

RED HAT SATELLITE POWER USER TIPS AND TRICKS

How to get the most out of your Satellite infrastructure

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AGENDA

What we'll cover today

- History/background
- Installation
- Manifest
- Syncing content
- Tell Satellite about your world
- Domains
- Subnets
- Locations
- Organizations
- Lifecycle environments
- Content Views

AGENDA

What we'll cover today

- Puppet Classes
- Host collections
- Provisioning templates
- Partition Tables
- Operating systems
- Activation keys
- Host groups
- Compute resources
- Build vm
- Add existing servers to Satellite
- Run remote commands



ABOUT US

Thomas Cameron and Rich Jerrido

- Thomas:
 - In the industry since 1993. CNE, MCSE/MCT, RHCA, AWS CSA-A. At Red Hat from 2005 till March of this year. Worked up from SA to global RHEL evangelist.
- Rich:
 - In the industry since 1999. MCSE, RHCA, RHCDS, RHCSS, RHCVA. Been at Red Hat since 2010. Worked up from SA to technical master of Satellite.
- Interesting factoid: Rich is former USMC, Thomas is a former police officer.

HISTORY

Satellite

- Satellite started as a fork of the online systems Red Hat used to manage system updates (Red Hat Network).
 - Very complex, required on-site consulting and the sacrifice of chickens to make work.
 - Initially closed source because of the embedded third party database.
 - The design was "figure out how to manage one system, then repeat." This led to scaling issues.
 - Upstream is Spacewalk
- Satellite 6 was a complete rewrite, designed with cloud scale in mind.
 - o Initial release had its challenges.
 - Today installation is pretty bulletproof.
 - Designed for complex networking environments and massive scale.
 - Upstream is Katello



PUBLIC SERVICE ANNOUNCEMENTS

Satellite

- Satellite 6.2 goes EOL soon. [31-May-2019]
- Satellite 5.8 goes EOL soon. [31-May-2020]
- Satellite 6.5 is required to manage RHEL8
- Satellite 6.6 will run on RHEL8.

NOTE

We're going to move FAST

- If you've seen this presentation before, you know we cover a LOT of ground in a very short amount of time.
- We used to do an installation overview because the installer was... challenging. Not true any more.
- We're going to assume you already understand the basics of getting the Satellite server up and running. If not, please see our video from last year: https://www.redhat.com/en/about/videos/summit-2018-red-hat-satellite-6-power-user-tips-and-tricks
- This slide deck WILL contain much of the info from last year, but the slides will be hidden for today. You can download this deck in its entirety from the Red Hat Summit web site.

INSTALLATION

INSTALLATION

Steps

- Build system.
 - /root should be around 40GB
 - /var is where your content will go each distro will use 70GB or more.
 - /var should be a separate partition.
 - Check the docs for the latest recommendations



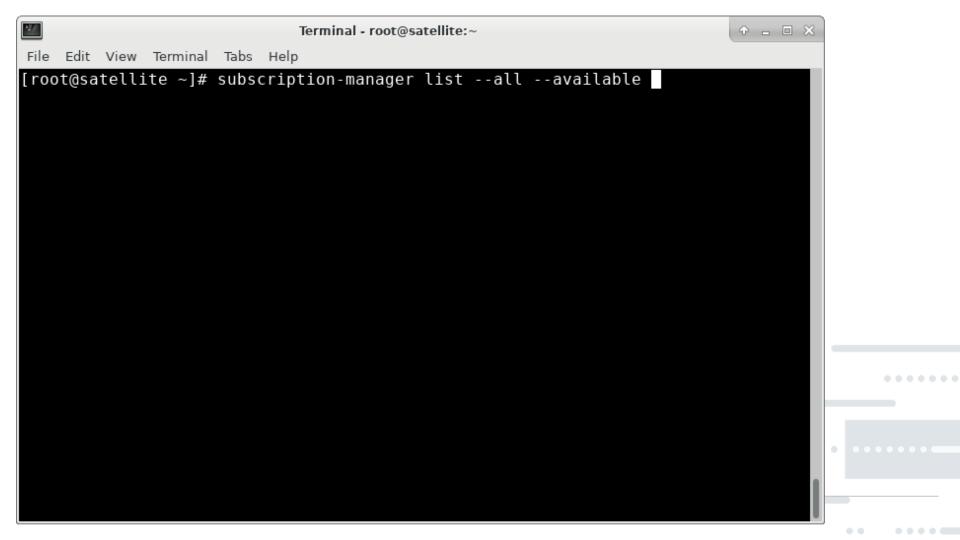
Terminal - root@satellite:~

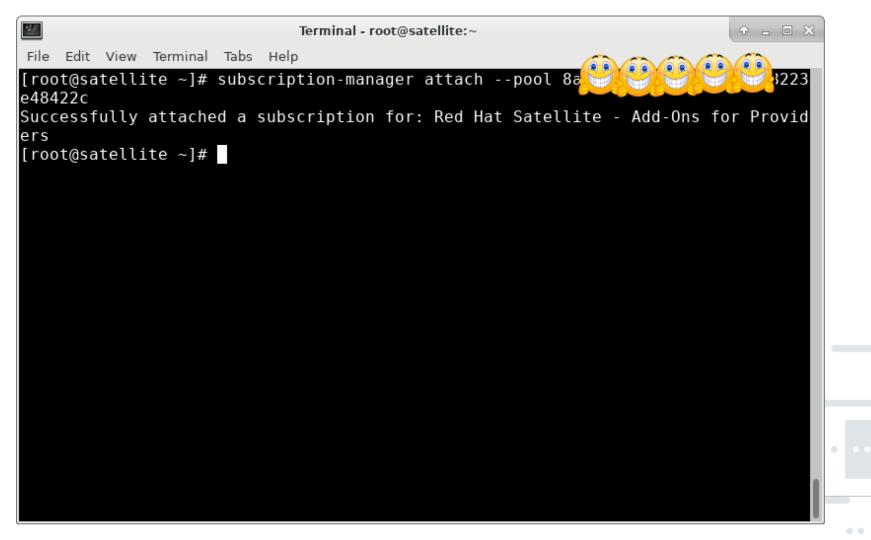


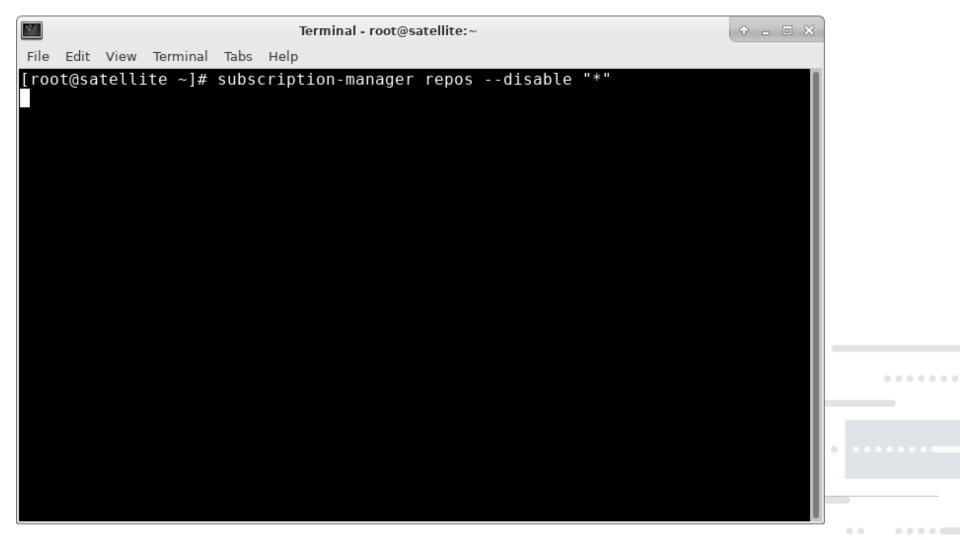
File Edit View Terminal Tabs Help

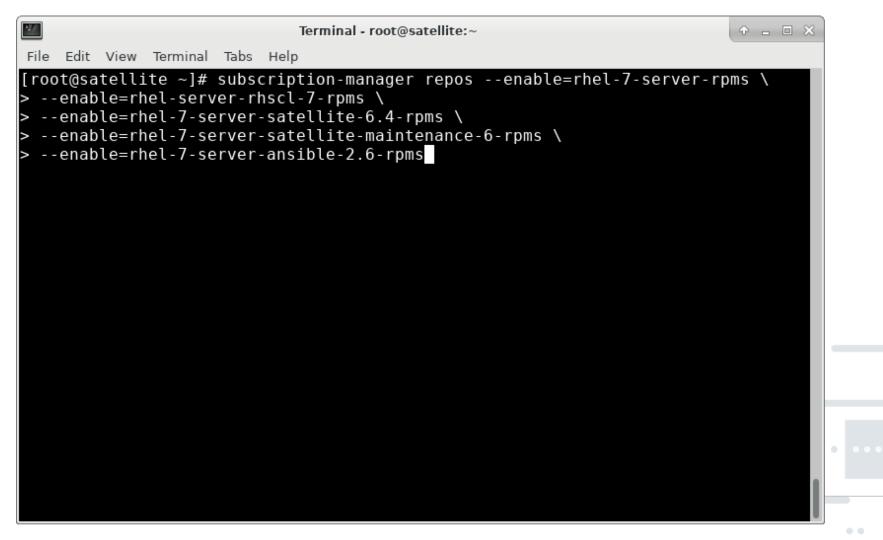
[root@satellite ~]# subscription-manager register --username tdcam@amazon.com Registering to: subscription.rhsm.redhat.com:443/subscription Password:

The system has been registered with ID: 98fe77dd-5ed4-4282-8f01-0a01c86ac5a4
The registered system name is: satellite.tc.redhat.com
[root@satellite ~]#











Terminal - root@satellite:~



File Edit View Terminal Tabs Help

> --enable=rhel-7-server-ansible-2.6-rpms

Repository 'rhel-7-server-rpms' is enabled for this system.

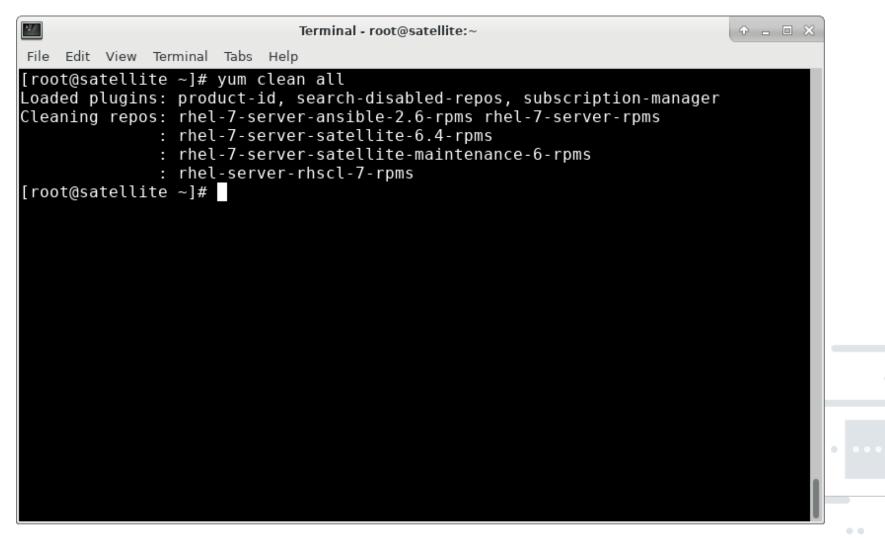
Repository 'rhel-7-server-satellite-maintenance-6-rpms' is enabled for this syst em.

