



U Y U N I

Uyuni 2022.07

Common Workflows

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Common workflows overview

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The Uyuni Common Workflows Guide covers most commonly used workflows you need to install, manage, and configure your clients with Uyuni.

Each workflow in this book has a clear goal, and provides detailed steps to achieve that goal.

It is designed to help you better understand both routine and advanced tasks, by explaining what you are achieving in each step, and the various options available to you along the way.

Each routine will be described as Workflow.

Chapter 1. Configuration Management

You can use configuration files and channels to manage configuration for your clients, rather than configuring each client manually. This workflow shows you how to use the Uyuni Web UI to create a centrally managed configuration file, assign it to a Salt client, and apply the configuration.

1.1. Use case

If you are managing a lot of clients, you probably do not want to manually apply configuration settings to each of them in turn. Configuration channels are used to organize configuration files. You can subscribe clients to configuration channels, and deploy configuration files as required.

1.2. Outcome

When you have completed this workflow, you will have a configuration channel containing a configuration file, have assigned clients to the channel, and applied the configuration successfully.

1.3. Preparation

Before you start, you should already have:

- Uyuni Server installed, that you can access using the Web UI.
- At least one Salt client registered to your server.
- Appropriate subscriptions from <http://scc.suse.com> for the products you are using.

This workflow uses a centrally managed configuration file and a Salt state. You can also use locally managed configuration files, traditional clients, and different methods, to get more flexibility in how you manage configuration in your environment. For more information about the different ways to manage configuration, see [Client-configuration > Configuration-management](#).

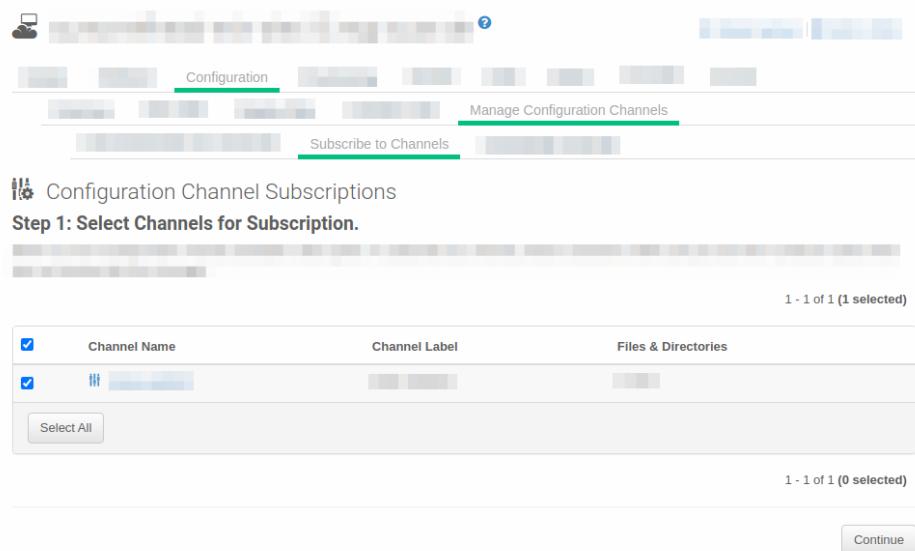
1.4. Step-by-step workflow instructions

Procedure: Create a new configuration channel and file

1. In the Uyuni Web UI, navigate to **Configuration > Channels** and click **[Create State Channel]**. Type a name, label, and description for your configuration file, and type the contents of your configuration file. An example that you can copy is at the end of this section. . Click **[Create Config State Channel]**

A screenshot of a web-based configuration interface titled "New Config State Channel". It includes fields for "Name*", "Label*", and "Description*". Below these is a large text area labeled "SLS Contents" containing a snippet of SLS (Salt State Language) code. At the bottom is a green "Create Config State Channel" button.

2. Procedure: Assign clients to the configuration channel
3. In the Uyuni Web UI, navigate to **Systems > Systems List** and select the client you want to assign to your configuration channel.
4. Navigate to the **Configuration** tab. In the guimenu: **Configuration Overview** section, click **[Subscribe to channels]**.
5. Check the configuration channel you created earlier, and click **[Continue]**.

