UYUNI 2024.03 Stable Version User Guide

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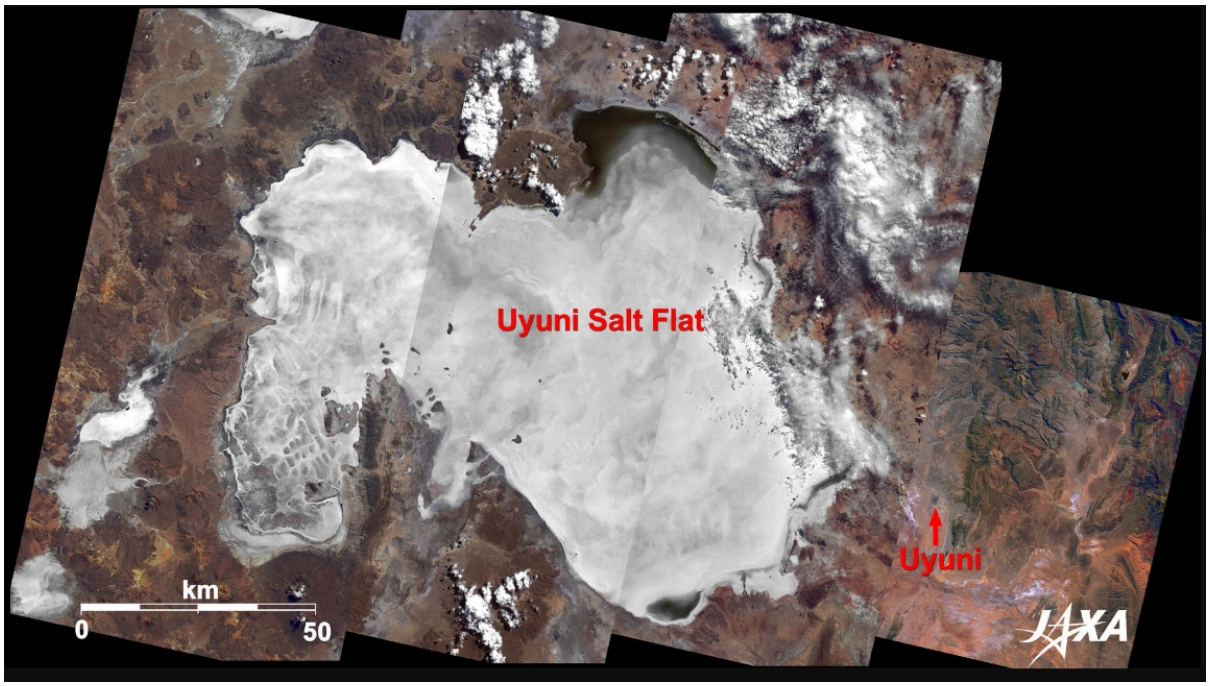
UYUNI 2024.03 Stable Version



Specifications:

- Product Name: Uyuni 2024.03
- Release Date: April 08, 2024

Product Information:

The Uyuni 2024.03 is a server deployment and management solution that allows users to set up and maintain their infrastructure efficiently.

Product Usage Instructions:

Container Deployment

To deploy Uyuni 2024.03 server, follow these steps:

1. Deploy Uyuni 2024.03 Server
   Follow the detailed instructions in the manual to set up the server.
2. Software and Hardware Requirements for Uyuni
   Ensure your system meets the specified software and hardware requirements.
3. Prepare the Physical Machine
   Prepare the physical machine according to the provided guidelines.

Legacy Installation

If you prefer a legacy installation, follow the steps outlined in the manual for installing Uyuni Server with openSUSE Leap.

Frequently Asked Questions (FAQ)

Q: What do I do if I encounter errors during deployment?

A: If you encounter errors during deployment, refer to the troubleshooting section of the manual or contact our support team for assistance.

Quick Start

Updated: 2024-04-08
This guide shows you how to use deploy and configure a single Uyuni 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**
  - Quickstart › Container-deployment
  - Proxy docs in development.
- **Legacy**
  - Quickstart › Legacy-installation
  - Quickstart › Legacy-installation

Container Deployment

Deploy Uyuni 2024.03 Server
In this quickstart, you will embark on deploying Uyuni 2024.03 Server. There are several methods to\ accomplish this task. You may opt to deploy it in the cloud or deploy it on a local host running openSUSE Leap Micro or openSUSE Leap 15.5. However, for the purpose of this quickstart guide, we've chosen to focus on setting up a KVM environment, installed on openSUSE Leap with Gnome Desktop, as the initial step. Installation on openSUSE Leap Micro is done via the command line and is outside the scope of this quickstart.