Repository 'rhel-7-server-satellite-6.4-rpms' is enabled for this system.

Repository 'rhel-7-server-ansible-2.6-rpms' is enabled for this system.

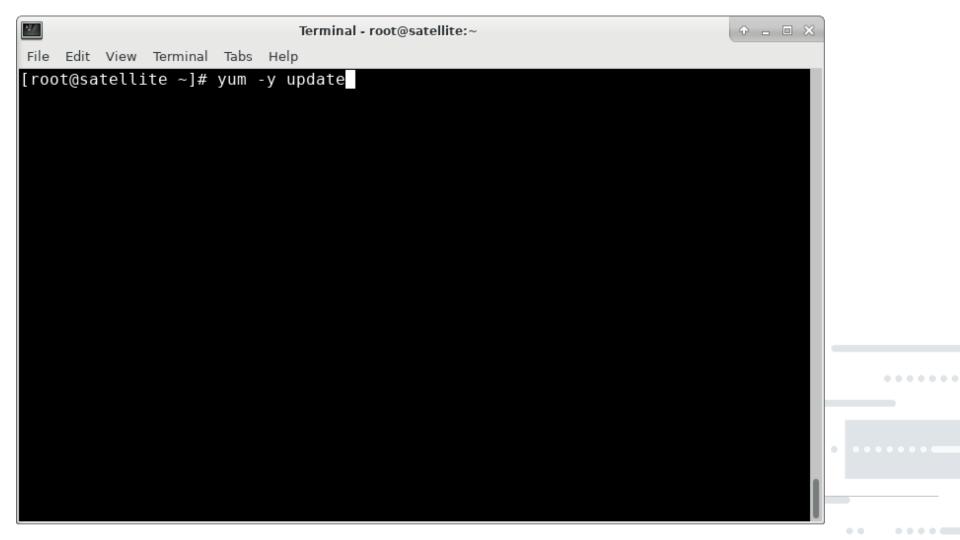
Repository 'rhel-server-rhscl-7-rpms' is enabled for this system.

[root@satellite ~]#





```
[root@satellite ~]# yum repolist enabled
Loaded plugins: product-id, search-disabled-repos, subscription-manager
rhel-7-server-ansible-2.6-rpms
                                                            4.0 kB
                                                                       00:00
rhel-7-server-rpms
                                                            3.5 kB
                                                                       00:00
rhel-7-server-satellite-6.4-rpms
                                                            4.0 kB
                                                                       00:00
rhel-7-server-satellite-maintenance-6-rpms
                                                            3.8 kB
                                                                       00:00
rhel-server-rhscl-7-rpms
                                                            3.4 kB
                                                                       00:00
(1/15): rhel-7-server-ansible-2.6-rpms/x86 64/group
                                                               124 B
                                                                       00:00
(2/15): rhel-7-server-ansible-2.6-rpms/x86 64/updateinfo
                                                               13 kB
                                                                       00:00
(3/15): rhel-7-server-ansible-2.6-rpms/x86 64/primary db
                                                               18 kB
                                                                       00:00
(4/15): rhel-7-server-rpms/7Server/x86 64/group
                                                              774 kB
                                                                       00:00
(5/15): rhel-7-server-rpms/7Server/x86 64/updateinfo
                                                              3.1 MB
                                                                       00:00
(6/15): rhel-7-server-satellite-6.4-rpms/x86 64/group
                                                              4.7 kB
                                                                       00:00
(7/15): rhel-7-server-satellite-6.4-rpms/x86 64/updateinfo
                                                               45 kB
                                                                       00:00
(8/15): rhel-7-server-satellite-maintenance-6-rpms/x86 64/
                                                               124 B
                                                                       00:00
(9/15): rhel-7-server-satellite-6.4-rpms/x86 64/primary db
                                                              256 kB
                                                                       00:00
(10/15): rhel-7-server-satellite-maintenance-6-rpms/x86 64
                                                              8.3 kB
                                                                       00:01
(11/15): rhel-7-server-satellite-maintenance-6-rpms/x86 64
                                                               16 kB
                                                                       00:00
(12/15): rhel-server-rhscl-7-rpms/7Server/x86 64/updateinf
                                                              965 kB
                                                                       00:00
(13/15): rhel-server-rhscl-7-rpms/7Server/x86 64/group
                                                               124 B
                                                                       00:00
(14/15): rhel-server-rhscl-7-rpms/7Server/x86 64/primary d
                                                              5.2 MB
                                                                       00:00
(15/15): rhel-7-server-rpms/7Server/x86 64/primary db
                                                               55 MB
                                                                       00:04
```

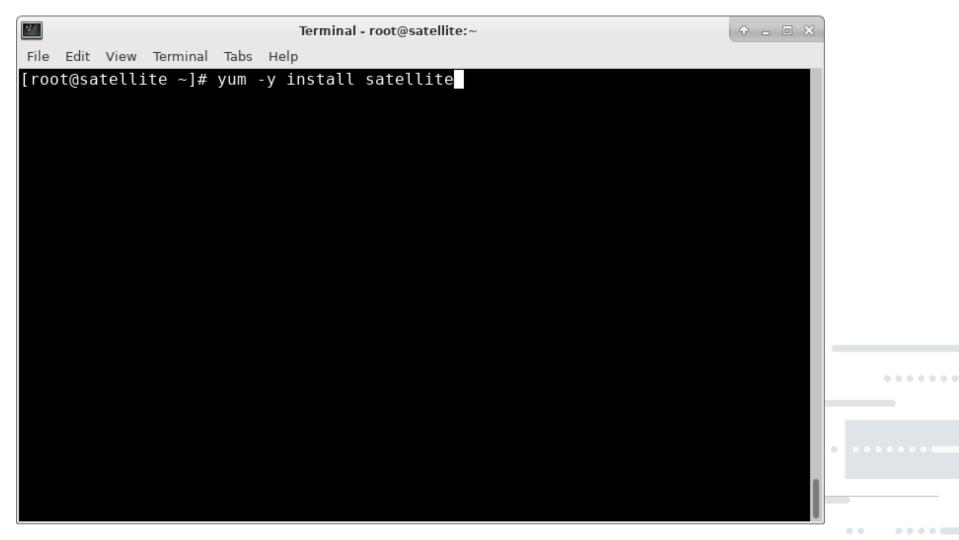




```
openldap.x86 64 0:2.4.44-21.el7 6
openssl.x86 64 1:1.0.2k-16.el7 6.1
openssl-libs.x86 64 1:1.0.2k-16.el7 6.1
policycoreutils.x86 64 0:2.5-29.el7 6.1
polkit.x86 64 0:0.112-18.el7 6.1
python.x86 64 0:2.7.5-77.el7 6
python-libs.x86 64 0:2.7.5-77.el7 6
python-perf.x86 64 0:3.10.0-957.12.1.el7
selinux-policy.noarch 0:3.13.1-229.el7 6.12
selinux-policy-targeted.noarch 0:3.13.1-229.el7 6.12
shadow-utils.x86 64 2:4.1.5.1-25.el7 6.1
subscription-manager.x86 64 0:1.21.10-3.el7 6
subscription-manager-rhsm.x86 64 0:1.21.10-3.el7 6
subscription-manager-rhsm-certificates.x86 64 0:1.21.10-3.el7 6
systemd.x86 64 0:219-62.el7 6.6
systemd-libs.x86 64 0:219-62.el7 6.6
systemd-sysv.x86 64 0:219-62.el7 6.6
tuned.noarch 0:2.10.0-6.el7 6.3
tzdata.noarch 0:2019a-1.el7
util-linux.x86 64 0:2.23.2-59.el7 6.1
xfsprogs.x86 64 0:4.5.0-19.el7 6
```

Complete!

