



**Install and Configure OES**

```

$Pident -v -v
rpm -qa | grep rug
yast -i rug
yast -i red
yast -i red-carpet
yast -l
/etc/init.d/rcd start
chkconfig --level 35 rcd on
red-carpet
rug
#Some basic rug commands are:
file-list (fl)
info (if)
install (in)
list-updates (lu)
package-file (pf)
packages (pa)
remove (re, rm, erase)
search (se)
summary (su, sum)
update (up)
patch-list (pl)
patch-install (pin)
channels (ch)
subscribe (sub)
unsubscribe (unsub)
ping update.novell.com
rug service-add https://update.novell.com/data
rug service-add https://red-carpet.emea.novell.com/data
rug service-list
#Activate one or more ZLM (red-carpet) servers using a new alias:
rug activate --service https://update.novell.com/data --alias nldnprs \
  357F3392CE1110 yourmail@example.nl
rug ch
rug sub nld9
rug sub nld9-extras
rug ch
rug pl
rug pin oes:*
rug pa
rug sum
rug lu
rug up
  150 packages will be installed and 3 packages will be removed.
  This is a 289.12M download.
  Do you want to continue? [y/N]
rug wp samba
S | Channel | Package | Version | samba Version
-----+-----+-----+-----+-----
| OES-base | samba | 3.0.9-2.6 | 3.0.9-2.6
i | sles-9-i586 | samba | 3.0.4-1.34.3 | 3.0.4-1.34.3 (Currently installed)
| sles-9-i586 | samba | 3.0.14a-0.4 | 3.0.14a-0.4

rpm -qa | grep samba
samba-3.0.4-1.34.3
  
```

```

#Private ZLM server not required
#Display Support Pack status (SLES/OES)
#Package 'rug' installed?
#Required client packages (3) to install

#List admin modules without using X
#Start the red carpet client daemon
#Survive a reboot
#Start rug Graphical User Interface
#Show rug Command Line Interface:
#See also man rug and rug help
#List files within a package
#Show detailed info about a package
#Install single packages with dependencies
#List available updates
#Get package which contains file
#List the packages in a channel
#Remove packages
#Search for a package
#Display a summary of available updates
#Download and install updates (non-OES)
#Display available patches (e.g. OES)
#Download and install patches (e.g. OES)
#List available channels
#Subscribe to a channel
#Unsubscribe from a channel
#Check Internet connection
  
```

```

rug ro 2005-09-30 04:50:00
vi /etc/ximian/rcd.conf
[System]
rollback=true
  
```

```

#Rollback. Option must be enabled:
#Configure daemon. See man rcd.conf
#Enable rollback. Previous packages
#need to be available on ZLM server
  
```

**SLP and OpenSLP**

```

#Default scope v2: DEFAULT,
yast slp
/etc/init.d/slpd status
slp:/
slptool findsrvs service:directory-agent
slptool findsrvs service:service-agent
slptool findsrvs service:bindery.novell
slptool findsrvs service:ldap
  
```

```

#Tip: Use a unicast DA for discovery
#Version 1: UNSCOPED (incompatible)
#Configure slp
#Check the 'running' status
#List known service-urls using Konquerer
  
```

**eDirectory Overview and Tools**

```

/etc/init.d/nds status
nds<tab> <tab>
cat /etc/nds.conf
echo $TERM
ndsrepair -U
ndsconfig get
ndsconfig get help
ndsconfig -c modules
ndsconfig add -m http -o 8028
edirutil
edirutil -i
ldap<tab> <tab>
ldapconfig get
ldapconfig set 'ldapTLSRequired=yes'
nldap -u
nldap -l
telnet host 524
  
```

```

#Show tree, version, server context
#Show all the nds commands
#Show ports, ip, dib dir, names, cert
#Must display 'xterm' or 'vt100'
#Start libdsr.so in ndsd memspace
#Show current settings. Set via set
#Show with extra description line
#Show status and versions of eDir, iMon,...
#Add eDir-object http and configure port
#Show eMBox options (eDir Management)
#Enter interactive eMBox
#Show all the ldap commands
#Show all ldap object settings (after login)
#Unload ldap
#Load ldap
#Test eDir-port (no reaction is ok)
  
