

SUSE Manager 3

Hands-on



Hands-on :: SP Migration 09

Synchronize SP2 repositories and migrate a system.

SP Migration 09 - Import

Configure the new repository data.

Stop the tomcat service:

```
# systemctl stop tomcat
```

Change the data directory in `/etc/rhn/rhn.conf` to:

```
# local data directory  
server.susemanager.fromdir = /data/repos_wSP2_20161116
```

Start the tomcat service:

```
# systemctl start tomcat
```

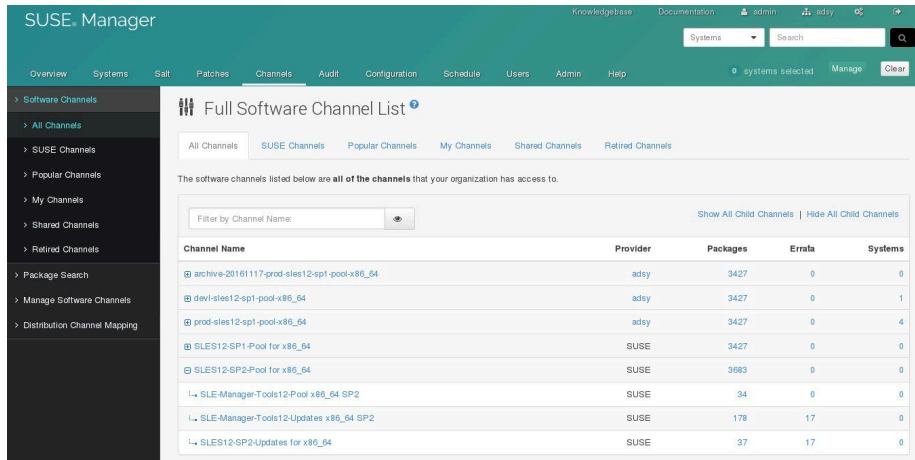
SP Migration 09 - Synchronization

Refresh the channel and schedule a reposyn:

```
# mgr-sync refresh
# mgr-sync list channel
# mgr-sync add channel sles12-sp2-pool-x86_64
# mgr-sync add channel sles12-sp2-updates-x86_64
# mgr-sync add channel sle-manager-tools12-pool-x86_64-sp2
# mgr-sync add channel sle-manager-tools12-updates-x86_64-sp2
```

SP Migration 09 - Vendor Channel

Check the SLES12 SP2 vendor channels:



The screenshot displays the SUSE Manager web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user profiles (admin, adsy). A search bar is present on the right. The main navigation menu on the left lists various system management tasks. The central content area is titled 'Full Software Channel List' and shows a table of available software channels. The table columns are Channel Name, Provider, Packages, Errata, and Systems. The channels listed include archive-20161117-prod-sles12-spl-pool-x86_64, devel-sles12-spl-pool-x86_64, prod-sles12-spl-pool-x86_64, SLES12-SP1-Pool for x86_64, SLES12-SP2-Pool for x86_64, SLE-Manager-Tools12-Pool x86_64 SP2, SLE-Manager-Tools12-Updates x86_64 SP2, and SLES12-SP2-Updates for x86_64.

| Channel Name | Provider | Packages | Errata | Systems |
|--|----------|----------|--------|---------|
| archive-20161117-prod-sles12-spl-pool-x86_64 | adsy | 3427 | 0 | 0 |
| devel-sles12-spl-pool-x86_64 | adsy | 3427 | 0 | 1 |
| prod-sles12-spl-pool-x86_64 | adsy | 3427 | 0 | 4 |
| SLES12-SP1-Pool for x86_64 | SUSE | 3427 | 0 | 0 |
| SLES12-SP2-Pool for x86_64 | SUSE | 3683 | 0 | 0 |
| SLE-Manager-Tools12-Pool x86_64 SP2 | SUSE | 34 | 0 | 0 |
| SLE-Manager-Tools12-Updates x86_64 SP2 | SUSE | 178 | 17 | 0 |
| SLES12-SP2-Updates for x86_64 | SUSE | 37 | 17 | 0 |

