-10>

iPlanet Meta-Directory 5.0 SP1 Patch 2

<http://docs.sun.com/db/doc/816-6336-10>

Installation Notes

For background information on installing the version 5.1 release of Meta-Directory, see the Sun ONE Meta-Directory Installation Guide

Whats new in this release

The following features have been added to SUN ONE Meta-Directory 5.1

- Earlier versions of the Meta-Directory only consistently supported ASCII characters. Sun ONE Meta-Directory 5.1 synchronizes attribute values that contain UTF-8 encoded Unicode characters as well. This includes support for
 - UTF-8 in event scripts/plugin-ins
 - UTF-8 clean for AsiaPac deployments (not full i18n)
 - Support for UTF8 data synchronization in the Connectors and Join Engine.
 - Euro character support
- iPlanet Directory Server hosting the Meta View can now be configured using MMR
- Support for a greater variety of Connectors
 - Lotus Notes 5.0.10
 - Novell e-Directory 8.6.2
 - Microsoft Exchange 2000 SP3
- Several high priority Bug Fixes to Sun ONE Meta-Directory 5.0 and Sun ONE Meta-Directory 5.0 SP1
- Numerous stability and performance improvements
- New upgrade tool to help users move from iPlanet Meta-Directory 5.0 and iPlanet Meta-Directory 5.0 SP1 to Sun ONE Meta-Directory 5.1
- Support for Solaris 9 and Windows 2000
- Perldap 1.4.1 is now bundled with Sun ONE Meta Directory 5.1
- Cascading Meta views are also supported. See the Sun ONE Meta-Directory 5.1 Deployment guide for details about this.

Supported Platforms

For a complete list of supported platforms, consult the Sun ONE Meta-Directory 5.1 Installation Guide.

Configuration Constraints

- Sun ONE Meta-Directory 5.1 should support all versions of the iPlanet Directory Server 5.x. However, for versions of the Netscape Directory Server 4.x the connector view and not the Metaview is supported.
- Sun ONE Meta-Directory 5.1 only supports the use of the connectors that are listed within the supported platforms section of the Sun ONE Meta-Directory Installation Guide.
- Sun ONE Meta-Directory version 5.1 does not support failover via Multi master Replication (MMR) and cannot fail over to a replica server either, even for a read-only view.
- Sun ONE Meta-Directory version 5.1 does not support High Availability clustering or hardware redundancy.
- Sun ONE Meta-Directory version 5.1 Join Engine does not support the use of Clusters since you cannot force the join engine (JE) to use the same port everytime a new join engine (JE) starts within the clusters.
- It is recommended that for high volume deployments you seek the advice of your product support representative.
- Sun ONE Meta-Directory version 5.1 supports Perl scripts as Join Engine event scripts and script based rules. However, you should consult your Sun Professional Services representative for more details.
- Upgrade Limitations
 - The upgrade tool described in the installation Guide does not support migrations across platforms.
 - The upgrade tool described in the installation Guide does not migrate the Meta directory configurations across different directory server installations or one machine to another machine
 - Customers using Netscape Directory Server 4.x should upgrade to iPlanet Directory Server 5.1 or higher.

- During the restore process, new ldifs are created. For any reason, if you have to repeat the restore process, you must sure you delete all the new files created (starting with new_) in the backup directory before starting a new restore.
- No server instance in the Meta-Directory can have the View Name starting with new_
- Secure LDAP is not supported. But you can SSL tunnel communications between Join Engine and Views (directory) and between connectors and data sources. See, for instance, <http://www.stunnel.org/>
- Sun ONE Meta-Directory 5.1 does not support read-only replicas.
- Sun ONE Meta-Directory 5.1 is not supported on Sun Solaris[tm] 2.6 Operating Environment (SPARC® Platform Edition). Users must upgrade to Sun Solaris[tm] 8 Operating Environment (SPARC® Platform Edition) or Sun Solaris[tm] 9 Operating Environment (SPARC® Platform Edition)
- It is not possible to modify Meta-Directory configuration rules whilst the Join Engine is synchronizing data. As such it is recommended you stop the Join Engine before you make such a modification.
- Due to the performance intensive nature of the Join Engine component of Sun ONE Meta-Directory 5.1, it is strongly recommended that this component be deployed on a dedicated host. i.e no other software running on this host
- It is recommended that when conducting large numbers of deletions you stop the refresh schedule. Although refresh time limits are both permitted and very much dependent on a particular deployment situation, mass add operations and deletions are not recommended and are best done at source. Furthermore, Sun ONE Meta Directory 5.1 does not support situations in which data integrity has been compromised, for instance by combining add and delete operations that may result in conflicts during a join.
- It is not possible to modify or delete an attribute at the same time from two different places (this could result in lost updates) and as such it is recommended that modifications and deletions are either performed from one place or using a predefined time.

Connector Configuration Constraints

Microsoft Windows NT Domain

- Sun ONE Meta-Directory 5.1 NT Connector has no control over NT password policy

Oracle Database

- Database views are not supported. The Oracle Connector must work directly with tables.
- At the time of writing, the only relevant database supported is Oracle 8.1.5 or 8.1.7, Sun ONE Meta-Directory 5.1 is not certified with Oracle 9i. However, Oracle OCI client 8.1.7 is compatible with an Oracle 9i Server.

Microsoft Active Directory

- No other versions of Microsoft Active Directory, other than ADSI 2.5, are supported
- Sun ONE Meta Directory 5.1 Active Directory Connector has no control of Active Directory password policy

Microsoft Exchange 2000 SP3

- No other versions of Microsoft Exchange are supported.
- Sun ONE Meta Directory 5.1 Exchange Connector has no control of Active Directory password policy.

