Implementing IBM Security Directory Server (SDS) to be used to test and demonstration LDAP integration with Netcool products

Alaa Farrag (farrag@eg.ibm.com)

Revision: 1.0

Date: 03-07-2016

Contents

1. Introduction

The aim of this document is to describe how to in install and configure IBM Security Directory Server (SDS) to be used when testing or demonstrating LDAP integration with IBM Netcool products (especially when single sign-on SSO is needed).

Normally, in production environments, the customer will have his own LDAP implementation and in this case, Netcool specialist will only need to focus on the LDAP integration part.

IBM SDS is used to be known as TDS (Tivoli Directory server).

2. Required Packages

IBM Security Directory Server V6.4 Client-Server ISO without ent (CN487ML) (sds64-linux-x86-64.iso)
IBM Installation Manager 1.8.4: http://www-01.ibm.com/support/docview.wss?uid=swg24040291

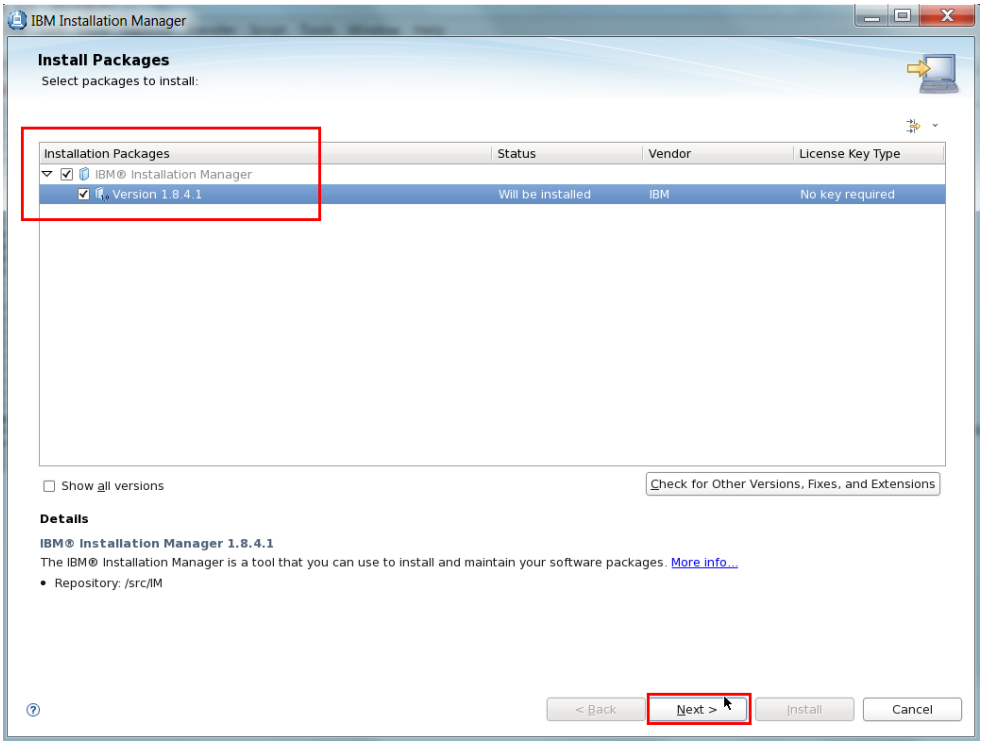
OS Version:
RHEL 6.4 64bit

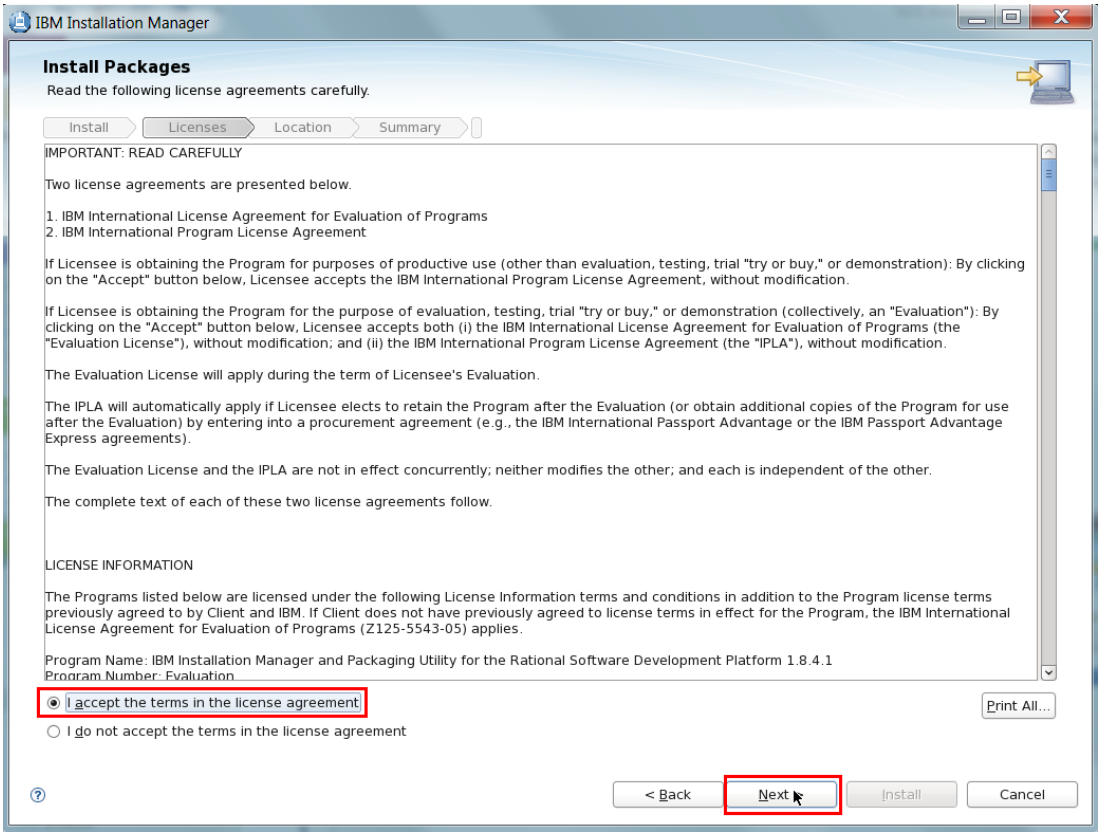
Install OS prerequisites packages:
[root@noi14 ~]# yum install libstdc++.so.6
[root@noi14 ~]# yum install pam-1.1.1-13.el6.i686
[root@noi14 ~]# yum install sg3_utils
[root@noi14 ~]# yum install gcc-c++

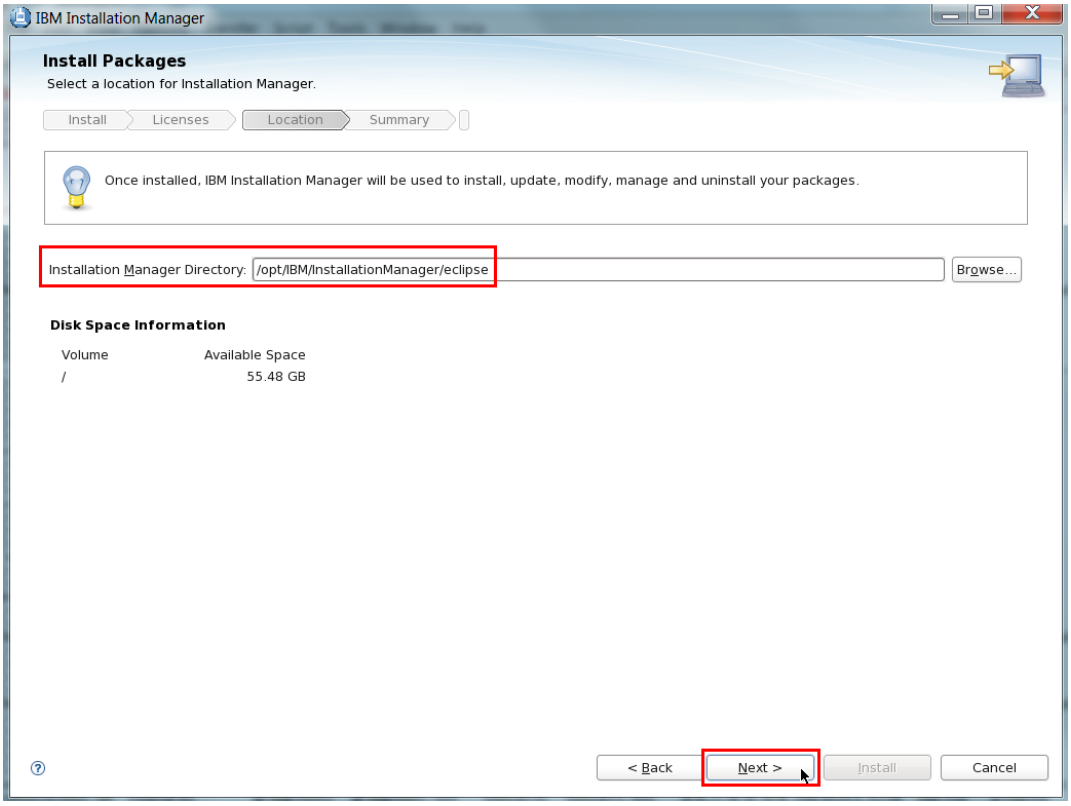
Note: you can use db2prereqcheck script packed with db2 installable image (included in SDS iso image) to validate db2 prerequisites.
/media/ibm_db2/db2prereqcheck

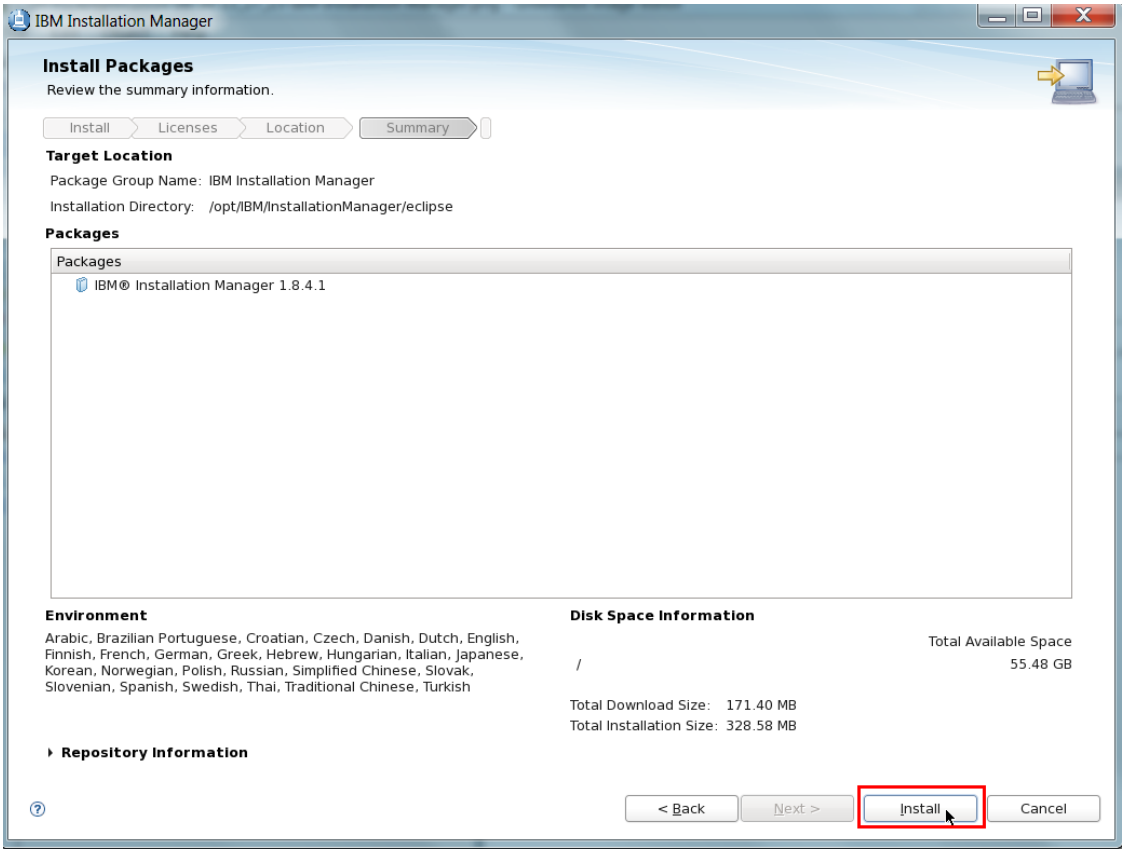
3. Install IBM Installation Manager V1.8.4 using root user

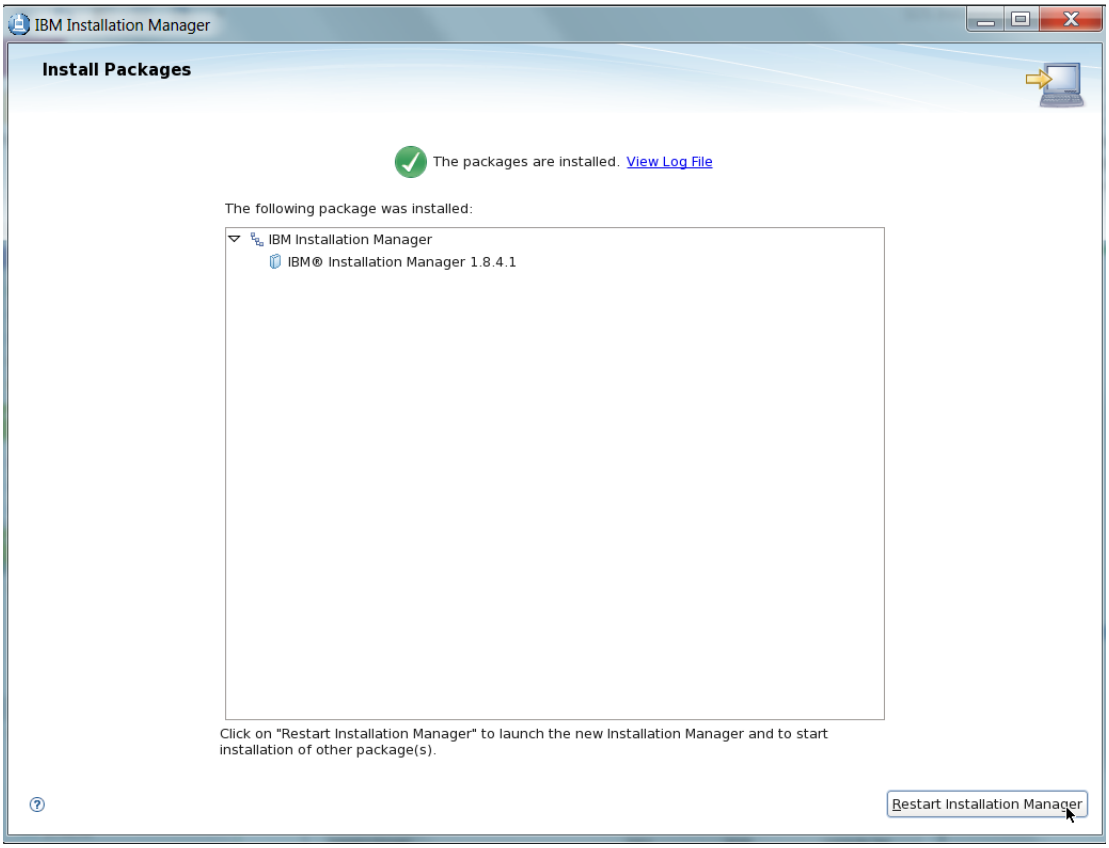
[root@noi14 ~]# cd /src/IM/
[root@noi14 IM]# unzip agent.installer.linux.gtk.x86_64_1.8.4001.20160217_1716.zip
[root@noi14 IM]# ./install

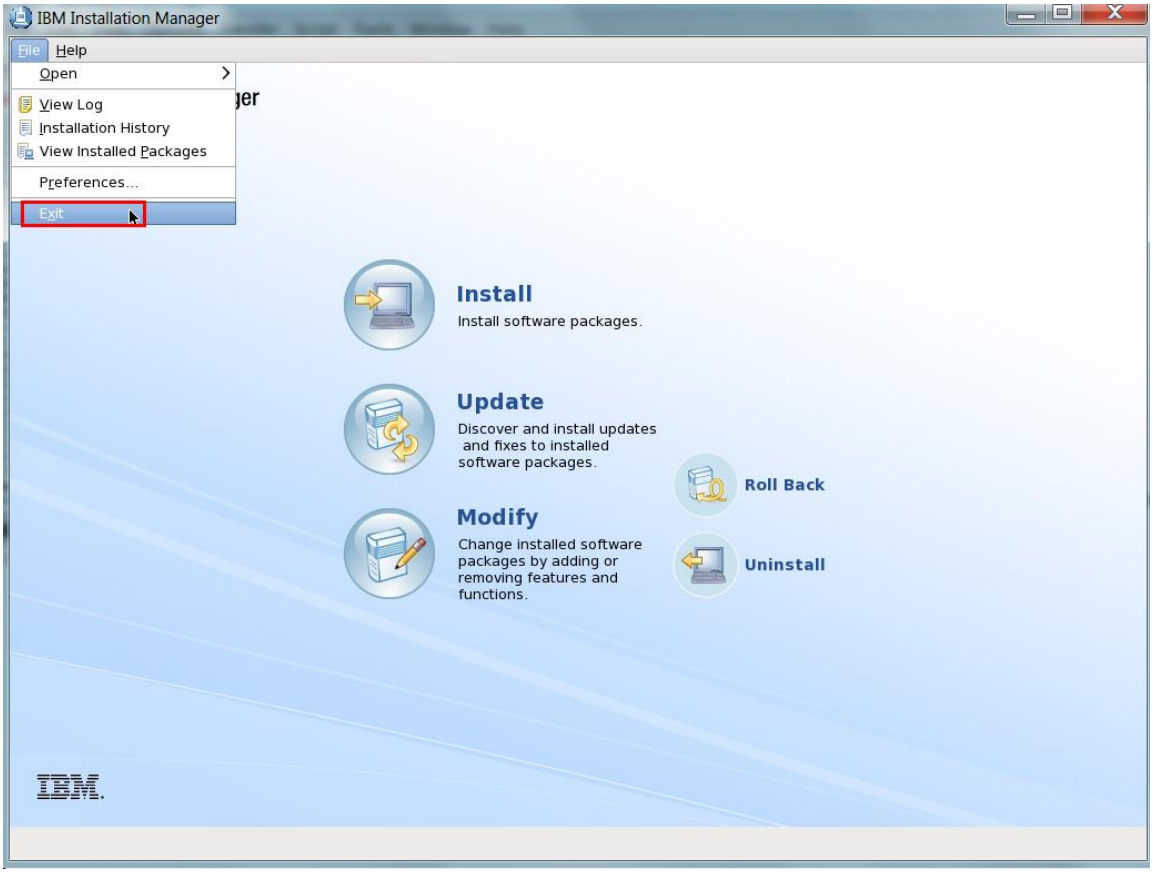

IBM Installation Manager
Install Packages
Select packages to install:
Installation Packages
Status
Vendor
License Key Type
IBM® Installation Manager
Version 1.8.4.1
Will be installed
IBM
No key required
Show all versions
Check for Other Versions, Fixes, and Extensions
Details
IBM® Installation Manager 1.8.4.1
The IBM® Installation Manager is a tool that you can use to install and maintain your software packages. More info...
Repository: /src/IM
< Back
Next >
Install
Cancel