[root@satellite ~]# init 6

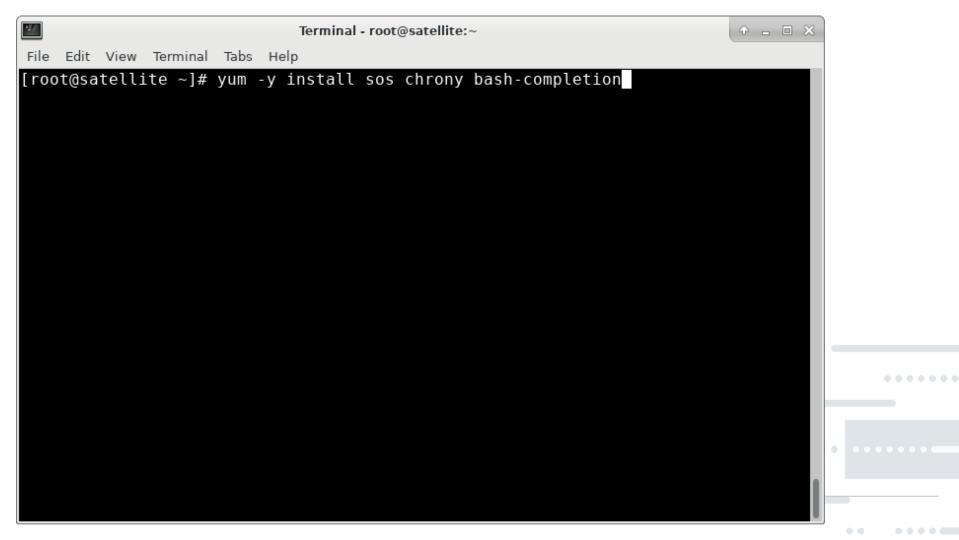


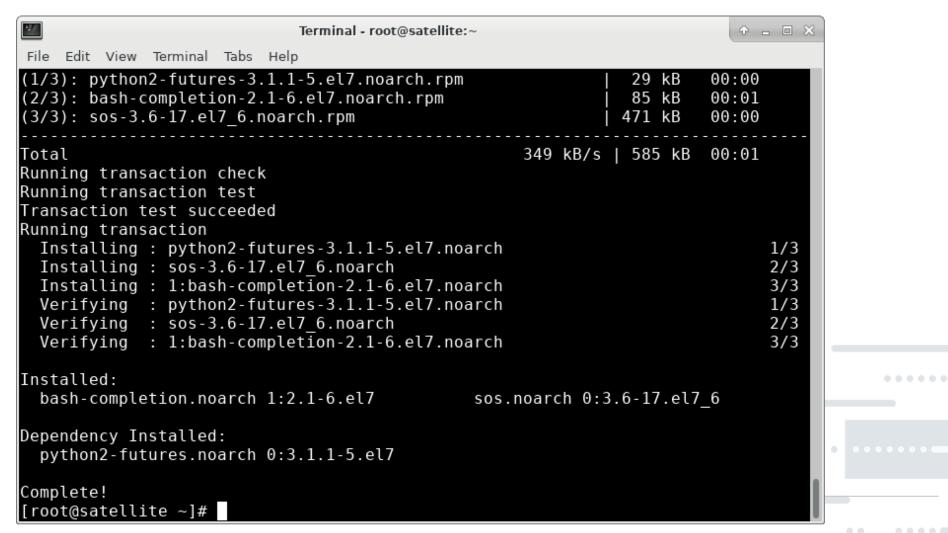


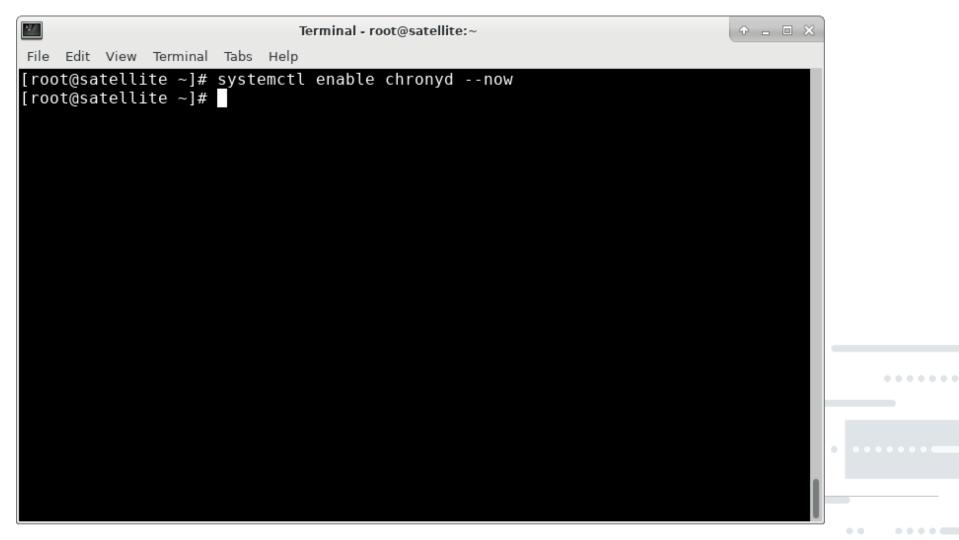
tfm-rubygem-will paginate.noarch 0:3.1.5-2.el7sat tfm-rubygem-x-editable-rails.noarch 0:1.5.5-3.el7sat tfm-runtime.x86 64 0:4.0-3.el7sat tomcat.noarch 0:7.0.76-9.el7 6 tomcat-el-2.2-api.noarch 0:7.0.76-9.el7 6 tomcat-jsp-2.2-api.noarch 0:7.0.76-9.el7 6 tomcat-lib.noarch 0:7.0.76-9.el7 6 tomcat-servlet-3.0-api.noarch 0:7.0.76-9.el7 6 trousers.x86 64 0:0.3.14-2.el7 ttmkfdir.x86 64 0:3.0.9-42.el7 tzdata-java.noarch 0:2019a-1.el7 unzip.x86 64 0:6.0-19.el7 wget.x86 64 0:1.14-18.el7 xalan-j2.noarch 0:2.7.1-23.el7 xerces-j2.noarch 0:2.11.0-17.el7 0 xml-commons-apis.noarch 0:1.4.01-16.el7 xml-commons-resolver.noarch 0:1.2-15.el7 xorg-x11-font-utils.x86 64 1:7.5-21.el7 xorg-x11-fonts-Type1.noarch 0:7.5-9.el7 yajl.x86 64 0:2.0.4-4.el7 zip.x86 64 0:3.0-11.el7

Complete!

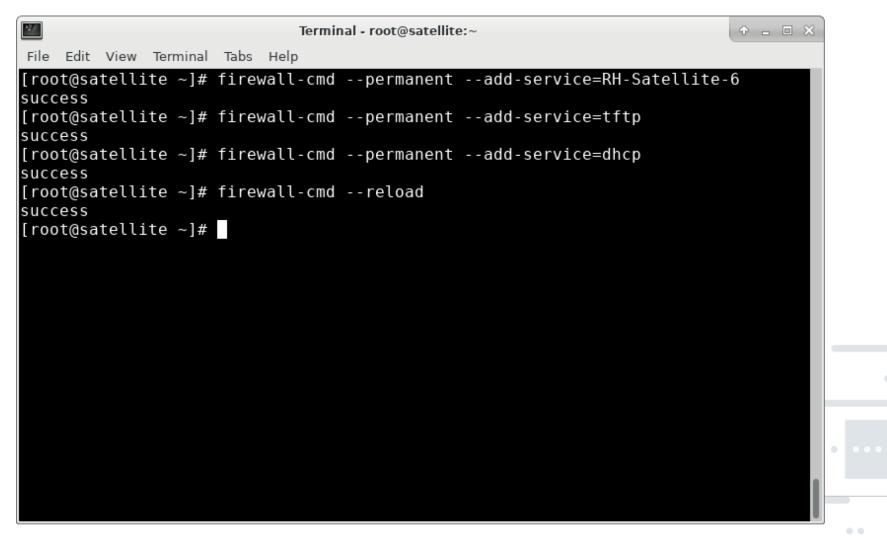
[root@satellite ~]#

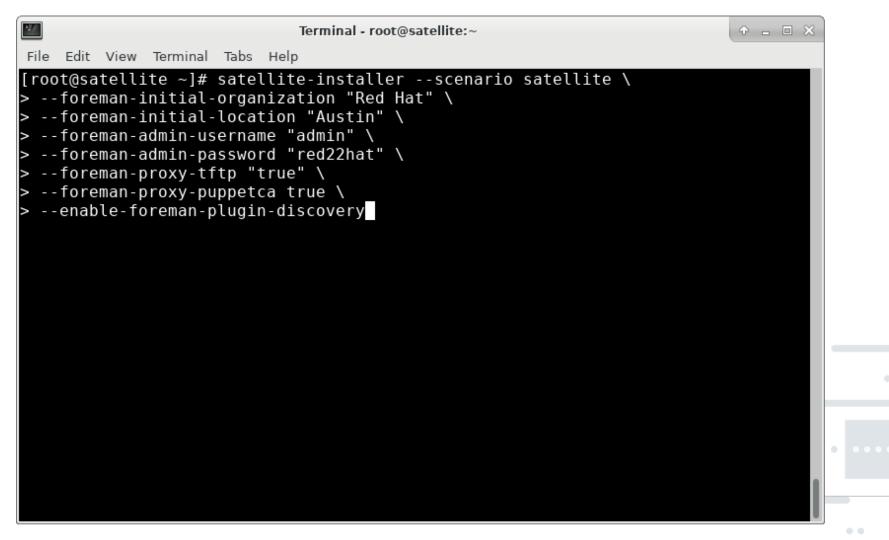


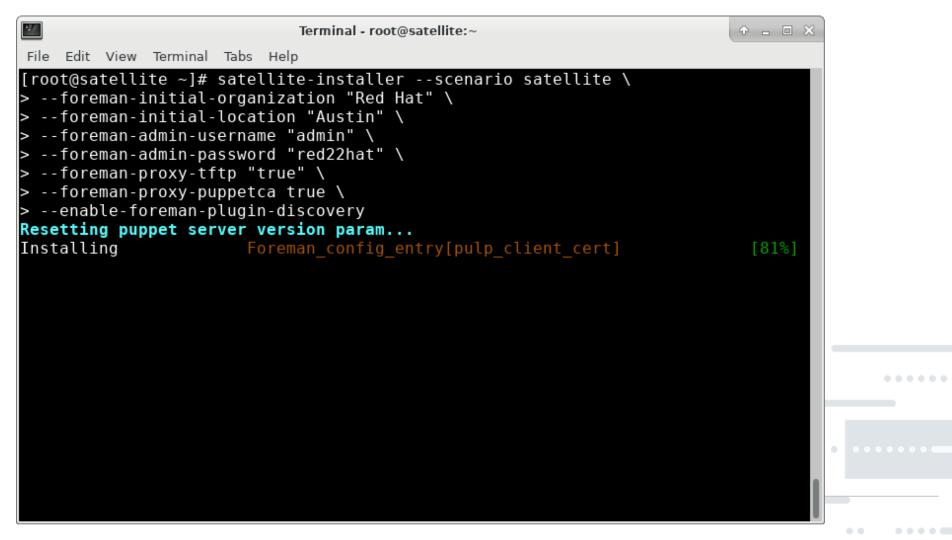




```
[root@satellite ~]# systemctl status chronyd
chronyd.service - NTP client/server
   Loaded: loaded (/usr/lib/systemd/system/chronyd.service; enabled; vendor pres
et: enabled)
   Active: active (running) since Sat 2019-05-04 18:28:58 CDT; 16min ago
     Docs: man:chronyd(8)
           man:chrony.conf(5)
 Main PID: 3659 (chronyd)
   CGroup: /system.slice/chronyd.service
           └3659 /usr/sbin/chronyd
May 04 18:28:58 localhost.localdomain systemd[1]: Started NTP client/server.
May 04 18:28:59 localhost.localdomain chronyd[3659]: Source 198.58.105.63 off...
May 04 18:28:59 localhost.localdomain chronyd[3659]: Source 45.76.244.193 off...
May 04 18:28:59 localhost.localdomain chronyd[3659]: Source 64.113.44.55 offline
May 04 18:28:59 localhost.localdomain chronyd[3659]: Source 66.228.42.59 offline
May 04 18:29:06 satellite.tc.redhat.com chronyd[3659]: Selected source 199.10...
May 04 18:29:07 satellite.tc.redhat.com chronyd[3659]: Selected source 107.15...
May 04 18:30:11 satellite.tc.redhat.com chronyd[3659]: Selected source 69.10....
May 04 18:31:16 satellite.tc.redhat.com chronyd[3659]: Selected source 98.152...
May 04 18:43:08 satellite.tc.redhat.com chronyd[3659]: Selected source 107.15...
Hint: Some lines were ellipsized, use -l to show in full.
[root@satellite ~]#
```







```
Terminal - root@satellite:~
File Edit View Terminal Tabs Help
> --foreman-initial-location "Austin" \
> --foreman-admin-username "admin" \
> --foreman-admin-password "red22hat" \
> --foreman-proxy-tftp "true" \
> --foreman-proxy-puppetca true \
> --enable-foreman-plugin-discovery
Resetting puppet server version param...
Installing
                                                                            [100%]
  Success!
  * Satellite is running at https://satellite.tc.redhat.com
      Initial credentials are admin / red22hat
  * To install an additional Capsule on separate machine continue by running:
      capsule-certs-generate --foreman-proxy-fqdn "$CAPSULE" --certs-tar "/root/
$CAPSULE-certs.tar"
  * To upgrade an existing 6.3 Capsule to 6.4:
      Please see official documentation for steps and parameters to use when upg
rading a 6.3 Capsule to 6.4.
  The full log is at /var/log/foreman-installer/satellite.log
yum install -y -q rh-mongodb34-syspaths finished successfully!
[root@satellite ~]#
```