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

Software and Hardware	**Recommended**
Operating System:	openSUSE Leap 15.5: Clean installation, up-to-date
CPU:	Minimum 4 dedicated 64-bit x86-64CPU cores
RAM:	*Development server* Minimum 16 GB
	Production server Minimum 32 GB
Disk Space:	Disk space depends on your channel requirements, at least 100 GB
	50 GB per SUSE or openSUSE product and 360 GB p er Red Hat product
Swap space:	3 GB

Prepare the Physical Machine

Install openSUSE Leap on a bare metal physical machine, or continue using your existing installation.
See: Installation openSUSE Leap

For this guide you can also use Tumbleweed as the KVM host. However, keep in mind that openSUSE Leap 15.5 is officially supported.

sudo zypper ref && zypper up

Install KVM Tools

1. Install KVM server and kvm tools:
   sudo zypper in -t pattern kvm_server kvm_tools
2. Reboot.

Setup KVM Network

- This XML configuration builds a KVM subnet using the domain name of container.lab to setup a 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="uyuni.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="uyuni-server" ip=
   - "192.168.122.10"/>
   - <host mac="52:54:00:EE:88:85″ name="minion-one" ip="
   - 192.168.122.11″/>
   - <host mac="52:54:00:F2:B0:DF" name="minion-two" ip="

- 192.168.122.12″/>
- </dhcp>
- </ip>
- </network>

Aquire the openSUSE Leap Micro Image

Proceed to: Download openSUSE Leap Micro 5.5
Select and download the Offline Image, then move it to the default KVM image store: cd Downloads/
sudo mv openSUSE-Leap-Micro-5.5-DVD-x86_64-Media.iso /var/lib/libvirt/images/

Container Host Preparation and Installation
Procedure: Setup the Image in Virtual Machine Manager (Step 1)

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 two. 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 uyuni-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 leapmicro machine.
9. Open the virtual machine settings page again and paste the mac address into the MAC address: field. Click [Apply] . Then select [Begin Installation] in the upper left corner.
10. Procedure: openSUSE Leap Micro 5.5 Installation
11. Use the arrow keys to select Installation.
12. On the Language, Keyboard and license Agreement page click [Next] .
13. On the NTP Configuration page click [Next] .
14. On the Authentication for the System page enter a password for the root user. Click[Next] .
15. On the Installation Settings page click [Install] .

Update the system and Install Container Tools

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. Add the continer utility repository:
   zypper ar

https://download.opensuse.org/repositories/systemsmanagement:/Uyuni:/Master:/ContainerUtils/openSU

7. Refresh the repository list and accept the key:
   zypper ref
8. Install the container tools:
   zypper in mgradm mgrctl mgradm-bash-completion mgrctl-bash-completion netavark
9. Reboot the host.

Deploy Uyuni with mgradm

- Uyuni is deployed as a container using the mgradm tool. There are two methods of deploying a Uyuni server as a container. In this section we will focus on basic container deployment.
- For information on using a custom configuration file to deploy see, Installation-and-upgrade › Container-management.
- For additional information, you can explore further by running mgradm –help from the command line.

Procedure: Deploying an Uyuni container with Podman

1. From the terminal run the following command as root.
2. Input a password for the CA certificate, an administrative account password and your email for notifications:
   - leapmicro:~ # mgradm install podman
   - 3:07PM INF Welcome to mgradm
   - 3:07PM INF Executing command: podman
   - Password for the CA certificate to generate:
   - Administrator password:
   - Administrator's email: admin@example.com
3. The container will take some minutes to deploy.
4. Once complete open a browser and visit https://leapmicro.uyuni.lab to begin working with Uyuni

Optional: Synchronizing Products from SUSE Customer Center
SUSE Customer Center (SCC) maintains a collection of repositories which contain packages, software and updates for all supported enterprise client systems. These repositories are organized into channels each of which provide software specific to a distribution, release, and architecture. After synchronizing with SCC, clients can receive updates, be organized into groups, and assigned to specific product softwarechannels.
This section covers synchronizing with SCC from the Web UI and adding your first client channel

Before you can synchronize software repositories with SCC, you will need to enter organization credentials in Uyuni. The organization credentials give you access to the SUSE product downloads. You will find your organization credentials in **https://scc.suse.com/organizations**.