IBM Installation Manager
Install Packages
Read the following license agreements carefully.
Install
Licenses
Location
Summary
IMPORTANT: READ CAREFULLY
Two license agreements are presented below.
1. IBM International License Agreement for Evaluation of Programs
2. IBM International Program License Agreement
If Licensee is obtaining the Program for purposes of productive use (other than evaluation, testing, trial "try or buy," or demonstration): By clicking on the "Accept" button below, Licensee accepts the IBM International Program License Agreement, without modification.
If Licensee is obtaining the Program for the purpose of evaluation, testing, trial "try or buy," or demonstration (collectively, an "Evaluation"): By clicking on the "Accept" button below, Licensee accepts both (i) the IBM International License Agreement for Evaluation of Programs (the "Evaluation License"), without modification; and (ii) the IBM International Program License Agreement (the "IPLA"), without modification.
The Evaluation License will apply during the term of Licensee's Evaluation.
The IPLA will automatically apply if Licensee elects to retain the Program after the Evaluation (or obtain additional copies of the Program for use after the Evaluation) by entering into a procurement agreement (e.g., the IBM International Passport Advantage or the IBM Passport Advantage Express agreements).
The Evaluation License and the IPLA are not in effect concurrently; neither modifies the other; and each is independent of the other.
The complete text of each of these two license agreements follow.
LICENSE INFORMATION
The Programs listed below are licensed under the following License Information terms and conditions in addition to the Program license terms previously agreed to by Client and IBM. If Client does not have previously agreed to license terms in effect for the Program, the IBM International License Agreement for Evaluation of Programs (Z125-5543-05) applies.
Program Name: IBM Installation Manager and Packaging Utility for the Rational Software Development Platform 1.8.4.1
Program Number: Evaluation
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print All...
< Back
Next
Install
Cancel


IBM Installation Manager
Install Packages
Select a location for Installation Manager.
Install
Licenses
Location
Summary
Once installed, IBM Installation Manager will be used to install, update, modify, manage and uninstall your packages.
Installation Manager Directory:
/opt/IBM/InstallationManager/eclipse
Browse...
Disk Space Information
Volume
Available Space
/
55.48 GB
< Back
Next >
Install
Cancel


IBM Installation Manager
Install Packages
Review the summary information.
Install
Licenses
Location
Summary
Target Location
Package Group Name: IBM Installation Manager
Installation Directory: /opt/IBM/InstallationManager/eclipse
Packages
Packages
IBM® Installation Manager 1.8.4.1
Environment
Arabic, Brazilian Portuguese, Croatian, Czech, Danish, Dutch, English, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Russian, Simplified Chinese, Slovak, Slovenian, Spanish, Swedish, Thai, Traditional Chinese, Turkish
Disk Space Information
Total Available Space
/
55.48 GB
Total Download Size: 171.40 MB
Total Installation Size: 328.58 MB
Repository Information
< Back
Next >
Install
Cancel


IBM Installation Manager
Install Packages
The packages are installed. View Log File
The following package was installed:
IBM Installation Manager
IBM® Installation Manager 1.8.4.1
Click on "Restart Installation Manager" to launch the new Installation Manager and to start installation of other package(s).
Restart Installation Manager

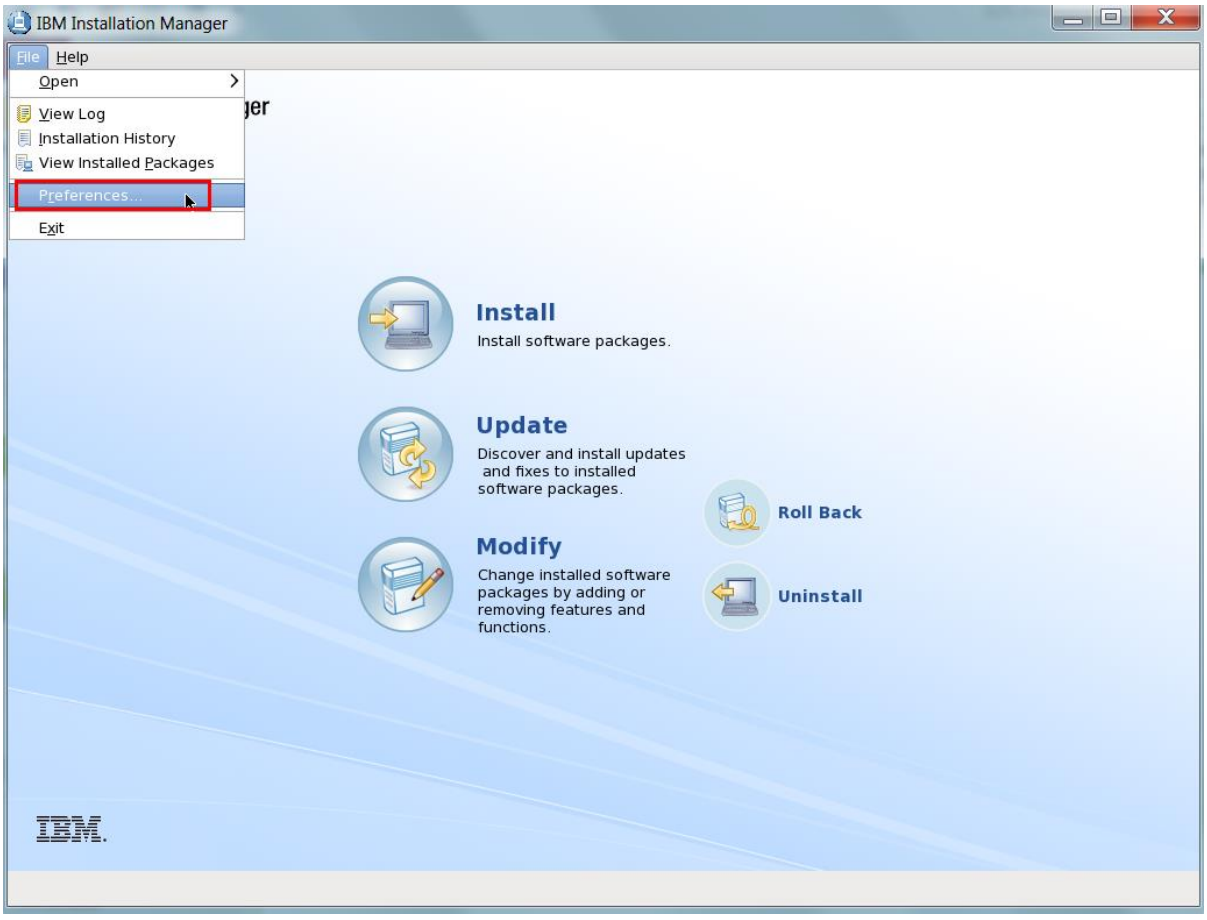

IBM Installation Manager
File
Help
Open
View Log
Installation History
View Installed Packages
Preferences...
Exit
Install
Install software packages.
Update
Discover and install updates and fixes to installed software packages.
Modify
Change installed software packages by adding or removing features and functions.
Roll Back
Uninstall
IBM.

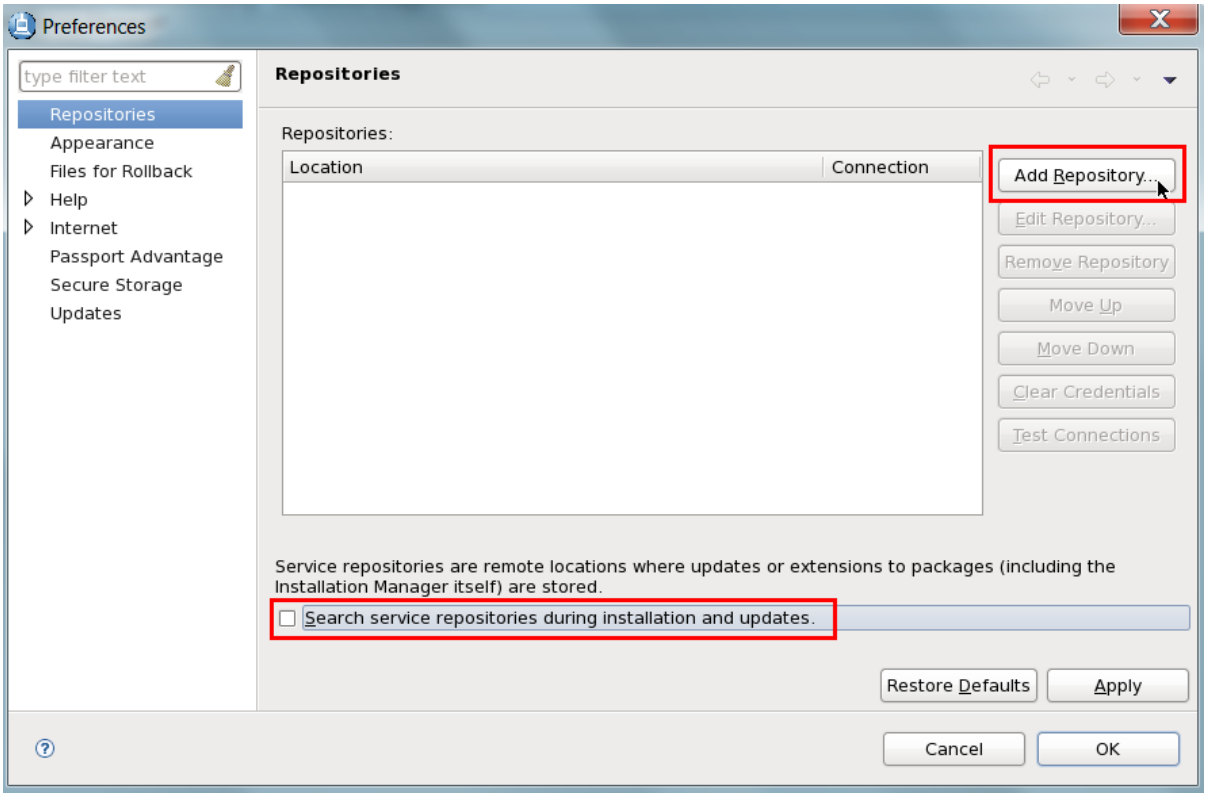
4. Install IBM Security Directory Server 6.4:

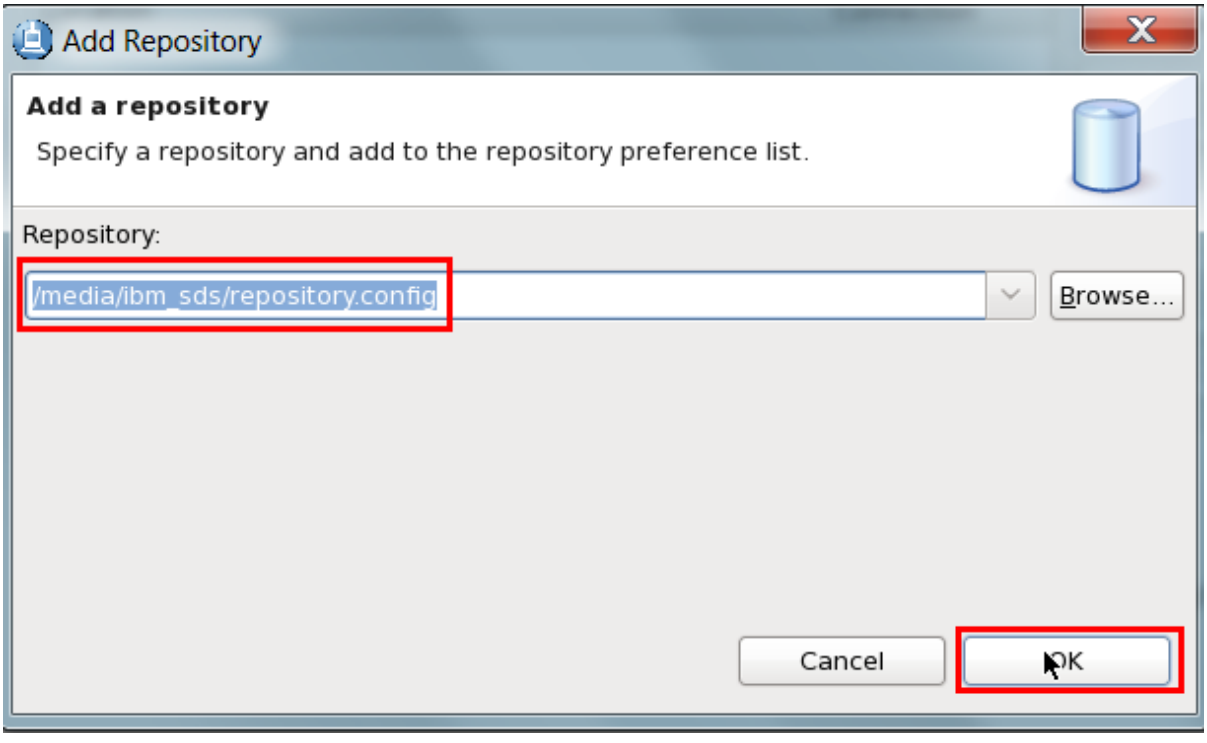
Login as root and Mount SDS iso image:
[root@noi14 ~]# cd /src/SDS/
[root@noi14 SDS]# mount -o loop sds64-linux-x86-64.iso /media/

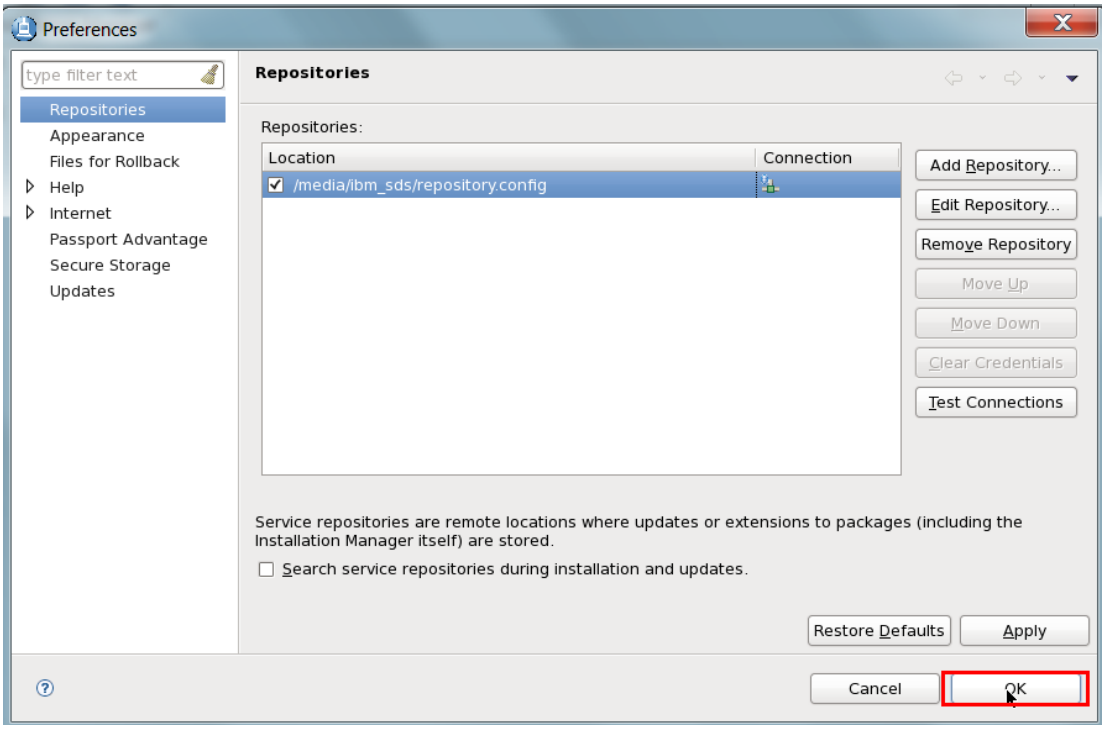
Start IBM Installation Manager using the following command:
[root@noi14 SDS]# /opt/IBM/InstallationManager/eclipse/IBMIM

Add SDS repository "/media/ibm_sds/repository.config" as shown in the below screen capture:

