Novell Linux Point of Service 9 SSP3 Readme

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- Installing Novell Linux Point of Service 9 SSP3
- Upgrading Existing Servers to SSP3
- Enhancements
- Resolved Issues
- Known Issues
- Documentation
- Legal Notices

Novell® Linux Point of Service 9 is based on SUSE® Linux Enterprise Server (SLES) 9 and is the subsequent release of SUSE Linux Retail Solution (SLRS) 8.

This Supplemental Support Pack 3 (SSP3) update requires SLES 9 SP3 and Novell Linux Desktop (NLD) 9 SP3. Follow the instructions in this Readme to install or update the software.

1 Installing Novell Linux Point of Service 9 SSP3

Novell Linux Point of Service 9 SSP3 cannot be installed directly. You must first install the initial release of Novell Linux Point of Service 9 and then update it to SSP3.

1.1 Obtain the Software

The full installation requires the media listed in Table 1. The ISO files can be downloaded from the Novell Downloads Web site (http://www.novell.com/download).

Table 1 *Media Required to Install Novell Linux Point of Service 9 SSP3*

ISO File	CD Label
SLES-9-i386-RC5-CD1.iso	SUSE Linux Enterprise Server 9 FCS CD1
SLES-9-i386-RC5-CD2.iso	SUSE Linux Enterprise Server 9 FCS CD2
SLES-9-i386-RC5-CD3.iso	SUSE Linux Enterprise Server 9 FCS CD3
SLES-9-i386-RC5-CD4.iso	SUSE Linux Enterprise Server 9 FCS CD4
SLES-9-i386-RC5-CD5.iso	SUSE Linux Enterprise Server 9 FCS CD5
SLES-9-i386-RC5-CD6.iso	SUSE Linux Enterprise Server 9 FCS CD6
SLES-9-SP-3-i386-RC4-CD1.iso	SUSE Linux Enterprise Server 9 SP3 CD1
SLES-9-SP-3-i386-RC4-CD2.iso	SUSE Linux Enterprise Server 9 SP3 CD2

ISO File	CD Label
SLES-9-SP-3-i386-RC4-CD3.iso	SUSE Linux Enterprise Server 9 SP3 CD3
SLES-9-SP-1-NLPOS-9-RC13-CD1.iso	Novell Linux Point of Service 9 FCS CD1
SLES-9-SP-1-NLPOS-9-RC13-CD2.iso	Novell Linux Point of Service 9 FCS CD2
SLES-9-SP-1-NLPOS-9-RC13-CD3.iso	Novell Linux Point of Service 9 FCS CD3
SLES-9-SP-1-NLPOS-9-RC13-CD4.iso	Novell Linux Point of Service 9 FCS CD4
SLES-9-SP-3-NLPOS-9-SSP-3-RC2.iso	Novell Linux Point of Service 9 SSP3 CD1
NLD9-i386-CD1.iso	Novell Linux Desktop 9 FCS CD1
NLD9-i386-CD2.iso	Novell Linux Desktop 9 FCS CD2
NLD9-i386-CD3.iso	Novell Linux Desktop 9 FCS CD3
NLD9-SP3-i386-CD1.iso	Novell Linux Desktop 9 SP3 CD1
NLD9-SP3-i386-CD2.iso	Novell Linux Desktop 9 SP3 CD2

1.2 Set Up a Central Installation Server

If you have many Novell Linux Point of Service 9 servers to install, you can set up a central installation server that can be accessed over the network. The YaST program supports HTTP, FTP, and NFS installation servers.

For general instructions for creating an installation server, see Chapter 4, "Central Software Installation and Update" in the *SUSE Linux Enterprise Server 9 Administration and Installation Guide* (http://www.novell.com/documentation/sles9).

To set up an installation source for Novell Linux Point of Service 9 SSP3, follow these steps on the central installation server:

1 Using the `mkdir -p` command, create the directory structure shown below:

```
installDir/sles9/FCS/CD1
installDir/sles9/core9/CD1
                      CD2
                      CD3
                      CD4
                      CD5
installDir/sles9/SP3/CD1
                    CD2
                    CD3
installDir/nlpos9/FCS/CD1
                      CD2
                      CD3
                      CD4
installDir/nlpos9/SSP3/CD1
```

2 Using the `cp -a` command, copy the contents of the SLES 9 CDs into the directories as follows:

  ◆ Copy SLES 9 FCS CD1 into `/installDir/sles9/FCS/CD1`.

