

SUSE Manager 5.0

# Quick Start Guide

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# Quick Start

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This guide shows you how to use deploy and configure a single SUSE Manager Server or Proxy.

It contains instructions for a selection of simple setup ups, workflows and some common use cases.

You can read Quick Start Guides for:

## Container Deployment

- [Quickstart › Container-deployment](#)
- [Quickstart › Container-deployment](#)

# Chapter 1. Deploy SUSE Manager 5.0 Server

This quick start guide shows you how to install and configure a SUSE Manager 5.0 container for x86-64 architecture on SLE Micro 5.5.

For this topic we assume that you already have valid organization credentials with SUSE Customer Center and have obtained a registration code for both the host system and the containerized server, for example from a "SUSE Manager Lifecycle Management+" subscription.

In this quickstart, you will embark on deploying SUSE Manager 5.0 Server. There are several methods to accomplish this task. You may opt to deploy it in the cloud, or deploy it on SLE Micro. However, for the purpose of this quickstart guide, we've chosen to focus on setting up a simple KVM environment, installed on openSUSE Leap, as the lab host.

This guide will lead you through the following steps:

1. Installing openSUSE openSUSE Leap on a physical machine.
2. Installing KVM tools and using it to configure a **suse.lab** network.
3. Create a new KVM host machine using SLE Micro as the **container host**.

## 1.1. Software and Hardware Requirements for SUSE Manager

This table shows the software and hardware requirements for deploying SUSE Manager Server on KVM. For the purposes of this guide expect to deploy on a virtual machine with 16GB of RAM, and at least 200 GB of disk space.

**Table 1. Software and Hardware Requirements**

Software and Hardware	Recommended
Operating System:	openSUSE Leap 15.5: Clean installation, up-to-date
CPU:	Minimum 4 dedicated 64-bit x86-64 CPU cores
RAM:	Development server Minimum 16 GB
	Production server Minimum 32 GB

Software and Hardware	Recommended
Disk Space:	Disk space depends on your channel requirements, at least 100 GB
	50 GB per SUSE or openSUSE product and 360 GB per Red Hat product
Swap space:	3 GB



### Supported operating system for the Container Host

The supported host operating system for the container host is SLE Micro 5.5.



### Base operating system for the Container Image

SUSE Manager 5.0 uses SUSE Linux Enterprise 15 SP6 as the base operating system of the container image or BCI.

## 1.2. Prepare the Physical Machine

### 1.2.1. Install openSUSE Leap 15.5

Install openSUSE Leap 15.5 on a bare metal physical machine, or continue using your existing installation. See: [Installing openSUSE Leap](#)

### 1.2.2. Update the system

Update the system:

```
sudo zypper ref && zypper up
```

### 1.2.3. Install KVM Tools

1. Install KVM server and kvm tools:

```
sudo zypper in -t pattern kvm_server kvm_tools
```

2. Reboot.

## 1.2.4. Setup the KVM Network



This XML configuration builds a KVM subnet using the domain name of **suse.lab** to setup the required FQDN for your test server.

In a production environment your company's administration services should provide you with a FQDN.

### Procedure: Setup the KVM Network

1. Open the **Virt Machine Manager** GUI. In Gnome you can click the windows button on your keyboard and type in **virt-manager**. Alternatively you can open a command prompt and type: **virt-manager** and click the **[ Enter ]**.
2. Select **edit › Preferences**.
3. In **Preferences** under the **General** tab select the checkbox **Enable XML editing**. Click the close button when complete.
4. Double click **QEMU/KVM** text in the main window or select **Edit › Connection Details** to open the **Connection Details** window.
5. Select the **Virtual Networks** tab then the **XML** tab.
6. If the default network is running, stop it using the **X** button in the lower left.
7. Copy and paste the following XML snippet **beneath** your **<uuid>** block:

```

<forward mode="nat">
  <nat>
    <port start="1024" end="65535"/>
  </nat>
</forward>
<bridge name="virbr0" stp="on" delay="0"/>
<mac address="52:54:00:9f:d0:0b"/>
<domain name="suse.lab" localOnly="yes"/>
<ip address="192.168.122.1" netmask="255.255.255.0">
  <dhcp>
    <range start="192.168.122.2" end="192.168.122.254"/>
    <host mac="52:54:00:0A:CC:B8" name="suma-server" ip="192.168.122.10"/>
    <host mac="52:54:00:EE:88:85" name="suma-proxy" ip="192.168.122.11"/>
    <host mac="52:54:00:F2:B0:DF" name="minion-one" ip="192.168.122.12"/>
    <host mac="52:54:00:F2:B0:DG" name="minion-one" ip="192.168.122.13"/>
  </dhcp>
</ip>
</network>

```

## 1.3. SLE Micro 5.5 Installation

Get a copy of the SLE Micro 5.5 install media. You can begin installation on either a virtual machine or on a physical server.