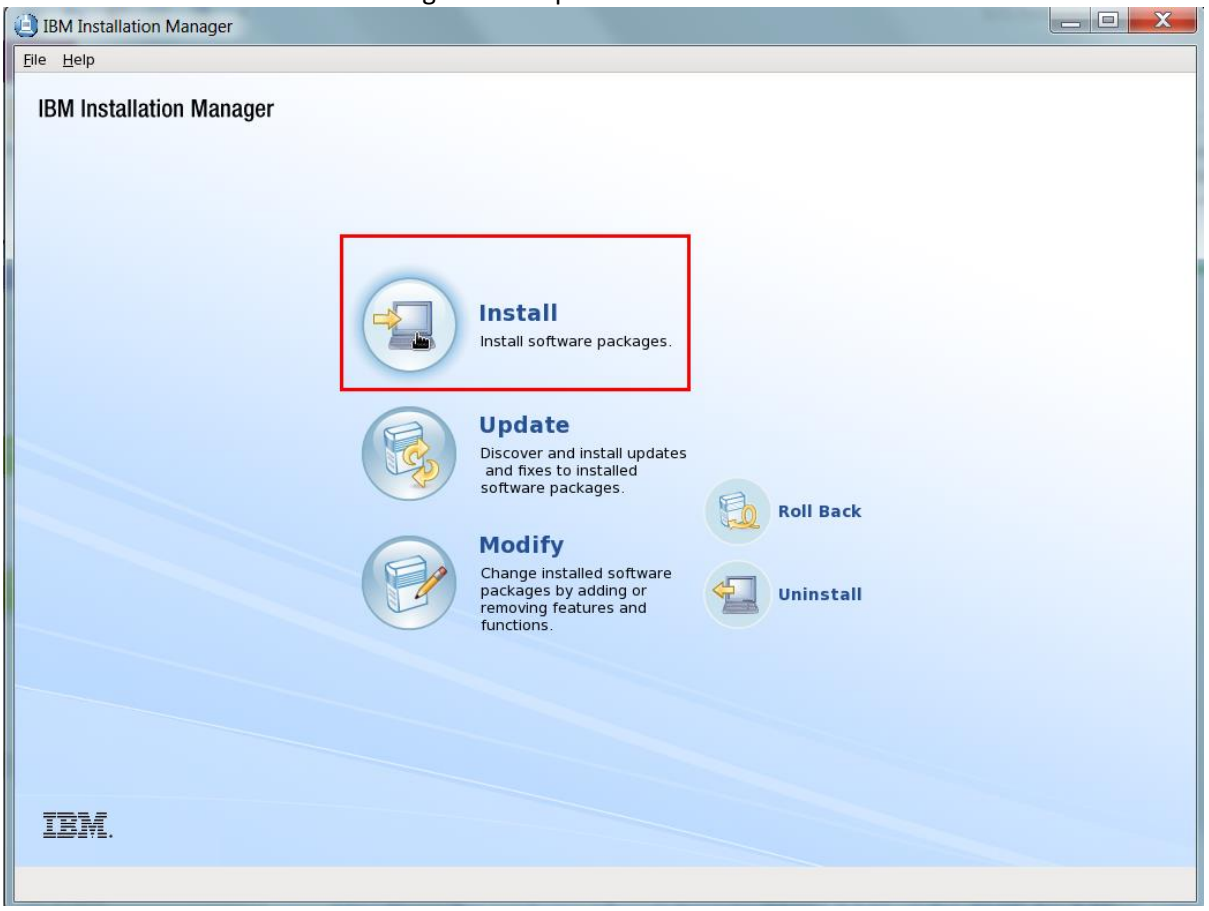


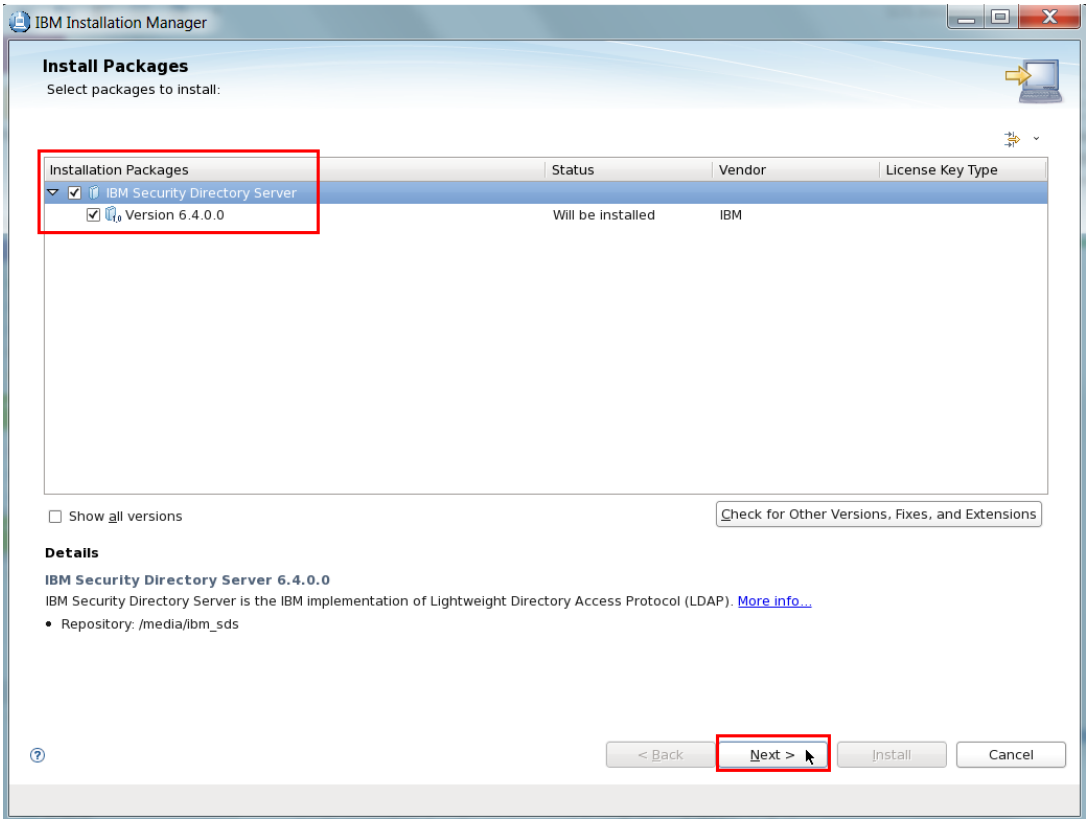

Preferences
type filter text
Repositories
Appearance
Files for Rollback
Help
Internet
Passport Advantage
Secure Storage
Updates
Repositories
Repositories:
Location
Connection
Add Repository...
Edit Repository...
Remove Repository
Move Up
Move Down
Clear Credentials
Test Connections
Service repositories are remote locations where updates or extensions to packages (including the Installation Manager itself) are stored.
Search service repositories during installation and updates.
Restore Defaults
Apply
Cancel
OK

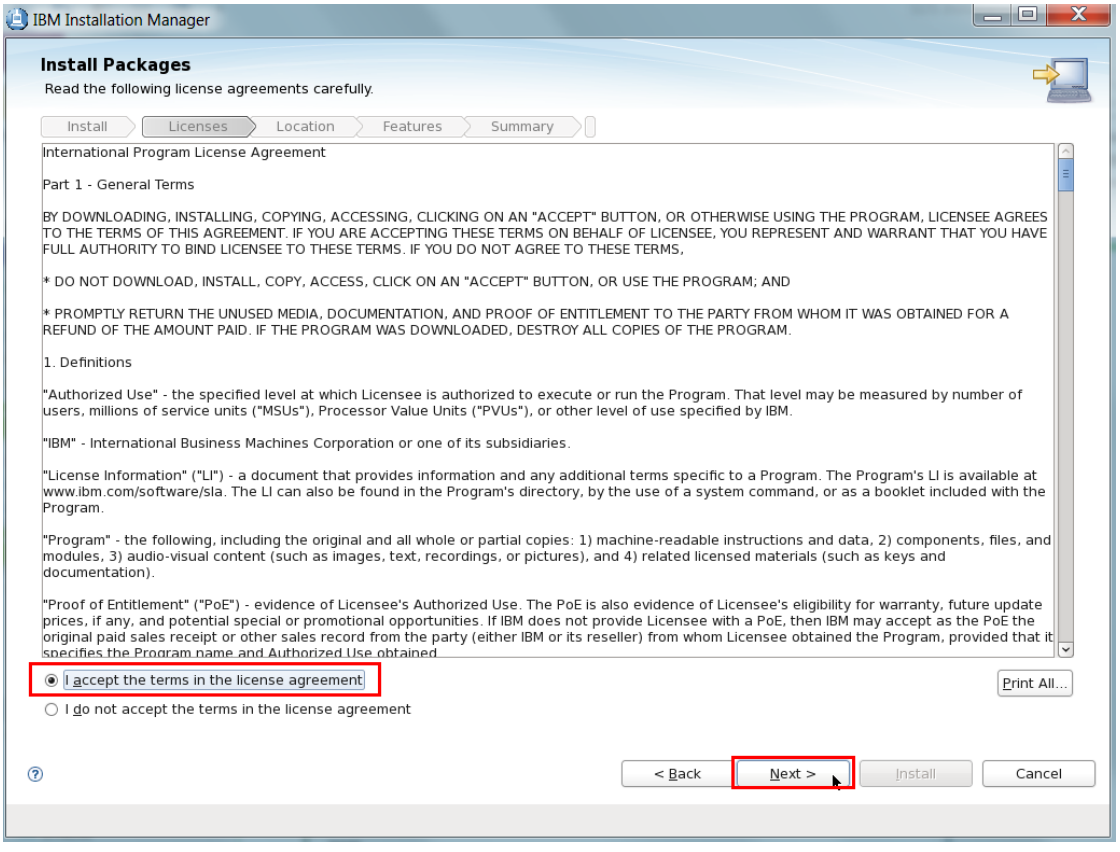

Add Repository
Add a repository
Specify a repository and add to the repository preference list.
Repository:
/media/ibm_sds/repository.config
Browse...
Cancel
OK

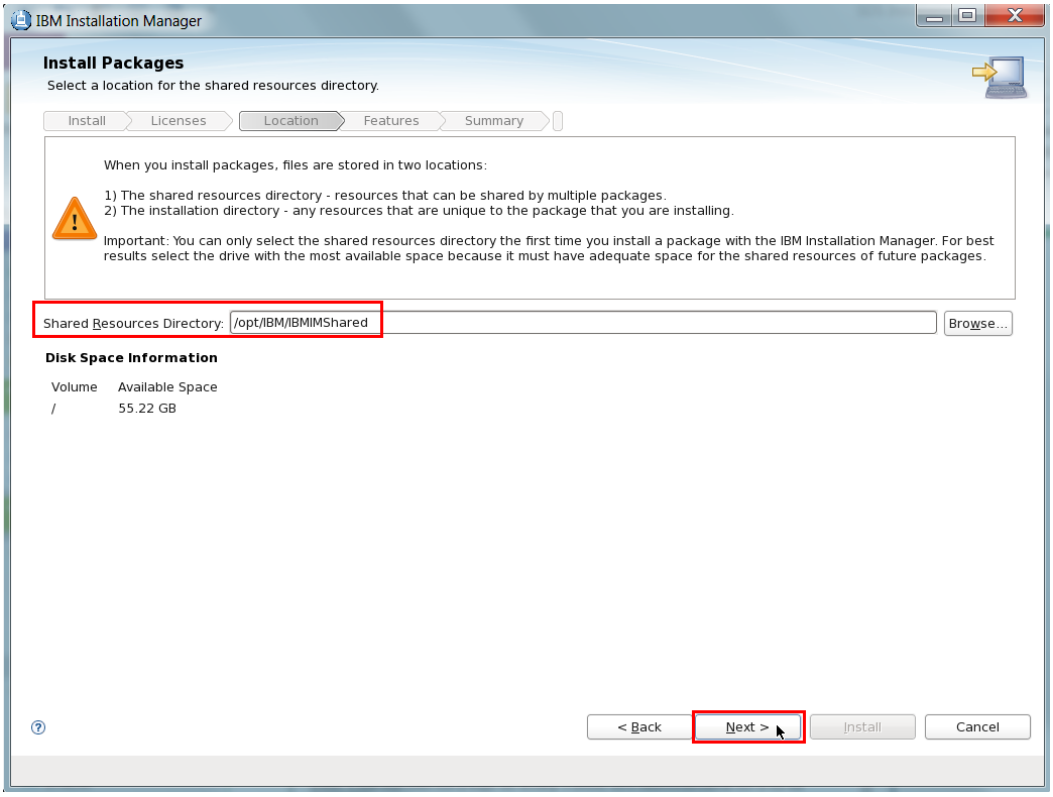


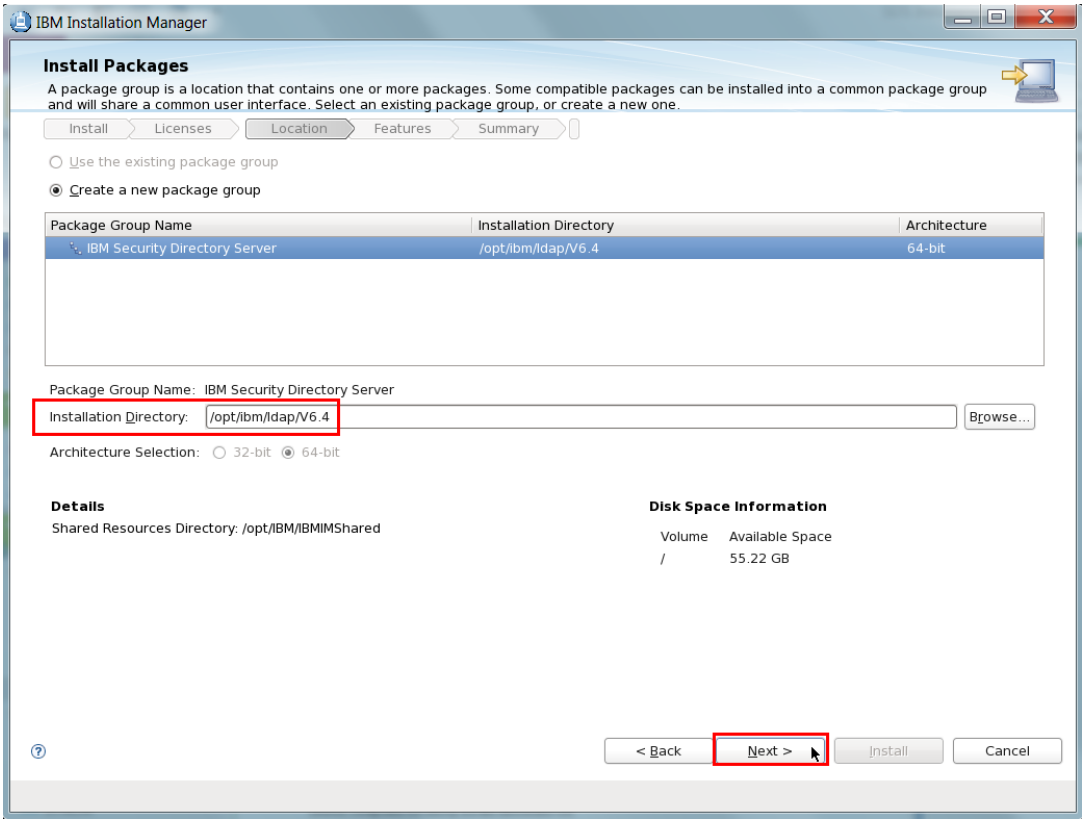
Install SDS as shown in the following screen captures:

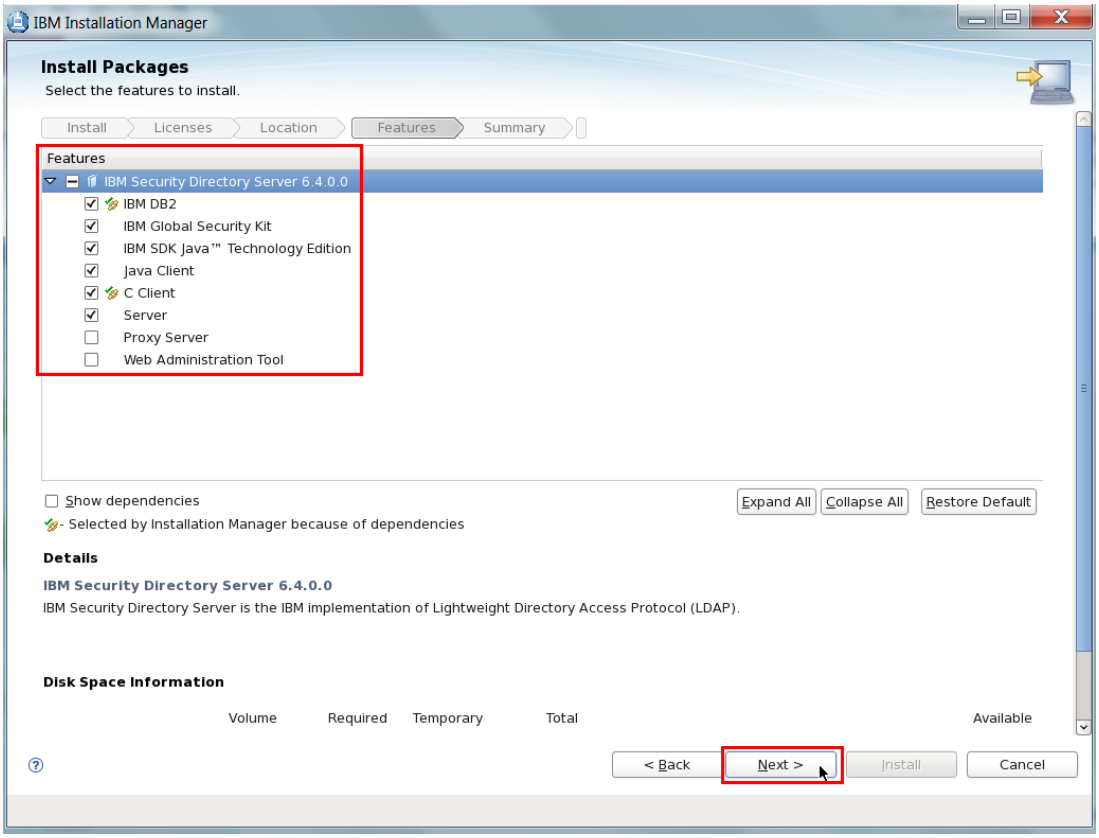



IBM Installation Manager
Install Packages
Select packages to install:
Installation Packages
Status
Vendor
License Key Type
IBM Security Directory Server
Version 6.4.0.0
Will be installed
IBM
Show all versions
Check for Other Versions, Fixes, and Extensions
Details
IBM Security Directory Server 6.4.0.0
IBM Security Directory Server is the IBM implementation of Lightweight Directory Access Protocol (LDAP). More info...
Repository: /media/ibm_sds
< Back
Next >
Install
Cancel

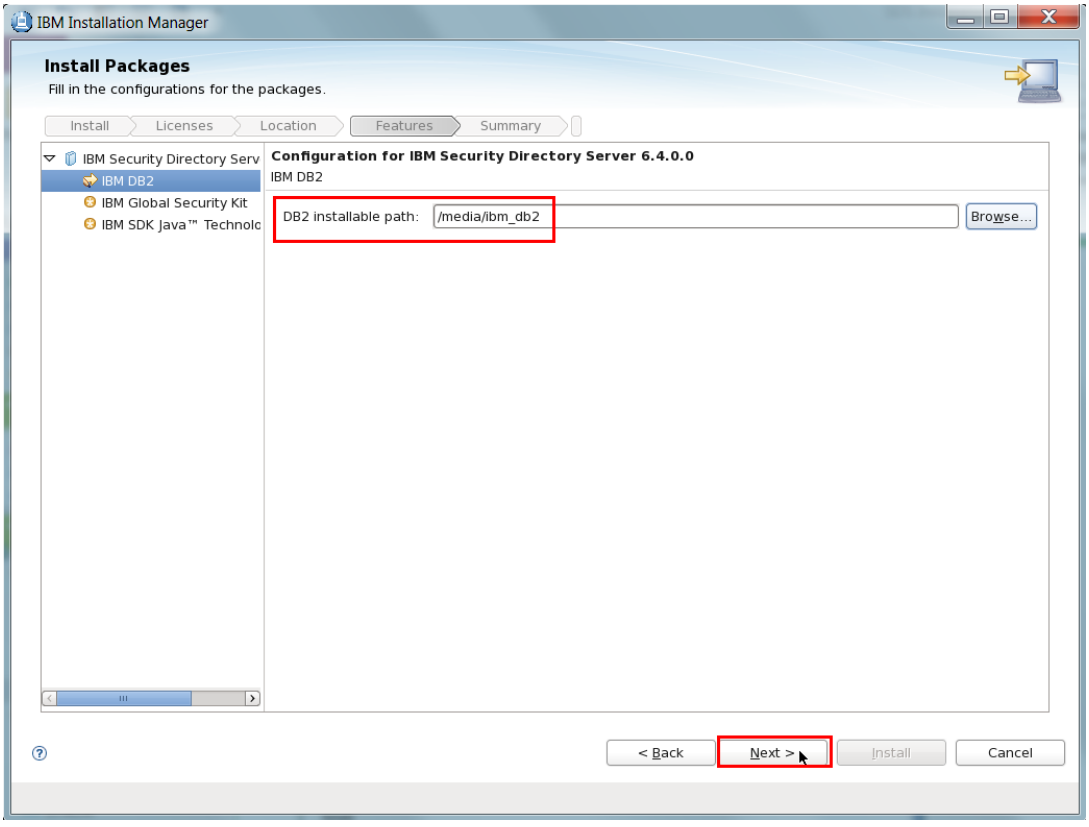

IBM Installation Manager
Install Packages
Read the following license agreements carefully.
Install
Licenses
Location
Features
Summary
International Program License Agreement
Part 1 - General Terms
BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, CLICKING ON AN "ACCEPT" BUTTON, OR OTHERWISE USING THE PROGRAM, LICENSEE AGREES TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF LICENSEE, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND LICENSEE TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,
* DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, CLICK ON AN "ACCEPT" BUTTON, OR USE THE PROGRAM; AND
* PROMPTLY RETURN THE UNUSED MEDIA, DOCUMENTATION, AND PROOF OF ENTITLEMENT TO THE PARTY FROM WHOM IT WAS OBTAINED FOR A REFUND OF THE AMOUNT PAID. IF THE PROGRAM WAS DOWNLOADED, DESTROY ALL COPIES OF THE PROGRAM.
1. Definitions
"Authorized Use" - the specified level at which Licensee is authorized to execute or run the Program. That level may be measured by number of users, millions of service units ("MSUs"), Processor Value Units ("PVUs"), or other level of use specified by IBM.
"IBM" - International Business Machines Corporation or one of its subsidiaries.
"License Information" ("LI") - a document that provides information and any additional terms specific to a Program. The Program's LI is available at www.ibm.com/software/sla. The LI can also be found in the Program's directory, by the use of a system command, or as a booklet included with the Program.
"Program" - the following, including the original and all whole or partial copies: 1) machine-readable instructions and data, 2) components, files, and modules, 3) audio-visual content (such as images, text, recordings, or pictures), and 4) related licensed materials (such as keys and documentation).
"Proof of Entitlement" ("PoE") - evidence of Licensee's Authorized Use. The PoE is also evidence of Licensee's eligibility for warranty, future update prices, if any, and potential special or promotional opportunities. If IBM does not provide Licensee with a PoE, then IBM may accept as the PoE the original paid sales receipt or other sales record from the party (either IBM or its reseller) from whom Licensee obtained the Program, provided that it specifies the Program name and Authorized Use obtained.
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Print All...
< Back
Next >
Install
Cancel

