



U Y U N I

Uyuni

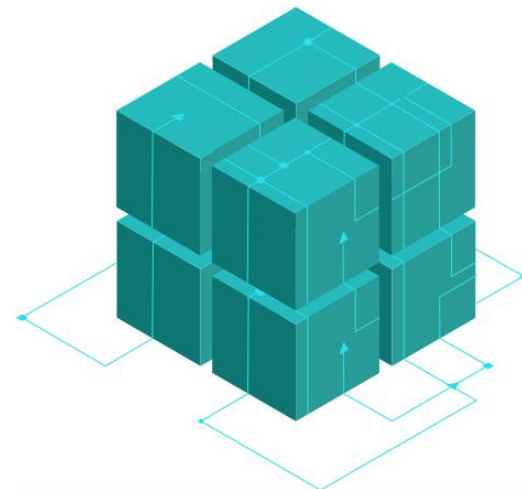
Introduction & how to manage CentOS

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About me



Pau Garcia Quiles

Product Owner & Technical Project Manager
SUSE Manager

Former Debian Developer
Former KDE developer
Former... more things

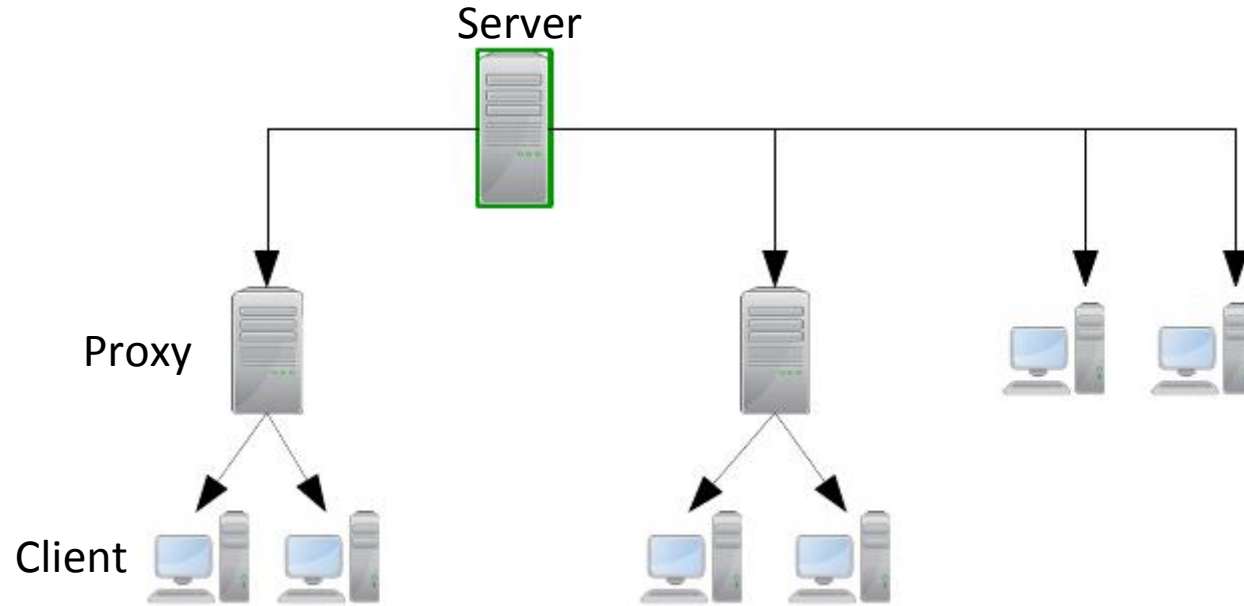
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What?

- Systems management solution
- Deploy and manage all kind of workloads from a single place
- Automate audit and reporting capabilities
- Hardware and software inventories
- Configuration management: automatically maintain standard configurations

Architecture



Origins: Spacewalk

- Free & Open Source Systems Management
- Around since 2008
- Base for Red Hat Satellite 5 and SUSE Manager ≤ 3.2
- Maintenance mode:
 - No modern configuration management
 - No clear plans for the future

“Salar de Uyuni” is the world's largest salt flat*

Uyuni

ujuni/

* https://en.wikipedia.org/wiki/Salar_de_Uyuni

Image: https://www.flickr.com/photos/madeleine_h/9468953452/

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Uyuni: fork of Spacewalk



- Simple installation
- Two stacks: traditional client (“spacewalk”) and Salt
 - New development goes into Salt clients (“minions”)
 - Traditional stack lets you continue using your Spacewalk/Satellite stack and knowledge in Uyuni. No need to convert to Salt.
- Containers/Kubernetes integration
- Scalability
- Usability
- React Web UI
- Python 3 and JDK11 codebase

Features

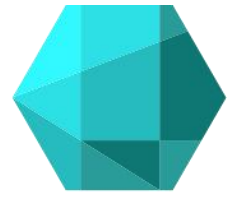
- System deployment
- Patch management
- Service Pack migration
- Configuration management
- Bare-metal provisioning
- Schedule action chains to be performed on systems
- API

Cool features!