Lotus Notes 5.0.10

- The Lotus Notes 5.0.10 connector for Sun ONE Meta 5.1 Directory does not synchronize access rights and roles as of now.
- Synchronization of password attributes is not supported.
- Following is the list of dependent components that must be selected along with the Meta-Directory Lotus Notes Connector during its installation:
 - Server Core Components
 - Administration Services
 - nsPerl
 - Meta-Directory Console

If one or more of these are not selected, the installation would abort.

- Although official support is provided for Lotus Notes 5.0.10, Lotus Notes 4.x and 5.0.x should also work but are not supported.
- Currently one can use only MySQL version 3.23.51 as the relational database that can store the intermediate changelog for the Lotus Notes Connector
- No validation is done for the data entered in 'Absolute Path of Notes Cert ID', 'Notes Cert ID Password', 'Domino Server Name', 'Absolute Path of Notes Admin ID File', 'Notes Admin User Name', 'Notes Install Location' fields during instance creation. User has to ensure that right values are entered for these fields. If any invalid data is entered, connector instance will still be created. However proper data flow will not happen when the connector is started.

Novell eDirectory 8.6.2

Following is the list of dependent components that must be selected along with the "Meta-Directory Novell Directory Connector" during its installation:

- Server Core Components
- Administration Services
- nsPerl
- Meta-Directory Console

If one or more of these are not selected, the installation would abort.

- Synchronization of password attributes is not supported.
- Currently one can use only MySQL version 3.23.51 as the relational database that can store the intermediate changelog for the Novell Directory Connector.

Known Problems and Limitations

This section lists and describes the known problems reported for the release of Sun ONE Meta-Directory 5.1. The known problems are arranged into the following sections:

Installation and Uninstallation Notes

General Notes

Deployment Notes

Join Engine Notes

Universal Text Connector Notes

Database (Oracle) Connector Notes

Exchange Connector Notes

Active Directory Connector Notes

Windows NT Domain Connector Notes

UTF-8 Notes

Installation and Uninstallation Notes

LD_LIBRARY_PATH setting

The LD_LIBRARY_PATH should not contain <DIRECTORY_SERVER_ROOT>/lib for the Sun ONE Meta Directory 5.1 installation to go through successfully on Solaris. (#4798082)

Incorrect Disk Size Information During Installation

During the installation of some Meta-Directory components, the installer program might not immediately refresh the disk size information. (#4543211)

Uninstalling Meta-Directory with a Stopped Directory Server

You can not run the uninstall script after you have shut down the Directory Server instance that hosts the Meta-Directory configuration. This problem occurs only on Solaris. (#4538209)

Uninstalling connectors fails to remove connectors

For Windows installations, the connectors must be stopped prior to an un-installation. If the services are not stopped, the connectors will fail to be removed. (#4798166 and 4798227)

Installer Miscalculates Disk Space Required

After you have downloaded the product binaries and double clicked on the setup for installation, the installer program has been known to miscalculate the disk space required to install Meta-Directory on your system. (#4541375)

Installation Directories

Currently, you must install Meta-Directory into a directory tree whose name is represented as seven-bit ASCII. (#4538175)

Specifying the Change Log Directory During Installation of Meta-Directory

If you specify a nonexistent directory for the change log during the Meta-Directory installation process, the associated Directory Server will not be restarted by the Meta-Directory installation process; you must manually restart the associated Directory Server. (NBA)

Re-installing On Solaris Systems

If you need to reinstall Meta-Directory (or one of its components) on a Solaris system, you will need to reinstall all the currently-installed components. There will be no loss of data or configuration settings when you reinstall the components. (#4540304)

Uninstalling Meta-Directory

Before you uninstall Meta-Directory, be sure to stop all Meta-Directory components from the console and make sure they have finished processing before you initiate the uninstall process. In particular, the join engine takes time to shut down if it is processing a large volume of data. Beginning the uninstall process while Meta-Directory components are still processing will cause the uninstall to fail. (#4539456)

Uninstalling Individual Meta-Directory Components

On Solaris systems, if you uninstall a single Meta-Directory component from a system, other installed components (such as the join engine and any instances of Directory Server) will fail if those components are in the same server root as the Meta-Directory component you are uninstalling. (NBA)

Workaround The problem arises from the deletion of files used by the other services. Reinstall the deleted files and restart any associated components. If you unpacked the tar file into the directory <meta_dist>, then issue the following command to replace the deleted files:

```
unzip -o <meta_dist>/join/join.zip "lib/lib*.so" -d <NETSITE_ROOT>
```

General Notes

Case Sensitivity Note

In LDAP, when you change the case of a Case Ignore String Value, the value is not changed, but the representation of the value is. The LDAP protocol (RFC 2251 to RFC 2256) does not mandate that the representation of the value is to be preserved. When a server maintains the State Information for a Replica, it ensures that values are dealt with correctly. It may not preserve the representations of the value. For example, if you were to set up an instance of the Universal Text Connector using a csv file, and change the values in the file from lower case to upper case, the changes will not be detected. (#4536190)

User Interface May Not Display Hour Table

If you create an NT User in a meta view or connector view, and click on the ntuserlogonhours button, the user interface may not display the hours table. (#4654971)

Workaround Close the window and click on the ntuserlogonhours button several times. The hours table will eventually display.