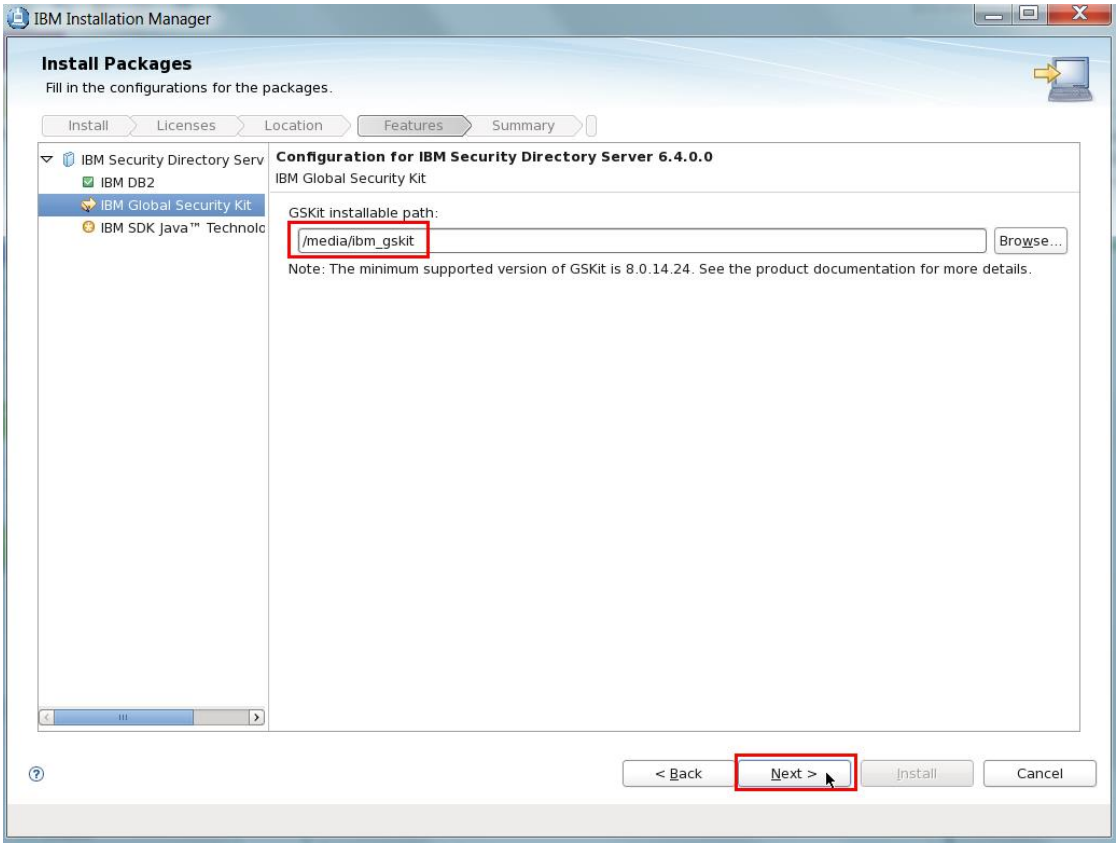

IBM Installation Manager
Install Packages
Select a location for the shared resources directory.
Install
Licenses
Location
Features
Summary
When you install packages, files are stored in two locations:
1) The shared resources directory - resources that can be shared by multiple packages.
2) The installation directory - any resources that are unique to the package that you are installing.
Important: You can only select the shared resources directory the first time you install a package with the IBM Installation Manager. For best results select the drive with the most available space because it must have adequate space for the shared resources of future packages.
Shared Resources Directory: /opt/IBM/IBMIMShared
Browse...
Disk Space Information
Volume
Available Space
/
55.22 GB
< Back
Next >
Install
Cancel

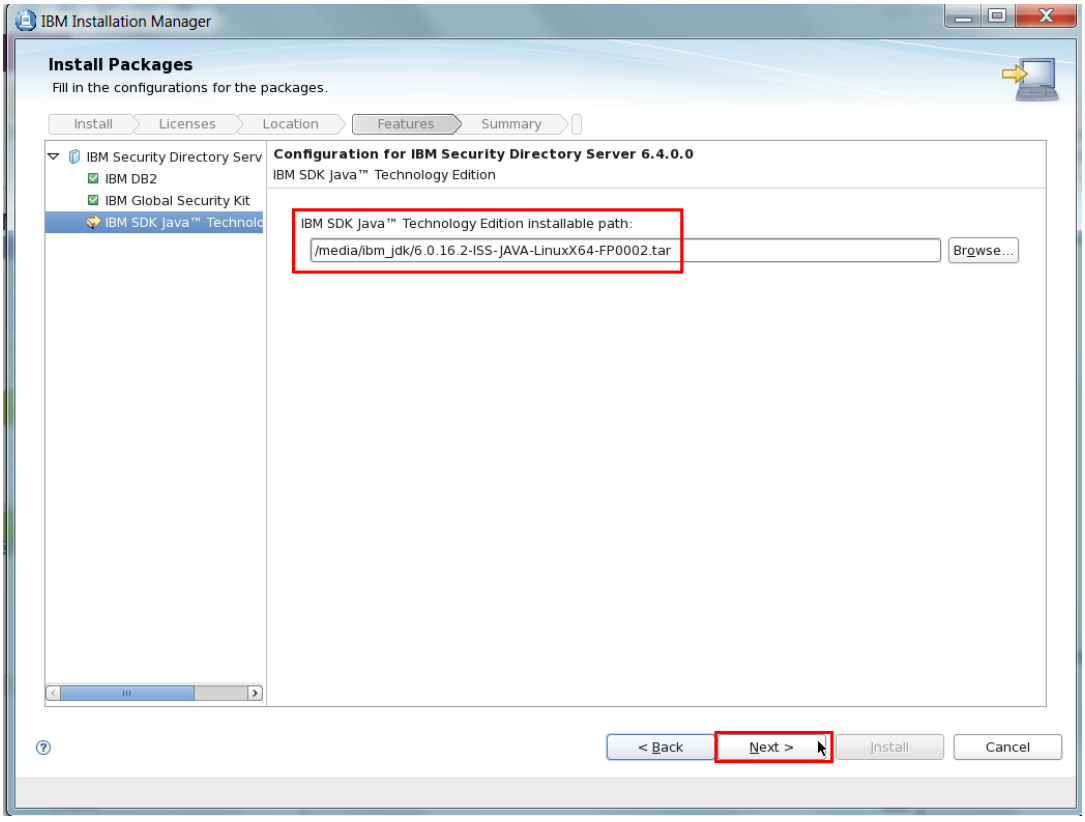

IBM Installation Manager
Install Packages
A package group is a location that contains one or more packages. Some compatible packages can be installed into a common package group and will share a common user interface. Select an existing package group, or create a new one.
Install
Licenses
Location
Features
Summary
Use the existing package group
Create a new package group
Package Group Name
Installation Directory
Architecture
IBM Security Directory Server
/opt/ibm/ldap/V6.4
64-bit
Package Group Name: IBM Security Directory Server
Installation Directory: /opt/ibm/ldap/V6.4
Browse...
Architecture Selection: 32-bit 64-bit
Details
Shared Resources Directory: /opt/IBM/IBMIMShared
Disk Space Information
Volume
Available Space
/
55.22 GB
< Back
Next >
Install
Cancel

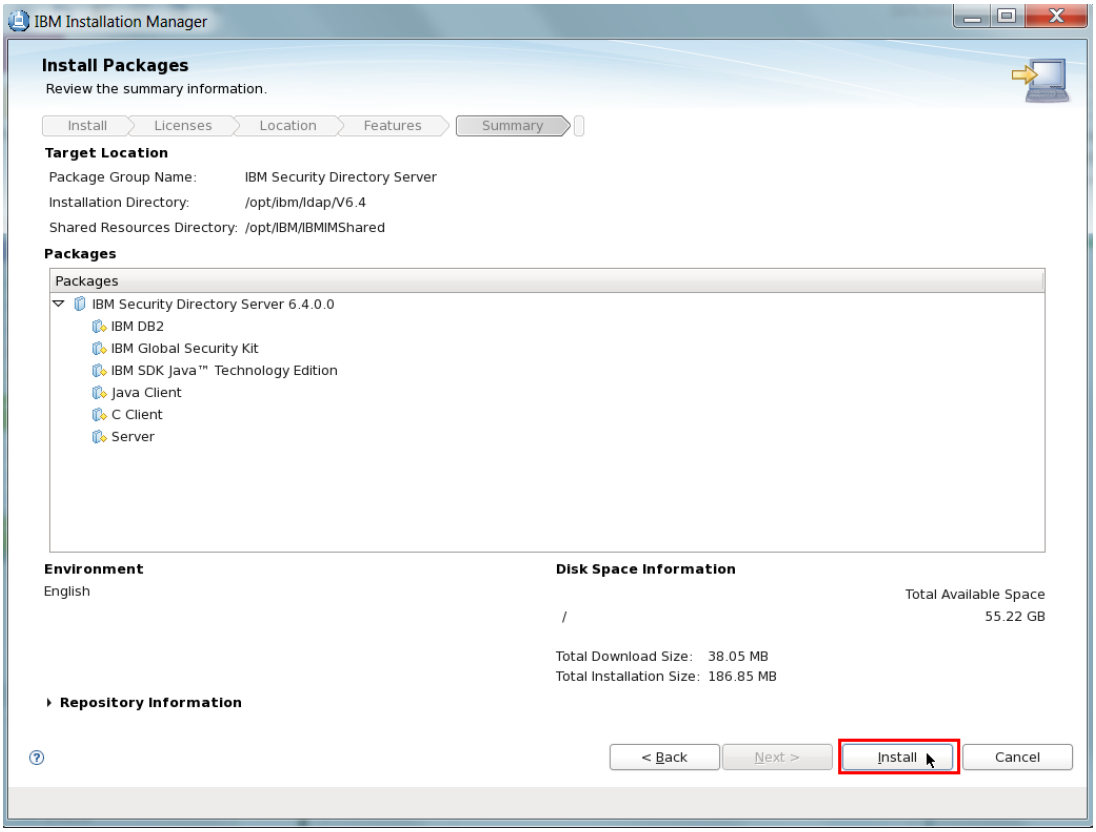


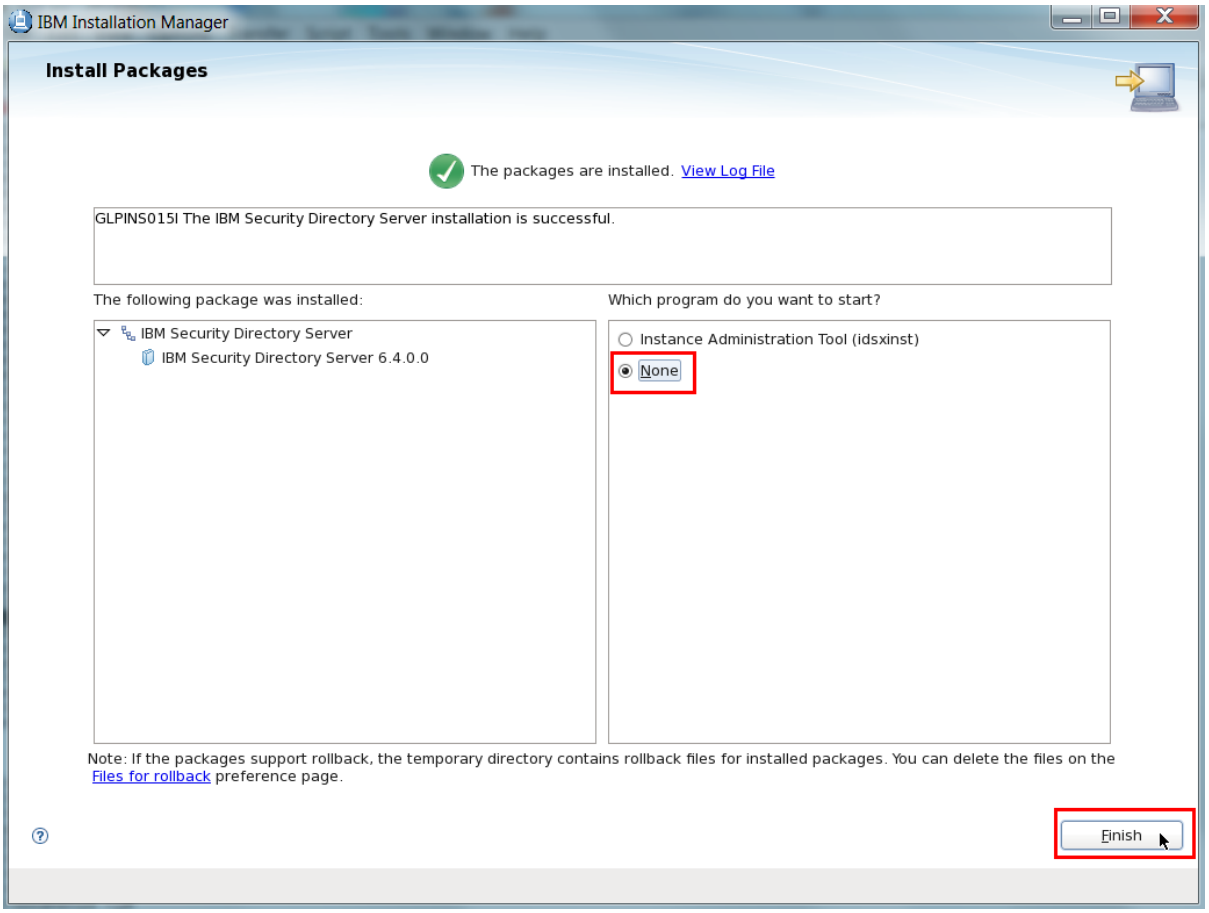
Note: GSKit is required only if SSL based LDAP operations are needed.




IBM Installation Manager
Install Packages
Fill in the configurations for the packages.
Install
Licenses
Location
Features
Summary
IBM Security Directory Serv
IBM DB2
IBM Global Security Kit
IBM SDK Java™ Technolc
Configuration for IBM Security Directory Server 6.4.0.0
IBM Global Security Kit
GSKit installable path:
/media/ibm_gskit
Browse...
Note: The minimum supported version of GSKit is 8.0.14.24. See the product documentation for more details.
< Back
Next >
Install
Cancel

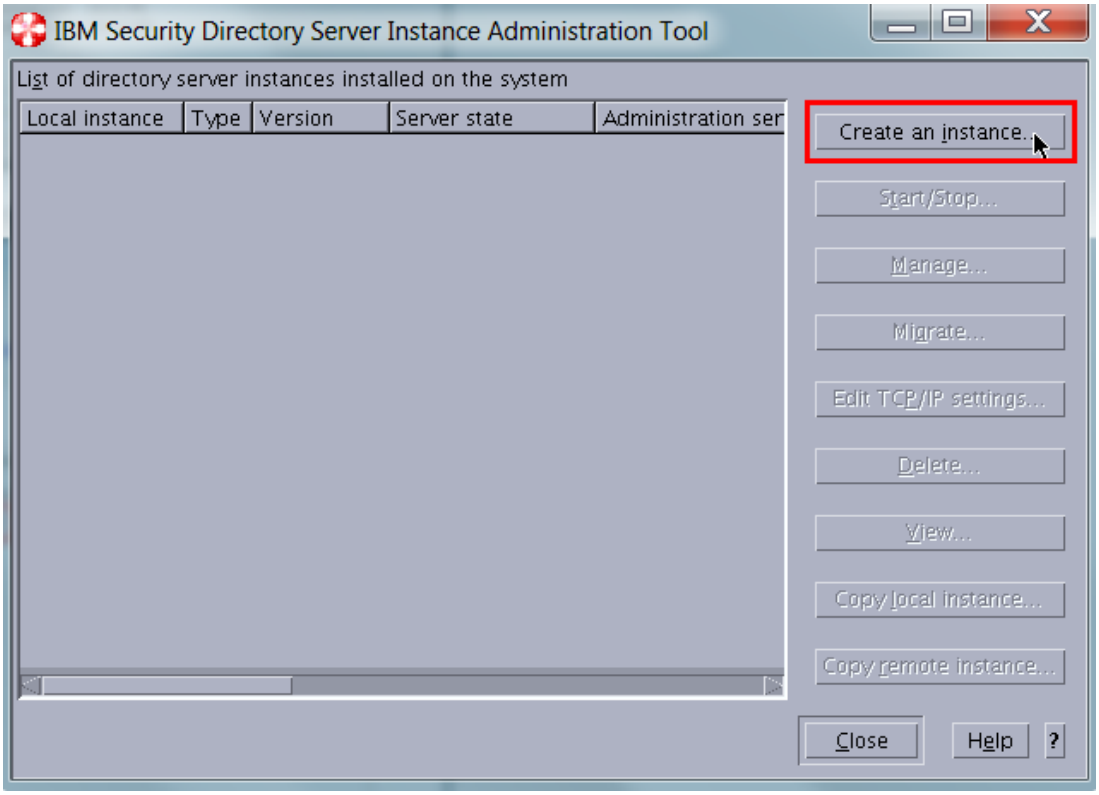

IBM Installation Manager
Install Packages
Fill in the configurations for the packages.
Install
Licenses
Location
Features
Summary
IBM Security Directory Serv
IBM DB2
IBM Global Security Kit
IBM SDK Java™ Technolc
Configuration for IBM Security Directory Server 6.4.0.0
IBM SDK Java™ Technology Edition
IBM SDK Java™ Technology Edition installable path:
/media/ibm_jdk/6.0.16.2-ISS-JAVA-LinuxX64-FP0002.tar
Browse...
< Back
Next >
Install
Cancel