  ◆ Copy SLES 9 FCS CD2 into `/installDir/sles9/core9/CD1`.

- ◆ Copy SLES 9 FCS CD3 into `/installDir/sles9/core9/CD2`.
- ◆ Copy SLES 9 FCS CD4 into `/installDir/sles9/core9/CD3`.
- ◆ Copy SLES 9 FCS CD5 into `/installDir/sles9/core9/CD4`.
- ◆ Copy SLES 9 FCS CD6 into `/installDir/sles9/core9/CD5`.

3 Using the `cp -a` command, copy the contents of the remaining CDs into their respective directories.

4 Enter `cd installDir` to change to the main installation directory.

5 Enter the following commands to link the NLPOS 9 FCS boot files to corresponding files in the `/installDir` directory:

```
ln -s nlpos9/FCS/CD1/boot boot
ln -s nlpos9/FCS/CD1/content content
ln -s nlpos9/FCS/CD1/control.xml control.xml
ln -s nlpos9/FCS/CD1/media.1 media.1
```

6 Enter the following commands to copy the SLES 9 and NLPOS 9 key files into the `/installDir` directory:

```
cp sles9/FCS/CD1/gpg-*.asc .
cp nlpos9/FCS/CD1/gpg-*.asc .
```

7 Enter `mkdir yast` to create a `/yast` subdirectory in `/installDir`.

8 In the `/yast` subdirectory, create a text file named `instorder` that contains the following two lines:

```
/nlpos9/FCS/CD1
/sles9/core9/CD1
```

9 Also in the `/yast` subdirectory, create a text file named `order` that contains the following two lines (separate the entries on each line with a Tab character):

```
/nlpos9/FCS/CD1   /nlpos9/FCS/CD1
/sles9/FCS/CD1    /sles9/FCS/CD1
```

1.3 Install Novell Linux Point of Service 9 SSP3

For new installations of a Novell Linux Point of Service Administration Server, Branch Server, or Image Building Server, first install the initial release of Novell Linux Point of Service 9 on the server as instructed in the *Novell Linux Point of Service 9 Installation Guide* (http://www.novell.com/documentation/nlpos9/index.html).

IMPORTANT: It is strongly recommended that you review the installation instructions in the *Novell Linux Point of Service 9 Installation Guide* before starting the installation.

1.4 Updating SLES 9 to SP3

After you have installed the Novell Linux Point of Service 9 software, follow these steps to apply the SP3 updates to the SLES 9 operating system:

1 At the server console, start the YaST utility and select *Software*.

2 Select the *Novell Linux Point of Service Update* module.

3 Add a new software source:

- ◆ If you are installing from CD, insert SLES 9 SP3 CD1 into the server's CD-ROM drive.

On the Software Source Media page, click the *Add* button, choose *CD*, then click *Next*.

- If you are installing from an installation source on the network, click the *Add* button and choose *NFS* (or *HTTP* or *FTP*, depending on the configuration of your installation server).

  Provide the requested information. Using NFS as an example, specify the name or IP address of the installation server and the path to the directory where you copied the contents of SLES 9 SP3 CD1, then click *OK*.

4 Make sure SUSE SLES 9 Service-Pack Version 3 is selected as the source, then click the *Up* button to move it to the top of the list.

5 Click the *Start Update* button.

6 On the Installation Settings page, make sure the number of affected packages is not 0 (zero), then click *Next*.

7 If you are installing from CD, insert the requested CDs as prompted.

8 After the SP3 update files have all been copied to the server, reboot the server.

1.5 Updating Novell Linux Point of Service 9 to SSP3

After you have updated SLES 9 to SP3, follow these steps to apply the SSP3 updates to Novell Linux Point of Service 9:

1 If necessary, start the YaST utility and select *Software*.

2 Select the *Novell Linux Point of Service Update* module.

3 Add a new software source:

- If you are installing from CD, insert NLPOS 9 SSP3 CD1 into the server's CD-ROM drive.

  On the Software Source Media page, click the *Add* button, choose *CD*, then click *Next*.

- If you are installing from an installation source on the network, click the *Add* button and choose *NFS* (or *HTTP* or *FTP*, depending on the configuration of your installation server.)