Logon Hours of an NT UserObject Created by Console Does Not Take Time Zone into Account

The logon hours is represented in NT SAM as an array of 21 bytes with each bit representing each hour within the week. If the time zone is GMT, the left-most bit of this 21 bytes array represents Sunday 0:00. For other time zones, the offset to GMT must be taken into account so that the left-most bit will represent Sunday 0:00 GMT. (#4536190)

Workaround Adjust the hours based on your own timezone so that the left-most bit represents Sunday 0:00 GMT. For example, in US Pacific time zone, GMT-8, the top-left corner square in the console.

Duplicate Email Values

In the Meta-Directory console, it is possible to inadvertently duplicate the value of the email attribute. If you view an entry that is contained in either a meta view or a connector view, then press the Advanced button to edit the entry. The value of the E-Mail attribute will be duplicated when you close the Edit Entry window. This only occurs when using Meta-Directory with Directory Server version 5.0, or earlier. (#4540642)

Query/Fix-It Tool Fails to Find an Entry on the Second Attempt

It is possible that under certain circumstances, the Query/Fix-It tool will fail to find an entry on the second attempt. (#4535732)

Workaround If you notice this behavior, close the Query/Fix-It tool, restart it, and perform the same operations.

Multiple Attributes Cannot be Passed to Event Scripts

In order to supply multiple attributes to an event script, you must specify a space-separated list of these attributes in the console. However, Meta-Directory expects each of these attributes to be stored as a separate attribute value pair for the `mdssupplyattributes` attribute. Currently all these attributes are stored as space-separated. (#4621897)

Workaround: Remove the `mdsupplyattributes` from the entry in the configuration. All attributes will be passed to the event script.

One Join Engine Instance Per Administration Domain

Currently, you can configure only a single join engine per administration domain. This means that you can have only a single join engine for each Meta-Directory setup. (#4551631)

Configuration Data Server

The Meta-Directory configuration is hosted on an instance of Directory Server. If the configuration Directory Server is unavailable, the Meta-Directory console will not operate. (#4536534)

Automatic Console Refresh

Some committed actions (such as adding or deleting a participating connector view, or adding or removing some rules or rule sets) do not automatically trigger a Meta-Directory console refresh. You should always manually refresh the console after performing a committed action. (#4541622)

LDAP Attribute Options

Directory Server allows attribute options such as `binary` and `lang-en`. Although Meta-Directory will flow attributes that contain options, you cannot create join rules based on the names of attribute with options. (#4540791)

"Out of Memory" Errors

It is a known problem that the Meta-Directory console can generate "Out of Memory" errors if the console is left open for extended periods of time. (#4538301)

Workaround: It is advisable to shut down and reopen the Meta-Directory console once a day during the time that you are synchronizing large amounts of data. This applies to Solaris systems only.

Changing the Log File Directory

If you specify a log file directory from the Meta-Directory console, do not end the directory specification with a slash ("/"); the join engine will not write log files to this directory. (#4550433)

Invalid Log File Location on Remote Machines

When you create a new instance of a Meta-Directory component, you can specify the location of its log directory. Currently, Meta-Directory cannot validate log file directories that are located on remote machines. If you enter an invalid log directory, Meta-Directory will be unable to create log files for that component. A remote machine is any machine that is not the one hosting the Meta-Directory console. (#4561277)

Workaround: Make sure the path you specify for the connector logs are valid; both the drive and the directory structure of the specified path must exist for logging to take place.

Connector View Name Size Limitation

Internally, Meta-Directory limits connector view names to five characters. However, the current release of the Meta-Directory console allows you to enter more than five characters when naming connector views. Assigning view names with more than five characters will cause errors when Meta-Directory writes to the log files. The input field for naming connectors will be limited in future product releases. (#4536820)

Viewing Entries in a Connector or Meta View

Currently you will not be able to view entries in the meta view or a connector view if the view contains more than 2,000 entries. In this case, you will need to create a browsing index from the respective Directory Server instance. (#4540743)

Join Rule Names

Do not use trailing whitespace in your join rule names; the whitespace gets truncated in conversion and you will not be able to test them using the Join Rule Tester. (#4536988)

Flowing Attributes From the Meta View Outward

If you set up a system so that changes to all attributes are made only by clients to the meta view, you must still enable the flow of attributes to the meta view by checking Flow Attributes to Meta View. This checkbox is not a switch to disallow modifications from connector views, instead the flow of attributes is controlled by the join rules you write. (#4539556)

Multiple Directory Server Instances and Deleting Entries

You will not be able to delete an entry from a connector view from the Meta-Directory console if the connector view is hosted by a different Directory Server instance than the one that hosts the meta view. In this case, you must use the Directory Server console to delete the entry from the connector view. (#4536610)

Log File Computations Incorrect for Large Values

It is a known problem that the log file size computations are incorrect for values greater than 4 Gb due to a data type limitation. For example, you might see something similar to the following:

```
[2001/03/30 15:25:31.44 -0800] 2357:387584 3 Log Free disk space: 545.000000,
```

```
    Min required : -193435.966797
```

There are three fields that are affected by this data type problem:

- Max. Log File Size
- Max. Reserved Free Space
- Max. Disk usage

(#4540858)

Online help

Before running Sun ONE Meta-Directory 5.1 you must set up the online help as follows:

1. If running console on a different machine, or as a different user then the `xhost + command` needs to be executed and the `DISPLAY` environment variable set appropriately.
2. The "netscape" executable should be in the `PATH`
3. While logging in to the console, the user should make sure that the URL field points to the hostname and port where the admin server of Meta Directory is installed.