MANIFEST

Obtain the manifest from access.redhat.com

• Install and allocate subscriptions





Your connection is not private

Attackers might be trying to steal your information from **satellite.tc.redhat.com** (for example, passwords, messages, or credit cards). <u>Learn more</u>

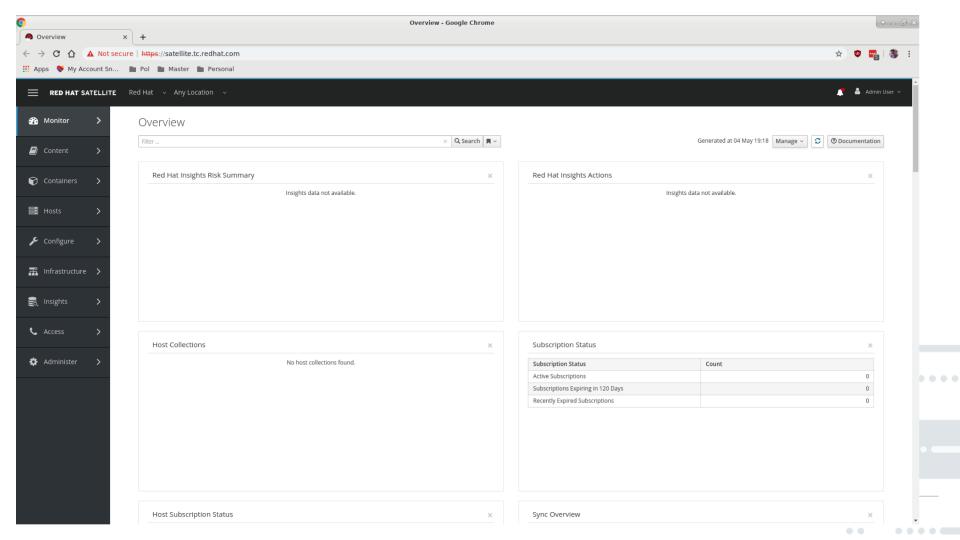
NET::ERR_CERT_AUTHORITY_INVALID

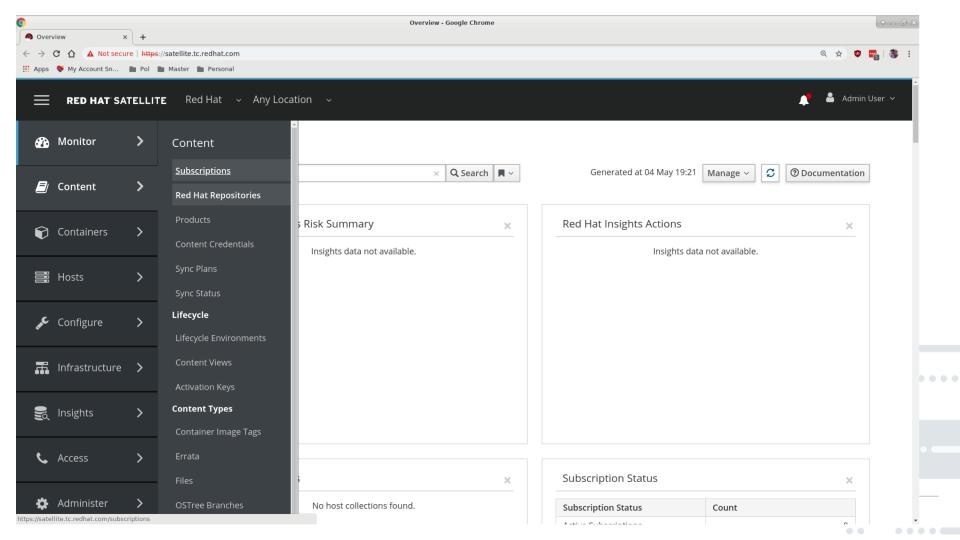
Help improve Safe Browsing by sending some <u>system information and page content</u> to Google. <u>Privacy policy</u>

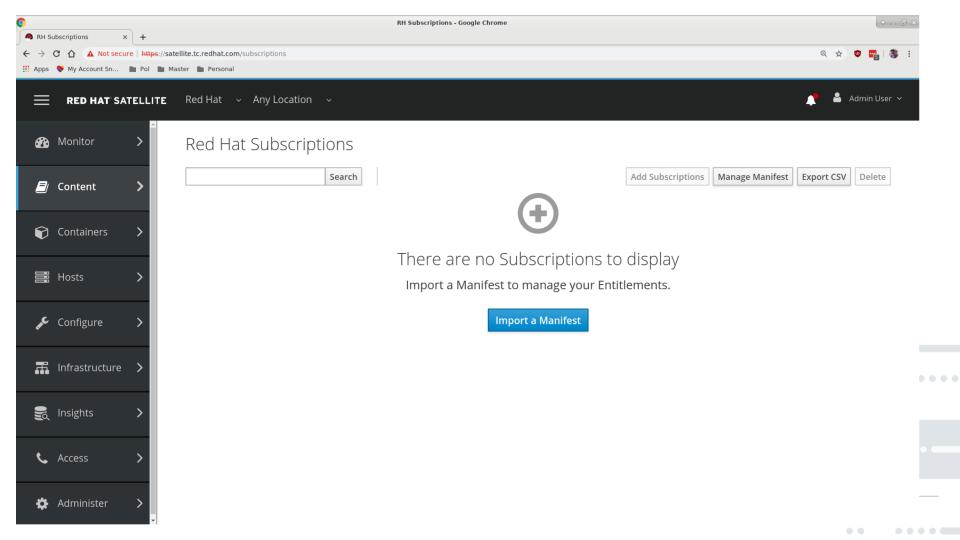
Advanced

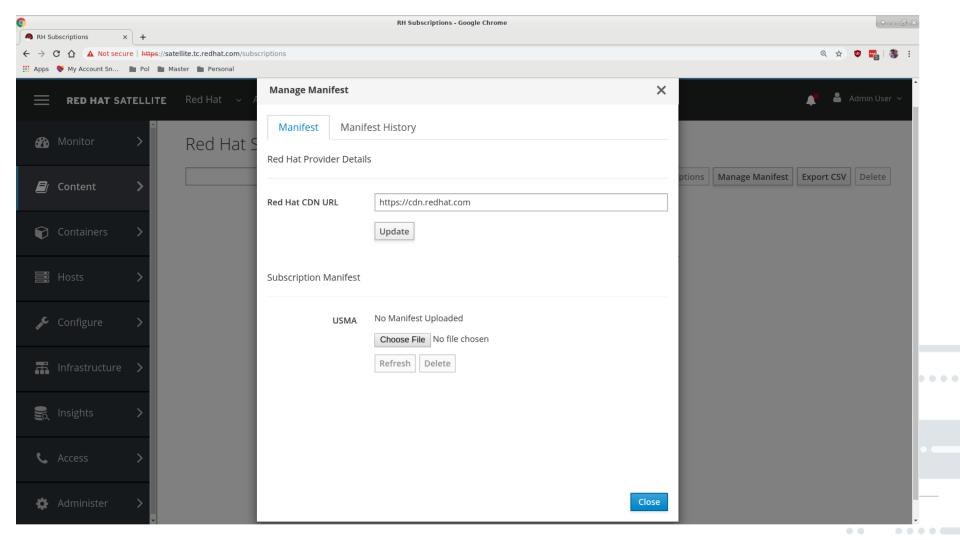
Back to safety

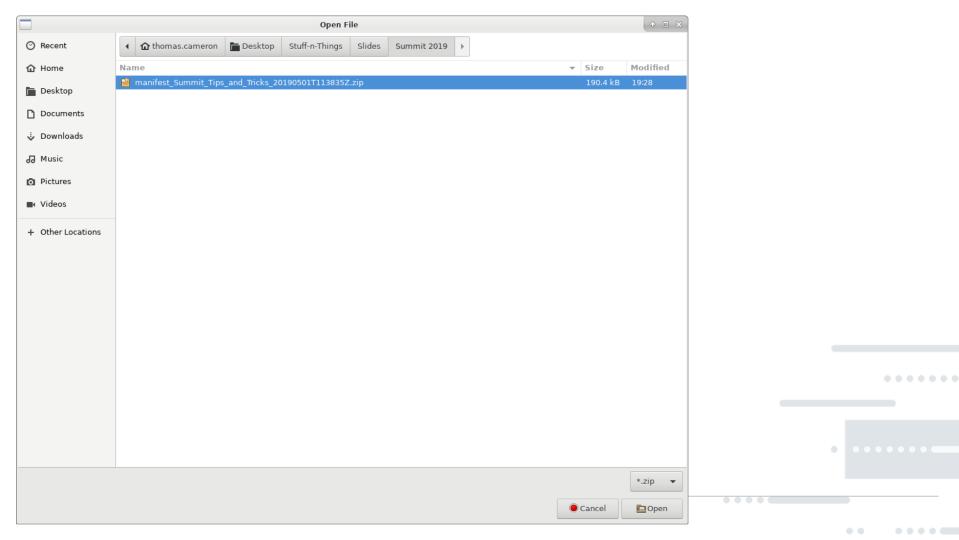
....