A screenshot of the "Configuration Channel Subscriptions" dialog. It shows a header with tabs: "Configuration" (selected), "Manage Configuration Channels", and "Subscribe to Channels". Below is a section titled "Step 1: Select Channels for Subscription." with a table showing one selected channel. The table has columns: "Channel Name", "Channel Label", and "Files & Directories". A "Select All" button is at the bottom left, and a "Continue" button is at the bottom right.

Channel Name	Channel Label	Files & Directories
<input checked="" type="checkbox"/> [REDACTED]	[REDACTED]	[REDACTED]

6. If you have more than one configuration channel, you can rank them in order of importance, or click **[Update Channel Rankings]** to finish.

Procedure: Apply the configuration to your client

1. In the Uyuni Web UI, navigate to **Systems > Systems List** and select the client you want to assign to your configuration channel.
2. Navigate to the **Configuration** tab. In the guimenu: **Configuration Actions** section, click **[Deploy all managed config files]**.

1.5. Example

1.5.1. SLS State for Keeping Clients Updated

```

include:
  - channels

int_keep_system_up2date_updatestack:
  pkg.latest:
    - pkgs:
      - salt
      - salt-minion
  {% if grains.os_family == 'Suse' %}
    - zypper
    - libzypp
  {% elif grains['os_family'] == 'RedHat' %}
  {% if grains['osmajorrelease'] >= 8 %}
    - dnf
  {% else %}
    - yum
  {% endif %}
  {% endif %}
  - require:
    - sls: channels
  - order: last

int_keep_system_up2date_pkgs:
  pkg.uptodate:
    - require:
      - sls: channels
      - pkg: int_keep_system_up2date_updatestack
    - order: last

int_reboot_if_needed:
  cmd.run:
    - name: shutdown -r +5
  {% if grains['os_family'] == 'RedHat' and grains['osmajorrelease'] >= 8 %}
    - onlyif: 'dnf -q needs-restarting -r; [ $? -eq 1 ]'
  {% elif grains['os_family'] == 'RedHat' and grains['osmajorrelease'] <= 7 %}
    - onlyif: 'needs-restarting -r; [ $? -eq 1 ]'
  {% elif grains['os_family'] == 'Debian' %}
    - onlyif:
      - test -e /var/run/reboot-required
  {% else %}
    - onlyif: 'zypper ps -s; [ $? -eq 102 ]'
  {% endif %}

```

1.6. Related topics

- For more information about configuration management, see [Client-configuration > Configuration-management](#).
- For more information about SLS files, see: https://docs.saltproject.io/en/latest/topics/tutorials/startng_states.html.

Chapter 2. Onboarding

Uyuni is all about managing client systems. So one of the first things you need to do is onboard some clients. This workflow shows you how to set up your Uyuni Server to manage a new client, set up the software channels you need, and bootstrap the client using an activation key.

2.1. Use case

This workflow shows you how to onboard a client to your Uyuni Server.

The client must be running a supported Linux operating system. For a list of supported client systems, see [Installation-and-upgrade > Client-requirements](#).

This is one of the first tasks you need to do when you set up Uyuni for the first time, and you will probably have to do it many more times as you use the product.

2.2. Outcome

When you have completed this workflow, your client is onboarded, and it can be seen in the systems list of the Uyuni Web UI. You can then use Uyuni to manage the client.

2.3. Preparation

Before you start, you should already have:

- Uyuni Server installed, that you can access using the Web UI.
- Client machine with an operating system installed, which you can access across the network that your Uyuni Server is on, using SSH.
- Appropriate subscriptions from <http://scc.suse.com> for the products you are using.

This workflow uses a SUSE Linux Enterprise Server 15 SP2 operating system. You can use other Linux operating systems, but some of the steps might be different. For more information on onboarding other clients, see [Client-configuration > Registration-methods](#).