SP Migration 09 - Vendor Channel

Check the SLES12 SP2 vendor channels:

```
# spacecmd softwarechannel_list | grep sp2
INFO: Connected to https://localhost/rpc/api as admin
sle-manager-tools12-pool-x86_64-sp2
sle-manager-tools12-updates-x86_64-sp2
sles12-sp2-pool-x86_64
sles12-sp2-updates-x86_64

# spacecmd softwarechannel_details sles12-sp2-pool-x86_64
INFO: Connected to https://localhost/rpc/api as admin
Label:                sles12-sp2-pool-x86_64
Name:                  SLES12-SP2-Pool for x86_64
Architecture:         x86_64
Parent:
Systems Subscribed: 0
Number of Packages: 3683
[...]
```

SP Migration 09 - Clone Channels

Clone the SLES12 SP1 channels:

```
# spacewalk-manage-channel-lifecycle -u admin -p "$pw" \  
                                     -w adsy-sles12 \  
                                     --channel sles12-sp2-pool-x8  
                                     --init  
  
INFO: Cloning devl-sles12-sp2-pool-x86_64 from sles12-sp2-pool-x8  
INFO: Cloning devl-sle-manager-tools12-pool-x86_64-sp2 from sle-m  
INFO: Cloning devl-sle-manager-tools12-updates-x86_64-sp2 from sl  
INFO: Cloning devl-sles12-sp2-updates-x86_64 from sles12-sp2-upda  
  
# spacewalk-manage-channel-lifecycle -u admin -p "$pw" \  
                                     -w adsy-sles12 \  
                                     --channel devl-sles12-sp2-po  
                                     --promote  
  
INFO: Cloning prod-sles12-sp2-pool-x86_64 from devl-sles12-sp2-po
```

SP Migration 09 - System Overview

Click on srv1:

SUSE Manager

Knowledgebase Documentation admin adsy

Systems Search

Overview Systems Salt Patches Channels Audit Configuration Schedule Users Admin Help

0 systems selected Manage Clear

System Overview

+ Add Systems

View System Groups

0 1 2 3 4 5 6 7 8 9 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

1 - 5 of 5

Filter by System Name:

25 Items per page

| System | Updates | Patches | Packages | Configs | Crashes | Base Channel | System Type |
|----------------------|---------|---------|----------|---------|---------|-----------------------------|-------------|
| proxy7.net7.lab | 1 | 7 | 16 | 0 | (none) | prod-sles12-sp1-pool-x86_64 | Management |
| srv1.net7.lab | 1 | 6 | 15 | 0 | (none) | prod-sles12-sp1-pool-x86_64 | Management |
| srv2.net7.lab | 1 | 5 | 13 | 0 | (none) | dev1-sles12-sp1-pool-x86_64 | Salt |
| srv3.net7.lab | 1 | 275 | 360 | 0 | (none) | prod-sles12-sp1-pool-x86_64 | Management |
| srv4.net7.lab | 1 | 275 | 360 | 0 | (none) | prod-sles12-sp1-pool-x86_64 | Management |

Select All

System Legend

- OK
- Warning
- Critical

SP Migration 09 - System

Chck current "Installed Products":

The screenshot displays the SUSE Manager web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user profiles (admin, adsy). A search bar is present with the text 'Systems' and a search icon. Below the navigation bar, a breadcrumb trail shows 'Overview' > 'Systems'. The main content area is titled 'srv1.net7.lab' and includes a 'Delete System' button and an 'Add to SSM' button. The interface is divided into several sections: 'System Status' (showing 'Software Updates Available' with 'Critical: 3', 'Non-Critical: 3', and 'Packages: 15'), 'System Info' (listing details like Hostname, IP Address, IPv6 Address, Virtualization, UUID, Kernel, and SUSE Manager System ID), and 'System Events' (showing 'Checked In: Today at 7:57 AM', 'Registered: Yesterday at 1:16 PM', 'Last Booted: a day ago (Schedule System Reboot)', and 'OSA Status: unknown'). A 'System Properties' section is also visible at the bottom right.

SUSE Manager

Knowledgebase Documentation admin adsy

Systems Search

Overview Systems Salt Patches Channels Audit Configuration Schedule Users Admin Help

0 systems selected Manage Clear

> Overview

> Systems

> All

> Physical Systems

> Virtual Systems

> Bare Metal Systems

> Out of Date

> Requiring Reboot

> Non Compliant

> Without System Type

> Ungrouped

> Inactive

> Recently Registered

> Proxy

> Duplicate Systems

srv1.net7.lab

Delete System Add to SSM

Details Software Configuration Provisioning Groups Audit Events

Overview Properties Remote Command Connection Reactivation Hardware Migrate Notes Custom Info