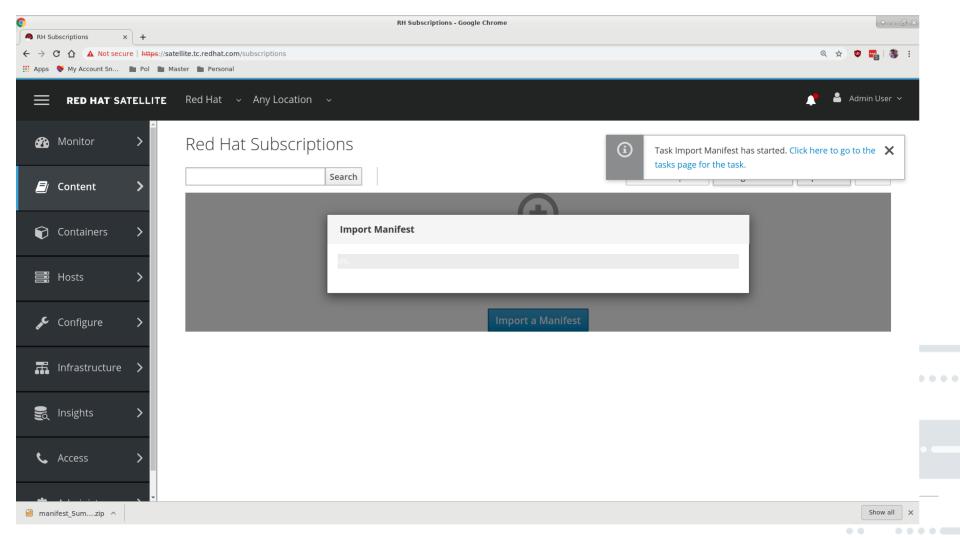


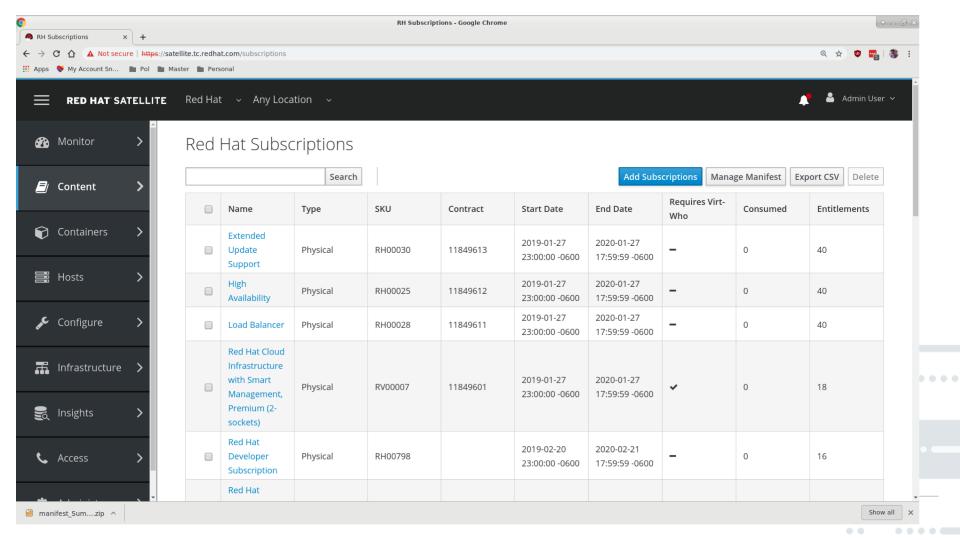






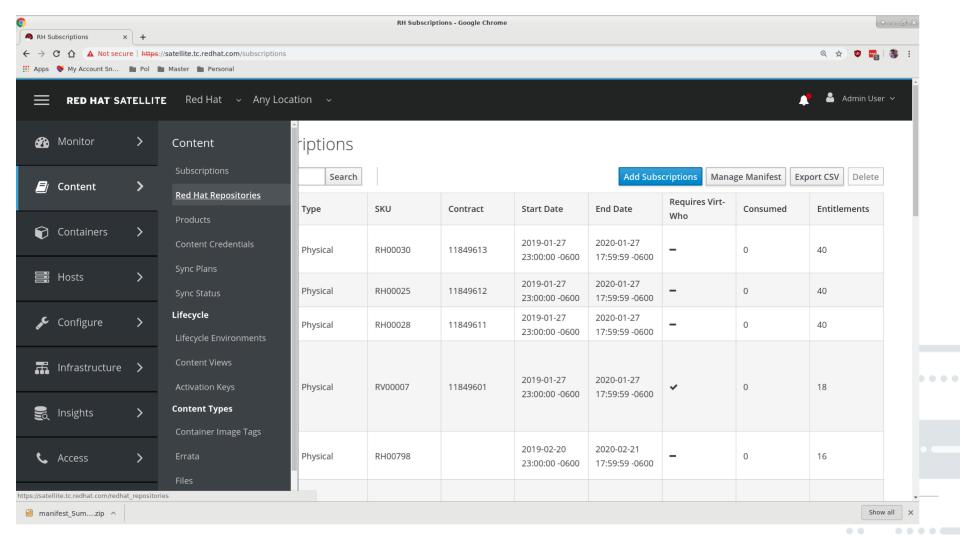


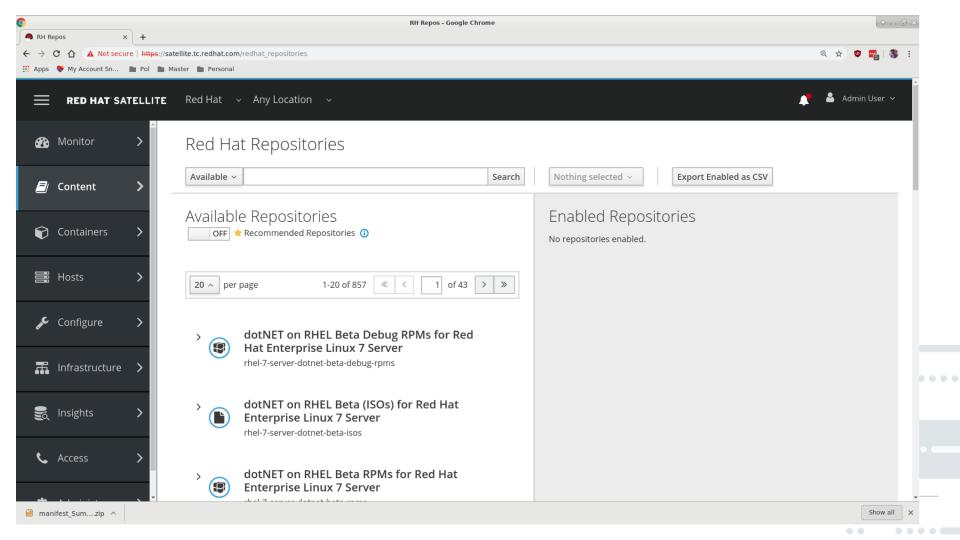


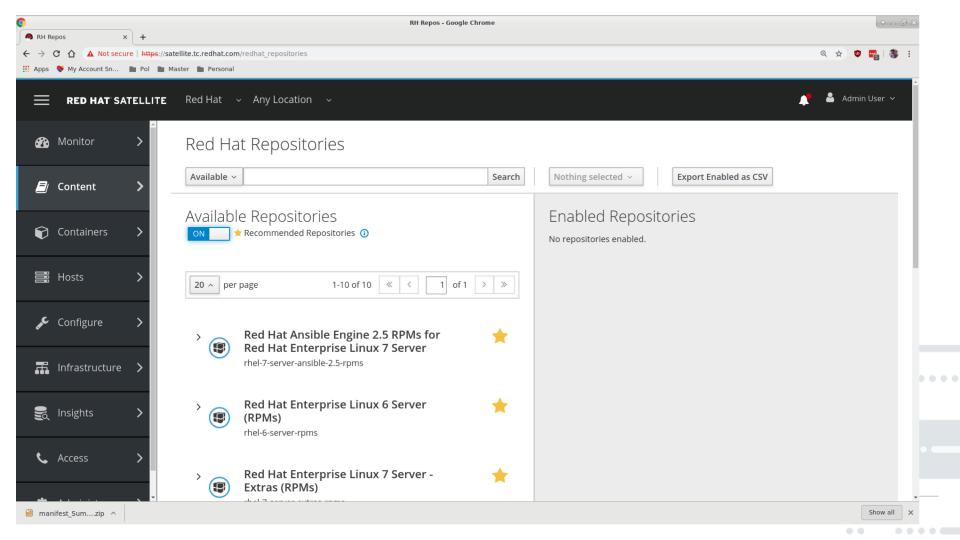


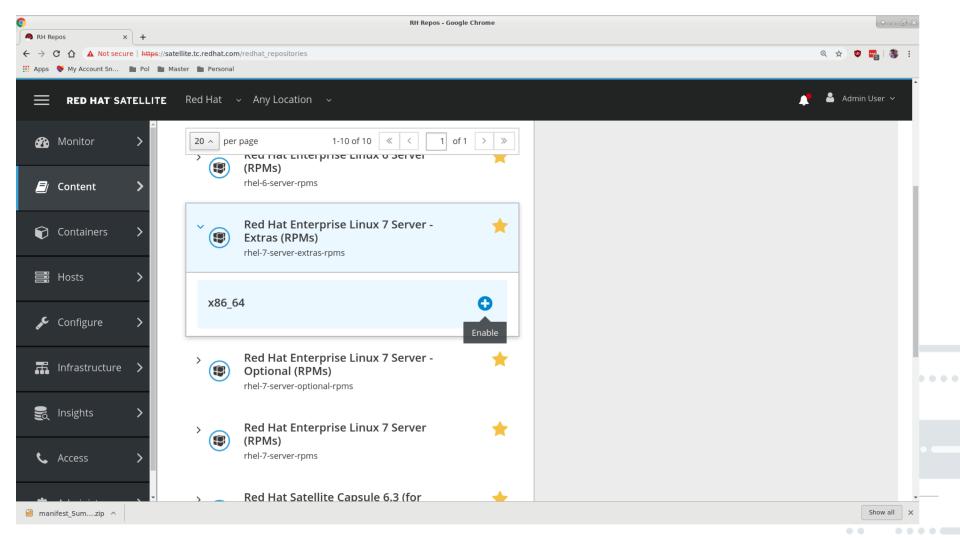
This has changed slightly.

