# Communication from the IMPS Server to the UNIX NIS (yppasswd, ypshadow, ypgroup) via CA UNIX NISAgent & Log Locations

## IMPS001

- Im_ps
  (slapd 20389/90)
- Dx router
  (ldap 20391)
- JCS
  TCP 20410-20411
  30003
- CCS
  Tcp 20403
- ETCNamespace.dll
- Cam 4104 (Udp/tcp)
  Caft 4105 (udp/tcp)

## ROLE

- NIS Endpoint Account
- NIX App Endpoint Account
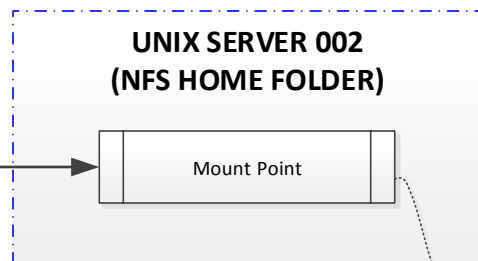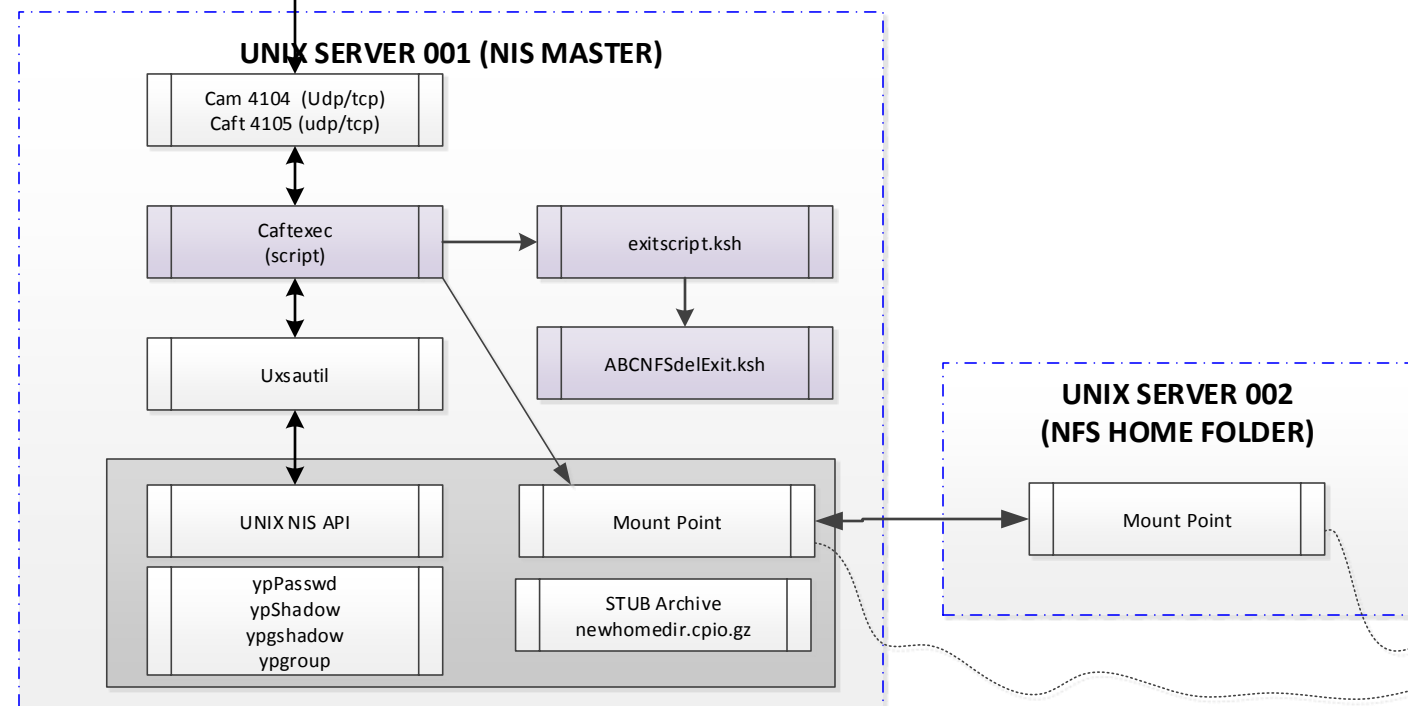- NIX AutoHome Endpoint Account
- NIX NetGroupByUser Endpoint Account