  Provide the requested information. Using NFS as an example, specify the name or IP address of the installation server and the path to the directory where you copied the contents of NLPOS 9 SSP3 CD1, then click *OK*.

4 Make sure Novell-Linux-POS 9.2 is selected as the source and click the *Up* button to move it to the top of the list.

5 Click the *Start Update* button.

6 On the Installation Settings page, make sure the number of affected packages is not 0 (zero), then click *Next*.

7 After the SSP3 update files have all been copied to the server, click the *Finish* button.

1.6 Generating the Distribution.xml and AdminServer.conf Files

The final task is to generate the `Distribution.xml` and `AdminServer.conf` files on the Administration Server or the Image Building Server.

1 Run `poscopytool.pl` to copy the following CDs (the script prompts you to insert each of the CDs in turn):

- SLES 9 FCS CD2, CD3, and CD4
- NLD 9 FCS CD1, CD2, and CD3
- NLPOS 9 FCS CD1, CD2, and CD4
- SLES 9 SP3 CD1, CD2, and CD3
- NLD 9 SP3 CD1 and CD2
- NLPOS 9 SSP3 CD1

2 Run `poscopytool.pl --list` to verify that all required CDs have been copied.

3 Run the following scripts to generate the files:

- `poscdtool.pl --generate --type xml` (for the `Distribution.xml` file)
- `poscdtool.pl --generate --type conf` (for the `AdminServer.conf` file)

2 Upgrading Existing Servers to SSP3

If you have existing Novell Linux Point of Service 9 Administration Servers, Branch Servers, or Image Building Servers, follow the steps in this section to upgrade them to SSP3.

2.1 Obtain the Software

To upgrade existing servers, you will need the CDs required to install Novell Linux Point of Service 9 SSP3 (see Table 1 on page 1).

If you already have the CDs for installing a previous release of Novell Linux Point of Service 9, you only need to download and create the SLES 9 SP3, NLD 9 SP3, and NLPOS 9 SSP3 CDs. You can use your existing CDs for SLES 9 FCS, NLD 9 FCS, and NLPOS 9 FCS.

2.2 Updating SLES 9 to SP3

Follow these steps to apply the SP3 updates to the SLES 9 operating system:

1 At the server console, start the YaST utility and select *Software*.

2 Select the *Novell Linux Point of Service Update* module.

3 Add a new software source:

- If you are installing from CD, insert SLES 9 SP3 CD1 into the server's CD-ROM drive.

  On the Software Source Media page, click the *Add* button, choose *CD*, then click *Next*.

- If you are installing from an installation source on the network, click the *Add* button and choose *NFS* (or *HTTP* or *FTP*, depending on the configuration of your installation server).

Provide the requested information. Using NFS as an example, specify the name or IP address of the installation server and the path to the directory where you copied the contents of SLES 9 SP3 CD1, then click *OK*.

4 Make sure SUSE SLES 9 Service-Pack Version 3 is selected as the source, then click the *Up* button to move it to the top of the list.

5 Click the *Start Update* button.

6 On the Installation Settings page, make sure the number of affected packages is not 0 (zero), then click *Next*.

7 If you are installing from CD, insert the requested CDs as prompted.

8 After the SP3 update files have all been copied to the server, reboot the server.

2.3 Updating Novell Linux Point of Service 9 to SSP3

After you have updated SLES 9 to SP3, follow these steps to apply the SSP3 updates to Novell Linux Point of Service 9:

1 If necessary, start the YaST utility and select *Software*.

2 Select the *Novell Linux Point of Service Update* module.

3 Add a new software source:

  ◆ If you are installing from CD, insert NLPOS 9 SSP3 CD1 into the server's CD-ROM drive.

    On the Software Source Media page, click the *Add* button, choose *CD*, then click *Next*.

  ◆ If you are installing from an installation source on the network, click the *Add* button and choose *NFS* (or *HTTP* or *FTP*, depending on the configuration of your installation server.)

    Provide the requested information. Using NFS as an example, specify the name or IP address of the installation server and the path to the directory where you copied the contents of NLPOS 9 SSP3 CD1, then click *OK*.

4 Make sure Novell-Linux-POS 9.2 is selected as the source, then click the *Up* button to move it to the top of the list.