System Status

Software Updates Available Critical: 3 Non-Critical: 3 Packages: 15

System Info

| | |
|-------------------------|---------------------------------|
| Hostname: | srv1.net7.lab |
| IP Address: | 192.168.107.101 |
| IPv6 Address: | ::1 |
| Virtualization: | KVM/QEMU |
| UUID: | ea1cb140f294900bedb1521ad66b0f6 |
| Kernel: | 3.12.62-60.64.9-default |
| SUSE Manager System ID: | 1000010007 |

System Events

| | |
|--------------|---------------------------------------|
| Checked In: | Today at 7:57 AM |
| Registered: | Yesterday at 1:16 PM |
| Last Booted: | a day ago (Schedule System Reboot) |
| OSA Status: | unknown |

System Properties (Edit These Properties)

System Types: [Management]

SP Migration 09 - SP Migration

Go to "Software / SP Migration" select SP2 and click "Target Migration":

The screenshot displays the SUSE Manager web interface. The top navigation bar is teal and includes links for Knowledgebase, Documentation, and user profiles (admin, eddy). A search bar is present on the right. Below the navigation bar, a horizontal menu contains various system management options: Overview, Systems, Salt, Patches, Channels, Audit, Configuration, Schedule, Users, Admin, and Help. The 'Systems' tab is active, and a sidebar on the left lists system categories like Overview, Systems, All, Physical Systems, Virtual Systems, Bare Metal Systems, Out of Date, Requiring Reboot, Non Compliant, Without System Type, and Ungrouped. The main content area shows the configuration for a specific system, 'srv1.net7.lab'. It features tabs for Details, Software, Configuration, Provisioning, Groups, Audit, and Events. Under the 'Software' tab, there are sub-tabs for Patches, Packages, Software Channels, SP Migration, and Software Crashes. The 'SP Migration' sub-tab is selected, displaying the 'Service Pack Migration - Target' configuration. It shows the 'Installed Products' as 'SUSE Linux Enterprise Server 12 SP1' and the 'Target Products' as a selection between 'SUSE Linux Enterprise Server 12 SP3 x86_64 (ALPHA)' and 'SUSE Linux Enterprise Server 12 SP2'. The 'SUSE Linux Enterprise Server 12 SP2' option is selected with a radio button. A green 'Target Migration' button is located at the bottom of the configuration area.

SUSE Manager

Knowledgebase Documentation admin eddy

Systems Search

Overview Systems Salt Patches Channels Audit Configuration Schedule Users Admin Help

0 systems selected Manage Clear

> Overview

> Systems

> All

> Physical Systems

> Virtual Systems

> Bare Metal Systems

> Out of Date

> Requiring Reboot

> Non Compliant

> Without System Type

> Ungrouped

srv1.net7.lab

Delete System Add to SSM

Details Software Configuration Provisioning Groups Audit Events

Patches Packages Software Channels SP Migration Software Crashes

Service Pack Migration - Target

Installed Products: SUSE Linux Enterprise Server 12 SP1

Target Products:

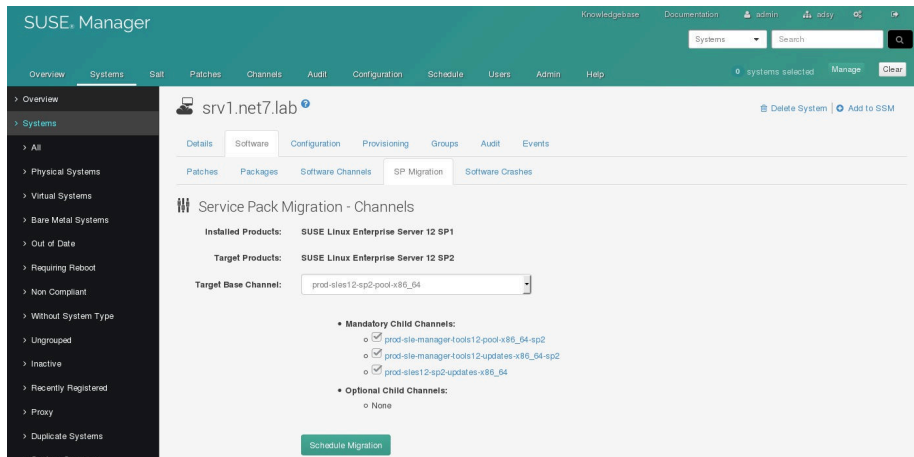
☐ SUSE Linux Enterprise Server 12 SP3 x86_64 (ALPHA)

