Novell® Linux Point of Service 9 Readme

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Overview

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.

1.0 Novell Linux Point of Service 9 Documentation

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

2.0 Installing Novell Linux Point of Service 9

For complete instructions on installing Novell Linux Point of Service 9, see the *Novell Linux Point of Service Installation Guide* (http://www.novell.com/documentation/nlpos9/index.html).

IMPORTANT: We strongly recommend that you review the installation instructions in the *Novell Linux Point of Service Installation Guide* before installation.

3.0 What's New

3.1 ImageBuilder

ImageBuilder is a Perl-based tool that provides an easy-to-use interface for creating images. It now comes in two versions—scr and xscr.

The scr tool builds images using the Image Description Tree and the AdminServer.conf file. The Image Description Tree and AdminServer.conf file contain files and directories that define the structure, scripts, configuration files, and other components required to build client images for Point of Service systems. scr generates client images using Novell Linux Desktop (NLD) RPMs.

The xscr tool builds images using the Image Description Tree, an Image Specification document (ImageSpecification.xml), and a Distribution Source document (Distribution.xml). The Image Specification and Distribution Source documents contain XML elements that define the structure, scripts, configuration files, and other components required to build XML images for Point of Service systems. xscr can generate client images using either NLD or SLES RPMs.

When it builds an image, ImageBuilder compiles all the information required to run a Point of Service terminal—the operating system, application files, configuration settings, drivers, and so forth— into a single file. This file can then be electronically distributed to Point of Service terminals over the network, or an ISO version of the image file can be burned to a CD for manual distribution.

3.2 XML Schema

The XML-based Image Specification and Distribution Source documents provide significant advantages in image design and manageability:

- ◆ You can manage image subcomponents as discrete elements. Image drivers, RPMs, and even features can be separately managed within the Image Specification Document (ImageSpecification.xml). This allows you to easily add features, RPMs, and drivers to an image.

- ◆ You can define global settings in the parent Image Specification document to customize the implementation of image subcomponents. For example, in the parent document, you can choose to include or exclude specific drivers or RPMs.

This granular level of control is made possible by the structure of the Novell Linux Point of Service XML schema. The Novell Linux Point of Service XML schema organizes the template components in discrete elements so they can be individually managed.

3.3 Image Templates

Novell Linux Point of Service provides scr and xscr templates for the following boot images:

- ◆ CDBoot
- ◆ DiskNetBoot

Novell Linux Point of Service also provides scr and xscr templates for the following client images:

- ◆ Minimal
- ◆ Java
- ◆ Browser
- ◆ Desktop

scr generates the client images using NLD RPMs. xscr can generate the client images using either NLD or SLES RPMs.

3.4 Multi-Kernel Support

Novell Linux Point of Service 9 can simultaneously distribute SLRS 8 and Novell Linux Point of Service 9 Point of Service images. The distribution of these images is implemented using the scDistributionContainer object in the directory.

Each image that is generated must be placed under an scDistributionContainer object. The scDistributionContainer object describes the kernel and initrd.gz required by any images in its container. This information is required when booting the images.

The Default scDistributionContainer entry in the LDAP tree contains the DiskNetboot kernel and initrd.gz for booting Novell Linux Point of Service 9 images. All clients boot with the kernel and initrd.gz indicated by the Default container.

The Novell Linux Point of Service 9 DiskNetboot image can determine whether the client image (Minimal, Java, Browser, Desktop) uses the kernel indicated in the Default container or requires a different kernel. If the image requires a different kernel, DiskNetboot reboots the terminal and the next boot uses a different kernel.

NOTE: The posCrConfig.pm writes a PXE config file for any MAC that does not use the Default kernel.

To make SLRS 8 images available on the Administration or Branch servers, you must do the following:

- ◆ Place all SLRS 8 images within the SLRS8 scDistributionContainer. The kernel setting for this container must reference the linux and initrd.gz files from the SLES 8 release.

- ◆ Because both the SLES 8 and SLES 9 kernel and initrd.gz files exist in the /opt/SLES/POS/ rsync/boot/ directory and "linux" and "initrd.gz" are reserved for the SLRS9 Default scDistributionContainer, you must rename the initrd.gz file for the SLES 8 release to initrd-slrs8.gz. Rename the SLRS 8 linux file k_pos_ibm.

- ◆ Place the scCashRegister objects under the Global container so they can reference either Distribution container.

For detailed instructions on this procedure, see "Migrating from SLRS 8 to Novell Linux Point of Service" in the *Novell Linux Point of Service Installation Guide*.

3.5 Image Install Notification

When the Branch Server distributes a new image to a Point of Service terminal, the system provides notification that the image was successfully installed on the Point of Service terminal. The notification is stored in the scWorkstation object in the LDAP directory on the Administration Server.

When the image is successfully installed on the Point of Service terminal, the linuxrc script running on the Point of Service terminal creates the *bootversion.MAC_Address* file in the /tftpboot/upload directory on the Branch Server. posleases2ldap then transfers the information to the scNotifiedimage attribute in the scWorkstation object in LDAP and deletes the *bootversion.MAC_address* file.

3.6 POSBranch

For smaller stores where the Branch Server is running only the Point of Service infrastructure (that is, the Branch Server is running no additional applications), the Branch Server can be deployed as a control terminal running on Point of Service hardware.

3.7 Image Add-On Features

Novell Linux Point of Service includes the following add-on features that can be added to client images generated with xscr:

- ◆ Advanced Linux* Sound Library
- ◆ EvTouch
- ◆ GNOME*
- ◆ KDE*
- ◆ IBM* Java*
- ◆ Mozilla*
- ◆ Samba 3 Client
- ◆ VNC 4 Remote Control Client

3.8 POSCDTool

Novell Linux Point of Service provides two command line utilities—POSCDTool and POSCopyTool—that simplify the process of managing the source files required to build client images. These utilities perform the initial system preparation required to build client images with ImageBuilder.

4.0 Issues

4.1 Failure with 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 up 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.

 * Remove the ATI video card.

4.2 ATI Driver Fails to Go Into 800 x 600 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 under depth 16.

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

4.3 Keyboard Layout Changes when the Power Off Command Is Used on 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 is already selected).

3 Click Save.

4.4 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.

5.0 Caveats

5.1 USB 2.0 Support

The SUSE Linux Enterprise Server (SLES) 9 SP1 kernel that currently ships with Novell Linux Point of Service 9 fails when writing to some USB 2.0 devices. This issue is resolved in SLES 9 SP2. Novell Linux Point of Service 9 will soon incorporate the SLES 9 SP2 kernel in a service pack release.

5.2 Token Ring Networks Not Supported

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

6.0 Documentation Conventions

In this documentation, a greater-than symbol (>) is used to separate actions within a step and items in a cross-reference path.

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