5 Click the *Start Update* button.

6 On the Installation Settings page, make sure the number of affected packages is not 0 (zero), then click *Next*.

7 After the SSP3 update files have all been copied to the server, click the *Finish* button.

2.4 Updating the Distribution.xml and AdminServer.conf Files

The next task is to update the `Distribution.xml` and `AdminServer.conf` files on the Administration Server or the Image Building Server. The steps vary depending on which script you used to copy and link the CDs.

If You Used poscopytool.pl to Copy the CDs

1 Run `poscopytool.pl` to copy the following CDs (the script prompts you to insert each of the CDs in turn):

  ◆ SLES 9 SP3 CD1, CD2, and CD3

- NLPOS 9 SSP3 CD1

2 Run `poscopytool.pl --list` to verify that all required CDs have been copied.

3 Run the following scripts to regenerate the files:

- `poscdtool.pl --generate --type xml` (for the `Distribution.xml` file)
- `poscdtool.pl --generate --type conf` (for the `AdminServer.conf` file)

If You Linked the CDs Using poscdtool.pl

1 Run `poscopytool.pl` to copy the following CDs (the script prompts you to insert each of the CDs in turn):

- SLES 9 SP3 CD1, CD2, and CD3
- NLPOS 9 SSP3 CD1

2 Delete the `/opt/SLES/POS/dist` directory.

3 Relink all of the CDs by entering the following command for each CD:

`poscdtool.pl --link --source=`*`source_media`*

4 Run `poscopytool.pl --list` to verify that all required CDs have been copied.

5 Run the following scripts to regenerate the files:

- `poscdtool.pl --generate --type xml` (for the `Distribution.xml` file)
- `poscdtool.pl --generate --type conf` (for the `AdminServer.conf` file)

NOTE: Images cloned from the DiskNetboot or CDboot images must have "boot" in their image names. No other client images can have "boot" in their image names.

2.5 Updating the Version Number in LDAP

The final task is to update the image version number in LDAP. To do this, run the following command on the Administration Server:

`posInitLdap.sh --upgrade`

IMPORTANT: After you upgrade your system to Novell Linux Point of Service 9 SSP3, you can no longer build images that have been cloned from the previous distribution. You must port your existing custom images to the new distribution.

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3 Enhancements

This section lists enhancements and new features that have been introduced in Novell Linux Point of Service 9 SSP3.

3.1 Incremental Update

Novell Linux Point of Service 9 SSP3 lets you perform an incremental update to an existing image so that a Point of Service terminal can load just the updated RPMs and not redownload the entire image. For more information, see Section 9.6, "Incremental Update," in the *Novell Linux Point of Service 9 Administration Guide* (http://www.novell.com/documentation/nlpos9/index.html).

3.2 Product File Update

When a Point of Service terminal first boots, it tries to load an optimal network driver in order to download its client image. Novell Linux Point of Service 9 provides a product file that the terminal can search to find the correct drivers. If no match is found in the product file, the terminal cycles through various network drivers and uses the first one that loads. This does not always result in the optimum configuration.

In Novell Linux Point of Service 9 SSP3, you can update the product file to include entries for additional hardware types without rebuilding the boot image. For more information, see Section 9.7, "Updating the Product File in a Boot Image," in the *Novell Linux Point of Service 9 Administration Guide* (http://www.novell.com/documentation/nlpos9/index.html).

3.3 Improved RSYNC Performance

In Novell Linux Point of Service 9 SSP3, the RSYNC service has been improved to offer better performance, compression, and optimization for WAN links.

3.4 Enhanced ATFTP Configuration

The ATFTP service in Novell Linux Point of Service 9 SSP3 has been enhanced to run a separate instance of ATFTP on each of the available network interfaces. Binding ATFTP to each network interface on a Branch Server eliminates checksum errors that can occur when using multicast broadcasts during large image transfers.

By default, ATFTP is bound to all available IP addresses. To configure ATFTP to bind to specific network interfaces, add the ATFTPD_BIND_ADDRESSES variable to the `/etc/sysconfig/atftpd` file. Enclose the list of IP addresses in quotes and separate them by the space character. For example:

```
ATFTP_BIND_ADDRESSES="127.0.0.2 127.0.0.3 127.0.0.4"
```

3.5 Enhanced Hardware Support from Vendors

Novell Linux Point of Service 9 SSP3 includes support for additional Point of Service terminal hardware from various vendors.

4 Resolved Issues

The issues listed in this section are resolved in Novell Linux Point of Service 9 SSP3.