When selecting from the menu

(#4776806)

Broken links may occur in Online help Main contents page

This issue does not affect the context sensitive help links or index system.

1. Start the Sun ONE Console using the `startconsole` executable within the Meta-Directory installation
2. Select Server Group (2) > Meta-Directory
3. Select "Help" followed by "contents".
4. Select any hyperlink within this online help contents page

any of the selected links are all broken.

Workaround

```
cp <NETSITE_ROOT>/manual/en/join50/help/* <NETSITE_ROOT>/manual/help
```

Avoiding Conflicting Mapping Rules

It must be ensured that mapping rules that are applied to an entry as a combination, should not be conflicting otherwise the destination entry may appear to be different from the intended one.

(#4791916)

Changes to default attribute mapping rules and objectclass mapping rules

User is allowed to add/modify/delete the default rules specified for the indirect connectors. However, one should be careful in doing such an operation, since this cannot be reverted back to the original settings (unless the user notes down the mappings).(#4801455)

Saving changes to Schedule related configuration

Sometimes changes to the schedule related configuration for the connector instances do not get saved to the Meta-Directory configuration. (NBA)

Workaround: Make sure you refresh the console via selection of "View->Refresh" from the menubar of the Meta-Console, after saving the changes to the schedule configuration (and verify your changes).

Deployment Notes

Notes for Configurations With Multiple Directory Server Instances

If you use different Directory Server instances for you Meta-Directory configuration, meta view, and connector views, Note the following: The Directory Server hosting the Meta-Directory configuration will be displayed in the Meta-Directory console as a Data Server, although technically it does not host user data. The Directory Server hosting the Meta-Directory configuration must have the Retro Change Log enabled. A connector view or meta view cannot be split across multiple Directory Server instances or multiple databases in a Directory Server. (NBA)

Meta-Directory Instance Creation: "Parent Not Found" Error

When creating an instance of a Meta-Directory component (such as a join engine or connector), the view that is hosted by that component must be placed under a directory suffix that contains a data node. For example, suppose you create the new suffix "o=MetaViews". If you then try to create an instance of the join engine, and specify

"ou=MV1, o=MetaViews", the instance creation will fail. (The process fails because a search for "o=MetaViews" returns no such object.) (#4538640)

Workaround: The workaround is to manually create the suffix "o=MetaViews".

Setting the All IDs Threshold

In the Meta-Directory Deployment Guide, it is recommended that you adjust the All IDs Threshold from its default setting. For example, it's recommended that you set the All IDs Threshold value to 250,001 if you are synchronizing 250,000 entries. However, configuring the All IDs Threshold before you bulk-load data into a connector view can cause extremely slow load times. It might be faster to first load the data, then adjust the All IDs Threshold value. However, note that changing the All IDs Threshold will result in new indexes being built for the DIT. (#4536538)

Windows NT Uninstallation Option: Clean Up Local Files

When uninstalling the Meta-Directory components on a Windows NT system, the uninstallation UI will prompt for a username/password and it will ask if you would like to clean up local files. Checking this option will cause the installation to halt with the error message:

No value exists for the name <ConfigDirectoryLdapURL>

(#4536701)

Join Engine Notes

Join Engine Coredump Failure

Typically, the join engine will perform a coredump if the connection is lost to the Oracle server, or if you remove an Oracle connector view from the list of participating views. If the join engine fails to perform a coredump under such conditions, the join engine will fail to respond to any new requests and modifications. (#4650015)

Workaround When the connection to the Oracle server is down, and you wish to remove the Oracle Connector View from the list of participating views, shut down the join engine first, then remove the Oracle connector view, and finally, restart the join engine.

Network or Directory Server Failures

Currently, if the network experiences a failure, or if you shut down and restart the Directory Server, you must stop and restart the join engine. Also, you must Disable and then Enable any views associated with the join engine to ensure that the "Enable" of the view has been properly registered with the join engine. For example, if you restart the Directory Server instance that hosts the Meta-Directory configuration (or any Directory Server instance associated with a connector view), you must restart join engine and you must re-enable any associated views. Note that the Directory Server instances must be up and running before you restart the join engine. (#4551334)

"Unknown" Status in the Join Engine

It is sometimes possible for the join engine to show a status of "Unknown" after you issue a refresh command. This is caused by the join engine being preoccupied with processing entries before it can respond to the status request from the Meta-Directory console. (#4539049)

DCNS schedule not checked at startup of the Join Engine.

Upon a restart of the join engine, a refresh will start even if the refresh schedule specifies a time. (#4719673 see also #4534212 and #4717368)

Modification of entries in Oracle and MV are case insensitive

Modifications to entries in the source view (ORacle/MV) which involve changes in the case of the attribute values will not be reflected in the destination view (MV/ORacle) (#4760307)

Log file location changes after modifying log-level

For Solaris installations only. If Sun ONE Meta-Directory has been installed in a location where the path contains a "." character, the "." is stripped from the location after modifying the log-level in the Sun ONE Console. (#4786933)

Incorrect oracle table parameter leads to a loop of join engine crash.

If the parameters and rules given to flow data from MV to Oracle table are invalid and a Refresh Operation is performed from MV to CV, then the JE crashes. CV cannot be disabled since the JE is down and once when JE comes up, it performs refresh operation and this leads to a loop of JE crash. (#4786771)

Workaround: Remove the connector view as Participating View for JE. If required, give valid parameters and create a new CV. Add it as PV for JE. Give valid rules and then start JE.