Enter your organization credentials in the Uyuni Web UI:

Optional Procedure: Entering Organization Credentials

1. In the Uyuni Web UI, navigate to Admin › Setup Wizard.
2. In the Setup Wizard page, navigate to the [Organization Credentials] tab.
3. Click [Add a new credential] .

4. Enter a username and password, and click [Save] .

A check mark icon is shown when the credentials are confirmed. When you have successfully entered the new credentials, you can synchronize with SUSE Customer Center.

Optional Procedure: Synchronizing with SUSE Customer Center

1. In the Uyuni Web UI, navigate to Admin › Setup Wizard.
2. From the Setup Wizard page select the [SUSE Products] tab. Wait a moment for theproducts list to populate. If you previously registered with SUSE Customer Center a list of products will populate the table. This table lists architecture, channels, and status information.
3. 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.
4. Add channels to Uyuni 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.
5. Click [Add Products] to start product synchronization.

When a channel is added, Uyuni will schedule the channel for synchronization. Depending on the number and size of this channels, this can take a long time. You can monitor synchronization progress in the Web UI.
For more information about using the setup wizard, see Reference › Admin. When the channel synchronization process is complete, you can register and configure clients. For more instructions, see Client-configuration › Registration-overview.

Legacy Installation

Install Uyuni Server with openSUSE Leap
Uyuni Server can be installed on openSUSE Leap.

- For information about the stable version of Uyuni, see **https://www.uyuni-project.org/pages/stableversion.html**.
- For information about the development version of Uyuni, see **https://www.uyuni-project.org/pages/devel-version.html**.
- For information about the latest version and updates of openSUSE Leap, see **https://doc.opensuse.org/release-notes/**.

Software and Hardware Requirements
This table shows the software and hardware requirements for installing an Uyuni Server on openSUSE Leap.
Table 2. 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 x86-64CPU cores
RAM:	*Test Server* Minimum 8 GB
	Base Installation Minimum 16 GB
	Production Server Minimum 32 GB
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

Install Uyuni Server on openSUSE Leap

You can use a physical or virtual machine running openSUSE Leap to install the Uyuni Server. Configure a resolvable fully qualified domain name on the server before you begin, to ensure that the server is accessible across the network.
The Uyuni Server software is available from download.opensuse.org, and you can use zypper to retrieve the software and install it.

Procedure: Installing openSUSE Leap with Uyuni

1. Install openSUSE Leap as the base system, and ensure all available service packs and package updates have been applied.
2. Configure a resolvable fully qualified domain name (FQDN) with YaST by navigating to System › Network Settings › Hostname/DNS.
3. At the command prompt, as root, add the repository for installing the Uyuni Server software:
   repo=repositories/systemsmanagement:/
   repo=${repo}Uyuni:/Stable/images/repo/Uyuni-Server-POOL-x86_64-Media1/
   zypper ar **https://download.opensuse.org/$repo uyuni-server-stable**
4. Refresh metadata from the repositories:
   zypper ref
5. Install the pattern for the Uyuni Server:
   zypper in patterns-uyuni_server
6. Reboot the server.

When the installation is complete, you can continue with Uyuni setup. For more information, see Installation-and-upgrade › Uyuni-server-setup.

Set up Uyuni Server with YaST
The initial setup procedure is handled by YaST.
Procedure: Uyuni Setup

1. Log in to the Uyuni Server and start YaST.

2. In YaST, navigate to Network Services › Uyuni Setup to begin the setup.
3. From the introduction screen select Uyuni Setup › Set up Uyuni from scratch and click [Next] to continue.
4. Enter an email address to receive status notifications and click [Next] to continue. Uyuni can sometimes send a large volume of notification emails. You can disable email notifications in the Web UI after setup, if you need to.
5. Enter your certificate information and a password. Passwords must be at at least seven characters in length, and must not contain spaces, single or double quotation marks (‘ or “), exclamation marks (!), or dollar signs ($). Always store your passwords in a secure location.
   If you need to also set up a Uyuni Proxy Server, ensure you have taken a note of the certificate password.
6. Click [Next] to continue.
7. From the Uyuni Setup › Database Settings screen, enter a database user and password and click [Next] to continue. Passwords must be at at least seven characters in length, and must not contain spaces, single or double quotation marks (‘ or “), exclamation marks (!), or dollar signs($). Always store your passwords in a secure location.
8. Click [Next] to continue.
9. Click [Yes] to run setup when prompted.
10. When setup is complete, click [Next] to continue. You will see the address of the Uyuni Web UI.
11. Click [Finish] to complete Uyuni setup.