4.1 USB 2.0 Support

The SLES 9 SP3 kernel that ships with Novell Linux Point of Service 9 SSP3 fully supports the use of USB 2.0 devices.

4.2 Fixes to Point of Service Scripts

Numerous fixes have been made to the Novell Linux Point of Service scripts (`posAdmin.pl`, `posInitLdap.sh`, `poscdtool.pl`, etc.) to improve reliability and usability and to reduce the amount of extraneous information that is displayed to the user.

The image builder tools (`scr` and `xscr`) have also been updated for improved reliability and usability.

Table 2 and Table 3 list the bugs that have been fixed since the SSP2 release of Novell Linux Point of Service 9.

Table 2 *POS Image Changes Since the SSP2 Release*

Bug	Description
95817	Image 5 Installation CD Does Not Have CDROM Support
114158	xscr needs ability to capture the build output into image
120895	L3: e2fsck errors causing terminals to reboot
129055	Change to xscr tool that produces error message if user has the word "boot" in the image name
134392	L3: ImageBuilder stops because he didn't find aspell-de RPM for SLES9
137433	linuxrc should clean up /boot if the terminal image is loading in a RAMDISK
140118	atftpd timeout
141220	L3: USB Printer doesn't enumerate
143344	L3: natsemi OSS driver weakness in NLPOS 9
143856	xscr --create-iso doesn't create a .md5 file for the .iso
150837	xdscr can't create RPM difference list after installing SSP2
156909	xscr should check for mis-match kernel when building
159491	L3: NLPOS can't deploy 2GB image
167107	POS clients hang with USB floppy, if no CDROM attached to machine, on desktop image
169028	Product File Update
169029	incremental image update
171888	Add new IBMProduct file for new hardware
174513	Creating an image using a tree that doesn't exist doesn't give a very helpful error
175240	Typo in image size warning message
177614	xscr -c newimage-version -i image-version is not setting the ImageName attribute correctly
178051	Debug output displays when building images
178063	Minor typo in imagebuilder error message
178470	GroupId for group is not getting set
178924	running poscdtool.pl --mount twice == bad
179982	XFreeServer and devs rpms need to be removed from the maintenance directory
180809	xscr --create-data-image parameter doesn't seem to be working.
181077	Dependency failures with yast2-ca-managment when building branch images

Bug	Description
183153	Update the Java RPMs in the pac directory
184559	replace atftp-0.7-16.1.i586 rpm with atftp-0.7-21.2.i586.rpm
185492	mac addresses scrolling on Branch console with posleases2ldap
185522	posInitBranchserver.sh - has wrong error message when ip addr on services don't match
188724	Branch image gives a postfix warning when booting
188739	I get "unary operator expeced" errors on non-ibm client
189301	fileparse(): error when running xdscr
189303	xdscr usage needs updated
189351	The --update-product-file option needs to be added to scr
189431	Scalability - initrd.gz needs to be smaller and can be to help with Network Saturation issues
191109	xdscr deleting IBM's script
191586	Spurious messages when booting compressed cd image
191990	TFTP Server unknown - coming from linuxrc
191995	xdscr results from Image-rpm-list from ImageSpecification.xml
192179	Error message on boot with desktop image
192238	xdscr gives ugly errors if description trees don't exist
192252	Incremental update has problems getting the whole delta file if it is bigger than 5 or 6 meg
192253	Incremental update should give error
192594	Incremental update scripts are getting created with a trailing space after the "\".
193272	evdev.ko driver is removed from the client image kernel when evtouch.xml is removed
193387	Trying to prepare an image without having the dist directory setup gives an useless error
193389	xdscr doesn't give an error if the dist directory is not setup
193397	Image-rpm-list for the minimal image we ship contains warnings
194043	xdscr is not getting the "--nodeps" correct when creating a diff from the Image-rpm-list
194169	xdscr not handling version changes between images properly

Table 3 *POS Server Changes Since SSP2*

Bug	Description
86293	Can't find a server base - using two NICs on Branch Server
130216	added NLPOS CD4 to NLD image class for admind RPM
133712	posldap2autoinstcd.pl gives errors
139420	xscr returns 0 exit code even when it gets an error