- %IMPS%\log\im_ps.log    IM Provisioning Log; minimal use until debugging is required & enabled
- %IMPS%\log\etatrans.date.log    IM Transaction Log (typically set to level=7; may be reduced to level 3 to reduce I/O)

- %IMPS%\log\satrans.date.log    SuperAgent Transaction Log creation/modify log

- %CAM%\ftlogs    CAFT Logs;  Minimal use unless debugging
- %CAM%\logs    CAM logs:   Minimal use unless debugging is enabled to identify issue with communication or encryption

## UNIX SERVER 001 (NIS MASTER)

- Cam 4104 (Udp/tcp)
  Caft 4105 (udp/tcp)
- Caftexec (script)
- exitscript.ksh
- Uxsautil
- ABCNFSdelExit.ksh
- UNIX NIS API
- Mount Point
- ypPasswd
  ypShadow
  ypgshadow
  ypgroup
- STUB Archive
  newhomedir.cpio.gz

## UNIX SERVER 002 (NFS HOME FOLDER)

- Mount Point

- %CAM%\ftlogs    CAFT Logs;  Minimal use unless debugging
- %CAM%\logs    CAM logs:   Minimal use unless debugging is enabled to identify issue with communication or encryption

- %CAM%\caftexec.out    UNIX Agent commands only viewed if edit is made to caftexec (script)
  - Insert echo "$@" >> /tmp/output.txt after the line /bin/sh -c "$@"

- UNIX Syslog    Minimal use unless debugging
- Backup files - yppasswd; ypgroup-; ypshadow; ypgshadow-

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If Use-Case = New
a.        Perform script code to identify "Service/Group/Special" accounts and replace password with "NP". (exitscript.ksh)
b.        Execute ABC procedure code to create NFS Home Folder (ABCNFSAdd)
If Use-Case = Update Password
a.        Perform CA GSE script code to identify "Service/Group/Special" accounts and replace password with "NP". (exitscript.ksh)
If Use-Case = Delete
a.        Execute ABC script code to remove (or other operations) the user-s NFS Home Folder (ABCNFSdelExit) Clean up Task and Temporary Files
Wait Process to ensure all scripts completed are completed {Impact if delay is larger than 60 seconds, then the default cam timeout should be raised accordingly 60 seconds in the IMPS server on the NIS connector page}

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Used to manage "group/shared" accounts & requirements.

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1. **caftexec** (Primary exit script -  CA supported, ABC modified}.
2. **exitscript.ksh** (ABC created; not CA Supported)
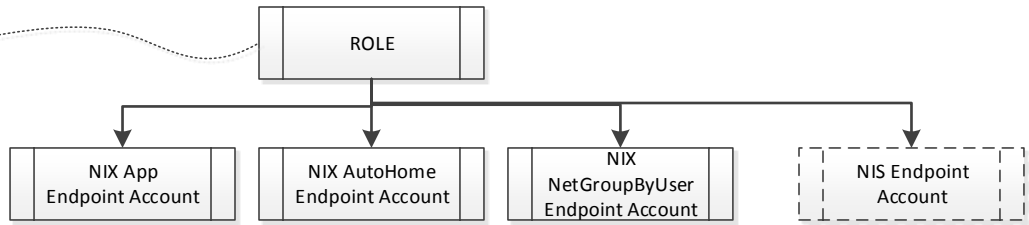3. **ABCNFSdelExit.ksh** (ABC created; not CA supported)