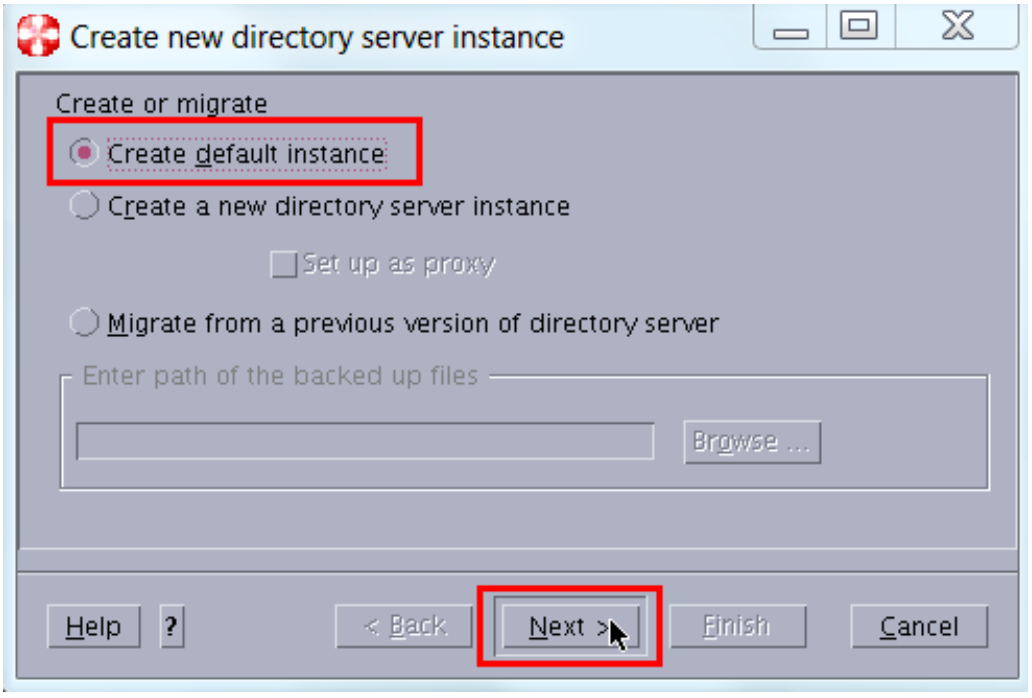

IBM Installation Manager
Install Packages
Review the summary information.
Install
Licenses
Location
Features
Summary
Target Location
Package Group Name: IBM Security Directory Server
Installation Directory: /opt/ibm/ldap/V6.4
Shared Resources Directory: /opt/IBM/IBMIMShared
Packages
Packages
IBM Security Directory Server 6.4.0.0
IBM DB2
IBM Global Security Kit
IBM SDK Java™ Technology Edition
Java Client
C Client
Server
Environment
English
Disk Space Information
Total Available Space
/
55.22 GB
Total Download Size: 38.05 MB
Total Installation Size: 186.85 MB
Repository Information
< Back
Next >
Install
Cancel


IBM Installation Manager
Install Packages
The packages are installed. View Log File
GLPINS015I The IBM Security Directory Server installation is successful.
The following package was installed:
IBM Security Directory Server
IBM Security Directory Server 6.4.0.0
Which program do you want to start?
Instance Administration Tool (idsxinst)
None
Note: If the packages support rollback, the temporary directory contains rollback files for installed packages. You can delete the files on the Files for rollback preference page.
Finish

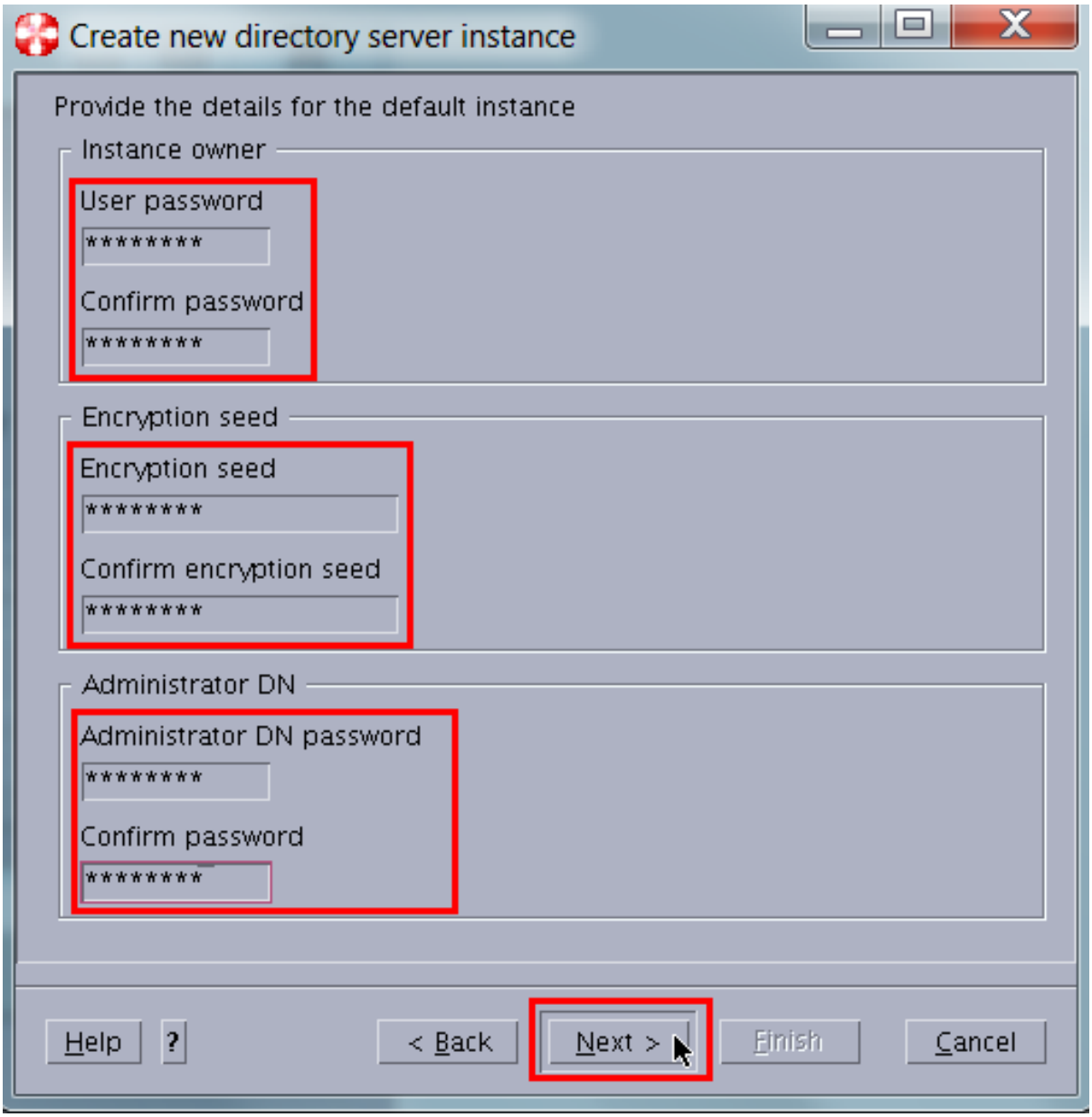
5. Create SDS default instance:

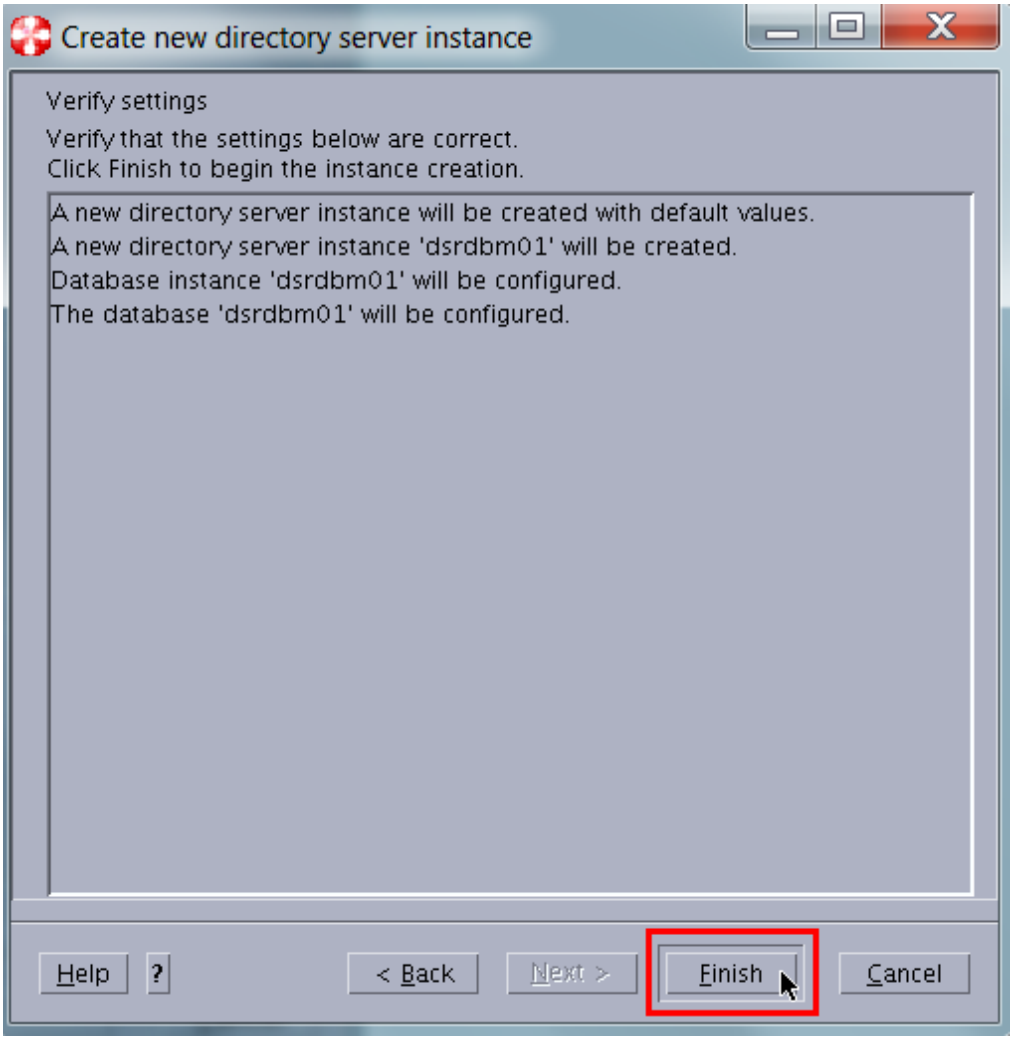
[root@noi14 ~]# /opt/ibm/ldap/V6.4/sbin/idsxinst

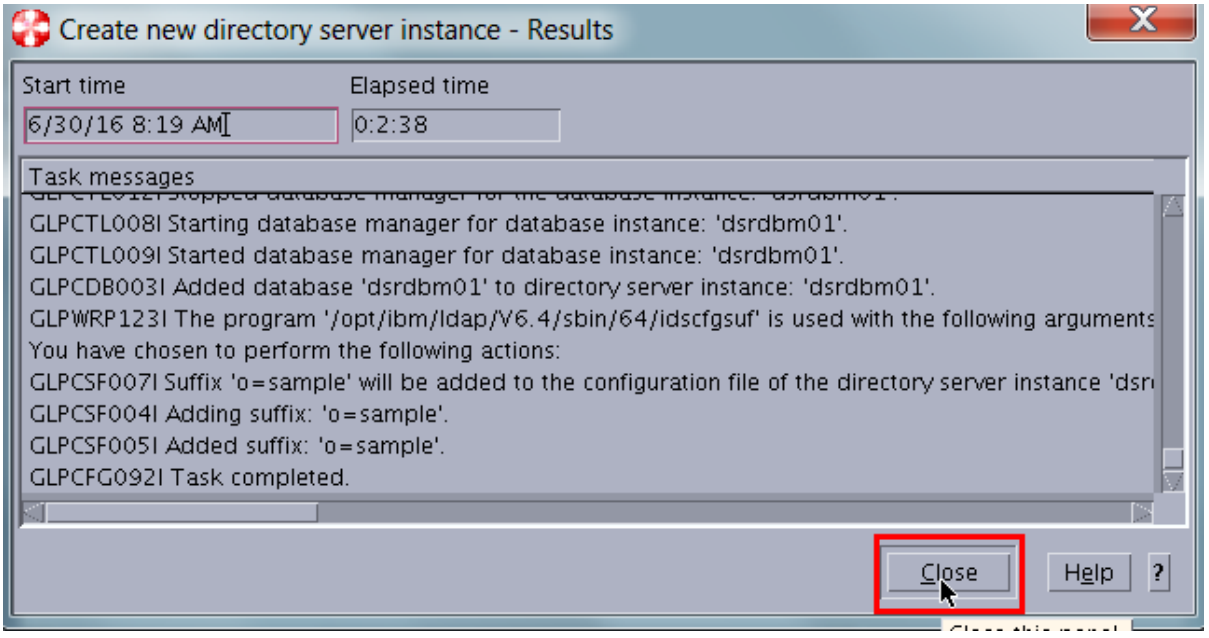


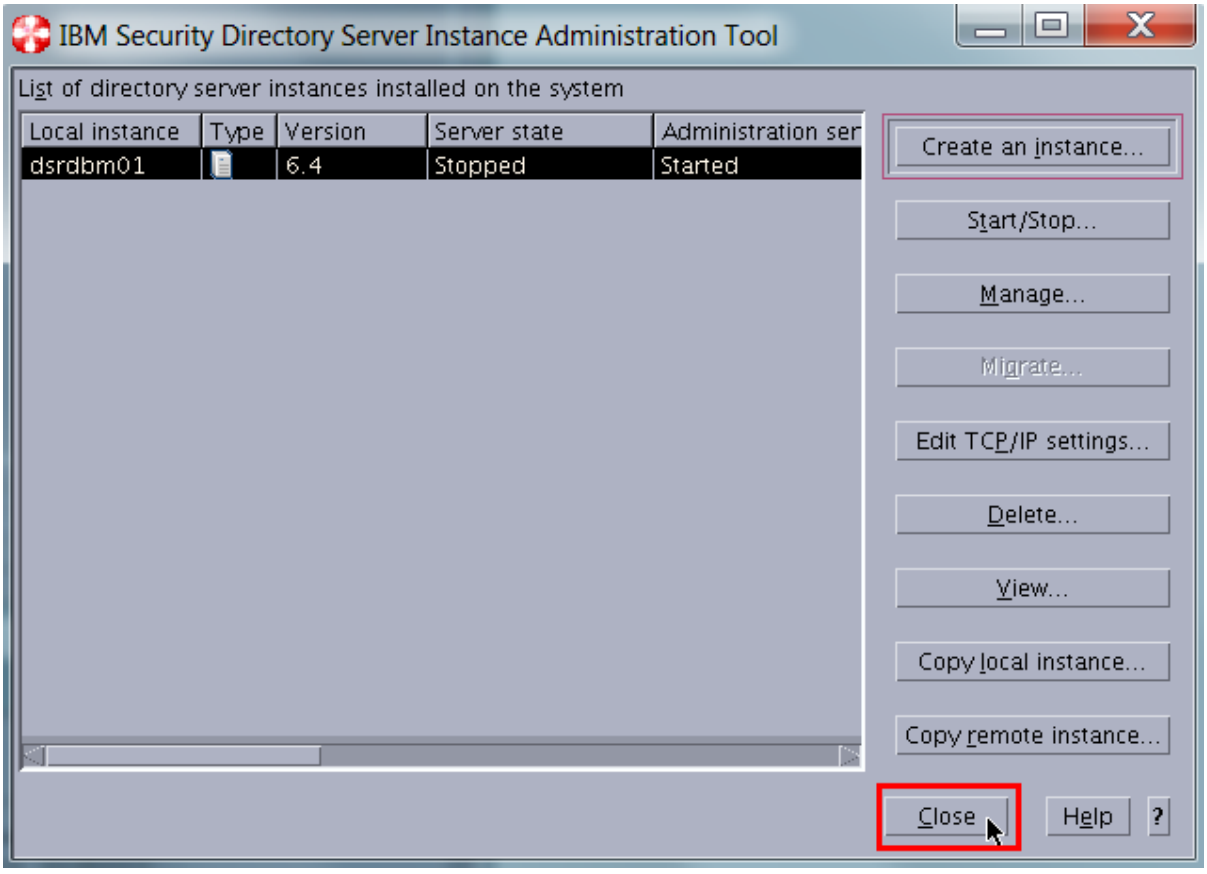


Note and set instance owner password, encryption seed & admin DN password. In this example "object00" is used for all the passwords and "netcool12345" is used as encryption seed.




Create new directory server instance
Verify settings
Verify that the settings below are correct.
Click Finish to begin the instance creation.
A new directory server instance will be created with default values.
A new directory server instance 'dsrdbm01' will be created.
Database instance 'dsrdbm01' will be configured.
The database 'dsrdbm01' will be configured.
Help
?
< Back
Next >
Finish
Cancel


Create new directory server instance - Results
Start time
Elapsed time
6/30/16 8:19 AM
0:2:38
Task messages
GLPCTL008I Starting database manager for database instance: 'dsrdbm01'.
GLPCTL009I Started database manager for database instance: 'dsrdbm01'.
GLPCDB003I Added database 'dsrdbm01' to directory server instance: 'dsrdbm01'.
GLPWRP123I The program '/opt/ibm/ldap/V6.4/sbin/64/idscfgsuf' is used with the following arguments
You have chosen to perform the following actions:
GLPCSF007I Suffix 'o=sample' will be added to the configuration file of the directory server instance 'dsr
GLPCSF004I Adding suffix: 'o=sample'.
GLPCSF005I Added suffix: 'o=sample'.
GLPCFG092I Task completed.
Close
Help
?