Universal Text Connector Notes

No Filter Check for Adding Back Entries

If entries are deleted from the non-owner side, the Universal Text Connector will add back the entries. However, the add back logic does not go through a filter check if a filter was used originally to synch those entries. (#4634294)

Workaround You can remove the entries from the owner side, wait for the next synch cycle to complete so that the entries are deleted from both sides and then add them back.

Subtree Filter Behavior Note

If you are specifying a subtree filter for flow in only one direction, make sure that for the opposite data flow, the default (AllSubtreesExcept) is selected in the Meta-Directory console Configuration | Filters tab. This will ensure that all entries will flow correctly. If you select NoSubTreeExcept with no subtrees selected for the opposite data flow, no entries will flow in that direction. (NBA) For more information on Filters, see the Meta-Directory Configuration and Administration Guide.

nsperlconn Crashes After Disk Space Runs Out

If no disk space is left on your drive, nsperlconn may crash. (#4536041)

Universal Text Connector (UTC) Synchronization Cycle Runs at a Minimum of 15 Seconds

When using the Advanced Schedule button in the Universal Connector configuration, you can set the synchronization cycle to a minimum of 1 second, but the actual synchronization operation will only perform at a minimum of every 15 seconds. (#4536495)

Universal Text Connector (UTC)-based Connectors Cannot be Started from the Windows NT Service Control Panel

The Universal Text Connector and any UTC-based connector (NT Domain Connector, Active Directory Connector, Universal Text Parser) needs a specific file in order to start from the NT service control panel. This file contains credentials for binding to the configuration directory, and exposes these sensitive credentials after its initial start. Because of this, the file is deleted after the contents are read, so if the connector is stopped due to a manual shutdown or reboot, the connector will not start from the NT service control panel. (#4537747)

Workaround To start the connector after a shutdown or reboot, use the meta-admin command-line tool. For more information on the meta-admin tool, see the Meta-Directory Configuration and Administration Guide.

Universal Connector Status is Misrepresented in the Meta-Directory Console

Modifications made to entries in Universal-based connector views might not be propagated to their associated external data sources for up to three synchronization cycles. This problem may occur if synchronization cycles are scheduled too closely together. (#4540609)

Problem with Connector Perl Script and next_record

A connector perl script's next_record function returns an entry which contains a vrn field. The nsperlconn parser requires this to be a string, so it does not allow the [B] base 64notationn to be used in this field. (#4622970)

Workaround Use \xx hexadecimal notation, as described in RFC 2253 to escape UTF-8 data, and escape special characters (\, ; etc.) when constructing the vrn field to return from next_record.

EndOfFileMarker Not Working in Universal Text Parser (UTP)

In the Universal Text Parser, the EndOfFileMarker=^\.{3}\s*\$ option is not recognized for nvp and ldif type data. Entries following the EndOfFileMarker are read as one record. (#4551299)

Workaround: There must be a record separator following the end of the file marker.

Universal Text Parser JoinList Option Failure

The Universal Text Parser JoinList option does not work for multiple join characters. Only the first join character will be used by the Universal Text Parser. (#4628937)

Entry Modification Delays

It is possible for the Meta-Directory console to misstate the UTC status as down, when in fact the component is up and running. This condition is normally caused by a timeout; the request by the Meta-Directory console timed out before the UTC was able to respond. If such a condition occurs, restart the Meta-Directory console. (#4538321)

Specifying Script Names for the Universal Text Parser

When creating a connector using the Universal Text Parser (UTP), you must specify the name of the script that you will be using for the connector (normally, this is template.pl). The Meta-Directory console does not validate either path or the script name of the value you input. If an incorrect value is entered, the connector will not function. (#4538179)

Universal Text Parser Options

The ValidateDataFile option in the task.cfg file is not supported in the current release of the Universal Text Parser. If the input data file is absent, the following error message will be logged: Error opening input file <filename> (#4536778)

Stopping a Universal Text Connector-based Connector

If you stop a connector, the process running the connector might take a long time to terminate if the connector is busy processing entries. Only when all the entries have been processed will the connector be stopped. (#4538269)

ModRDN operation is not supported in UTC

Modification of the RDN for indirect connectors (UTP, ADC and NTDC) is not supported. For example, if you modify the RDN for an entry in a UTC CV, instead of modifying the existing entry it will be added as a new entry to the external datasource and this new entry will be owned by the UTC CV. (#4786815 and #4771792)

Modifying an entry having leading space(s) in CV gives "Save Error" :

Trying to modify the entries in the CV which have flown from the external data source and leading space(s) in the naming attribute gives a "Save Error" saying "Cannot Save to Directory Server, netscape.ldap.LDAPException:error result (68);Already Exists".

Workaround: This is the problem with the Meta Directory and Directory Server Console. Such an entry can be modified with some other LDAP browser and also using ldapmodify. (#4787549)

UTC Schedule time parameter in Sun ONE console cannot parse non-integers

The schedule time (by selecting the schedule tab in the utc participating view entry) must be entered as whole integers and therefore cannot be less than one minute. (#4716732)

Database (Oracle) Connector Notes

Oracle Connector does not use TNS_ADMIN environment variable

Oracle Connector does not make use of the TNS_ADMIN environment variable to pick up the configuration files. As such the configuration files must be present in their default location. (#4636992)

Database (Oracle) Connector Reports "Error 0"

It is possible that when entries are being synchronized to the Oracle connector, the join engine log may report an Error 0 error code. Error 0, however, is a normal message, meaning that the entries are still synchronized to the Oracle connector (#4629579)

You Cannot Uninstrument an Oracle Data Server If a User Is Connected

If the join engine is running when you try to uninstrument your Oracle Data Server, the SQL scripts will fail saying that it could not remove the user. This means is that the change log user is already connected to the Oracle database and is "active" or had a current login session to Oracle. (#4563488)

Workaround: Stop the join engine before removing the Oracle data server.