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LOGFILE=/tmp/.tmp.`basename $0`
echo $@ > ${LOGFILE}
rm ${LOGFILE}

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Assuming automount map in /etc/auto_master of
# /net        -hosts -nobrowse,nosuid
LOCAL_MOUNT=/net/${HOST}/${MOUNT_PATH}

# IMPS001
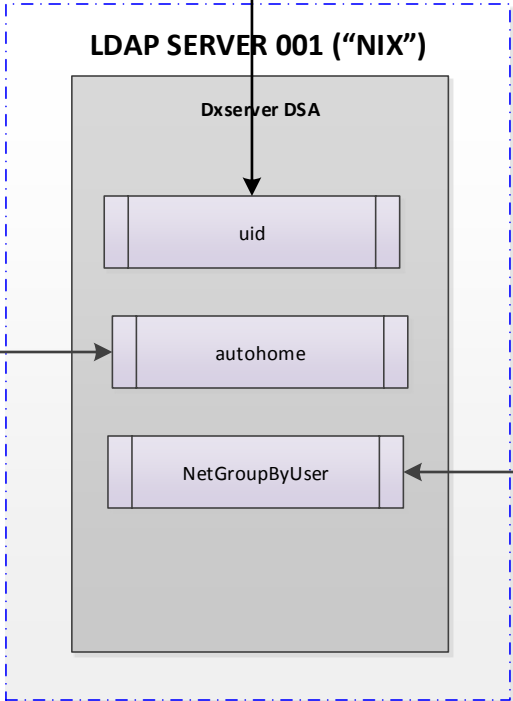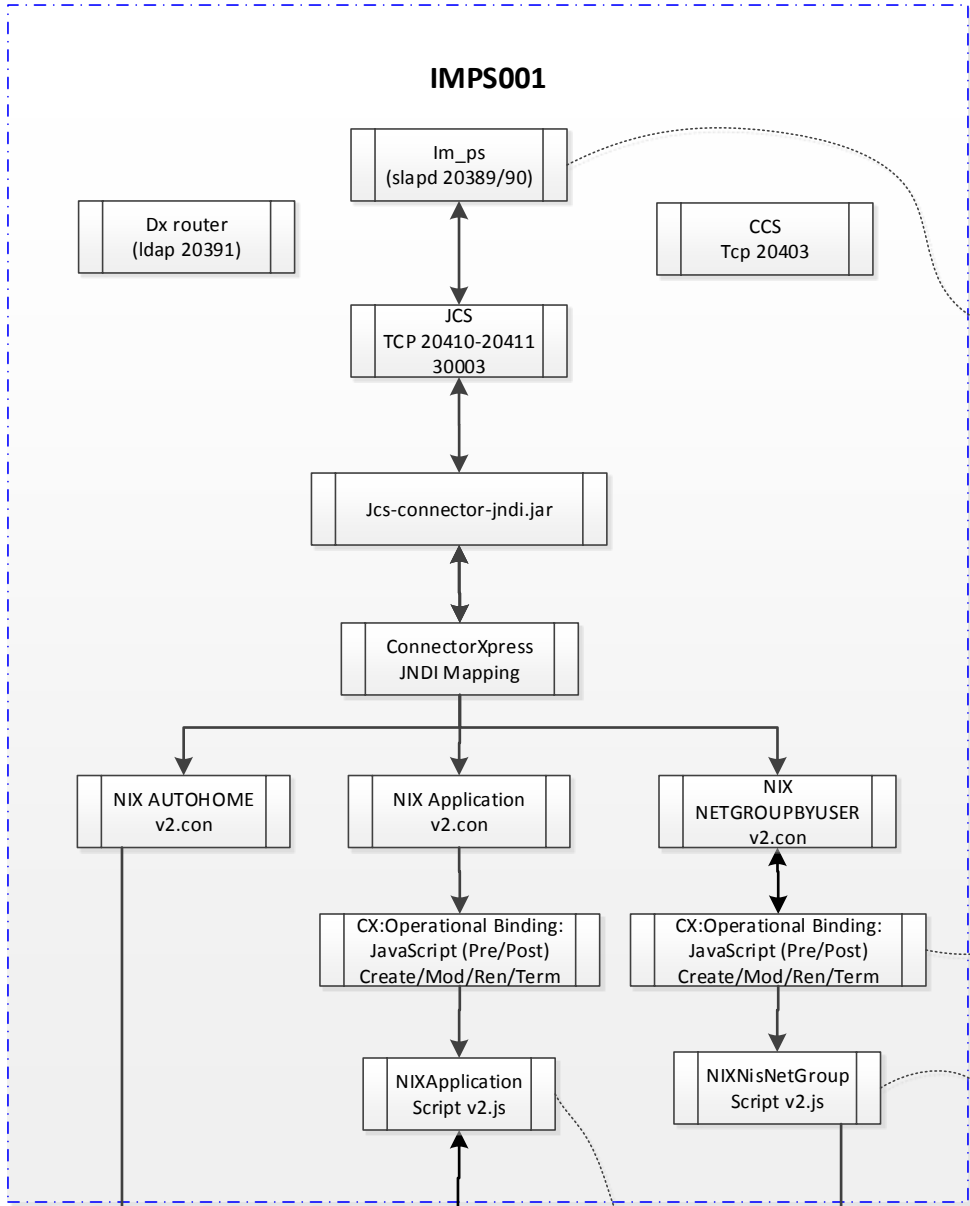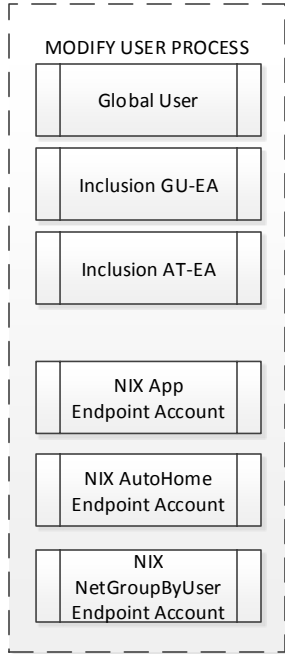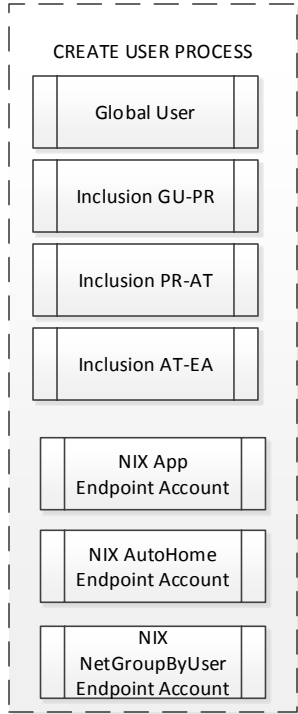
**Communication from the IMPS Server to the "NIX" LDAP via ConnectorXpress JNDI & Log Locations**