```

**eDirectory background processes**

```

#Sync
#Purger
#Janitor
#Limber
#Backlink
#Flat Cleaner
#Schema Sync
ndstrace
  help dstrace
  (n)dstrace
  set dstrace=nodebug
  dstrace +SCMA +LDAP
  set dstrace=+BLNK
ndstrace --help
ndstrace -c 'dstrace +sync; set dstrace=*n'
https://srv:8030/nds
  
```

```

#Replica Sync after heartbeat (60 min)
#Process obituaries (aft sync)
#Maintain Backlink List, Purge,...(aft sync)
#Check tree name (aft start, aft change)
#Verify external references (25 hrs)
#Cert keys, returns space, upd status &ver
#Sync obj classess, attrib def (aft change)
#Start trace window. Use quit to stop
#Show NDSTrace options
#Show trace filters: + is BLUE
#Unset trace filters
#Set trace filter, or use:
#Set trace filter
#Show command line options, e.g:
#iMonitor (also via http on :8020)
  
```

**Novell Remote Manager and Health Monitoring**

```

#NoRM is dependent on LUM and WBEM and not running on Apache
https://srv:8009
/etc/init.d/novell-httpstkd status
www.dmtf.org/about/faq/wbem
#NoRM
#Check NoRM runnig status
#See WBEM faq
  
```



**NCP on Linux** #Embedded in 'ndsd'  
 #Create NCP share(s) via NoRM  
 #Create user(s) via iManager  
 ncp<tab> <tab> #Show ncp (menu) commands  
 ncpcon help #Show options  
 ncpcon help rights #Show rights options  
 ncpcon rights view data: #Show trustees of data., or use:  
 ncpcon #Start ncp console  
 help  
 rights view data:/path #Show trustees  
 rights add data: cn=usr.da RF #Set trustees, [RFWCEMFA]  
 ncpcon purge volume data #Purge deleted files (NSS only!)  
 #Change conf file, see #[www.novell.com/documentation](http://www.novell.com/documentation):  
 #NCP Server for Linux Administration Guide, NCP Server Performance and  
 #Security, NCP on Linux security, Setting volume definitions  
 vi /etc/opt/novell/ncpserv.conf #Change conf file (restart ndsd), e.g.:  
 VOLUME ... /Inherit POSIX Permissions  
 ncp top #Show ncp connection info (menu's)

**NSS on Linux** #Is controlled by EVMS  
 #NSS only mountable via NCP-connections, not via Linux mount  
 #NSS Admin user object is required  
 evms<tab> <tab> #Show evms com., e.g. evmsn (menu)  
 nss<tab> <tab> #Show nss commands  
 nssmu #Start nss admin menu's (or use iMan.)  
 nssAdminInstall #Recreate nss Admin user object  
 nsscon #Start nss console  
 nss /find=\*main\* #Show all command options incl. main  
 nss /Poolmaintenance=pool #Goto maint. mode (for verify or rebuild)  
 nss /PoolActivate=pool #Leave maint. mode (aft verify or rebuild)  
 ravsui verify pool #Perform nss /verify  
 ravsui rebuild pool #Perform nss /rebuild

**iManager 2.5** #Install log files are in /tmp &  
 /var/opt/novell/iManager/nps/WEB-INF/logs/install  
 Select RBS Configuration, Select task, Goto Actions menu, Select members  
 #Download and install **Mobile iManager** on local ws. Just copy to others.  
 imanager/bin/iManager.log #Mobile iManager log path  
 #Force Unrestricted Mode #TID 10095953 or url...&forceMaster=true

**Universal Password** #Enable by creating Password Pol. (iMan)  
 #Password Self Service for users: #In Virtual Office (licensed users only)  
 #In the portal of iManager 2.02 (not >), or using IDM3