Removing an Oracle Data Server From a Meta-Directory Setup

If you plan to remove an Oracle data server from your Meta-Directory setup, you should first disable the connector view and participating view that's associated with the data server prior to removing the data server from the setup. Once you remove the Oracle data server, you should shut down and restart the Meta-Directory console. (#4563488)

Whitespaces and # not handled properly in OC, JE and UTC

Special characters whitespace (at the beginning and at the end) and hash(# at the beginning) are not handled in Oracle Connector, UTC and Join Engine. (#4760313)

Refreshing a Connector View With Many Modifications

If you are simultaneously refreshing two or more connector views with the meta view and there are at least 30 percent simultaneous changes being made to the data contained in the meta view, there is a possibility that the data flowing to an Oracle connector view could get locked out. This behavior has been observed with a load 150 Kb or more. Note that flows to other connector views will continue unabated. (#4551717)

Workaround: If the Oracle connector view gets locked out, you should do the following:

1. Refresh each connector view.
2. Interweave simultaneous refresh operations so they occur a few minutes apart from each other.

Changing rules while the Join engine is refreshing

Rules should not be changed whilst the Join Engine is refreshing (# 4788943)

Timeout when instrumenting the columns for an Oracle data server

When trying to instrument against an Oracle table that contains a large amount of data, Oracle may be too slow to respond to the Sun ONE console before a timeout occurs. In this case, a copy of the table schemas should be added to a new Oracle user with no data. Instrumentation can then take place against this new user as normal. After instrumentation, the configuration can then be reverted to the original user. (#4781607)

Exchange Connector Notes

All known problems and limitations listed below the section Active Directory Connector Notes also apply for Exchange Connector.

Active Directory Connector Notes

Addback of CV owned group doesn't happen with Default Schema / Default Attribute Flow.

Flow a CV owned group and its associated members to AD. If you delete a member belonging to the group at the CV end and then delete the group at AD end, the group doesn't get added back at AD. This causes inconsistency of data. (# 4771146)

Workaround: Use Complete Attribute Flow rule or Minimum Attribute Flow rule or user-defined flow rules to allow modifications flow on either directions.

Special Character Handling in Active Directory

While creating a new user, AD doesn't support some special characters in its Logon Name(Pre-Windows 2000) field and restricts the field length to 20 characters. While flowing the user entry from Connector View to AD, these special characters in the "cn" field will be mangled by the perl layer and then added to Logon Name(Pre-Windows 2000) field in AD. Also, while flowing the user entry from Connector View, special characters (as specified in RFC 2253) in the DN field should be escaped with `\"`.

While creating a new group, AD doesn't support some special characters in its Group Name(Pre-Windows 2000) field and restricts the field length to 63 characters. While flowing the group entry from Connector View to AD, these special characters in the "cn" field will be mangled by the perl layer and then added to Group Name(Pre-Windows 2000) field in AD. Also, while flowing the group entry from Connector View, special characters (as specified in RFC 2253) in the DN field should be escaped with `\"`. (#4775375, #4775381, #4774453)

Search Tool Does Not Return Data in the ADSpecific Mode

When running a connector in the ADSpecific mode, the Search tool only returns the users and groups with objectclass person, organizationalunit, inetorgperson, etc. The Search tool fails to return results for mdsADuser, msdADPerson, and so forth. (#4539066)

Active Directory Connector Failure due to spaces in Top Level DN around "=" or ","

The Active Directory Connector fails to add entries to the Active Directory if there is a space in the top level DN value around "=" or "," from which all Universal Text Connector synchronization occurs. There should be no spaces around "=" or "," between the subcomponents of the DN. If spaces exist, Active Directory Connector fails to add the entries to the Active Directory. However spaces are allowed in DN's subcomponent values. For example, ou=Active Directory,o=sunone.com is allowed but something like ou=Active Directory , o=sunone.com or ou=Active Directory,o = sunone.com is not allowed. (#4620213)

Workaround: While creating instances of the Active Directory connector, be sure to confirm that the top level DN doesn't contain spaces around "=" or ",".

Domain Names for Active Directory Connectors

During the instance creation of an Active Directory connector, the Meta-Directory console does not attempt to validate the domain name. In addition, the console does not validate "Top Level Synch DN" names. Even with the invalid names, the instance creation will complete, but the instance will not be operational. (#4538180)

Workaround: Be sure to confirm the domain name and the Top Synch DN values before creating instances of the Active Directory connector.

Limitation of Active Directory Password Synch

The Active Directory Connector has no control of Active Directory password policy. The current implementation doesn't synch the password. If the password policy is set not to allow blank password, the User synchronization operation will fail from Connector View to Active Directory. (#4799504)

Deleting Group Members From the Connector View

If you flow a group of entries from Active Directory to its associated connector view, and delete some of the group entries from the connector view, the entries remain deleted in the view. Because Active Directory owns the entries, they should be refreshed in the connector view during the next synchronization cycle, but they are not. (#4557576)

Workaround: Refresh in linked Schedule.