- %IMPS%\log\im_ps.log    IM Provisioning Log; minimal use until debugging is required & enabled
- %IMPS%\log\etatrans.date.log    **IM Transaction Log**  (typically set to level=7; may be reduced to level 3 to reduce I/O)

Im_ps
(slapd 20389/90)

Dx router
(ldap 20391)

CCS
Tcp 20403

JCS
TCP 20410-20411
30003

ROLE

NIX App
Endpoint Account

NIX AutoHome
Endpoint Account

NIX
NetGroupByUser
Endpoint Account

NIS Endpoint
Account

Jcs-connector-jndi.jar

- %IMJCS%\log\jcs.date.log    **JCS Transaction Log** creation/modify log

ConnectorXpress
JNDI Mapping

NIX AUTOHOME
v2.con

NIX Application
v2.con

NIX
NETGROUPBYUSER
v2.con

CX:Operational Binding:
JavaScript (Pre/Post)
Create/Mod/Ren/Term

CX:Operational Binding:
JavaScript (Pre/Post)
Create/Mod/Ren/Term

NIXApplication
Script v2.js

NIXNisNetGroup
Script v2.js

**Operational Bindings Overview**
The beauty of the operational binding architecture is the interfaces that it exposes to the developer.  A developer/admin can efficiently and effectively take any existing Connector Xpress template and replace the functions for add, modify, delete, and move without having to develop a full blown connector from scratch!