**Apache/Tomcat and Certs** #Used by: iManager, eGuide, Virtual Office,  
 #GroupWise WebAccess, iPrint, iFolder, QuickFinder  
<https://srv:2200> #Contains link to Admin srv, NetWare only  
 /etc/init.d/apache2 reload #Restart Apache  
 /etc/init.d/novell-tomcat4 restart #Restart Tomcat  
 vi /etc/apache2/httpd.conf #Configure Apache  
 vi /etc/opt/novell/httpd/conf.d/... #Configure virtual hosts and check SSL:  
 SSLEngine on  
 SSLCertificateFile /path/to/certificate  
 SSLCertificateKeyFile /path/to/certificate-key  
 wget <https://srv:8009> #Check if SSL works

wget <https://srv:631> #Check if secure LDAP works.  
 tail -f /var/log/opt/novell/tomcat4/logs/catalina.out  
 #Enable Tomcat admin & man. user (:8180/admin/ :8180/manager/html/):  
 vi /etc/opt/novell/tomcat4/tomcat-users.xml  
 <role rolename="admin"/>  
 <role rolename="manager"/>  
 <user username="name" password="pw" roles="manager, admin"/>  
 tail -f /var/log/apache2/... #Show and follow log files

**NTP and LUM** #[www.ntp.org](http://www.ntp.org)  
 hwclock -systohc #Set hardware clock  
 nam<tab> <tab> #Show all nam commands  
 namconfig #Show options. Default 8hr cache (28800):  
 namconfig get #Show cat /etc/nam.conf. Use set to set.  
 namconfig -k #Import/refresh cert key

**NetStorage** #Weblinks to ncp:/, cifs:/, ssh:/ (new)  
<https://srv/NetStorage> #Display NetStorage site

**iFolder 2** #Requires name server with PTR-records  
 #Requires secondary IP address #Alias  
<https://srv/iFolderServer/Admin> #Administration site  
 /etc/opt/novell/ifolder/conf #iFolder Apache conf files path  
 /var/opt/novell/ifolder/log #iFolder Apache log files path

**iPrint for Linux** #Similar to NW version. <http://srv/ipp>  
 #Use iManager on Linux to manage Linux iPrint (NW iPrint from NW iMan)  
 /etc/opt/novell/iprint #Conf files directory  
 /etc/init.d/novell-ipsmd reload #Unload and load Print Manager  
 /etc/init.d/novell-idsd reload #Unload and load the Driver Store  
 iprintman #iPrint WBEM command, See:  
 less /usr/share/doc/packages/novell-iprint-iprintman/readme  
 vi iprint.ini #To change AllowAutoUpdate client setting  
 #/var/opt/novell/iprint/htdocs/iprint.ini will be replaced when updated!  
 #Enable iPrint Direct and jobs bypass the Print Manager:  
 #iManager, iPrint, Manage Printer, Client Support, iPrint Direct  
 #iPrint install error #TID 10099511

**Virtual Office in Linux** #Challenge/Response Questions for  
 #Univ. PW tmp broken (ok on NW)  
 vi /etc/opt/novell/virtualoffice/vo-Apache.conf  
 #cn=pco,ou=VirtualOffice #Portal config. object in Srv context  
 #cn=publicUser,ou=VirtualOffice #Proxy user for public login screen

**Novell Cluster Services** #NSS required on SAN SBD partition  
 #ReiserFS, Ext3, NSS (not yet media format 3) on SAN data vol. allowed  
 #Best practice #Do not mix Lin/NW in fail-overs  
 /var/opt/novell/ncs #Redirected stdout, stderr log path  
 #3 \* novell-cluster...rpm #Required packages plus dependencies:  
 #novell-nss, heartbeat, python-ldap  
 #TID 10099643 'NIC bounce prevention'. Tip: Use fixed speed NIC's, e.g.:  
 ethtool -s eth0 duplex full speed 100 autoneg off  
 cluster help #Show cluster wide commands  
 cluster migrate resource node #Migrate command (cluster wide)  
 #Setup (NW) iSCSI target #TID's 10087815, 10087321, iscsi-linux rpm  
 iscsi list #List iscsi target name(s) on NetWare  
 vi /etc/initiatorname.iscsi #Setup iscsi init.name (Unique per node)



```
vi /etc/iscsi.conf  
iscsi-ls
```

```
#Point to target: DiscoveryAddress=ip  
#List connected iscsi targets
```