For detailed documentation on preparing your machines OS (virtual or physical), see [SLE Micro 5.5 Deployment Guide](#).

### 1.3.1. Container Host Preparation

#### Procedure: Setup the Image in Virtual Machine Manager

1. Open the Virtual Machine Manager and select File › New virtual machine.
2. In the New VM window select Local install media (ISO image or CDROM) and click [ Forward ].
3. Click the [ Browse ] Button. In the Volumes field select the openSUSE Leap Micro image you downloaded. Click [ Choose Volume ].
4. Uncheck the Automatically detect from the installation media/source and type micro in the Choose operating system you are installing field. Select SLE Micro 5.5. Click [ Forward ].
5. Set Memory to 16 GB and CPUs to 2. Click [ Forward ].
6. Click in the disk image size field and enter 200 GB. The default is 60.0 GB. Click [ Forward ].

7. Name the system **suma-server**. Next check the box **Customize configuration before install**. Click **[ Finish ]**.
8. In the settings windows select the **NIC** device. In the **Virtual Machine Manager** primary window double click **QEMU/KVM**. Select the **Virtual Networks** tab. Select **XML**. Copy the **mac** address for the **suma-server** machine.
9. Open the virtual machine settings page and paste the mac address into the **MAC address:** field. Click **[ Apply ]**. Then select **[ Begin Installation ]** in the upper left corner.
10. Procedure: SLE Micro 5.5 Installation
11. Use the arrow keys to select **Installation**.

## Procedure: SLE Micro 5.5 Installation

1. Adjust Keyboard and language. Click the **checkbox** to accept the License Agreement.
2. Click **Next** to continue.
3. Select your registration method. For this example we will register the server with SUSE Customer Center.

### SUSE Manager as an extension



The SUSE Manager 5.0 container is installed as an extension. Therefore, in addition to acquiring SUSE Customer Center registration keys for SLE Micro 5.5, you will also need SUSE Customer Center registration codes for the following extensions:

- SUSE Manager 5.0 Server
- SUSE Manager 5.0 Proxy
- Retail Branch Server

4. Enter your SUSE Customer Center Email address.
5. Enter your registration code for SLE Micro 5.5.
6. Click **Next** to continue.
7. On the **Extension and Module Selection** page uncheck the **Hide Development Versions** checkbox.
8. Select the SUSE Manager 5.0 Server extension **Checkbox**.
9. Click **Next** to continue.



10. Enter your SUSE Manager 5.0 Server extension registration code.
11. Click [ **Next** ] to continue.
12. On the **NTP Configuration** page click [ **Next** ].
13. On the **Authentication for the System** page enter a password for the root user. Click [ **Next** ].
14. On the **Installation Settings** page click [ **Install** ].

This concludes installation of SLE Micro 5.5.

### 1.3.2. Update the system

1. Login at the prompt as **root**.
2. Run **transactional-update**:

```
transactional-update
```

3. Reboot the system.
4. Login as root.
5. Enter the transactional shell:

```
transactional-update shell
```

6. Install the container utilities:

```
zypper in mgradm mgrctl mgradm-bash-completion mgrctl-bash-completion  
netavark
```

7. Exit the transactional shell:

```
transactional update # exit
```

8. Reboot.

## 1.4. Deploy SUSE Manager 5.0 on SLE Micro 5.5

### 1.4.1. Deploy with mgradm

#### Procedure: Deploy SUSE Manager 5.0 with mgradm

1. From the terminal run the following command. Entering your servers FQDN is optional. Leave blank for a default setup.

```
mgradm install podman <FQDN>
```

2. Enter a database and certificate password when prompted. Press [ **Enter** ].
3. Enter the administration account email address. Press [ **Enter** ].
4. Wait for deployment to complete. On your local machine, add the new server to your hosts file:

```
sudo vi /etc/hosts
```

5. Add the following snippet your your **hosts** file:

```
192.168.122.119 suma-server.suse.lab
```

6. Open a browser and proceed to your servers FQDN, or IP address.

In this section you learned the basic method for deploying a SUSE Manager 5.0 Server container.

## 1.5. Synchronize with SUSE Customer Center

This section covers synchronizing with SCC from the Web UI and adding your first client channel.