2.4. Step-by-step workflow instructions

Procedure: Configure a fully qualified domain name (FQDN) on your client

1. On the client, at the command prompt, show the current hostname:

```
hostname -f
```

This command will probably return an error, or show something like `localhost`.

2. Set a new hostname. Your new hostname should have a subdomain name and thus include at least two periods. In this example, we are using `client1.suma.example`

```
hostnamectl set-hostname client1.suma.example
```

3. Check that your change was successful:

```
hostnamectl
```

Open YaST and navigate to **Network Services > Hostnames**. Edit the hostname to match the one you just set, and click **[OK]**. In YaST, navigate to **System > Network Settings** and go to the **Hostname/DNS** tab. In the **Static hostname** field, type your new hostname.

4. Check that the change was successful:

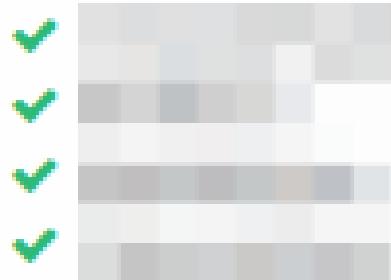
```
hostname -f
```

This command should return your new FQDN.

Procedure: Prepare software channels on the Uyuni Server

1. In the Uyuni Web UI, navigate to **Admin > Setup Wizard**.
2. In the **Organization Credentials** tab, ensure you have entered your SUSE Customer Center credentials, and are correctly authenticated.
3. In the **Products** tab, ensure that the product catalog is fully updated:

Refresh the product catalog from SUSE Customer Center



Refresh

Completed

4. Use the product search bar to find the channels you need for your client operating system. Check the channels you want to install, and click **[Add products]**:

The screenshot shows a product management interface. At the top, there are buttons for 'Clear' and '+ Add products'. Below that is a search bar and a 'Filter by architecture' dropdown. To the right is a '25 items per page' dropdown. The main area displays a table with six rows, each representing a product. The columns are 'Product Description', 'Arch', and 'Channels'. Each row has a checkbox in the first column. The 'Channels' column contains a progress bar with yellow segments indicating synchronization status. A checkbox labeled 'include recommended' is checked at the top of the channel list.

5. Wait for the product channels to fully synchronize. Depending on the products you have chosen, this could take a long time.

Procedure: Create an activation key

1. In the Uyuni Web UI, navigate to **Systems > Activation Keys**, and click **[Create Key]**. Give your activation key a name, and select the base channel that matches the client you want to onboard. This should be the product you just enabled:

The screenshot shows the 'Create Activation Key' form. It has a header 'Create Activation Key' with a question mark icon. Below it is a section titled 'Activation Key Details'. There are four input fields: 'Description' (with a placeholder), 'Key' (containing '1-'), 'Usage' (empty), and 'Base Channel' (a dropdown menu). At the bottom is a large green button labeled 'Create Activation Key'.

2. Check the child channels to include, and any add-on system types you want clients registered with this key to have. Click **[Create Activation Key]**:

[child] | child.png

Procedure: Bootstrap the client

1. In the Uyuni Web UI, navigate to **Systems > Bootstrapping**.
2. Type the hostname and provide authentication credentials for the client you want to onboard, and select the activation key. Click **[Bootstrap]**:

The screenshot shows a web-based configuration form titled "Bootstrap Minions". The form fields are as follows:

- Host:** client1.suma.example
- SSH Port:** 22
- User:** root
- Authentication Method:** Password
- Password:** [REDACTED]
- Activation Key:** 1-sled15-sp2
- Proxy:** None

Below the form are two checkboxes:

- Disable SSH strict host key checking during bootstrap process
- Manage system completely via SSH (will not install an agent)

At the bottom are two buttons: a green **+ Bootstrap** button and a grey **Clear fields** button.

3. Navigate to **Systems > System List** to manage your new client.

2.5. Related topics

- For more information about supported clients and client features, see **Client-configuration > Supported-features**.
- For more information about different onboarding methods, and instructions for clients running various operating systems, see **Client-configuration > Registration-methods**.
- For more information about general client concepts, see **Client-configuration > Channels**.

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