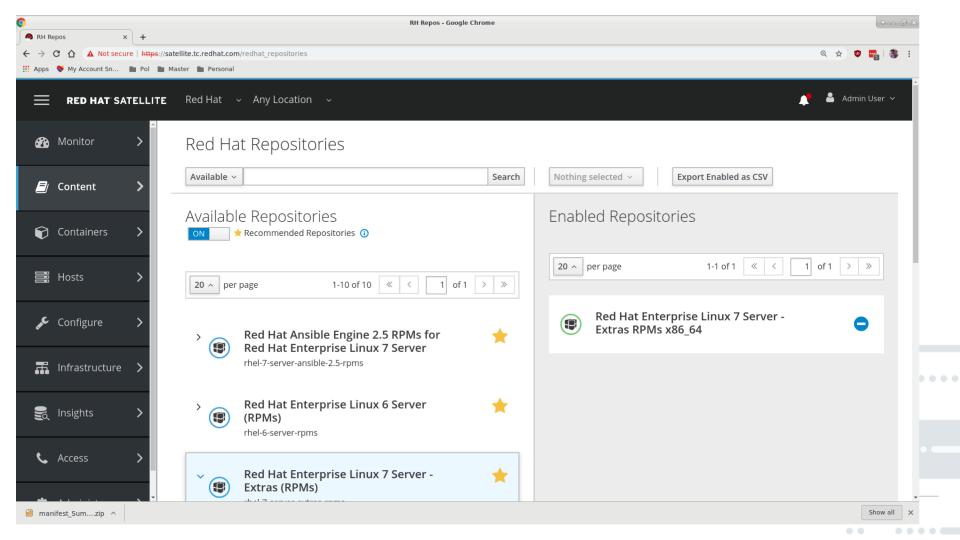
• The UI is now Patternfly

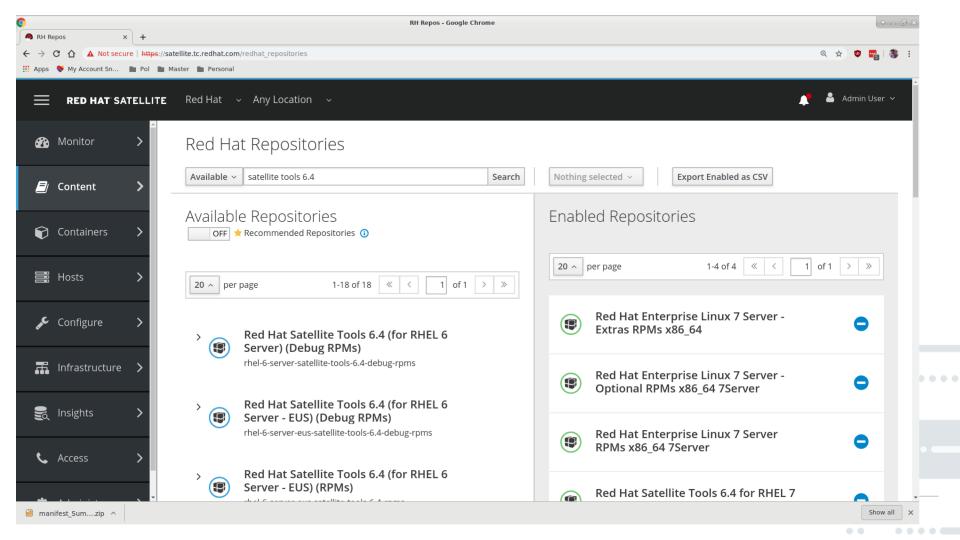


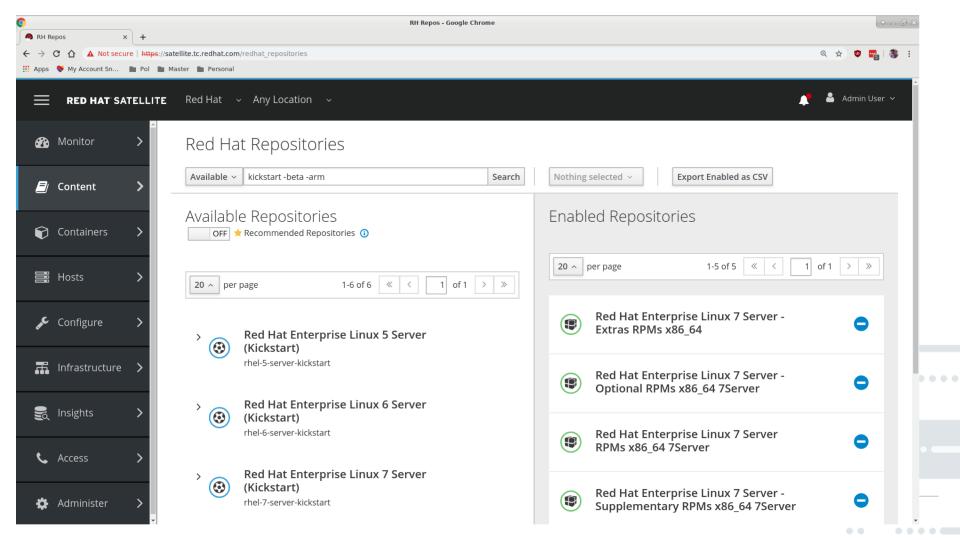


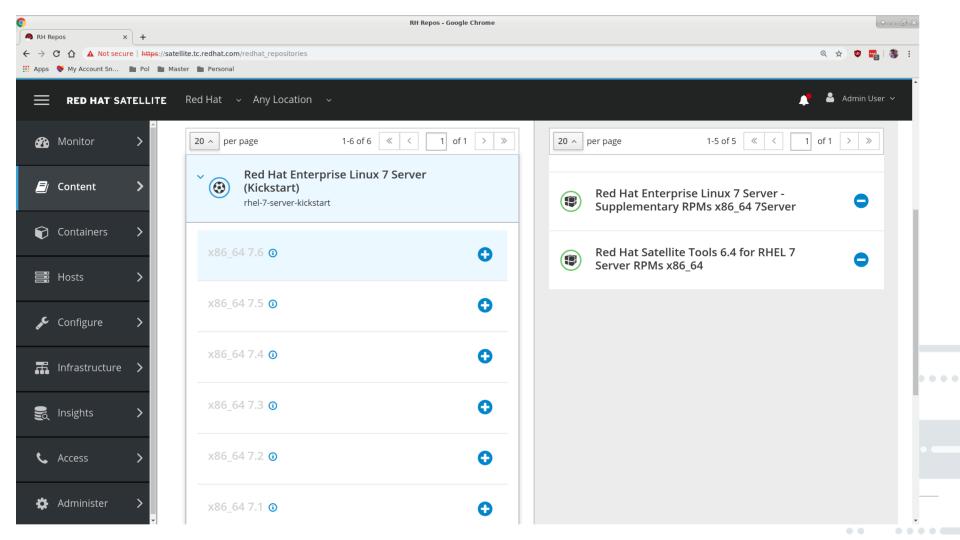






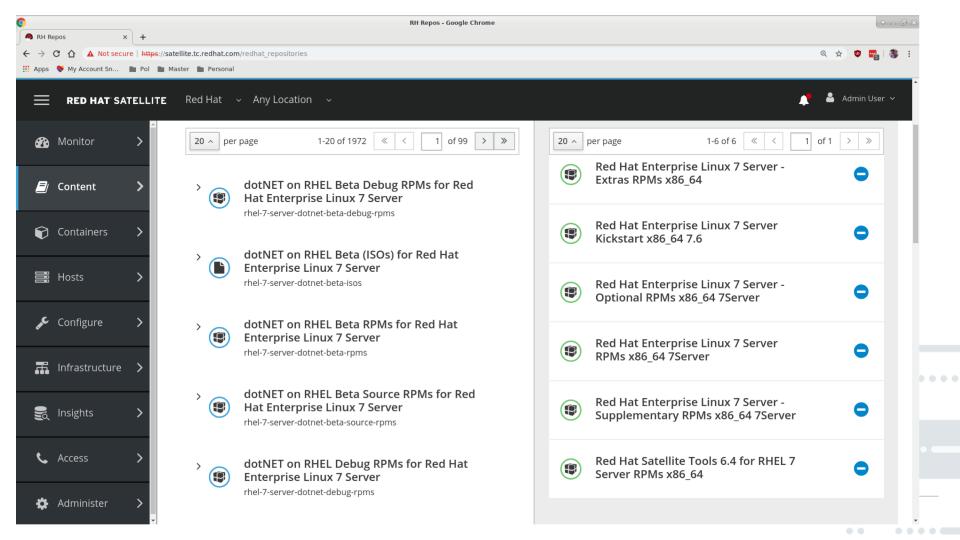






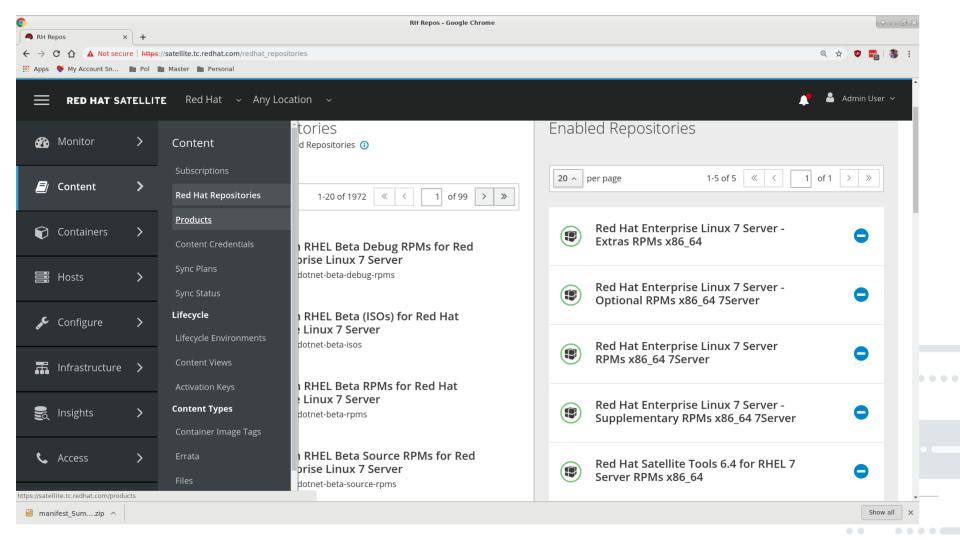