6. Initial configuration of SDS instance

Create Suffix and base DN:

Add a new suffix
[root@noi14 ~]# /opt/ibm/ldap/V6.4/sbin/idscfgsuf -I dsrdbm01 -s dc=demo,dc=ibm,dc=com

Start the direcotry server:
[root@noi14 ~]# /opt/ibm/ldap/V6.4/sbin/ibmslapd -I dsrdbm01

Add a new base DN:
Create a file with the following content
[root@noi14 ~]# cat /tmp/dccom.ldif
dn:dc=demo,dc=ibm,dc=com
objectclass:domain

Add the file content to the directory server using the following command:
[root@noi14 ~]# /opt/ibm/ldap/V6.4/bin/idsldapadd -D cn=root -w object00 -p 389 -f /tmp/dccom.ldif

Add netcool_users organization unit:
Create a file with the following content
[root@noi14 ~]# cat /tmp/ou.ldif

dn: ou=netcool_users,dc=demo,dc=ibm,dc=com
objectClass: top
objectClass: organizationalUnit
ou: netcool_users

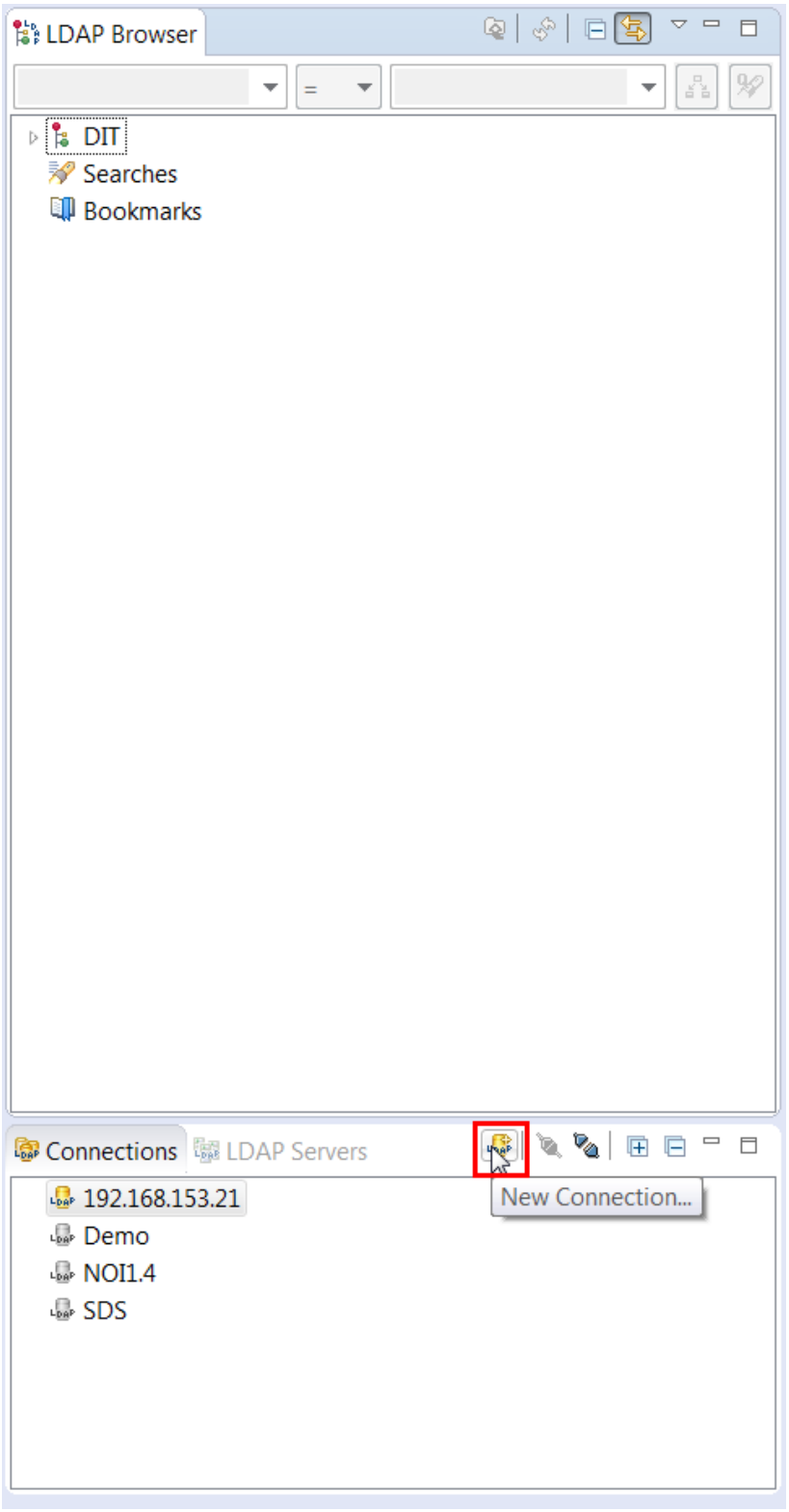
Add the file content to the directory server using the following command:
[root@noi14 ~]# /opt/ibm/ldap/V6.4/bin/idsldapadd -D cn=root -w object00 -p 389 -f /tmp/ou.ldif

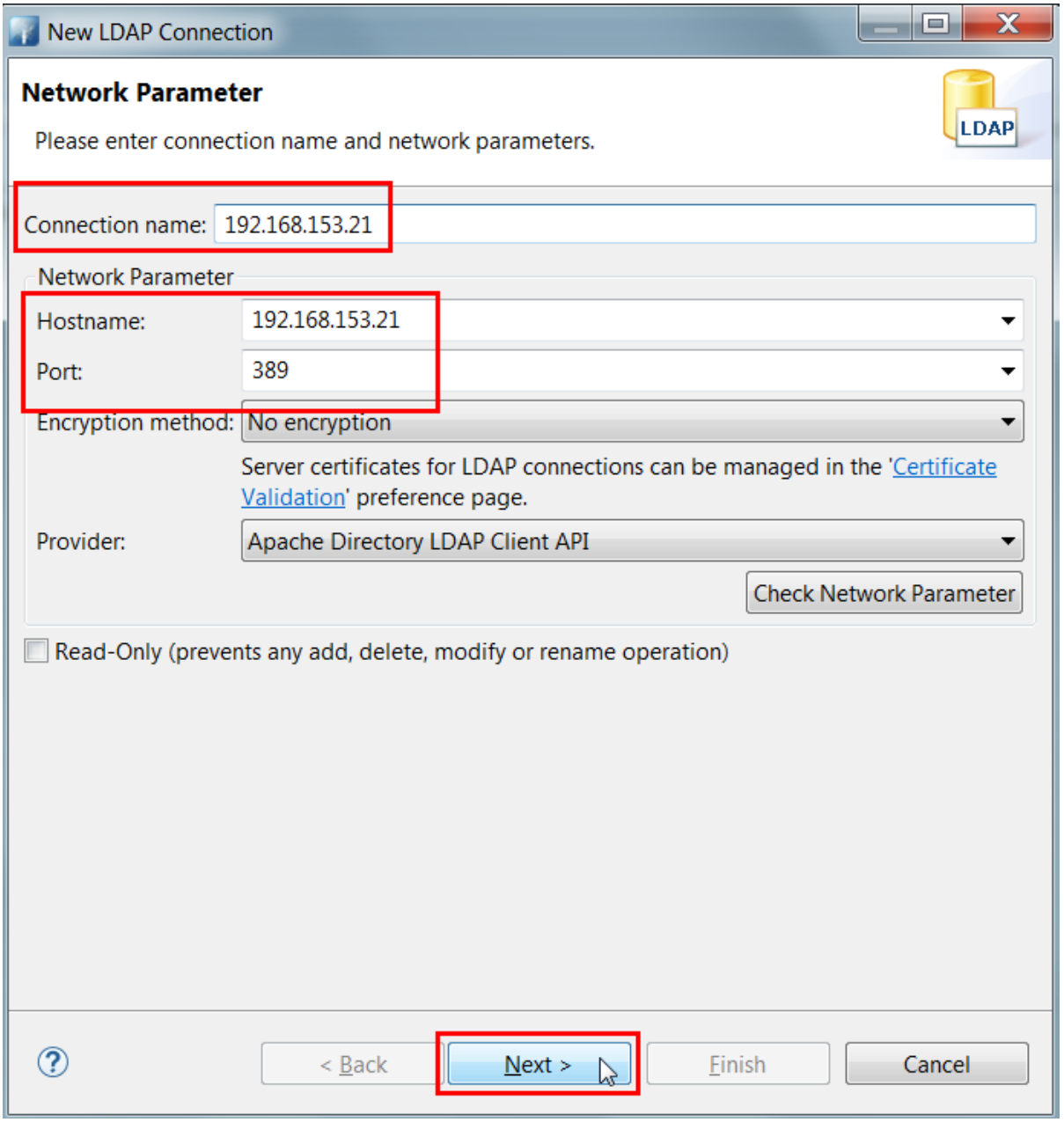
Add netcool_groups organization unit:
Create a file with the following content
[root@noi14 ~]# cat /tmp/ou.ldif
dn: ou=netcool_groups,dc=demo,dc=ibm,dc=com
objectClass: top
objectClass: organizationalUnit
ou: netcool_groups

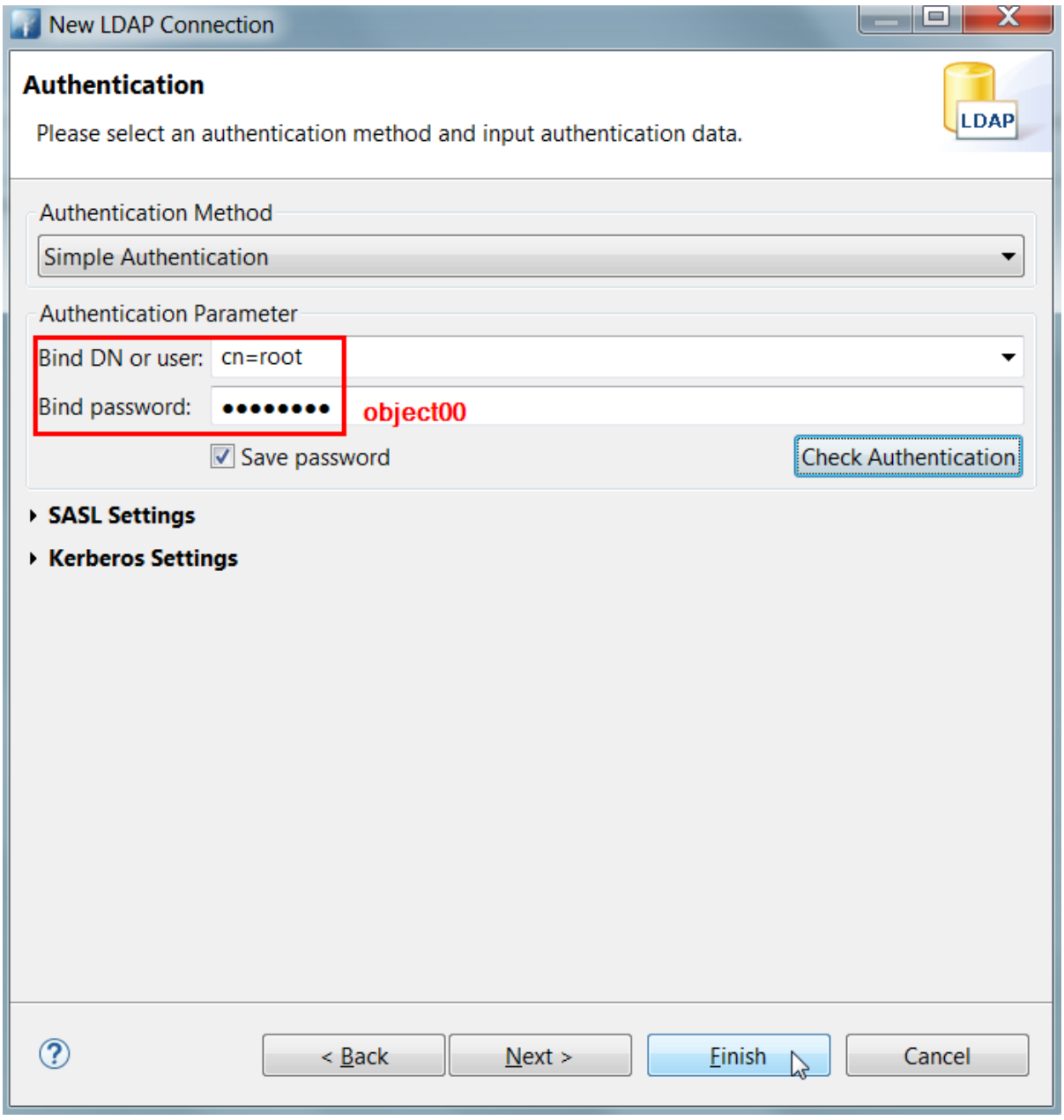
Add the file content to the directory server using the following command:
[root@noi14 ~]# /opt/ibm/ldap/V6.4/bin/idsldapadd -D cn=root -w object00 -p 389 -f /tmp/ou.ldif

Access SDS using Apache LDAP studio

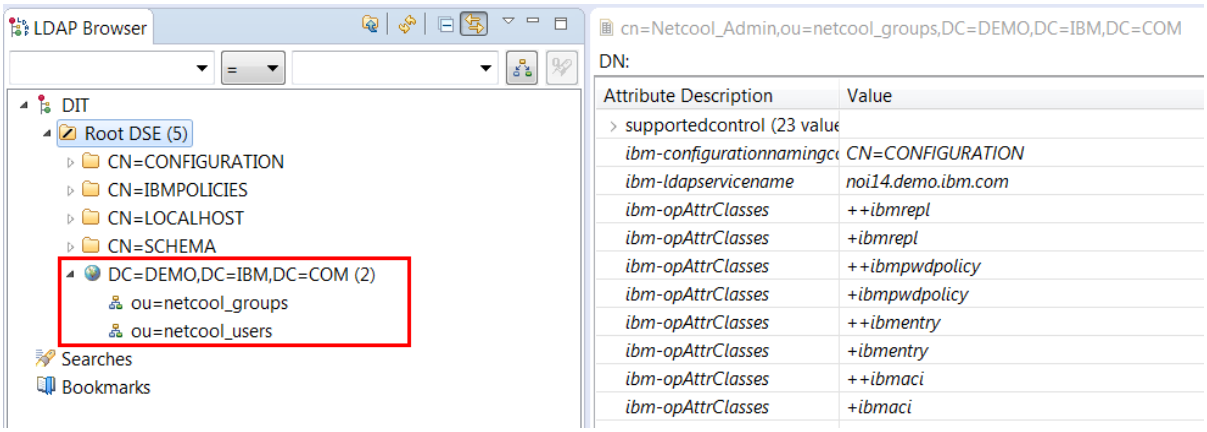
Download and install Apache LDAP studio from the following URL: http://directory.apache.org/studio/


LDAP Browser
DIT
Searches
Bookmarks
Connections
LDAP Servers
New Connection...
192.168.153.21
Demo
NOI1.4
SDS


New LDAP Connection
Network Parameter
Please enter connection name and network parameters.
LDAP
Connection name: 192.168.153.21
Network Parameter
Hostname: 192.168.153.21
Port: 389
Encryption method: No encryption
Server certificates for LDAP connections can be managed in the 'Certificate Validation' preference page.
Provider: Apache Directory LDAP Client API
Check Network Parameter
Read-Only (prevents any add, delete, modify or rename operation)
< Back
Next >
Finish
Cancel



You can browse the SDS LDAP instance through Apache LDAP Studio to ensure the configuration has been applied successfully as shown below:



7. Configure DASH to authenticate using SDS LDAP

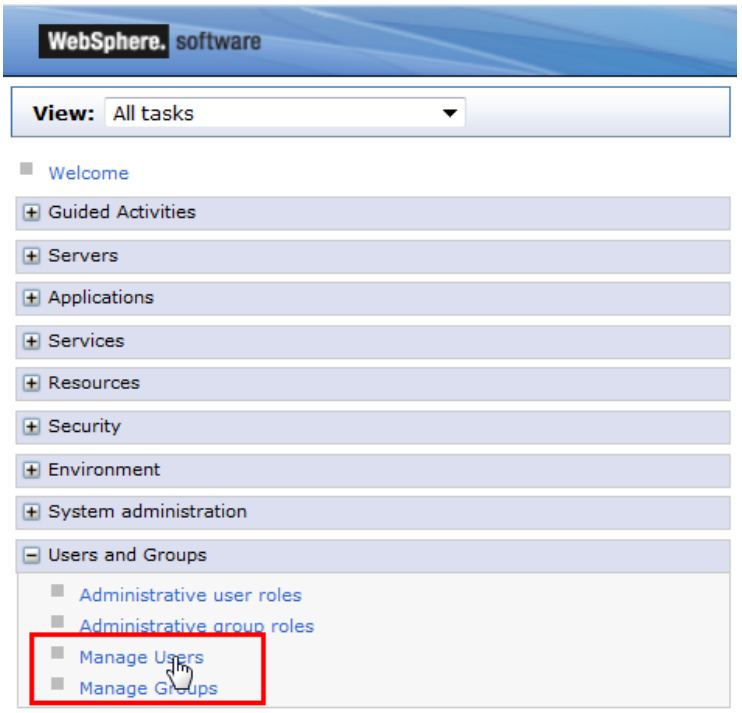
Login as netcool user (user used to install JazzSM/DASH).

Backup the websphere security file as per the following:
cp /opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/wim/config/wimconfig.xml /opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/wim/config/wimconfig.xml.bkp.V1

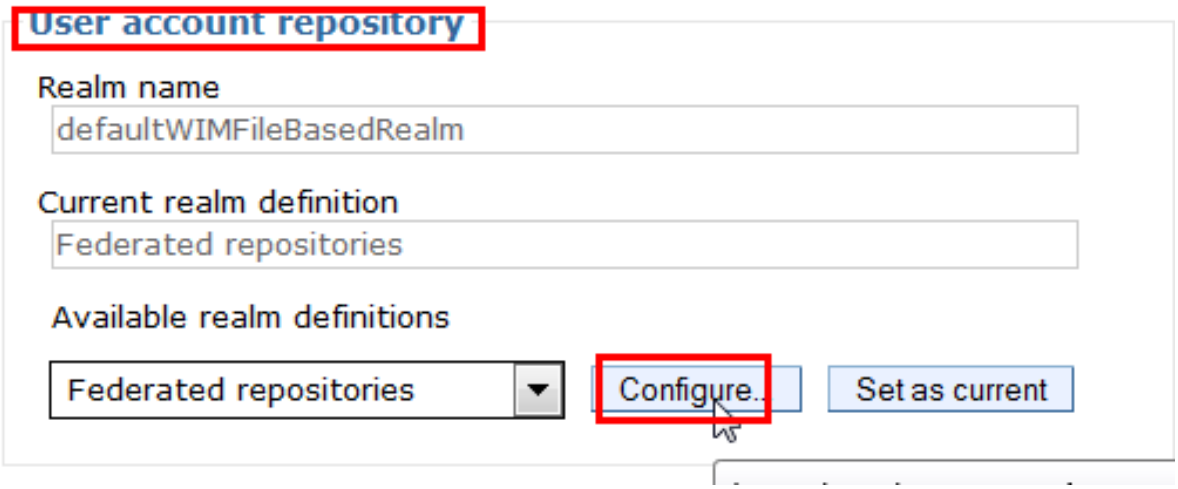
Launch websphere administration console and login using smadmin:
https://dash.demo.ibm.com:16316/ibm/console

Select manage users/manage groups and remove the default webGUI users and groups (they will be recreated after making the necessary LDAP configuration):
ncoadmin, ncouser, Netcool_Omnibus_Admin, Netcool_Omnibus_User.