- Content Lifecycle Management
 - Define stages (DEV, TEST, PRO) for your software channels
 - Apply filters to add/remove contents
- Build container images
- Compliance management: OpenSCAP and CVE Audit! Get alerts and fix in 1-click!
- Subscription management
- Formulas with Forms: create your own YAML automation templates, no programming skills required
- Virtualization
- Monitoring (Prometheus & Grafana stack)

Releases



U Y U N I

- Rolling release
- 3 releases since October 2018
 - Working towards more frequent releases
- No Community vs Enterprise editions
- Upstream for SUSE Manager ≥ 4.0 since June 2018

Current situation

- Public repository and public development: upstream first policy
- Mailing lists, IRC, Gitter
- (Semi) Public CI
- Newest release: 2020.01 (today!)
- Base OS: openSUSE Leap 15.1
- Clients:
 - RHEL 6/7/8 CentOS 6/7/8
 - SLE11/12/15 openSUSE 15
 - Ubuntu 16.04/18.04 (Debian 9/10)
 - (Oracle Enterprise Linux)

The future

- openSUSE Leap 15.2 as base system
- Cluster management
- Multi-Server
- More usability work
- Continue building the community!

CentOS with Uyuni

A wide-angle photograph of a vast wetland landscape. In the foreground and middle ground, numerous flamingos are wading in shallow, brownish water. The birds are scattered across the scene, some standing and others partially submerged. In the background, a long, low ridge of land stretches across the horizon, followed by a range of mountains under a clear, light blue sky. The overall scene is a natural, serene depiction of a bird sanctuary.

Install Uyuni

- Install openSUSE Leap 15.1
- Add Uyuni repository
- zypper in patterns-uyuni_server
- yast2 > Network Services > Uyuni Setup

Add CentOS channels

- zypper in spacewalk-utils
- spacewalk-common-channels -l | grep centos7
- spacewalk-common-channels -a x86_64 centos7 centos7-update centos7-uyuni-client
- spacewalk-repo-sync -c “centos7*”
- mgr-create-bootstrap-repo -f --with-custom-channels centos-7-x86_64

Onboard CentOS clients

- Create activation key
- Register clients using one of three methods:
 - Web UI (easiest)
 - Bootstrap script (massive onboarding, customization during onboarding)
 - Manually (install Salt minion, accept key in Server)



Errata

- Use Steve Meier's external service to get errata information for CentOS
- Uyuni will use it for Patches and Audit
- Fully documented in Uyuni docs

CentOS supported features

- Check the docs for the full list of supported features:
<https://www.uyuni-project.org/uyuni-docs/uyuni/client-configuration/supported-features-centos.html>
- If in doubt, ask in the lists, IRC or Gitter!

Search page



Home



Overview

Notification Messages

User Account

My Preferences

My Organization



Systems



Salt



Images



Patches



Software



Content Lifecycle



Audit



Configuration



Schedule



Users



Admin



Help



External Links

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Overview ²

Tasks

▸ Manage System Types:

[My Organization](#)

▸ Register Systems

▸ Manage Activation Keys

▸ Manage Autoinstallations

▸ Manage Configuration Files

▸ Manage Organizations

▸ Configure Uyuni

Inactive Systems

No inactive systems.

All of your systems are actively checking into Uyuni at this time. You can view a list of all of your systems at [Systems > All](#).

Most Critical Systems

System	All Updates	Security Patches	Bugfix Patches	Enhancement Patches
min-centos7.tf.local	72	19	49	4

1 - 1 of 1 most critical systems displayed

[View All Critical Systems](#)

Recently Scheduled Actions

Action	User	Age
Package List Refresh	(none)	0 Hour(s)
Package Install/Upgrade	admin	0 Hour(s)
Remote Command on min-centos7.tf.local.	admin	0 Hour(s)
Subscribe channels	admin	0 Hour(s)
Apply highstate	admin	0 Hour(s)

1 - 5 of 15 recently scheduled actions displayed

[View All Scheduled Actions](#)

Relevant Security Patches	Systems	Updated
CESA-2019-2118 Moderate CentOS glibc Security Update	1	9/10/19
CESA-2019-2020 Important CentOS Journal Security Update	1	9/10/19

Search page 

- Home
- Systems
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- System Groups
- System Set Manager
- Bootstrapping
- Visualization
- Advanced Search
- Activation Keys
- Stored Profiles
- Custom System Info
- Autoinstallation
- Software Crashes
- Virtual Host Managers