#### Procedure: Entering Organization Credentials

1. In the SUSE Manager Web UI, select **Admin** › **Setup Wizard**.
2. From the **Setup Wizard** page select the [ **Organization Credentials** ] tab.
3. Click [ **Add a new credential** ].
4. In the dialog, enter **Username** and **Password**, and confirm with [ **Save** ].

When the credentials are confirmed with a green check-mark icon, proceed with [Procedure: Synchronizing with SUSE Customer Center](#).

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## Procedure: Synchronizing with SUSE Customer Center

1. In the Web UI, navigate to **Admin › Setup Wizard**.
2. From the **Setup Wizard** page select the **[ SUSE Products ]** tab. If you previously registered with SUSE Customer Center a list of products will populate the table. This operation could take up to a few minutes. You can monitor the progress of the operation in section on the right **Refresh the product catalog from SUSE Customer Center**. The table of products lists architecture, channels, and status information. For more information, see **Reference › Admin**.

Setup Wizard

HTTP Proxy Organization Credentials **SUSE Products**

Clear + Add products

Filter by product Description Filter by architecture 25 items per page

Items 1 - 25 of 94

Product Description	Arch	Channels
<input type="checkbox"/> Open Enterprise Server 2018	x86_64	
<input type="checkbox"/> RHEL Expanded Support 5	i386	
<input type="checkbox"/> RHEL Expanded Support 5	x86_64	
<input type="checkbox"/> > RHEL Expanded Support 6	i386	
<input type="checkbox"/> > RHEL Expanded Support 6	x86_64	
<input type="checkbox"/> > RHEL Expanded Support 7	x86_64	
<input type="checkbox"/> SUSE Container as a Service Platform 1.0	x86_64	
<input type="checkbox"/> SUSE Container as a Service Platform 2.0	x86_64	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 11 SP2	i586	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 11 SP2	x86_64	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 11 SP3	i586	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 11 SP3	x86_64	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 11 SP4	i586	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 11 SP4	x86_64	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 12	x86_64	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 12 SP1	x86_64	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 12 SP2	x86_64	
<input type="checkbox"/> > SUSE Linux Enterprise Desktop 12 SP3	x86_64	
<input checked="" type="checkbox"/> > SUSE Linux Enterprise Desktop 15	x86_64	100%
<input type="checkbox"/> > SUSE Linux Enterprise High Performance Computing 15	aarch64	include recommended
<input type="checkbox"/> > SUSE Linux Enterprise High Performance Computing 15	x86_64	include recommended
<input type="checkbox"/> > SUSE Linux Enterprise Server 10 SP3	i586	
<input type="checkbox"/> > SUSE Linux Enterprise Server 10 SP3	ia64	
<input type="checkbox"/> > SUSE Linux Enterprise Server 10 SP3	ppc	
<input type="checkbox"/> > SUSE Linux Enterprise Server 10 SP3	s390x	

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Refresh the product catalog from SUSE Customer Center

Channels  
Channel Families  
Products  
Product Channels  
Subscriptions

Refresh

Why aren't all SUSE products displayed in the list?

The products displayed on this list are directly linked to your Organization credentials (Mirror credentials) as well as your SUSE subscriptions.

If you believe there are products missing, make sure you have added the correct Organization credentials in the previous wizard step.

3. Use **Filter by product description** and **Filter by architecture** to filter the list of displayed products. If your SUSE Linux Enterprise client is based on **x86\_64** architecture scroll down the page and select the check box for this channel now.

- Add channels to SUSE Manager by selecting the check box to the left of each channel. Click the arrow symbol to the left of the description to unfold a product and list available modules.

- Click [ **Add Products** ] at the top of the page to start product synchronization.

After adding the channel, SUSE Manager will schedule the channel to be synchronized. This can take a long time as SUSE Manager will copy channel software sources from the SUSE repositories located at SUSE Customer Center to the local `/var/spacwalk/` directory of your server.

When the channel is fully synchronized, the bootstrap repository for it will be automatically created. This is necessary for the successful bootstrapping of a client. This completes the SUSE Manager installation and configuration, with channel preparations for bootstrapping clients.

When the channel synchronization process is complete, you can continue with the client registration. For more instructions, see [Client-configuration › Registration-overview](#).

## 1.6. Entering the container for management

To get to a shell inside the container, run the following on the host:

```
sudo mgrctl term
```

## Chapter 2. Quick Start SUMA Proxy

This guide shows you how to install and configure a single SUSE Manager Proxy for x86-64 architecture from the SUSE Linux Enterprise installation media with the Unified Installer.

For this topic we assume that you already have valid organization credentials with SUSE Customer Center and have obtained a registration code for your SUSE Manager Proxy, for example from a "SUSE Manager Lifecycle Management+" subscription.