Setting The Log Level

Setting the Log Level: While creating instances of the Active Directory or Microsoft Exchange connectors, the console allows the user to enter any value for the Log Level textbox without validating it. It should be noted that giving an incorrect value here may prevent the connector from functioning properly. Please ensure that you enter only an integer 0, 1, 2 or 3 for the Log Level. The same restriction applies while setting the logging level parameter by manually editing the `adc.ini` file. (#4538085 and #4755116)

Incomplete external attribute list

For Active Directory Connector and Microsoft Exchange Connector the list of external attributes under the tab "Available External Attributes" is incomplete. Please consult your Sun ONE Meta-Directory Configuration and Administration Guide for more information about this. (#4775237)

Windows NT Domain Connector Notes

Limitation of NT Domain Password Synch

The NT Domain Connector has no control of NT password policy. The current implementation is to use the uid as the default password for all entries created through the connector view. If the uid does not satisfy the password policy, the synchronization operation will fail. (#4616105)

NT SAM Limits NT User Names and Global Group Names to the Maximum of 20 Characters

The NT Domain Connector will still synch a global group with over 20 characters to NT SAM, but the group is not editable from the User Manager. (#4614890)

Workaround: Delete the group from the iPlanet Console and use the NT Domain Connector to delete it from NT SAM.

Access Denied When Adding a User from a Trusted Primary Domain Controller

The Meta-Directory NT Domain Connector, which handles a particular domain, must be installed on the Primary Domain Controller for that domain. It is not possible to synchronize entries from another domain controller, as Windows NT will return the "Access Denied" error. (#4626715)

Domain Names for NT Domain Connectors

During the instance creation of an Active Directory connector, the Meta-Directory console does not attempt to validate the domain name. Even with the invalid name, the instance creation will complete, but the instance will not be operational. (#4538180)

Workaround: Be sure to validate the domain name before you create an instance of the NT Domain connector.

Need to Refresh Before Modifications Appear

When defining a new attribute flow rule using Windows NT Domain connector (or other Universal Connector-based connectors), you will need to do a refresh in Meta-Directory console in order to see the attribute rule name appear from the drop-down box of the General tab. (#4541602)

Japanese Windows

NT Domain Connector cannot be installed on Japanese Windows NT 4.0 (#4792825)

NT Connector fails processing EVERYONE member

If the EVERYONE member is located in any of the NT 4.0 local groups, the connector may crash. According to Microsoft information, for security reasons the EVERYONE member should be replaced by DOMAIN USERS in all cases. (#4781748)

UTF-8 Notes

No support for UTF-8 data in Connector View base DN.

UTF-8 data in the Connector View base DN is not supported in the current release.(#4786909)

Problems Solved

Installation and Uninstallation

Uninstallation was not working on NT due to discrepancies between the NSPR versions used by setupsdk and iPlanet Meta-Directory. This has been solved in the current release. (# 4733825)

Uninstallation on Solaris was not removing configuration items from iPlanet meta-Directory due to the discrepancy on the machine name that was getting passed to the uninstaller. This has been solved in the current release. (#4794108)

UTF-8

In addition to the problems listed below, the following problems have now been fixed as part of UTF-8 (#4540755, 4535189, 4684190, 4676821, 4534481, 4684074)

In the earlier release, for ADC, a group having UTF-8 data in member attribute value did not flow from AD to CV and vice-versa. This problem has been fixed in this release (#4759440)

In the earlier release, non-ascii strings were not passed to the Perl Plug-in, by the join engine. So if you had tried to use a perl script for event scripts or external rules accepting non-ascii data, the data was not passed at all. This problem has been corrected in this release (#4535189)

In the earlier release, non-ascii characters passed to the <F> operator failed to capitalize them. This problem has been fixed in this release (#4540755)

In the earlier release, Unicode characters did not appear correctly in the log files, console dumps etc. This problem has been fixed in this release (#4684190)

In the earlier release, UTF-8 support was unavailable in the Meta View to Oracle database flow direction. This problem has been fixed in this release (#4624689)

In the earlier release the dbquery tool did not pass UTF-8 data to ldap_simple_bind call. This problem has been fixed in this release (#4627339)

In the earlier release UTC failed to convert UTF-8 data to the native charset for ntluserlogonhours for the NT Connector. This problem has been fixed in this release (#4654963)

In the earlier release, for NTDC, if an User / Group entry in the CV had UTF-8 data in its DN value, the modifications to such User / Group entry in CV did not propagate to NT SAM. This problem has been fixed in this release (#4759447)

NT SAM allows Locale Group name to contain special characters other than '\'. In the earlier release, if a Group entry in the CV that is mapped to a Locale Group in NT SAM contained special characters in its DN value, the modifications to such a Group entry in CV or deletion of such a Group Entry from CV did not propagate to NT SAM. This problem has been fixed in this release (#4759459)

Special Character handling in OC, JE and UTC

Special characters (like ',', ';', '\', '<', '>', '+', '"') has been handled in Oracle Connector, Join Engine and UTC (#4752092)

Oracle database Connector

In iPlanet Meta-Directory 5.0sp1, oracle connector queries issued against huge databases were very slow. This has been improved in the current release. (#4780885)

Active Directory

Binary attribute data will now flow from the CV to the active directory (#4761217 and #4640048)

Sun ONE Meta-Directory 5.1 will now flow data correctly from an Active Directory to the connector view where the top level DN contains spaces (#4754479)

Sun ONE Meta-Directory 5.1 will now correctly flow Active Directory group names containing dashes (#4774453)