☒ SUSE Linux Enterprise Server 12 SP2

Target Migration

SP Migration 09 - SP Migration

Choose the development channel and click "Schedule Migration":



The screenshot displays the SUSE Manager web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user profiles (admin, adsy). A search bar is present with a dropdown menu set to 'Systems'. Below the navigation bar, a secondary bar shows 'Overview', 'Systems' (selected), 'Salt', 'Patches', 'Channels', 'Audit', 'Configuration', 'Schedule', 'Users', 'Admin', and 'Help'. On the left, a sidebar lists various system categories under 'Overview' and 'Systems'. The main content area is titled 'srv1.net7.lab' and shows the 'Service Pack Migration - Channels' configuration. It includes fields for 'Installed Products' (SUSE Linux Enterprise Server 12 SP1), 'Target Products' (SUSE Linux Enterprise Server 12 SP2), and 'Target Base Channel' (prod-sles12-sp2-pool-x86_64). Below these, there are sections for 'Mandatory Child Channels' and 'Optional Child Channels', each with a list of channels and checkboxes. A 'Schedule Migration' button is located at the bottom right of the configuration area.

SUSE Manager

Knowledgebase Documentation admin adsy

Systems Search

Overview Systems Salt Patches Channels Audit Configuration Schedule Users Admin Help

0 systems selected Manage Clear

Overview

Systems

All

Physical Systems

Virtual Systems

Bare Metal Systems

Out of Date

Requiring Reboot

Non Compliant

Without System Type

Ungrouped

Inactive

Recently Registered

Proxy

Duplicate Systems

System Summary

srv1.net7.lab

Delete System Add to SSM

Details Software Configuration Provisioning Groups Audit Events

Patches Packages Software Channels SP Migration Software Crashes

Service Pack Migration - Channels

Installed Products: SUSE Linux Enterprise Server 12 SP1

Target Products: SUSE Linux Enterprise Server 12 SP2

Target Base Channel: prod-sles12-sp2-pool-x86_64

Mandatory Child Channels:

- ☒ prod-sle-manager-tools12-pool-x86_64-sp2
- ☒ prod-sle-manager-tools12-updates-x86_64-sp2
- ☒ prod-sles12-sp2-updates-x86_64

Optional Child Channels:

- ☐ None

Schedule Migration

SP Migration 09 - Dry Run

Click on "Dry Run":

SUSE Manager

Knowledgebase Documentation admin ady

Systems Search

Overview Systems Salt Patches Channels Audit Configuration Schedule Users Admin Help

0 systems selected Manage Clear

> Overview

> Systems

> All

> Physical Systems

> Virtual Systems

> Bare Metal Systems

> Out of Date

> Requiring Reboot

> Non Compliant

> Without System Type

> Ungrouped

> Inactive

> Recently Registered

> Proxy

> Duplicate Systems

> System Currency

srv1.net7.lab

Delete System Add to SSM

Details Software Configuration Provisioning Groups Audit Events

Patches Packages Software Channels SP Migration Software Crashes

Service Pack Migration - Confirm

Please confirm below to schedule the migration of this system to the following products:

- SUSE Linux Enterprise Server 12 SP2

Channel subscriptions after the migration:

- prod-sles12-sp2-pool-x86_64
 - prod-sle-manager-tools12-pool-x86_64-sp2
 - prod-sle-manager-tools12-updates-x86_64-sp2
 - prod-sles12-sp2-updates-x86_64

Schedule action for no sooner than: 11/18/16 10:38 am CET

In order to detect any possible problems it is recommended to always do a **Dry Run** before scheduling the actual Service Pack Migration.

Dry Run Confirm

SP Migration 09 - Pending Events

Check the Pending Events:

The screenshot displays the SUSE Manager web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user profiles (admin, adsy). A search bar is present with a dropdown menu set to 'Systems'. Below the navigation bar, a secondary menu contains links for Overview, Systems, Salt, Patches, Channels, Audit, Configuration, Schedule, Users, Admin, and Help. The left sidebar shows a tree view with 'Overview' and 'Systems' expanded, listing various system categories like Physical Systems, Virtual Systems, Bare Metal Systems, Out of Date, Requiring Reboot, Non Compliant, Without System Type, Ungrouped, Inactive, Recently Registered, and Proxy.