### 2.1. Install SUSE Manager Proxy

This guide shows you how to install and configure a single SUSE Manager Proxy for x86-64 architecture from the SUSE Linux Enterprise installation media with the Unified Installer.

#### Procedure: Installing SUSE Manager Proxy with the Unified Installer

1. To boot the Unified Installer from the installation image, you might need to adjust the boot order in the BIOS.
2. When prompted, select **Installation**.
3. In the **Language, Keyboard and Product Selection** screen, check the **SUSE Manager Proxy** checkbox, and click **[ Next ]**.
4. Read and agree to the End User Licence Agreement, and click **[ Next ]**.
5. In the **Registration** screen, check the **Register System via scc.suse.com** checkbox, enter your SUSE Customer Center credentials, and click **[ Next ]**.
6. In the **Available Extensions and Modules** screen, select any extensions or modules you require, and click **[ Next ]**. **Basesystem**, **SUSE Manager Proxy**, and **Server Applications** are pre-selected and mandatory for the SUSE Manager Proxy installation. OPTIONAL: In the following **Add On Product** screen, select any additional or add-on products you require, and click **[ Next ]**.
7. In the **System Role** screen, check the **SUSE Manager Proxy** checkbox, and click **[ Next ]**.
8. In the **Suggested Partitioning** screen, accept the default values, or use the **[ Guided Setup ]** or **[ Expert Partitioner ]** options to customize your partitioning model, and click **[ Next ]**.
9. In the **Clock and Time Zone** screen, enter your region and timezone, and click **[ Next ]**.
10. In the **Local Users** screen, create a new user, and click **[ Next ]**.
11. Review the settings on the **Installation Settings** screen, and then click **[ Install ]**.

## 2.2. Register SUSE Manager Proxy



Before you can select the correct child channels while creating the activation key, ensure you have completely downloaded the SUSE Manager Proxy 5.0 channel and all the recommended and mandatory SUSE Linux Enterprise 15 SP5 channels.

### Procedure: Registering the Proxy

1. Create an activation key based on the `SLE-Product-SUSE-Manager-Proxy-4.3-Pool` base channel.  
For more information about activation keys, see [Client-configuration › Activation-keys](#).
2. From the **Child Channels** listing select the recommended channels by clicking the **include recommended** icon:

- `SLE-Module-Basesystem15-SP5-Pool`
- `SLE-Module-Basesystem15-SP5-Updates`
- `SLE-Module-Server-Applications15-SP5-Pool`
- `SLE-Module-Server-Applications15-SP5-Updates`
- `SLE-Module-SUSE-Manager-Proxy-4.3-Pool`
- `SLE-Module-SUSE-Manager-Proxy-4.3-Updates`

The `SLE-Product-SUSE-Manager-Proxy-4.3-Updates` channel is mandatory.

3. To bootstrap a proxy, use the bootstrap script. For more information about bootstrap scripts, see [Client-configuration › Registration-bootstrap](#).
4. Alternatively, in the SUSE Manager Web UI, navigate to **System › Bootstrapping**.
5. Navigate to **System Details › Software › Software Channels**, and check that the four proxy channels (`Pool` and `Updates` for `SLE-PRODUCT` and `SLE-MODULE`) plus the recommended channels are selected. `SLE-PRODUCT-Pool` must be the base channel and the others are child channels.

## 2.3. Set up SUSE Manager Proxy

Make sure the TCP ports `4505` and `4506` are open on the proxy. The proxy must be able to reach the SUSE Manager Server or a parent proxy on these ports.

### Procedure: Copy Server Certificate and Key

1. The proxy will share some SSL information with the SUSE Manager Server.
2. Copy the certificate and its key from the SUSE Manager Server or the parent proxy.
3. As root, enter the following commands on the proxy using your SUSE Manager Server or parent Proxy (named **PARENT**):

```
mkdir -m 700 /root/ssl-build  
cd /root/ssl-build  
scp root@PARENT:/root/ssl-build/RHN-ORG-PRIVATE-SSL-KEY .  
scp root@PARENT:/root/ssl-build/RHN-ORG-TRUSTED-SSL-CERT .  
scp root@PARENT:/root/ssl-build/rhn-ca-openssl.cnf .
```

4. Run **configure-proxy.sh** The **configure-proxy.sh** script finalizes the setup of your SUSE Manager Proxy.
5. Execute the interactive **configure-proxy.sh** script. Pressing  without further input will make the script use the default values provided between brackets **[ ]**. Otherwise, use the values specific for your environment.

When the proxy configuration process is complete, you can continue with client registration. For more instructions, see [Client-configuration › Client-proxy](#).



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