Create the Main Administration Account

Before you can log in to the server to manage your clients, you need to have created an administration account. The main administration account has the highest authority within Uyuni. Ensure you keep access information for this account secure. We recommend that you create lower level administration accounts for organizations and groups. Do not share the main administration access details.

Procedure: Setting Up the Main Administration Account

1. In your web browser, enter the address for the Uyuni Web UI. This address was provided after you completed setup.
2. Sign in to the Web UI, navigate to the Create Organization › Organization Name field, and enter your organization name.
3. In the Create Organization › Desired Login and Create Organization › Desired Password fields, enter your username and password.
4. Fill in the account information fields, including an email for system notifications.
5. Click [Create Organization] to finish creating your administration account.
   When you have completed the Uyuni Web UI setup, you are taken to the Home › Overview page.

Optional: Synchronizing Products from SUSE Customer Center

SUSE Customer Center (SCC) maintains a collection of repositories which contain packages, software and updates for all supported enterprise client systems. These repositories are organized into channels each of which provide software specific to a distribution, release, and architecture. After synchronizingwith SCC, clients can receive updates, be organized into groups, and assigned to specific product software channels.
This section covers synchronizing with SCC from the Web UI and adding your first client channel.
For Uyuni, synchronizing products from SUSE Customer Center is optional.
Before you can synchronize software repositories with SCC, you will need to enter organization credentials in Uyuni. The organization credentials give you access to the SUSE product downloads. You will find your organization credentials in **https://scc.suse.com/organizations**

Enter your organization credentials in the Uyuni Web UI:

Optional Procedure: Entering Organization Credentials

1. In the Uyuni Web UI, navigate to Admin › Setup Wizard.
2. In the Setup Wizard page, navigate to the [Organization Credentials] tab.
3. Click [Add a new credential] .
4. Enter a username and password, and click [Save] .

A check mark icon is shown when the credentials are confirmed. When you have successfully entered the new credentials, you can synchronize with SUSE Customer Center.

Optional Procedure: Synchronizing with SUSE Customer Center

1. In the Uyuni Web UI, navigate to Admin › Setup Wizard.
2. From the Setup Wizard page select the [SUSE Products] tab. Wait a moment for theproducts list to populate. If you previously registered with SUSE Customer Center a list of products will populate the table. This table lists architecture, channels, and status information.
3. 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.
4. Add channels to Uyuni 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.
5. Click [Add Products] to start product synchronization.

When a channel is added, Uyuni will schedule the channel for synchronization. Depending on the number and size of this channels, this can take a long time. You can monitor synchronization progress in the Web UI.
For more information about using the setup wizard, see Reference › Admin.
When the channel synchronization process is complete, you can register and configure clients. For more instructions, see Client-configuration › Registration-overview.

Install Uyuni Proxy with openSUSE Leap
Uyuni Proxy can be installed as a server extension on openSUSE Leap. The proxy is installed in the same way as a client, but is designated as a proxy server during installation. This is achieved by adding the Uyuni Proxy pattern, and executing the proxy setup script.

- For more information about the stable version of Uyuni, see **https://www.uyuni-project.org/pages/stable-version.html**.
- For more information about the development version of Uyuni, see **https://www.uyuni-project.org/pages/devel-version.html**.

Mirror Uyuni Proxy software
The Uyuni Proxy software is available from **https://download.opensuse.org**. You can synchronize the proxy software to your Uyuni Server. This process is also known as mirroring.