Bug	Description
139475	xscr --destdir option should create directory if it does not exist or throw an error
143766	posInitBranch.sh failed on Admin-Branchserver Combo
143906	When creating a .iso, xscr should give a warning if the .iso is bigger than will fit on a cd
145695	scWorkstationBaseName isn't consistent
146188	posAdmin --query ignoring base parameters
146385	posAdmin.pl --add --scBranchServer does not set up the
147281	posAdmin.pl returns unclear error message...
147285	posAdmin returns sucess when it fails
147510	posAdmin query can't find scRefObjectContainer
147513	posAdmin can't add scRefObjectContainer
169027	rsync tuning
170400	Newman:setup232 needs to re-create /dev/ttyS2 and /dev/ttyS3 device nodes
175049	posInitBranch fails with error "Can't find the interface for my ipaddress ..."
175363	Upgrading from SSP2 to SSP3 doesn't update the branchserver.conf rsync commands to remove "-c"
176336	posInitLdap --upgrade needs to support SSP2 to SSP3
177849	poscheckip.pl doesn't find the branch ldap entries if the private network is not on eth0
178888	poscdtool --copy --source=/media/dvd gives an error
178925	poscdtool --mount spits out a lot of debug information that should be removed
179099	Help for posAdmin.pl --add --scLocation lists a "description" optional attribute
179123	Optional attribute scServiceEmail is not allowed when creating scHAService
179197	scConfigFileData attribute for the scConfigFileTemplate object doesn't show as required
179212	scConfigFileUpdateModel is an invalid attribute for scConfigFileTemplate
179318	Documentation for "Activating Images" doesn't work. Swapped the remove/add code blocks.
181231	posInitLdap --ldiff giving errors
182194	Port posldap2autoinstcd.pl to new SSP3 level
182437	posleases2ldap.pl generates many errors when branch server uses eth1 as the internal network
182585	The changes to bsha_config.sh from SLRS8 SSP4 need to move to NLPOS9 SSP3
182643	bsha_config.sh needs to make sure the /drbd partition is a mounted partition before running
185123	The dhcpd user should be left alone, not changed to root
185801	On an HA Branch system if you get prompted for the private ip
185874	We need to remove the workaround for nic name changes occuring

Bug	Description
188768	posleases2ldap won't work crossing DHCP range if Fixed
189016	posInitLdap.sh --ldif=xxx creates the default minimal
189323	posUpdateProductFile needs to be more helpful
189332	posUpdateProductFile.sh allows you to add a product file to any image
189401	posUpdateProductFile.sh needs to also copy the new product file to the files-user directory
189451	posAdmin.pl doesn't seem to be working for creating scPosDeltaImage objects
189496	posldap2crconfig.pl not updating config.mac with delta file info
190414	Help for posAdmin.pl --add --scLocation is missing optional attributes that show up in gq
190550	Adding an scHardware object using posAdmin.pl doesn't work
191936	posInitLdap.sh --upgrade detects the wrong version of minimal image
192229	posAdmin.pl --modify spits out debug information
193777	posInitLdap.sh --upgrade needs to migrate the old ldap schema to the recent ldap changes
195074	posInitBranch gives an error it shouldn't give when run on an HA branch

5 Known Issues

The issues listed in this section are known to exist in Novell Linux Point of Service 9 SSP3.

5.1 Changing the Log Level for OpenLDAP

To change the amount of data that is logged by the LDAP service on the Administration Server, edit the /etc/openldap/slapd.conf file and add the following line:

```
loglevel value
```

For *value*, select the appropriate number from Table 4.

Table 4 *Log Level Values for OpenLDAP*

Number	Category of Log Information
1	Trace function calls
2	Debug packet handling
4	Heavy trace debugging
8	Connection management
16	Print packets sent and received
32	Search filter processing
64	Configuration file processing
128	Access control list processing

Number	Category of Log Information
256	Stats log connections/operations/results (default)
512	Stats log entries sent
1024	Print communication with shell back ends

5.2 Interface Names Changing when HA Branch Servers Are Rebooted

When a computer has more than one network interface card installed with different drivers, it is possible for the interface designations to change after rebooting because of the varying speeds at which the network drivers load. To prevent the default interface names (eth0, eth1, etc.) from changing when High Availability Branch Servers are rebooted, assign a persistent name to each network interface.

To do this, edit the `/etc/sysconfig/network/ifcfg-eth-id*` file for each network interface and add a PERSISTENT_NAME entry. For more information, see the `/usr/share/doc/packages/sysconfig/README` file.