**Operational bindings can be used before, after or instead of the following connector specific operations on an endpoint:**
o         doAdd – Adding an account to the endpoint
o         doModify – Modifying an existing account on an endpoint (except for changing the RN)
o         doModifyRN – Modifies the RN on the endpoint
o         doMove – Move account information from one container to another on the same endpoint.
o         doDelete – Delete an account on the endpoint

**Operational bindings can be created using JavaScript only**
o         The fact that Operational Bindings can only be written in JavaScript is the single limiting factor in this architecture.  This is mitigated in part by the vast Java community and the availability of source code and packages that can interface with just about anything
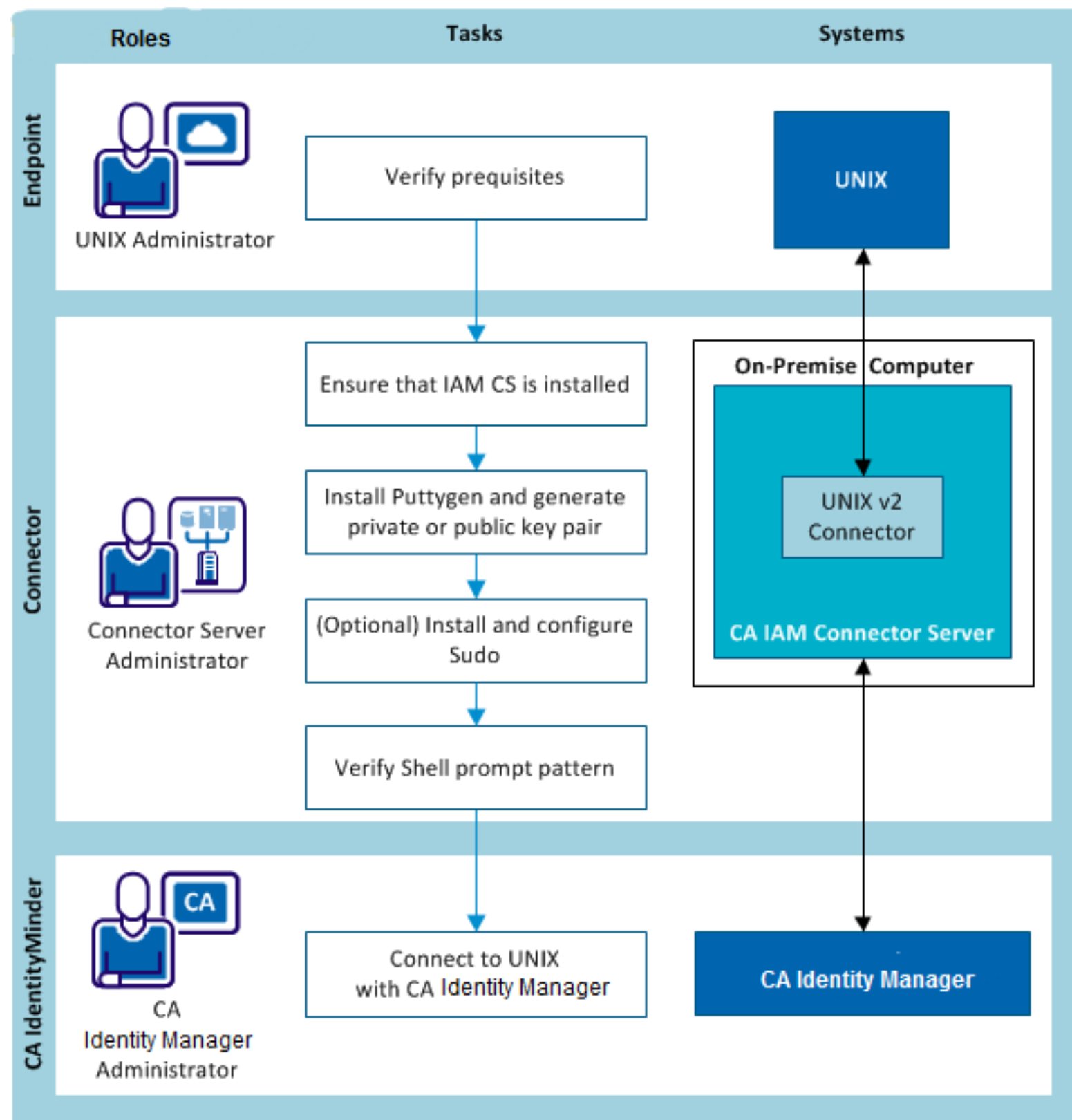
**Operational Bindings General Notes and Recommendations**
Use Connector Xpress to generate the base metadata and jar files needed for a custom connector.   Avoid creating a connector from scratch, as this is a very tedious and complicated process.