The main content area shows the 'srv1.net7.lab' system page. The 'Events' tab is selected, and the 'Pending' sub-tab is active. The page title is 'Pending Events'. A message states: 'The following events have been scheduled for this system. You may cancel events for this system by selecting them and hitting the **Cancel Events** button at the bottom of the page.'

A table lists the pending events:

| Type | Summary | Earliest Occurrence |
|------|---|------------------------------|
| | Service Pack Migration scheduled by admin | Fri Nov 18 10:38:00 CET 2016 |

At the bottom of the table is a 'Select All' button. The page footer indicates '1 - 1 of 1 (0 selected)'.

SP Migration 09 - Events History

Check the Events History and select the "Service Pack Migration" Event:

The screenshot shows the 'System History' page for 'srv1.net7.lab'. The left sidebar contains a navigation menu with options like Overview, Systems, All, Physical Systems, Virtual Systems, Bare Metal Systems, Out of Date, Requiring Reboot, Non Compliant, Without System Type, Ungrouped, Inactive, Recently Registered, Proxy, Duplicate Systems, System Currency, System Types, System Groups, and System Set Manager. The main content area has tabs for Details, Software, Configuration, Provisioning, Groups, Audit, and Events. The 'Events' tab is active, showing a list of system history events. The events are listed in a table with columns: Type, Status, Summary, and Time. The 'Service Pack Migration' event is highlighted in green.

srv1.net7.lab

Delete System | Add to SSM

Details Software Configuration Provisioning Groups Audit Events

Pending History

System History

The following history events have been noted for this system.
Please note that this system has no pending events.

1 - 25 of 32

25 items per page

| Type | Status | Summary | Time |
|------|--------|---|------------------------------|
| 🖨 | (n/a) | subscribed to channel prod-sle-manager-tools12-updates-x86_64-sp1 | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | (n/a) | subscribed to channel prod-sle-manager-tools12-pool-x86_64-sp1 | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | (n/a) | subscribed to channel prod-sles12-sp1-updates-x86_64 | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | (n/a) | subscribed to channel prod-sles12-sp1-pool-x86_64 | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | (n/a) | unsubscribed from channel prod-sles12-sp2-pool-x86_64 | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | (n/a) | unsubscribed from channel prod-sle-manager-tools12-pool-x86_64-sp2 | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | (n/a) | unsubscribed from channel prod-sle-manager-tools12-updates-x86_64-sp2 | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | (n/a) | unsubscribed from channel prod-sles12-sp2-updates-x86_64 | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | 🟢 | Service Pack Migration scheduled by admin | Fri Nov 18 10:45:03 CET 2016 |
| 🖨 | (n/a) | subscribed to channel prod-sle-manager-tools12-pool-x86_64-sp2 | Fri Nov 18 10:45:00 CET 2016 |

SP Migration 09 - SP Migration

Event

Check the output and the return code:

The screenshot displays the SUSE Manager web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user profiles (admin, adsy). A search bar is present with the text 'Systems' and a search icon. Below the navigation bar, a horizontal menu lists various system management functions: Overview, Systems, Salt, Patches, Channels, Audit, Configuration, Schedule, Users, Admin, and Help. The left sidebar contains a tree view of system categories: Overview, Systems, All, Physical Systems, Virtual Systems, Bare Metal Systems, Out of Date, Requiring Reboot, Non Compliant, Without System Type, Ungrouped, Inactive, Recently Registered, and Proxy. The main content area shows the 'Events' tab for the system 'srv1.net7.lab'. The 'Events' tab is selected, and the 'System History Event' section is visible. The event summary states: 'Service Pack Migration scheduled by admin'. The details section shows the action was completed on 11/18/16 10:45 AM. The output of the migration is displayed in a code block:

```
You are about to do a distribution upgrade with all enabled repositories. Make sure these repositories are compatible before  
Refreshing service 'spacewalk'.  
Loading repository data...  
Reading installed packages...  
computing distribution upgrade...  
upgrade: 274  
install: 108  
downgrade: 26  
remove: 8
```

SP Migration 09 - Run

Start the actual Service Pack Migration:

The screenshot displays the SUSE Manager web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user profiles (admin, adsy). A search bar is present on the right. Below the navigation bar, a secondary bar shows '0 systems selected' and buttons for 'Manage' and 'Clear'. The left sidebar contains a menu with options like Overview, Systems, All, Physical Systems, Virtual Systems, Bare Metal Systems, Out of Date, Requiring Reboot, Non Compliant, Without System Type, Ungrouped, Inactive, Recently Registered, Proxy, Duplicate Systems, and System Currency. The main content area is for system 'srv1.net7.lab', with tabs for Details, Software, Configuration, Provisioning, Groups, Audit, and Events. Under the 'Software' tab, there are sub-tabs for Patches, Packages, Software Channels, SP Migration (selected), and Software Crashes. The 'Service Pack Migration - Confirm' section asks for confirmation to schedule the migration. It lists the product 'SUSE Linux Enterprise Server 12 SP2' and the channel subscriptions: 'prod-sles12-sp2-pool-x86_64', 'prod-sle-manager-tools12-pool-x86_64-sp2', 'prod-sle-manager-tools12-updates-x86_64-sp2', and 'prod-sles12-sp2-updates-x86_64'. A 'Schedule action for no sooner than:' field is set to '11/18/16' at '10:49 am' CET. A red warning box at the bottom states: 'In order to detect any possible problems it is recommended to always do a Dry Run before scheduling the actual Service Pack Migration.' At the bottom right, there are 'Dry Run' and 'Confirm' buttons.

SUSE Manager

Knowledgebase Documentation admin adsy

Systems Search

Overview Systems Salt Patches Channels Audit Configuration Schedule Users Admin Help

0 systems selected Manage Clear

Overview

Systems

All

Physical Systems

Virtual Systems

Bare Metal Systems

Out of Date

Requiring Reboot

Non Compliant

Without System Type

Ungrouped

Inactive

Recently Registered

Proxy

Duplicate Systems

System Currency

srv1.net7.lab

Delete System Add to SSM

Details Software Configuration Provisioning Groups Audit Events

Patches Packages Software Channels SP Migration Software Crashes

Service Pack Migration - Confirm

Please confirm below to schedule the migration of this system to the following products:

- SUSE Linux Enterprise Server 12 SP2

Channel subscriptions after the migration:

- prod-sles12-sp2-pool-x86_64
 - prod-sle-manager-tools12-pool-x86_64-sp2
 - prod-sle-manager-tools12-updates-x86_64-sp2
 - prod-sles12-sp2-updates-x86_64

Schedule action for no sooner than: 11/18/16 10:49 am CET

In order to detect any possible problems it is recommended to always do a **Dry Run** before scheduling the actual Service Pack Migration.

Dry Run Confirm

SP Migration 09 - System Status

Click on "Schedule System Reboot":

The screenshot displays the SUSE Manager web interface. The top navigation bar includes links for Knowledgebase, Documentation, and user profiles (admin, ady). A search bar is present on the right. Below the navigation bar, a secondary bar shows '0 systems selected' and 'Manage' and 'Clear' buttons. The main content area is divided into a left sidebar and a main panel. The sidebar contains a list of system categories: Overview, Systems (selected), Salt, Patches, Channels, Audit, Configuration, Schedule, Users, Admin, and Help. The main panel shows the system 'srv1.net7.lab' with a 'Details' tab selected. The 'System Status' section indicates that the system is 'up to date' but requires a reboot, with a link to 'Schedule System Reboot'. Below this, the 'System Info' table lists various system details, and the 'System Events' table shows recent events. At the bottom, there is a link to 'System Properties'.

SUSE Manager

Knowledgebase Documentation admin ady

Systems Search

Overview Systems Salt Patches Channels Audit Configuration Schedule Users Admin Help

0 systems selected Manage Clear

Overview Systems

srv1.net7.lab

Delete System Add to SSM

Details Software Configuration Provisioning Groups Audit Events

Overview Properties Remote Command Connection Reactivation Hardware Migrate Notes Custom Info

System Status

System is up to date

The system requires a reboot ([Schedule System Reboot](#))

System Info

| | |
|-----------------|----------------------------------|
| Hostname: | srv1.net7.lab |
| IP Address: | 192.168.107.101 |
| IPv6 Address: | ::1 |
| Virtualization: | KVM/QEMU |
| UUID: | ea1cb1406f294900bedb1521ad66b0f6 |
| Kernel: | 3.12.62-60.64.8-default |

System Events

| | |
|--------------|--|
| Checked In: | Today at 10:55 AM |
| Registered: | Yesterday at 1:16 PM |
| Last Booted: | a day ago (Schedule System Reboot) |
| OSA Status: | online as of 11/18/16 10:55:00 AM CET Ping System |

System Properties ([Edit These Properties](#))