- Salt
- Images
- Patches
- Software
- Content Lifecycle
- Audit
- Configuration
- Schedule
- Users
- Admin

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- Content Lifecycle
- Audit
- Configuration

 min-centos7.tf.local

[Delete System](#) | [Add to SSM](#)

Details Software Configuration Provisioning Groups Audit States Formulas **Events**

Pending History

System History Event

Summary: Remote Command on min-centos7.tf.local. scheduled by admin

Details: This action will be executed after 1/31/20 2:26:00 PM CET
This action's status is: Completed.
The client completed this action on 1/31/20 2:26:43 PM CET
Client execution returned

```
Script executed successfully. [jid=20200131142631927955]
```

(code 0)

Run as: **root:root**

Timeout: **600** seconds

Script contents:

```
#!/bin/sh
# Add your shell script below

ls -lah /
```

Start Date: 1/31/20, 2:26 PM

End Date: 1/31/20, 2:26 PM

Return Code: 0

Raw Output: [view/download raw script output](#)

Filtered Output:

```
total 12K
dr-xr-xr-x. 17 root root  224 Nov 16  2018 .
dr-xr-xr-x. 17 root root  224 Nov 16  2018 ..
lrwxrwxrwx.  1 root root    7 Nov 16  2018 bin -> usr/bin
dr-xr-xr-x.  5 root root 281 Nov 16  2018 boot
drwxr-xr-x 19 root root 3.2K Jan 31 13:55 dev
drwxr-xr-x. 71 root root 8.0K Jan 31 13:58 etc
drwxr-xr-x.  2 root root   6 Apr 11  2018 home
lrwxrwxrwx.  1 root root   7 Nov 16  2018 lib -> usr/lib
lrwxrwxrwx.  1 root root   9 Nov 16  2018 lib64 -> usr/lib64
drwxr-xr-x.  2 root root   6 Apr 11  2018 media
drwxr-xr-x.  2 root root   6 Apr 11  2018 mnt
drwxr-xr-x.  2 root root   6 Apr 11  2018 opt
dr-xr-xr-x 106 root root   0 Jan 31 13:54 proc
dr-xr-xr-x.  5 root root 194 Jan 31 14:25 root
drwxr-xr-x  22 root root 640 Jan 31 14:26 run
lrwxrwxrwx.  1 root root   8 Nov 16  2018/sbin -> usr/sbin
drwxr-xr-x.  3 root root  17 Nov 16  2018 srv
dr-xr-xr-x  13 root root   0 Jan 31 13:54 sys
drwxrwxrwt.  8 root root 265 Jan 31 14:26 tmp
drwxr-xr-x. 13 root root 155 Nov 16  2018 usr
```


- Stored Profiles
- Custom System Info
- Autoinstallation
- Software Crashes
- Virtual Host Managers
- Salt
- Images
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```