To manage 'nisMapEntry' attribute by altering default functionality

changing membership uid value into (,uid,) pattern
set 'shadowLastChange' attribute
Group Name for a UNIX Primary Group
GID from Group Name

## CREATE USER PROCESS

Global User

Inclusion GU-PR

Inclusion PR-AT

Inclusion AT-EA

NIX App
Endpoint Account

NIX AutoHome
Endpoint Account

NIX
NetGroupByUser
Endpoint Account

## MODIFY USER PROCESS

Global User

Inclusion GU-EA

Inclusion AT-EA

NIX App
Endpoint Account

NIX AutoHome
Endpoint Account

NIX
NetGroupByUser
Endpoint Account

## LDAP SERVER 001 ("NIX")

**Dxserver DSA**

uid

autohome

NetGroupByUser

- %dxserver%\logs\dsa_alarm.log
- %dxserver%\logs\dsa_trace.log
- %dxserver%\logs\dsa_warn_{date}.log
- %dxserver%\logs\dsa_{date}.log
- %dxserver%\logs\dsa_diag_{date}.log
- %dxserver%\logs\dsa_stats_{date}.log
- %dxserver%\logs\dsa_time_{date}.log

| | Roles | Tasks | Systems |
|---|---|---|---|
| **Endpoint** | UNIX Administrator | Verify prequisites | UNIX |
| **Connector** | Connector Server Administrator | Ensure that IAM CS is installed → Install Puttygen and generate private or public key pair → (Optional) Install and configure Sudo → Verify Shell prompt pattern | On-Premise Computer / UNIX v2 Connector / CA IAM Connector Server |
| **CA IdentityMinder** | CA Identity Manager Administrator | Connect to UNIX with CA Identity Manager | CA Identity Manager |

See this reference link for AGENTLESS connector using putty/sshd

https://wiki.ca.com/display/IMGC10/UNIX+v2+Connector

Verify the Prerequisites

UNIX/Linux administrator tasks:

1. Ensure that SSH and the Sudo package installed and enabled in the UNIX endpoint.
2. Service account on UNIX has permissions (if not using root).
- Note: To allow a non-root user to have root permissions, must install Sudo and configure the /etc/sudoers file.

IM Solution Effort/tasks:

1. Ensure that CA IAM Connector Server is installed. (IAMCS/CCS)
2. Install Puttygen and generate private or public key pair.
3. (Optional) Install and configure Sudo. (Test with service account.)
4. Verify the Shell Prompt pattern. (Test with putty)

5. The CA Identity Manager administrator connects CA Identity Manager to the UNIX endpoint.