5.3 xterm and Unicode Best

xterm does not launch with Unicode Best enabled. Therefore, some international characters (Chinese) do not display correctly.

Use the following command to launch xterm with Unicode Best enabled:
```
xterm -fn -misc-fixed-medium-r-normal-*-18-120-100-100-c-90-iso10646-1
   -fw -misc-fixed-medium-r-normal-*-18-120-100-100-c-180-iso10646-1
```

If xterm is running, you can press Ctrl+Mouse Button 3 to switch xterm to Unicode Best.

5.4 Failure with the Trident On-board Video Card with Dual Video

When the VNC 4 Remote Control Client is deployed on a Point of Service terminal with a 4810 Trident* on-board video card in a dual display configuration, the system returns a Signal 11 error when starting X.

The problem does not occur with single display or if the Trident is disabled and two ATI* cards are used. The problem also does not occur if the VNC 4 Remote Control Client is added to the ATI cards in a Trident/ATI configuration (a configuration that allows remote control of the secondary screen).

To resolve the issue, you can do one of the following:

- Remove VNC from the `XF86Config` file.
- Remove the ATI video card.

5.5 ATI Driver Fails to Go into 800x600 Mode

When using the ATI driver on the 4800-753, 4800-2xx, 4800-733, or 4800-732 with a 4820-48T display, the driver does not go into 800x600 mode. Instead, it displays in 799x600.

To resolve the issue, modify your `XF86Config` file as follows:

1 Go to the *Screen > Display* section under depth 16.

2 Take out the 720x400 and 640x480 options so that 800x600 is the only option left under depth 16.

This allows your screen to display 800x600; however, the display still says 799x600.

5.6 Keyboard Layout Changes when the Power Off Command Is Used on an HA System

When the power off command is used on the active node of a High Availability (HA) system, the keyboard layout might be incorrect when the node is restarted.

If this occurs, you can resolve this issue by resetting the keyboard configuration in YaST2 as follows:

1 Start YaST2 (not YaST).

2 Select the correct keyboard. (It should already be selected.)

3 Click *Save*.

5.7 Brazilian Portuguese in Point of Service Images

To include the Brazilian Portuguese locale in a Point of Service image, you must include the kde3-i18n-pt_BR RPM in the Image Specification Document's IncludeRPM element. For more information, refer to "Adding RPMs" (http://www.novell.com/documentation/nlpos9/nlpos9_admin/data/bvqzf04.html#bvlwx3g) in the *Novell Linux Point of Service 9 Administration Guide*.

For information on adding other locales to a Point of Service image, see "Changing the Image Language" (http://www.novell.com/documentation/nlpos9/nlpos9_admin/data/bvqzf04.html#bwu2d11) in the *Novell Linux Point of Service 9 Administration Guide*.

5.8 Switching from Runlevel 5 to Runlevel 3

Switching from Runlevel 5 to Runlevel 3 causes the system to hang on the following Point of Service terminals:

- 4694-307
- 4800-142
- 4800-753
- 4800-781

The user is forced to use the power button to cycle the Point of Service terminal.

A possible workaround is to issue the init 3 command F3 from a text terminal session rather than the X session. Alternatively, you can press Ctrl+Alt+F3 to switch to Runlevel 3.

5.9 Aborting a POSCDTool or POSCopyTool Copy Procedure

If an error occurs during a copy procedure with POSCDTool or POSCopyTool, the Abort option does not function. You must manually terminate the procedure.

5.10 POSCDTool and POSCopyTool Fail to Recognize an Aborted or Failed Copy Procedure

POSCDTool and POSCopyTool do not recognize an incomplete copy procedure. If a copy fails or is abnormally terminated, POSCDTool and POSCopyTool do not validate the previous copy results. Instead, the utilities list all previously copied CDs in the copy list, even if one of the copy procedures was incomplete.

To restart a failed CD copy procedure, you must delete the CD that failed from the distribution directory structure and then start the copy again.

5.11 No Output from POSCDTool --Verify Command

Currently, there is no output from the `poscdtool.pl --verify` command.

5.12 Token Ring Networks Not Supported

Novell Linux Point of Service 9 does not currently support token ring networks.

6 Documentation

The Novell Linux Point of Service 9 Installation and Administration Guides and the latest Readme files are available on the Novell Documentation Web site (http://www.novell.com/documentation/nlpos9/index.html).

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