Procedure: Mirroring Uyuni Proxy software

1. On the Uyuni Server, create openSUSE Leap and the Uyuni Proxy channels with the spacewalk-common-channels command. spacewalk-common-channels is part of the spacewalk-utils package:

- spacewalk-common-channels \
- opensuse_leap15_5 \
- opensuse_leap15_5-non-oss \
- opensuse_leap15_5-non-oss-updates \
- opensuse_leap15_5-updates \
- opensuse_leap15_5-backports-updates \
- opensuse_leap15_5-sle-updates \
- opensuse_leap15_5-uyuni-client \
- uyuni-proxy-stable-leap-155

2. Instead of the uyuni-proxy-stable-leap-155 version you can also try the latest development version, called uyuni-proxy-devel-leap. For more information, see Clientconfiguration › Clients-opensuseleap

Register the openSUSE Leap system
Begin by installing openSUSE Leap on a physical or virtual machine. To ensure that the proxy is accessible across the network, you must have a resolvable fully qualified domain name (FQDN) on the openSUSE Leap system before you begin the installation. You can configure an FQDN with YaST by navigating to System › Network Settings › Hostname/DNS.
When you have installed openSUSE Leap on the proxy and configured the FQDN, you can prepare the Uyuni Server, and register the openSUSE Leap system as a client.

Procedure: Registering the openSUSE Leap system

1. On the Uyuni Server, create an activation key with openSUSE Leap as a base channel and the proxy and the other channels as child channels. For more information about activation keys, see Client-configuration › Activation-keys.
2. Modify a bootstrap script for the proxy. Ensure you add the GPG key for Uyuni to the ORG_GPG_KEY= parameter. For example ORG_GPG_KEY=uyuni-gpg-pubkey-0d20833e.key ◦ For more information, see Client-configuration › Clients-opensuseleap.
3. Bootstrap the client using the script. ◦ For more information, see Client-configuration › Registration-bootstrap.
4. Navigate to Salt › Keys and accept the key. When the key is accepted, the new proxy will show in Systems › Overview in the Recently Registered Systems section.
5. Navigate to System Details › Software › Software Channels, and check that the proxy channel is selected.

Install Uyuni Proxy on openSUSE Leap

On the client, use the zypper command line tool or on the Uyuni Server, the Web UI to install the proxy software on openSUSE Leap.

Procedure: Installing Uyuni Proxy on openSUSE Leap

1. Install the pattern for the Uyuni Proxy. You can do this either on the client or on the server. ◦ For the client, use zypper
   zypper in patterns-uyuni_proxy ◦ Alternatively, on the Uyuni Server, use the Web UI. Navigate to the details tab of the client, click Software › Packages › Install, and schedule patterns-uyuni_proxy for installation.
2. Reboot the client.

Prepare the Proxy

Before you begin, ensure that the proxy pattern is installed correctly. To verify a successful installation, on the Uyuni Server, select the pattern_uyuni_proxy package for installation.
The salt-broker service is automatically started after installation is complete. This service forwards theSalt interactions to the Uyuni Server.
It is possible to arrange Salt proxies in a chain. In this case, the upstream proxy is named parent.

Make sure the TCP ports 4505 and 4506 are open on the proxy. The proxy must be able to reach the Uyuni Server or a parent proxy on these ports.
The proxy shares some SSL information with the Uyuni Server. You need to copy the certificate and its key from the Uyuni Server or the parent proxy to the proxy you are setting up.

Procedure: Copying the Server Certificate and Key

1. On the proxy you are setting up, at the command prompt, as root, create a directory for the certificate and key: mkdir -m 700 /root/ssl-buildcd /root/ssl-build
2. Copy the certificate and the key from the source to the new directory. In this example, the source location is called PARENT. Replace this with the correct path:
    1. scp root@<PARENT>:/root/ssl-build/RHN-ORG-PRIVATE-SSL-KEY .
    2. scp root@<PARENT>:/root/ssl-build/RHN-ORG-TRUSTED-SSL-CERT .
    3. scp root@<PARENT>:/root/ssl-build/rhn-ca-openssl.cnf
3. To keep the security chain intact, the Uyuni Proxy functionality requires the SSL certificate to be signed by the same CA as the Uyuni Server certificate. Using certificates signed by different CAs for proxies and server is not supported. For more information on how Uyuni handles certificates, see Administration › Sslcerts.

Set Up the Proxy
When you have prepared the proxy, use the supplied interactive configure-proxy.sh script to complete the proxy setup.

Procedure: Setting up the Proxy

1. On the proxy you are setting up, at the command prompt, as root, execute the setup script: configure-proxy.sh
2. Follow the prompts to set up the proxy. Leave a field blank and type Enter to use the default values shown between square brackets.
   More information about the settings set by the script:
   Uyuni Parent the Uyuni parent can be either another proxy or a server.

HTTP Proxy
A HTTP proxy enables your Uyuni Proxy to access the Web. This is needed if direct access to the Web is prohibited by a firewall.