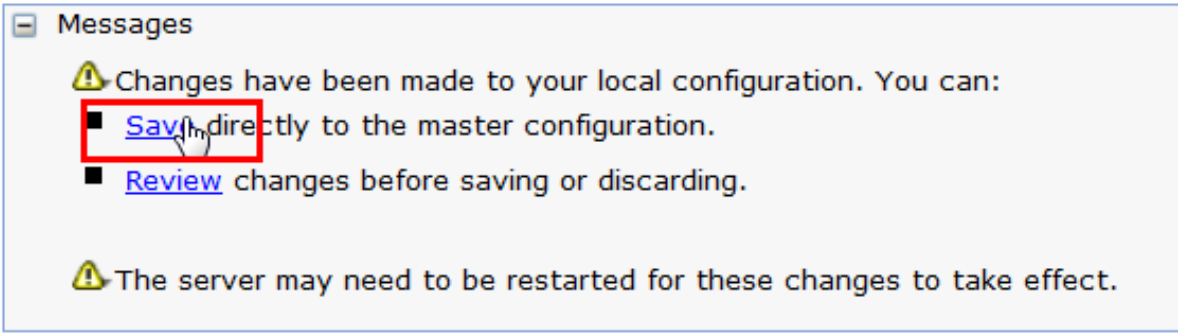
Remove Objectserver authentication repository as shown below:

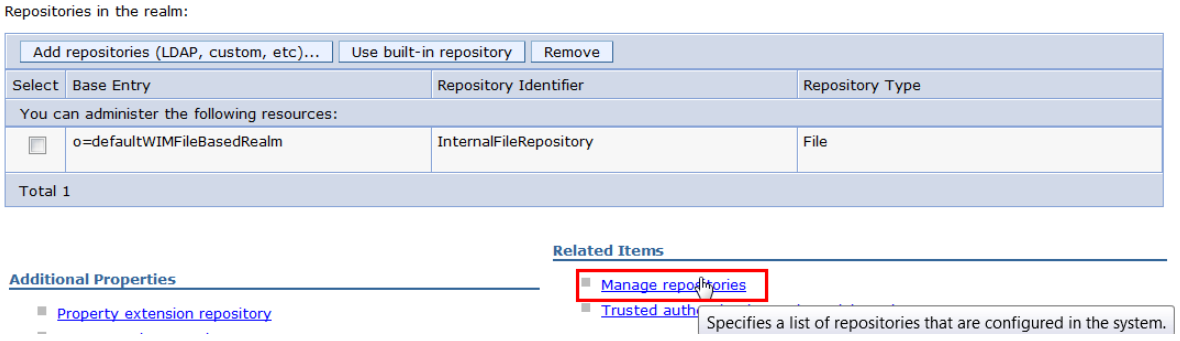


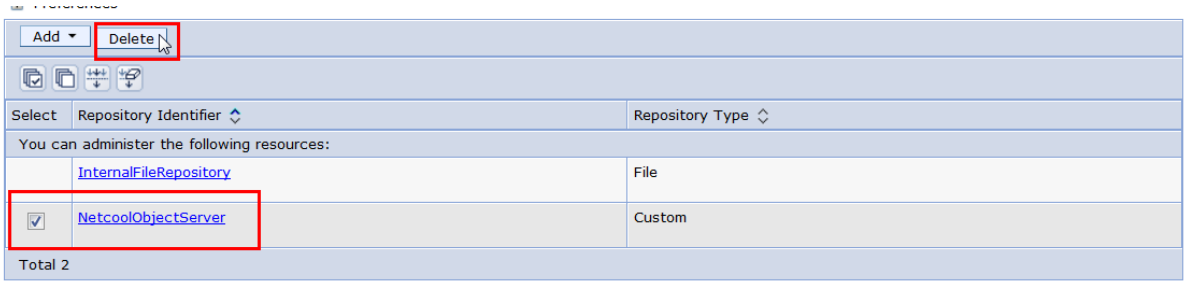
Select Global security configuration:

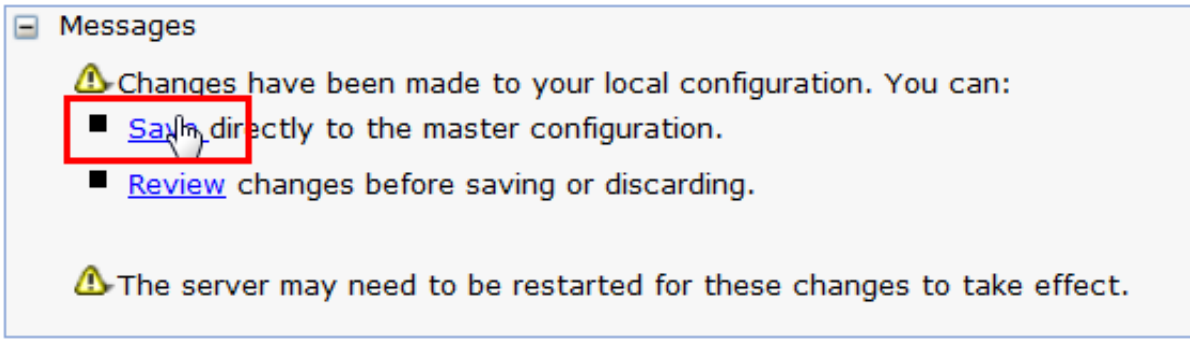

User account repository
Realm name
defaultWIMFileBasedRealm
Current realm definition
Federated repositories
Available realm definitions
Federated repositories
Configure...
Set as current


Repositories in the realm:
Add repositories (LDAP, custom, etc)...
Use built-in repository
Remove
Select
Base Entry
Repository Identifier
Repository Type
You can administer the following resources:
o=defaultWIMFileBasedRealm
InternalFileRepository
File
o=netcoolObjectServerRepository
NetcoolObjectServer
Custom
Total 2


Messages
Changes have been made to your local configuration. You can:
Save directly to the master configuration.
Review changes before saving or discarding.
The server may need to be restarted for these changes to take effect.


Repositories in the realm:
Add repositories (LDAP, custom, etc)...
Use built-in repository
Remove
Select
Base Entry
Repository Identifier
Repository Type
You can administer the following resources:
o=defaultWIMFileBasedRealm
InternalFileRepository
File
Total 1
Related Items
Manage repositories
Specifies a list of repositories that are configured in the system.
Additional Properties
Property extension repository



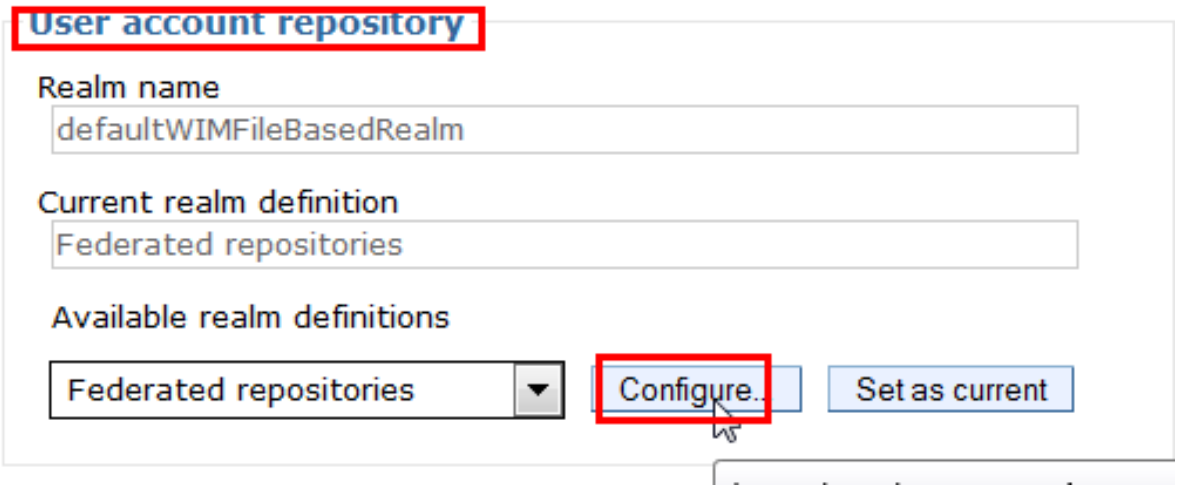


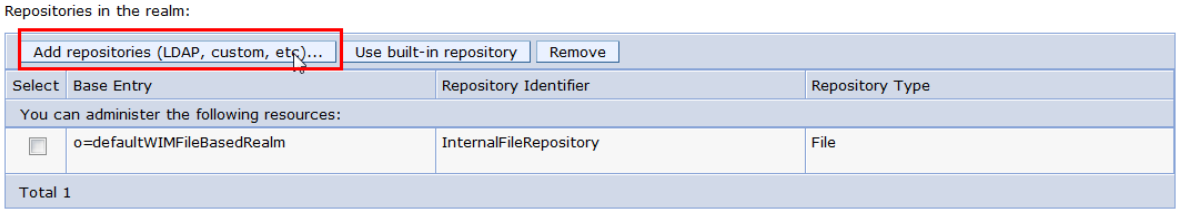
Logout the websphere administration console.
Retart the JazzSM/DASH server.

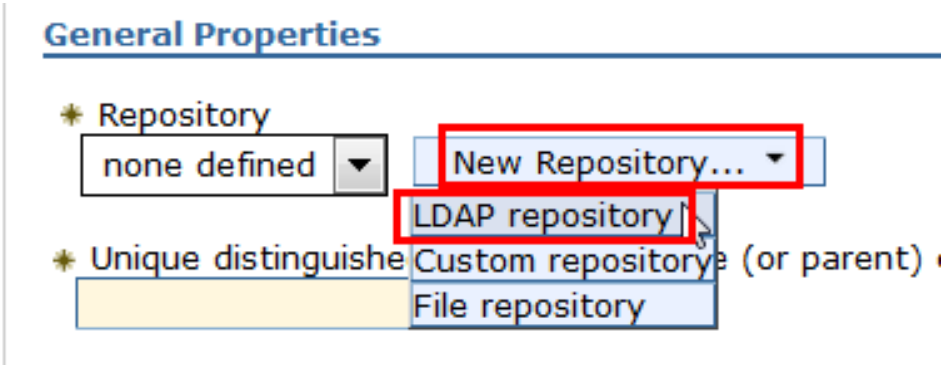
Backup the websphere security file again as per the following:
[netcool@noi14 ~]$ cp /opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/wim/config/wimconfig.xml /opt/IBM/JazzSM/profile/config/cells/JazzSMNode01Cell/wim/config/wimconfig.xml.bkp.V2

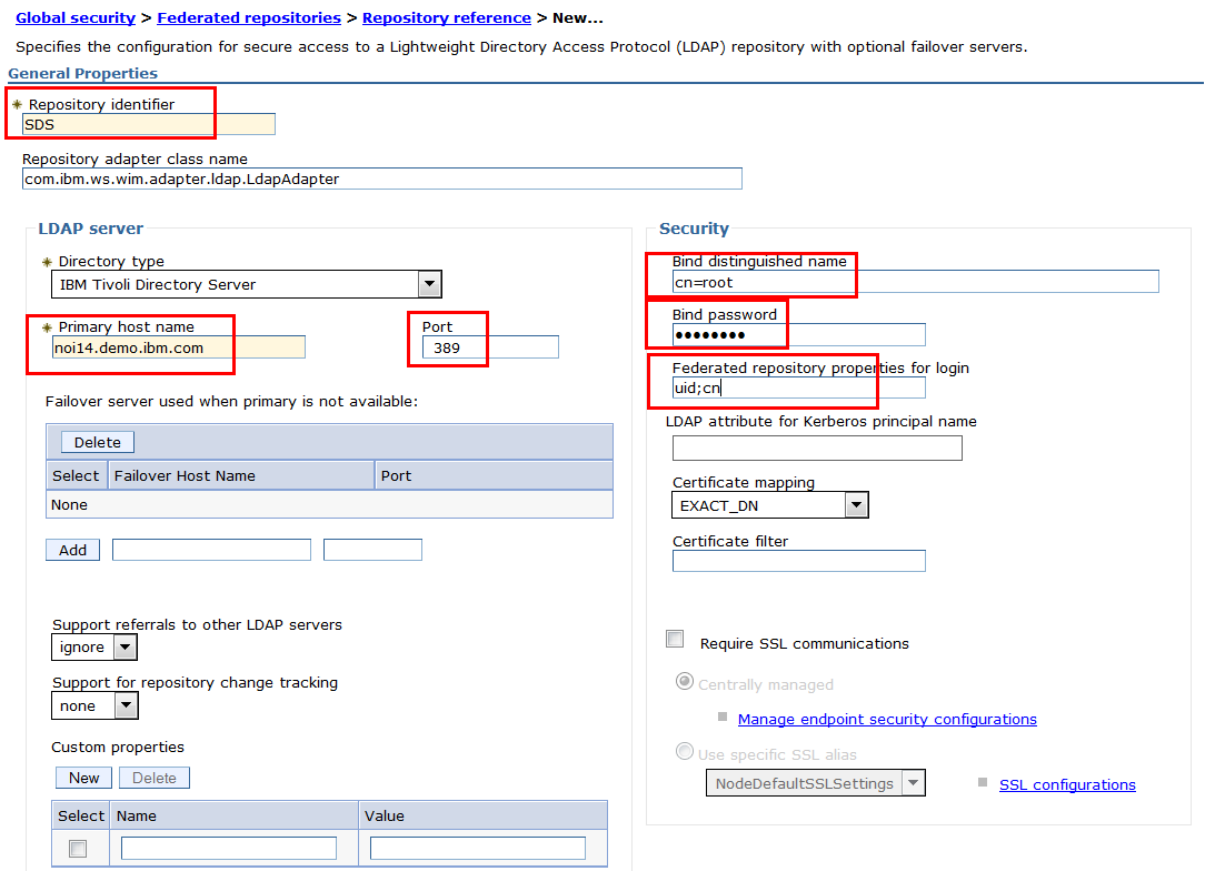
Launch websphere administration console and login using smadmin:
https://dash.demo.ibm.com:16316/ibm/console

Select Global security configuration:

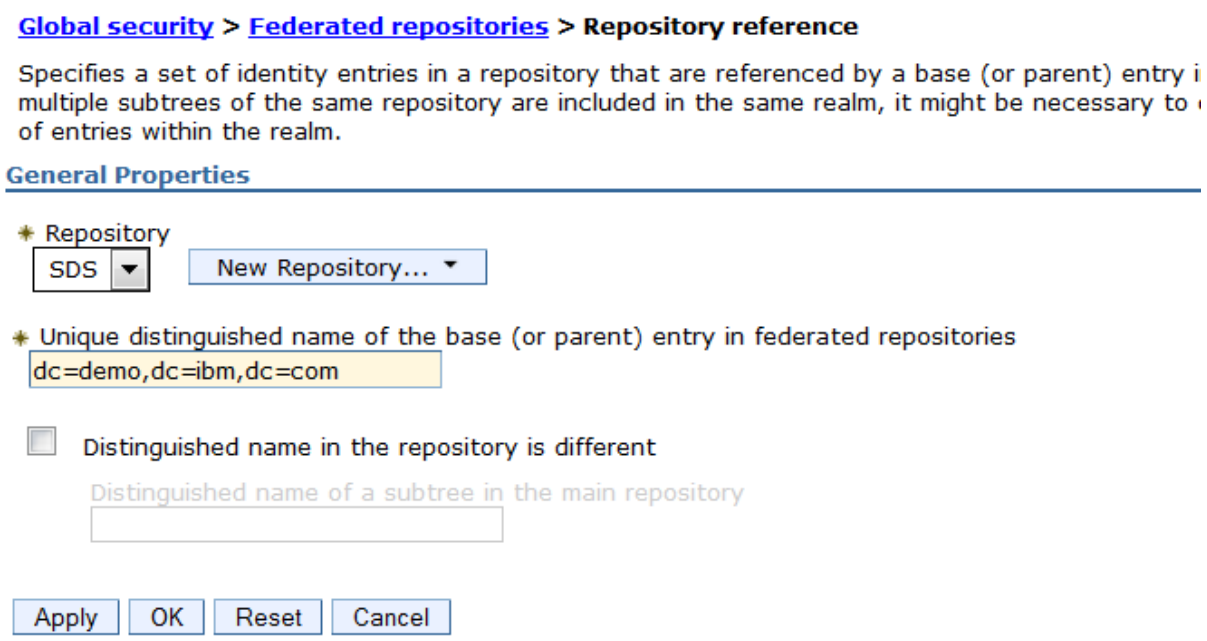

User account repository
Realm name
defaultWIMFileBasedRealm
Current realm definition
Federated repositories
Available realm definitions
Federated repositories
Configure...
Set as current


Repositories in the realm:
Add repositories (LDAP, custom, etc)...
Use built-in repository
Remove
Select
Base Entry
Repository Identifier
Repository Type
You can administer the following resources:
o=defaultWIMFileBasedRealm
InternalFileRepository
File
Total 1


General Properties
Repository
none defined
New Repository...
LDAP repository
Custom repository
File repository
Unique distinguishe
(or parent)



Click OK and save.



Click ok and save.

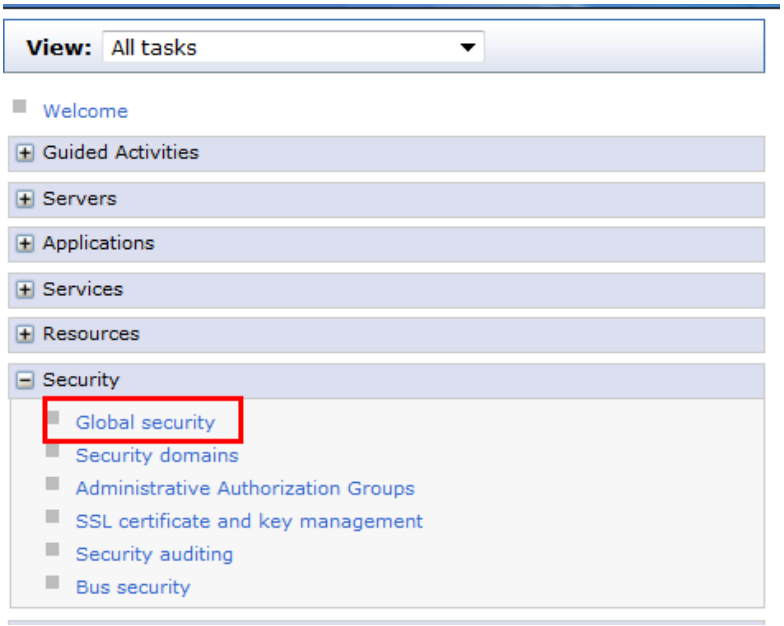
The following shows repositories after configuration:

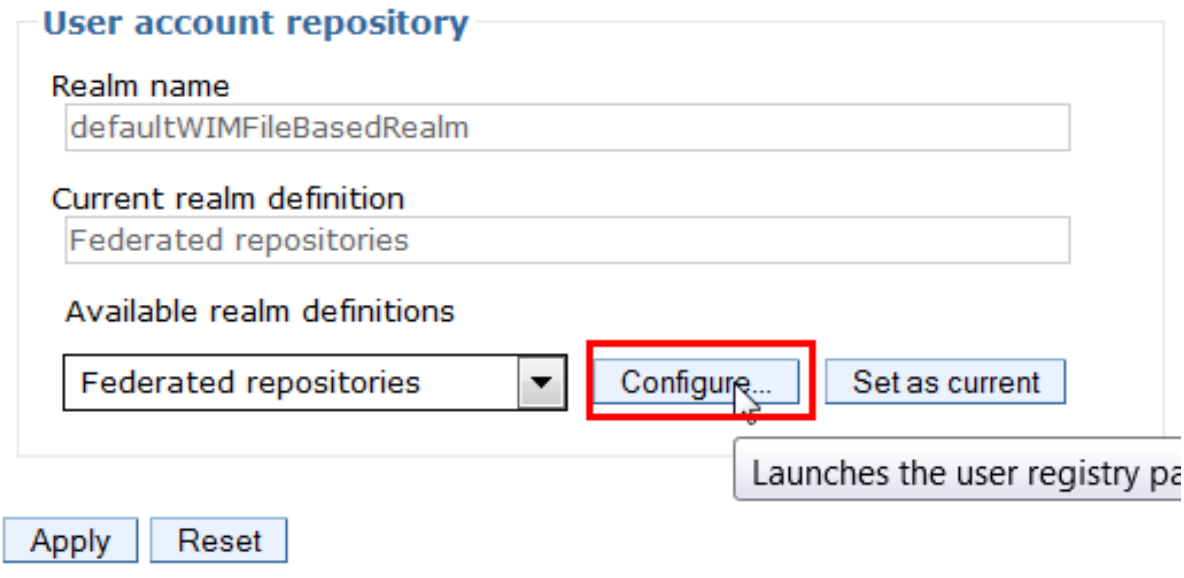
Repositories in the realm:

Add repositories (LDAP, custom, etc)... | Use built-in repository | Remove

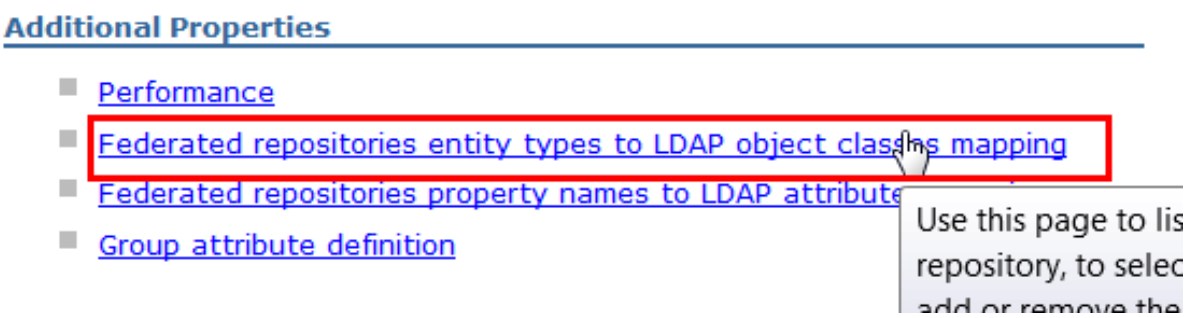
Select	Base Entry	Repository Identifier	Repository Type
You can administer the following resources:			
☐	dc=demo,dc=ibm,dc=com	SDS	LDAP:IDS
☐	o=defaultWIMFileBasedRealm	InternalFileRepository	File
Total 2			