Sun ONE Meta-Directory 5.1 now correctly requires the CN attribute to be present for the mdsAdGroup object in the meta-directory active directory schema. For this fix to be effective when upgrading from Meta-Directory 5.0 to Sun ONE Meta-Directory 5.1, the schema must be updated manually in all the Directory Servers hosting a Connector View for an Active Directory Connector. The schema file can be located at:

```
<NETSITE_ROOT>\bin\adc50\install\templates\md-schema.ldif
```

(#4764363)

mdsADSamAccountName will obtain its value from the samAccountName in active directory if present. If no samAccountName value is present, the cn attribute is used instead (#4630822)

Improvements have been made to the Microsoft ADSI error reporting within the active directory connector (#4629970)

Login ID Entries created in the Active Directory database can now contain login id values with spaces (#4550920)

In previous release, AD connector didn't sync the data from AD correctly to the CV, if the AD connector is configured with a DN for adtopeleveldn that contains a space character in the DN's subcomponent values. This problem is fixed. (#4754479)

In the earlier release DNs and attribute values containing characters outside the first Unicode code page were not encoded properly. This problem has been fixed in this release (#4684074)

The earlier release assumed the charset to be Windows CP 1252 by default. This problem has been fixed in this release by adding a new configuration parameter "Charset" which can be set by the user (#4534481)

UTC Connectors

Sun ONE Meta-Directory 5.1 now ships a tool for converting LDIF output by UTC to the standard LDIF format so that it will comply with RFC 2849. See the Sun One Meta Directory 5.1 Administration Guide Appendix E for details about this tool. (#4745308)

Disabling the AVL tree The UTC stores data about the entries it has flowed in a structure called an AVL Tree. This AVL tree is persisted across sessions in a file stored in the \$NETSITE_ROOT/utc-CVx/db directory. If, for some reason, entries were added directly into the CV (for e.g. by using the ldapmodify utility) then the AVL tree doesn't contain data about these entries. In such a case, the UTC will not work correctly. As a workaround, the UTC can be configured to not use the AVL tree by setting a configuration flag. This flag can be set by using the directory server console and navigating to the cn=utc-CVx, cn=Connectors, cn=System, ou=5, ou=Meta-Directory, ou=Global Preferences, ou=<AdminDomain>, o=netscaperoot node and looking for the mdsGeneralConfiguration attribute. This is a multi-valued attribute and one of the values looks like "DisableAVLTree=0". Change this to "DisableAVLTree=1". It must be stressed that the AVL tree contains data that is important for the proper functioning of the UTC. If the AVL tree is disabled, in particular, the UTC loses all information about ownership of entries. You should be aware of this if you intend to disable it. (#4711260)

When flowing data to a Connector View, there was a huge performance degradation that appeared if the record size is more than 100KB. The performance has been improved to larger extent in this release. (#4540479)

The dependency of the UTC connector on Join Engine has been removed. UTC can now be used for flowing data between CV and the external data source, even if the Join Engine is not installed. This is a Solaris specific fix (#4804112)

UTP Connector

Avoiding the UTP re-reading the text file: If you are using the UTP, it is necessary that the input file be changed after a sync cycle has completed and before the next one starts. Otherwise, the UTP will waste resources re-reading the file to see if anything has changed. To avoid this, you can set a flag in task.cfg that causes the UTP to rename the file after it has completed reading it once. The UTP will rename the file by appending a timestamp to its original name. To enable this behavior, add the following line to task.cfg: `RenameFileAfterReading=TRUE (#4798319)`

Join Engine

In cases where a DN mapping rule for two entries resulted in the same RDN, iPlanet Meta-Directory 5.0 would join the two entries together. In Sun ONE Meta-Directory 5.1 these incorrect linkages do not occur (#4670866)

In previous release of iPlanet Meta-directory 5.0, binary data could be truncated during flow. This behavior has been fixed. (#4535235)

In previous releases of Meta-directory, rules selection criteria could not distinguish between the meta-directory reserved symbol @ (meaning present) and the string literal @ (e.g john.doe@foobar.com). The selection criteria processor now distinguishes these two uses correctly. (#4750082)

Error messages now correctly advise that the creation of a Connector view or Meta-View is not allowed if the base DN chosen in the view creation dialog box is a parent of another sub-suffix. (#4784210)

In the previous release, the Join Engine did not used to shutdown gracefully when it was stopped. This has been fixed in this release. Now the Join Engine shuts down gracefully when it is stopped from the Console (# 4787424)

NT Connector

In iPlanet Meta-Directory 5.0, not all NT domain users would flow to the meta-view due to an incorrect record size restriction. In Sun ONE Meta-Directory 5.1, the size restriction now applies correctly to each group member individually and not all the groups in total. (#4785880)

Console

The Entry to Test Against field of the Join Rule Tester dialog now displays the correct URL even if the CV/MV resides in a directory server other than the configuration directory server. (#4698834)

How to report Problems

If you have problems with your system, contact customer support using one of the following mechanisms:

- The online support web site at:
<http://www.sun.com/supporttraining/>
- The telephone dispatch number associated with your maintenance contract
- Please have the following information available prior to contacting support. This helps to ensure that our support staff can best assist you in resolving problems:
 - 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

For More Information

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

- Sun ONE Meta Directory Documentation -- <http://docs.sun.com>
- Sun ONE Training--- <http://www.sun.com/training>
- Sun ONE Support information ---<http://www.sun.com/support>
- Sun ONE Developer information ---<http://www.sun.com/developers>
- Sun ONE Product Information--<http://www.sun.com/products>

For More Information