Traceback Email
An email address where to report problems.

Do You Want to Import Existing Certificates?
Answer N. This ensures using the new certificates that were copied previously from the Uyuni server.

Organization

The next questions are about the characteristics to use for the SSL certificate of the proxy. The organization might be the same organization that was used on the server, unless of course your proxy is not in the same organization as your main server.

Organization Unit
The default value here is the proxy's hostname.

City
Further information attached to the proxy's certificate.

State
Further information attached to the proxy's certificate.

Country Code
In the country code field, enter the country code set during the Uyuni installation. For example,if your proxy is in the US and your Uyuni is in DE, enter DE for the proxy.
The country code must be two upper case letters. For a complete list of country codes, see **https://www.iso.org/obp/ui/#search**.

Cname Aliases (Separated by Space)
Use this if your proxy can be accessed through various DNS CNAME aliases. Otherwise it can be left empty.

CA Password
Enter the password that was used for the certificate of your Uyuni Server.

Do You Want to Use an Existing SSH Key for Proxying SSH-Push Salt Minion?
Use this option if you want to reuse a SSH key that was used for SSH-Push Salt clients on the server.

Create and Populate Configuration Channel rhn_proxy_config_1000010001?
Accept default Y.
SUSE Manager Username
Use same user name and password as on the Uyuni server.
If parts are missing, such as CA key and public certificate, the script prints commands that you must execute to integrate the needed files. When the mandatory files are copied, run configureproxy. sh again. If you receive an HTTP error during script execution, run the script again.
configure-proxy.sh activates services required by Uyuni Proxy, such as squid, apache2, salt-broker, and jabberd.
To check the status of the proxy system and its clients, click the proxy system's details page on the Web UI (Systems › System List › Proxy, then the system name). Connection and Proxy subtabs display various status information.
If you want to PXE boot your clients from your Uyuni Proxy, you also need to synchronize the TFTP data from the Uyuni Server. For more information about this synchronization, see Client-configuration › Autoinst-pxeboot.

Procedure: Synchronizing Profiles and System Information

1. On the proxy, at the command prompt, as root, install the susemanager-tftpsync-recv package: zypper in susemanager-tftpsync-recv
2. On the proxy, run the configure-tftpsync.sh setup script and enter the requested information: configure-tftpsync.sh
3. You need to provide the hostname and IP address of the Uyuni Server and the proxy. You also need to enter the path to the tftpboot directory on the proxy.
4. On the server, at the command prompt, as root, install susemanager-tftpsync: zypper in susemanager-tftpsync
5. On the server, run configure-tftpsync.sh setup script and enter the requested information: configure-tftpsync.sh

6. Run the script again with the fully qualified domain name of the proxy you are setting up. This creates the configuration and uploads it to the Uyuni Proxy: configure-tftpsync.sh FQDN_of_Proxy
7. On the server, start an initial synchronization: cobbler sync
   You can also synchronize after a change within Cobbler that needs to be synchronized immediately. Otherwise, Cobbler synchronization will run automatically when needed. For more information about PXE booting, see Client-configuration › Autoinst-pxeboot

Configure DHCP for PXE through Proxy
Uyuni uses Cobbler for client provisioning. PXE (tftp) is installed and activated by default. Clients must be able to find the PXE boot on the Uyuni Proxy using DHCP. Use this DHCP configuration for the zone which contains the clients to be provisioned:
next-server: <IP_Address_of_Proxy> filename: “pxelinux.0”

Reinstalling a Proxy

- A proxy does not contain any information about the clients that are connected to it. Therefore, a proxy can be replaced by a new one at any time. The replacement proxy must have the same name and IP address as its predecessor.
- For more information about reinstalling a proxy, see Installation-and-upgrade › Proxy-setup.
- Proxy systems are registered as Salt clients using a bootstrap script.
- This procedure describes software channel setup and registering the installed proxy with an activation keyas the Uyuni client.
- Before you can select the correct child channels while creating the activation key, ensure you have properly synchronized the openSUSE Leap channel with all the needed child channels and the Uyuni Proxy channel.

More Information

- For more information about the Uyuni project, and to download the source, see **https://www.uyuniproject.org/**.
- For more Uyuni product documentation, see **https://www.uyuni-project.org/uyuni-docs/uyuni/index.html**.
- To raise an issue or propose a change to the documentation, use the links under the Resources menu on the documentation site.

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