Note that I synced 7Server

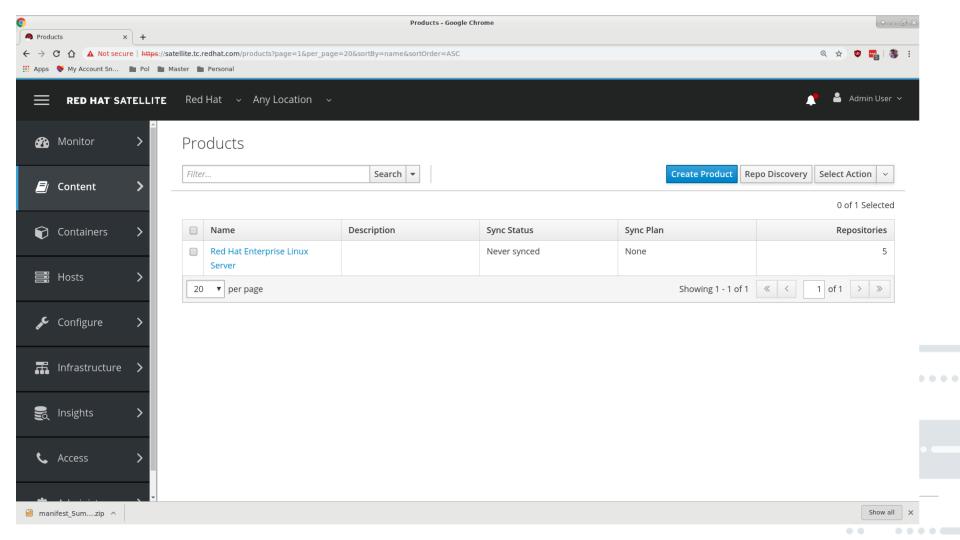
• 7.x vs 7Server

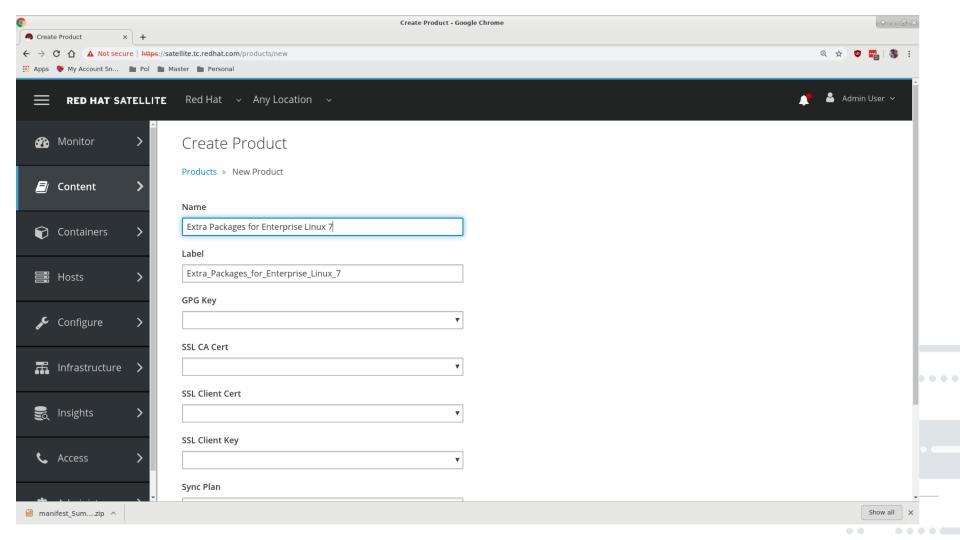


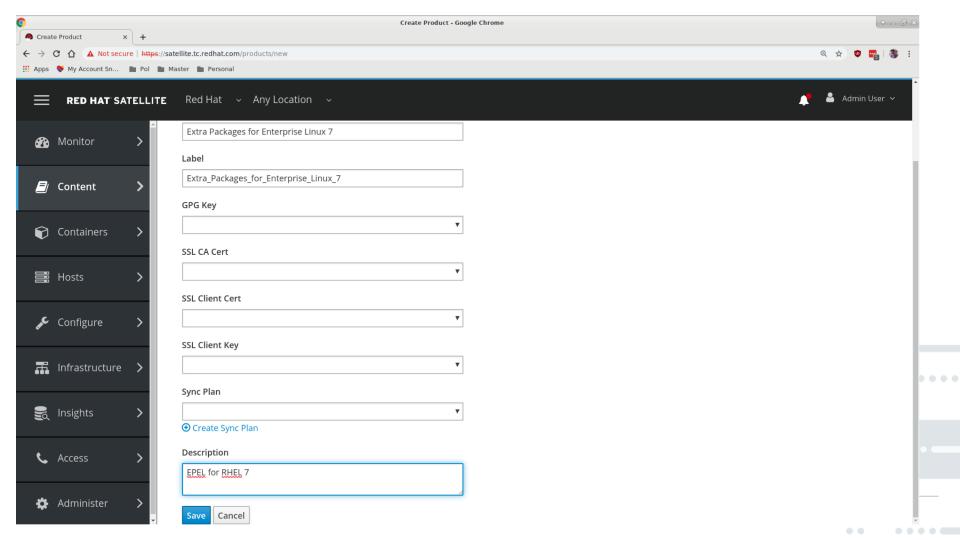
Now set up Products

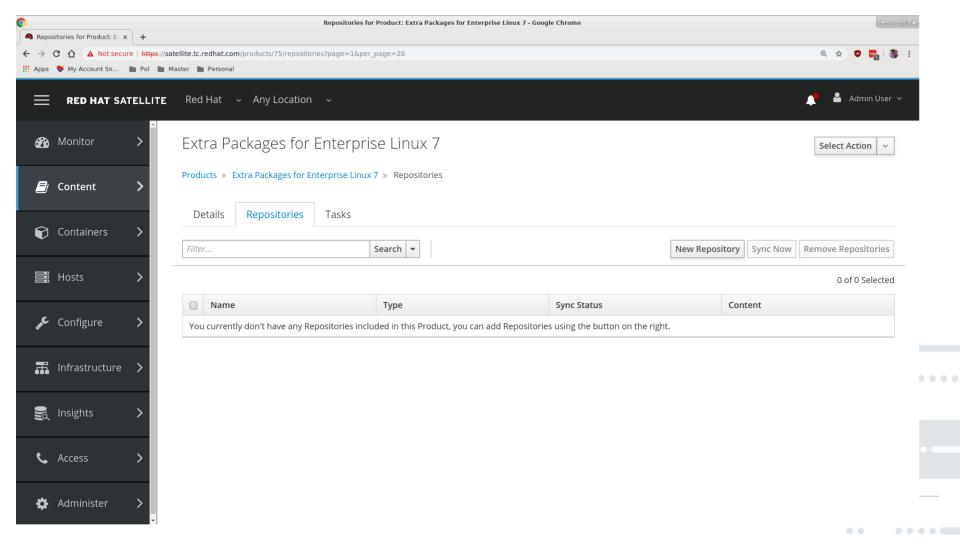
- Red Hat supplied vs. customer defined
- Puppet