    "_run_num_": 1.0,
    "_sls_": "channels",
    "changes": {},
    "_id_": "mgrchannels_susemanagerplugin_conf_yum"
  },
  "cmd_|-mgrchannels_yum_clean_all_|-/usr/bin/yum clean all_|-run": {
    "comment": "Command \"/usr/bin/yum clean all\" run",
    "name": "/usr/bin/yum clean all",
    "start_time": "14:28:02.288978",
    "result": true,
    "duration": 17919.18,
    "_run_num_": 3.0,
    "_sls_": "channels",
    "changes": {
      "pid": 1719.0,
      "retcode": 0.0,
      "stderr": "",
      "stdout": "Loaded plugins: fastestmirror, susemanagerplugin, yumnotify\nCleaning repos: susemanager:centos7-uyuni-client-x86_64\n          : susemanager:centos7-x86_64 susemanager:centos7-x86_64-updates\nCleaning up everything\nMaybe you want: rm -rf /var/cache/yum, to also free up space taken by orphaned data from disabled or removed repos\nCleaning up list of fastest mirrors"
    },
    "_id_": "mgrchannels_yum_clean_all"
  },
  "pkg_|-pkg_installed_|-pkg_installed_|-installed": {
    "comment": "The following packages were installed/updated: bzip2\u003d1.0.6-13.el7",
    "name": "pkg_installed",
    "start_time": "14:28:20.786768",
    "result": true,
    "duration": 40194.47,
    "_run_num_": 4.0,
    "_sls_": "packages.pkginstall",
    "changes": {
      "bzip2": {
        "new": [
          {
            "release": "13.el7",
            "version": "1.0.6",
            "arch": "x86_64",
            "install_date_time_t": 1.580477338E9
          }
        ],
        "old": ""
      }
    },
    "_id_": "pkg_installed"
  }
}

```

(code 0)

Packages Scheduled:

- o bzip2-1.0.6-13.el7.x86_64

Time:	1/31/20 2:27:00 PM CET
-------	------------------------

Return to history list for min-centos7.tf.local



Relevant Patches

The following patches may currently be applied to this system.

Select All
1 - 19 of 19 (0 selected)

Apply Patches

Security Advisory

Show

Filter by Synopsis:

👁
Select first character ▾

25 items per page

<input type="checkbox"/> Type	Advisory	Synopsis	Status	Updated
<input type="checkbox"/>	CESA-2019:2118	Moderate CentOS glibc Security Update	N/A	9/10/19
<input type="checkbox"/>	CESA-2019:2029	Important CentOS kernel Security Update	N/A	9/10/19
<input type="checkbox"/>	CESA-2019:2091	Moderate CentOS systemd Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2110	Moderate CentOS rsyslog Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2272	Moderate CentOS python-urllib3 Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2035	Low CentOS python-requests Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2030	Moderate CentOS python Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2189	Moderate CentOS procs-ng Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2046	Moderate CentOS polkit Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2304	Moderate CentOS openssl Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2143	Low CentOS openssh Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2237	Moderate CentOS nspr Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2169	Important CentOS linux-firmware Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2136	Moderate CentOS libssh2 Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2197	Low CentOS elfutils Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2060	Moderate CentOS dhcp Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2181	Low CentOS curl Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2075	Moderate CentOS binutils Security Update	N/A	8/30/19
<input type="checkbox"/>	CESA-2019:2057	Moderate CentOS bind Security Update	N/A	8/20/19

Q&A



A&Q

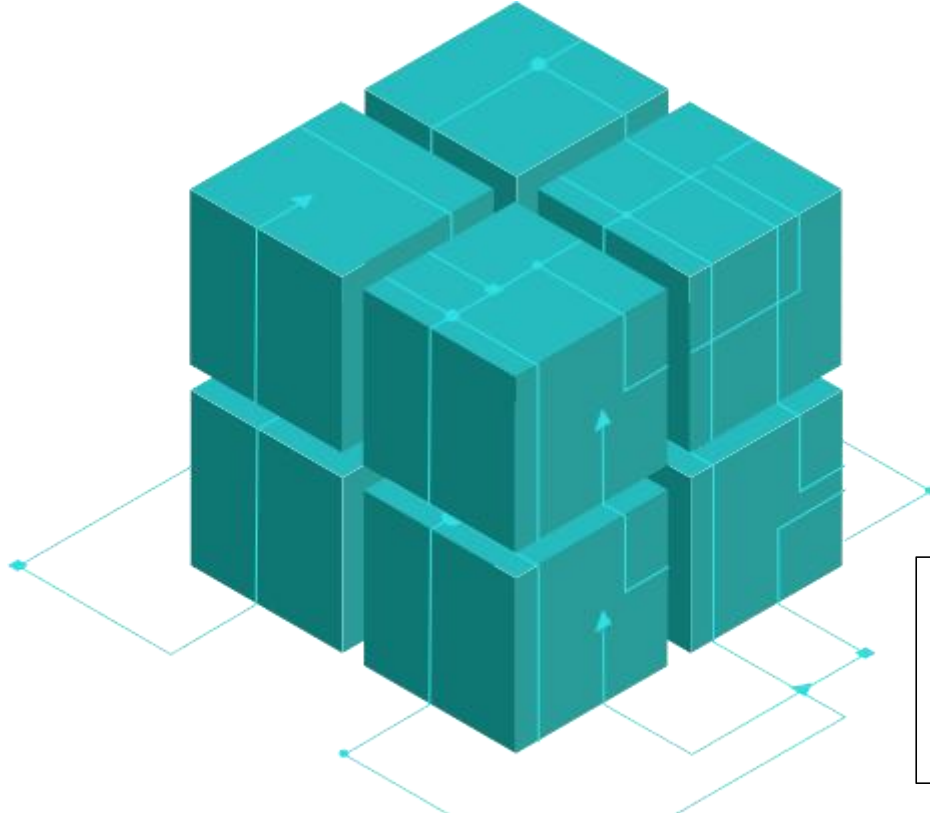



- CentOS 8 support
 - Basic support (reposync and command-line) in Uyuni 2020.01
 - CentOS 8.1 does not work yet: modules.yaml is different from RHEL's
 - Managing appstreams in the UI, CLM and flattening repositories available in next release


A&Q



- It Uyuni available for CentOS?
 - No but we will accept it if the community contributes it
 - Unofficial packages available in OBS for Fedora



 /uyuni-project

 /uyuni-project

 /UyuniProject

Also at Config Management Camp
2020 next week: 3 talks
(virtualization, AnsibleGate, Yomi)
and an Uyuni workshop

Join Us at uyuni-project.org



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Credits

Template & Design

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Inspiration

openSUSE Design Team

<http://opensuse.github.io/branding-guidelines/>