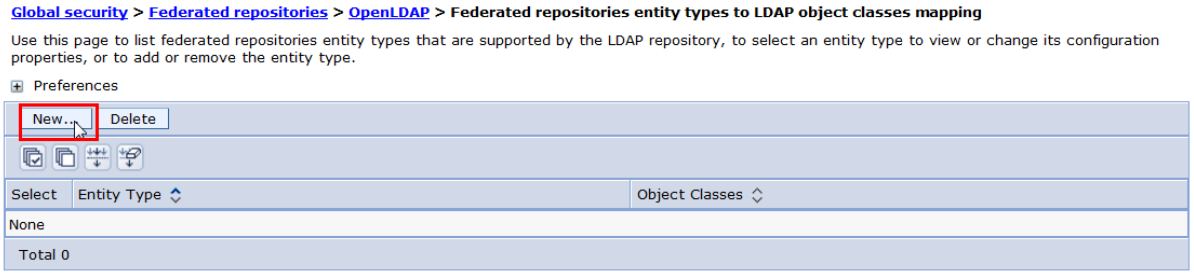
8. Configure DASH to use SDS repository when creating new users/groups

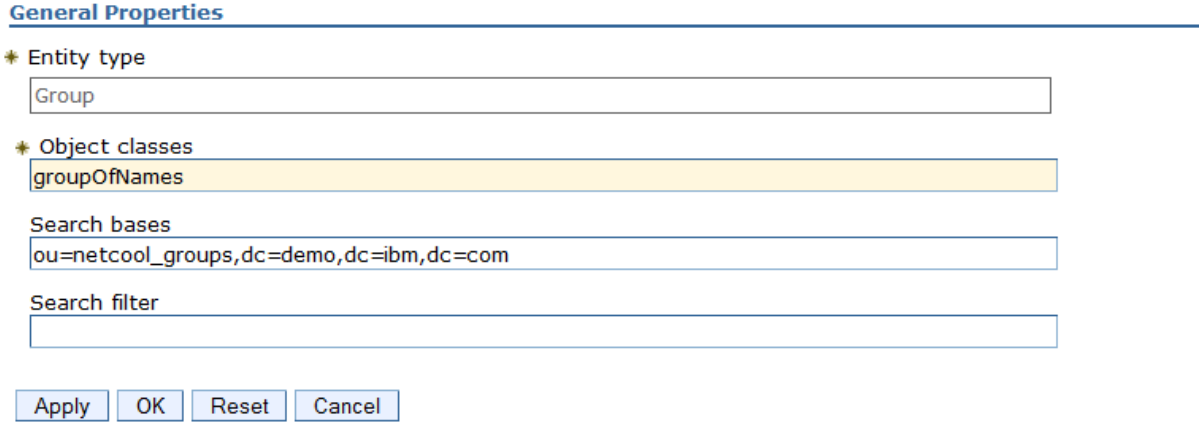




Repositories in the realm:







General Properties

Entity type

OrgContainer

Object classes

organization;organizationalUnit;domain;container

Search bases

Search filter

Apply OK Reset Cancel

General Properties

Entity type

PersonAccount

Object classes

inetOrgPerson

Search bases

ou=netcool_users,dc=demo,dc=ibm,dc=com

Search filter

Apply OK Reset Cancel

Global security

Messages

Changes have been made to your local configuration. You can:

Save directly to the master configuration.

Review changes before saving or discarding.

The server may need to be restarted for these changes to take effect.

Global security > Federated repositories > OpenLDAP > Federated repositories entity types to LDAP object classes mapping

Use this page to list federated repositories entity types that are supported by the LDAP repository, to select an entity type to view or change its configuration properties, or to add or remove the entity type.

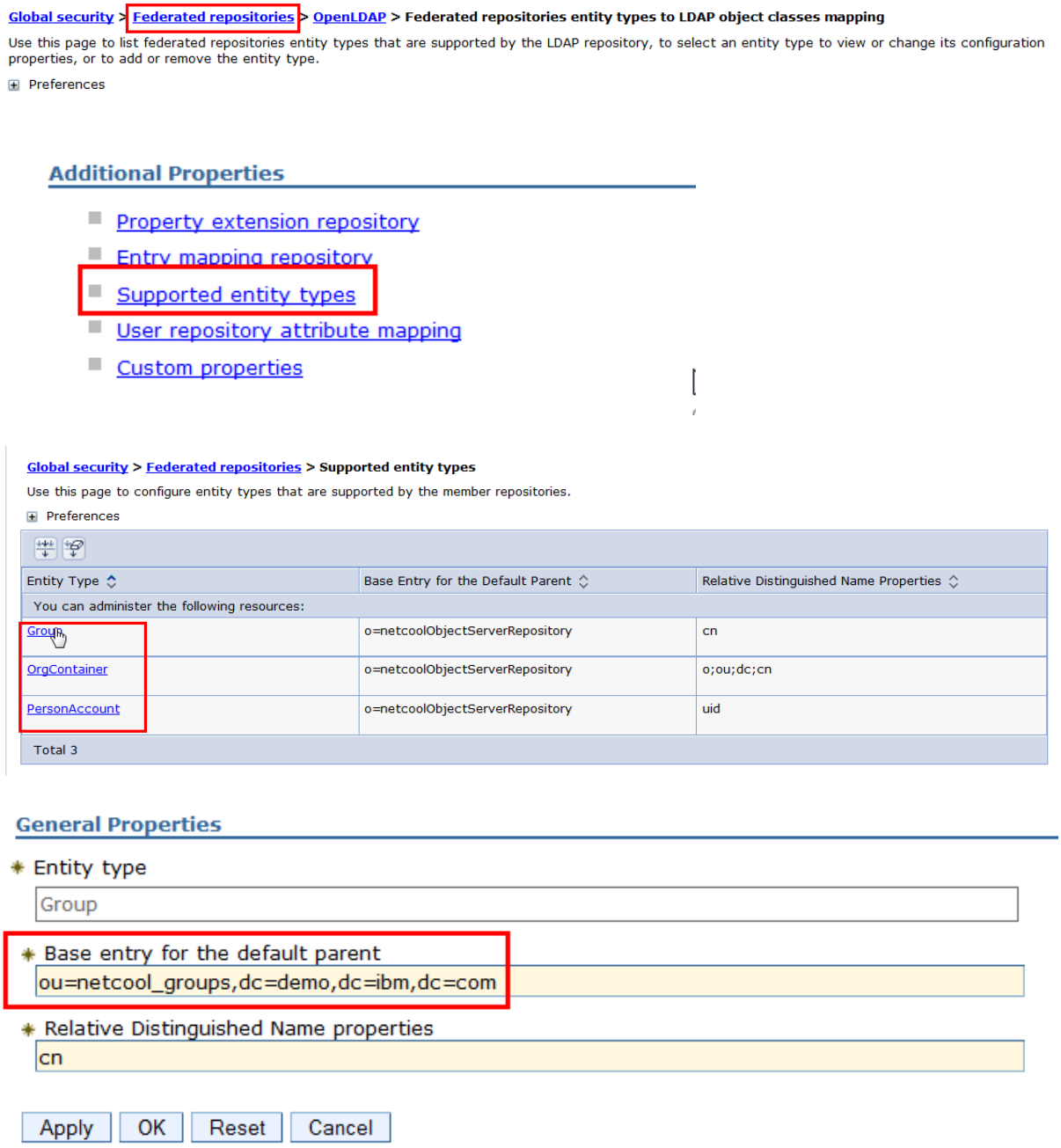
Preferences

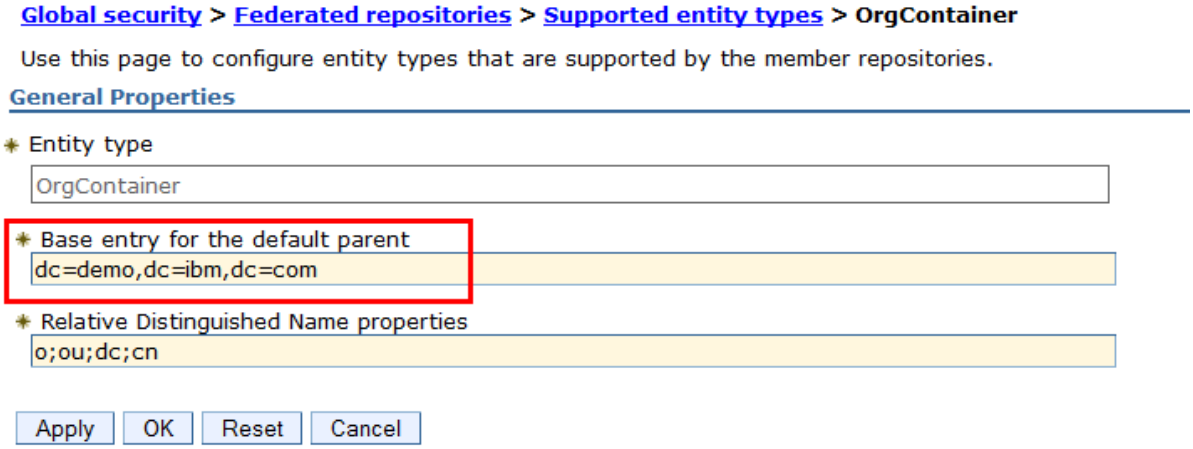
New... Delete

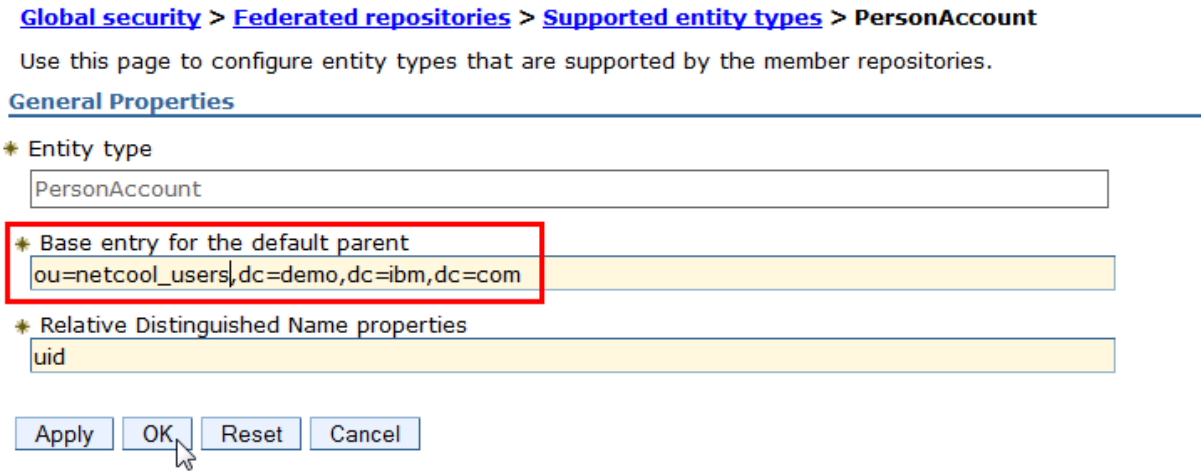
Select	Entity Type	Object Classes
You can administer the following resources:		
	Group	groupOfNames
	OrgContainer	organizationalUnit
	PersonAccount	inetOrgPerson

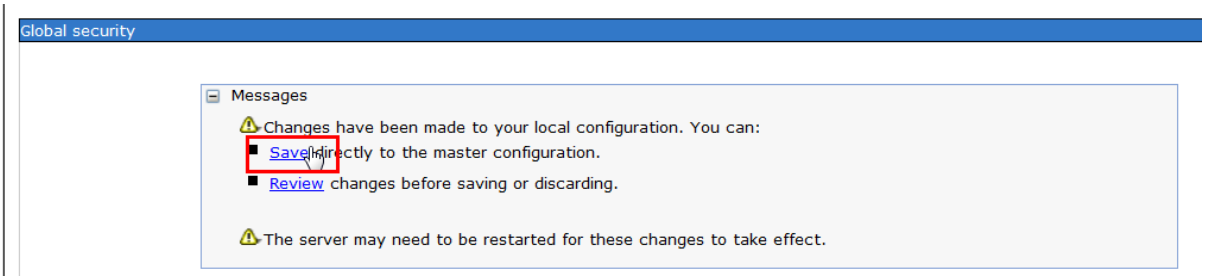
Total 3

Configure DASH to use the configured LDAP server to create new users and groups:

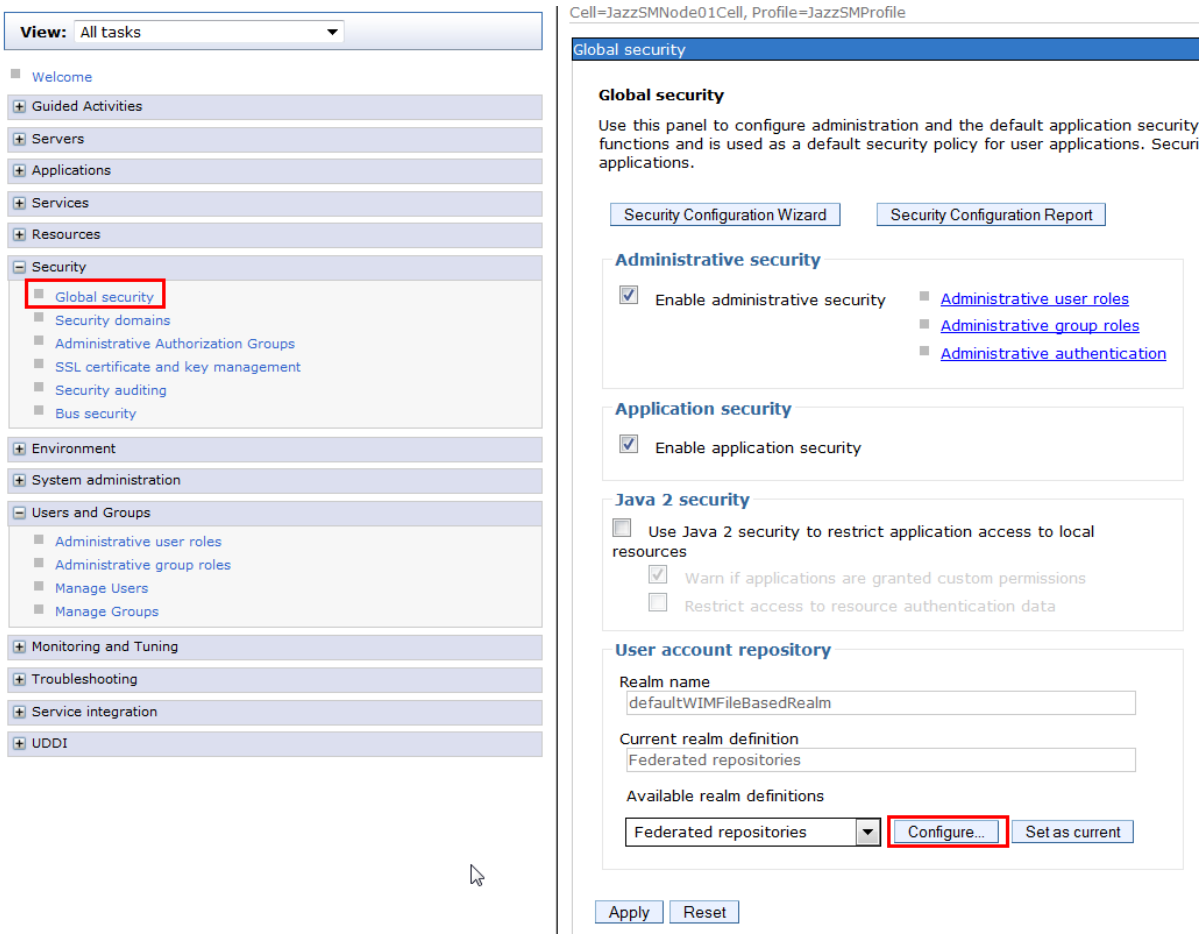








Enable access to the DASH (using smadmin filebased user) when the LDAP server is not available:


View: All tasks
Welcome
Guided Activities
Servers
Applications
Services
Resources
Security
Global security
Security domains
Administrative Authorization Groups
SSL certificate and key management
Security auditing
Bus security
Environment
System administration
Users and Groups
Administrative user roles
Administrative group roles
Manage Users
Manage Groups
Monitoring and Tuning
Troubleshooting
Service integration
UDDI
Cell=JazzSMNode01Cell, Profile=JazzSMProfile
Global security
Global security
Use this panel to configure administration and the default application security functions and is used as a default security policy for user applications. Securi applications.
Security Configuration Wizard
Security Configuration Report
Administrative security
Enable administrative security
Administrative user roles
Administrative group roles
Administrative authentication
Application security
Enable application security
Java 2 security
Use Java 2 security to restrict application access to local resources
Warn if applications are granted custom permissions
Restrict access to resource authentication data
User account repository
Realm name
defaultWIMFileBasedRealm
Current realm definition
Federated repositories
Available realm definitions
Federated repositories
Configure...
Set as current
Apply
Reset

Save the configuration and restart the DASH server as per the following:
[CLI]$ /opt/IBM/JazzSM/profile/bin/stopServer.sh server1 -username smadmin -password object00

Ensure all java processes associated with DASH have been stopped.

[CLI]$ /opt/IBM/JazzSM/profile/bin/startServer.sh server1

9. Create the default webGUI users (will be created now in SDS LDAP)

Launch websphere administration console and login using smadmin:
https://dash.demo.ibm.com:16316/ibm/console

Create the following groups:

(1) Netcool_Omnibus_Admin
(2) Netcool_Omnibus_User

Create the following users:

(1) ncoadmin: member in Netcool_OMNIbus_Admin, Netcool_OMNIbus_User, Public groups.
(2) ncouser: member in Netcool_OMNIbus_User, Public groups.

Launch DASH and login using smadmin :
https://dash.demo.ibm.com:16311/ibm/console

Assign the following roles to each group:

(1) Netcool_OMNIbus_Admin: [ncw_user, ncw_gauges_editor, ncw_admin, ncw_dashboard_editor, netcool_rw]
(2) Netcool_OMNIbus_User:[ncw_user, netcool_ro]

Note: you can customize the roles of each group to match your needs.

10. Important Administration commands

Start SDS instance:
login as root and start the directory server using the following command:
[root@noi14 ~]# /opt/ibm/ldap/V6.4/sbin/ibmslapd -I dsrdbm01

Stop SDS instance:
login as root and stop the directory server using the following command:
[root@noi14 ~]# /opt/ibm/ldap/V6.4/sbin/ibmslapd -I dsrdbm01 -k

11. References

IBM Security Directory Server 6.4 installation guide:
https://www.ibm.com/support/knowledgecenter/SSVJJU_6.4.0/com.ibm.IBMDS.doc_6.4/ds_ig_home.html

IBM Security Directory Server 6.4 prerequisites report:
http://www-969.ibm.com/software/reports/compatibility/clarity-reports/report/html/softwareReqsForProduct?deliverableId=1404412255415&osPlatforms=Linux&duComponentIds=S003|S001|S002|S004|A006|A007|A008|A005&mandatoryCapIds=30|12|9|13|25|32|26