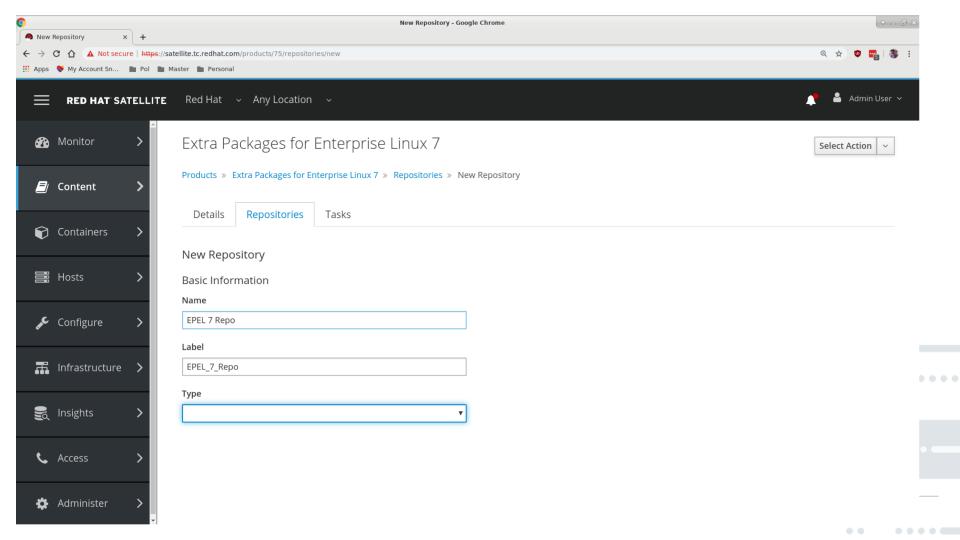


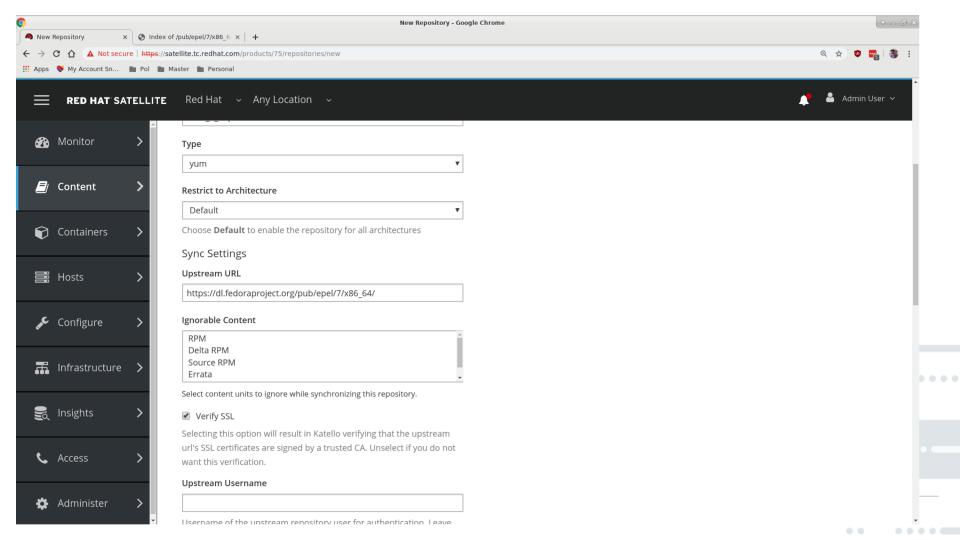


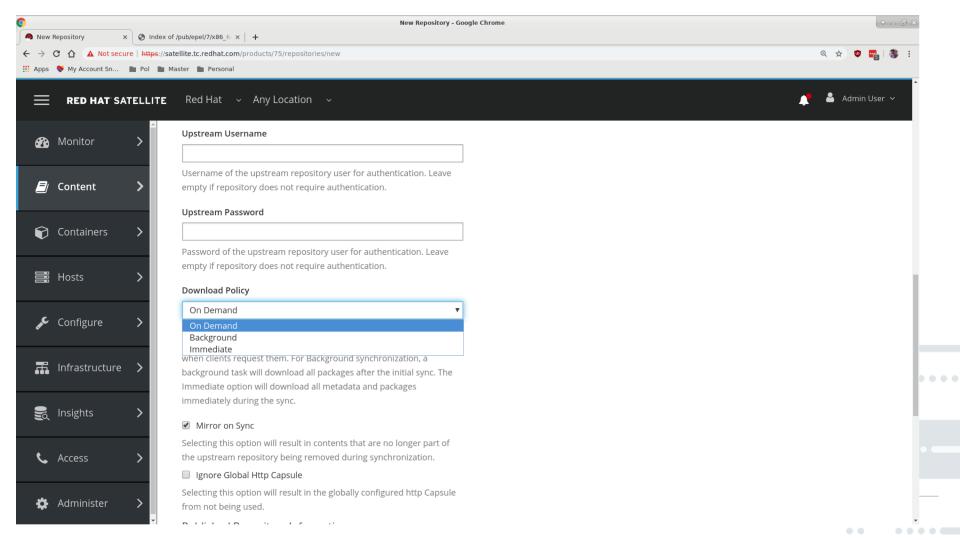


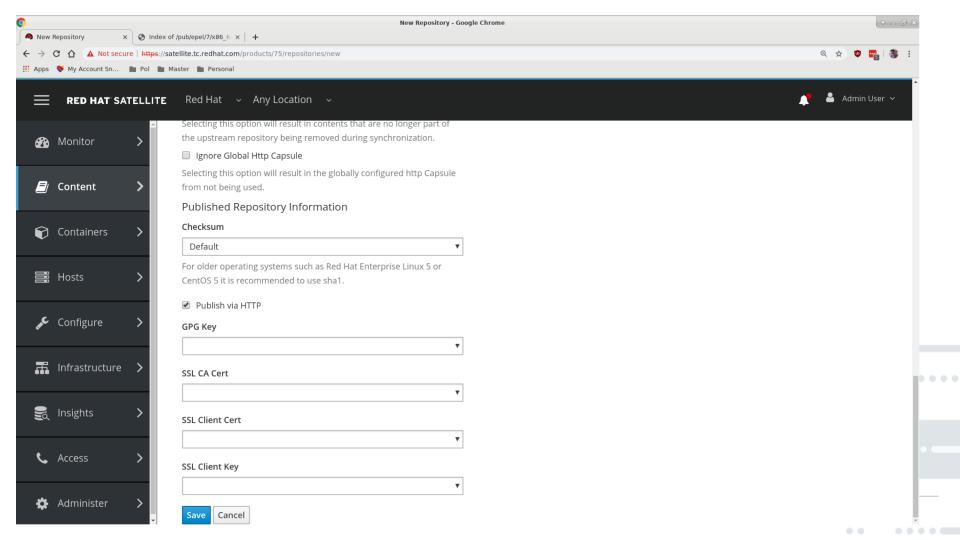


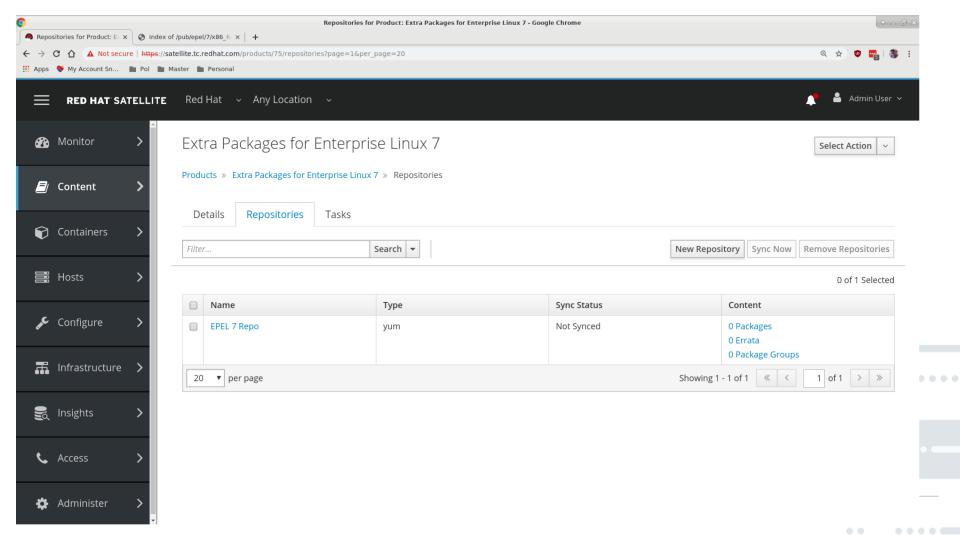


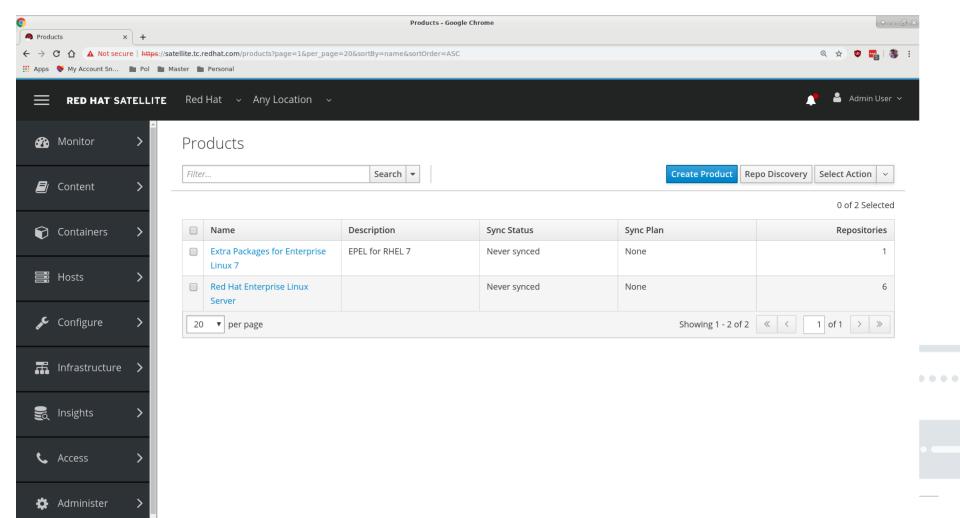


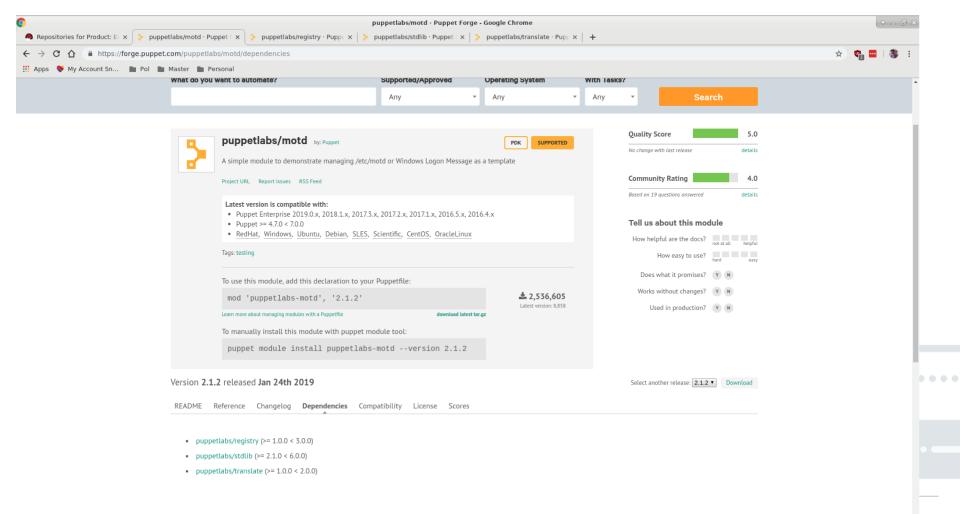


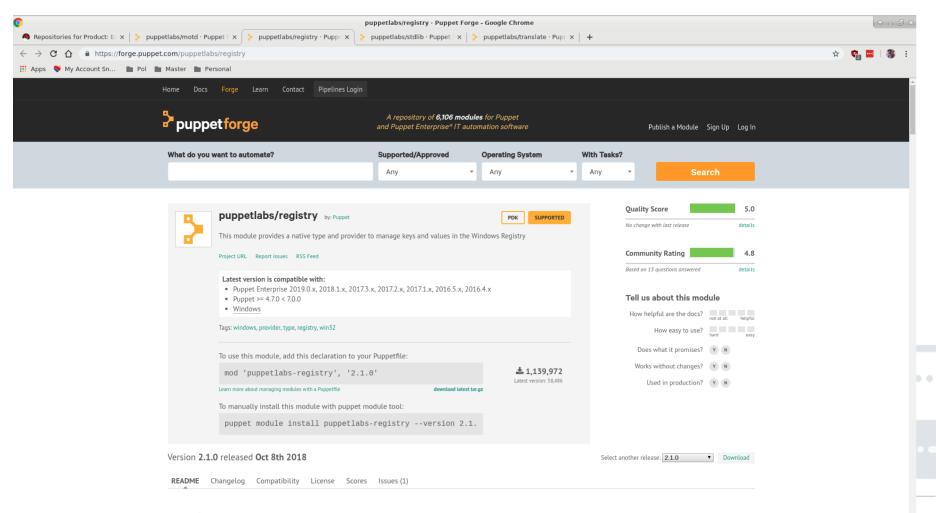




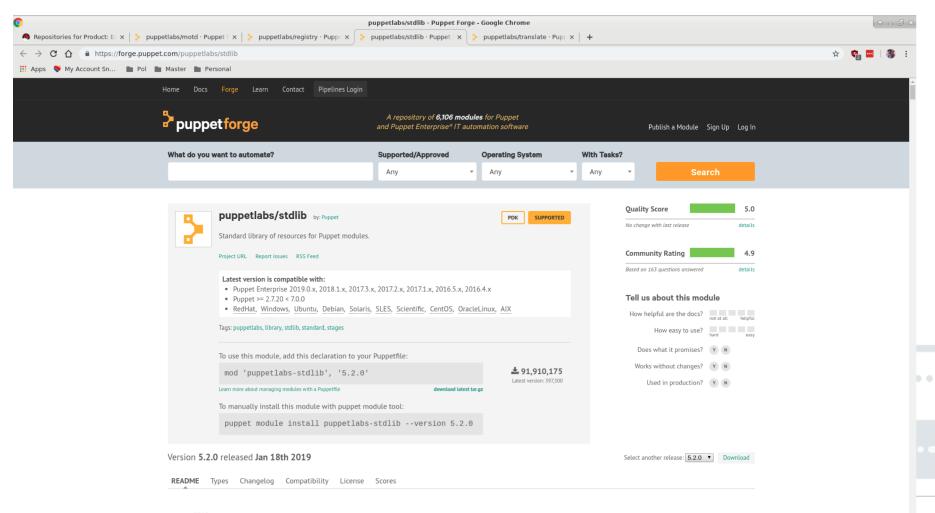




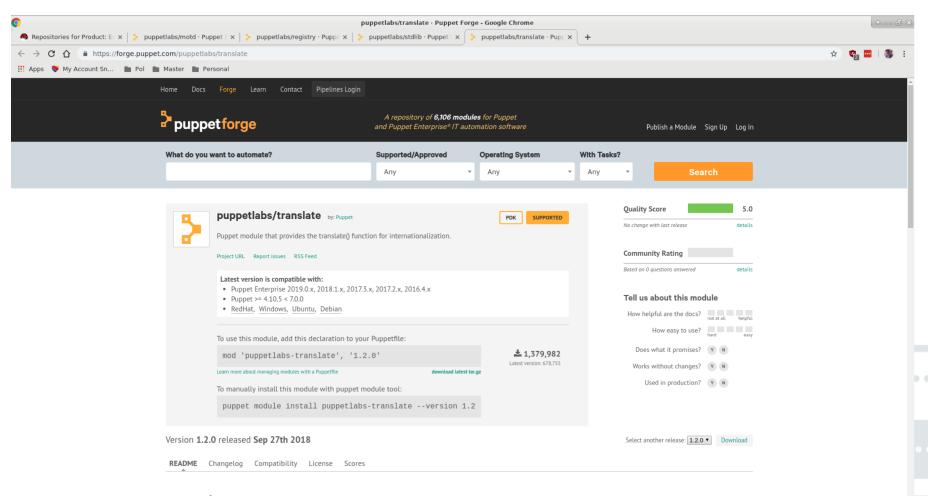




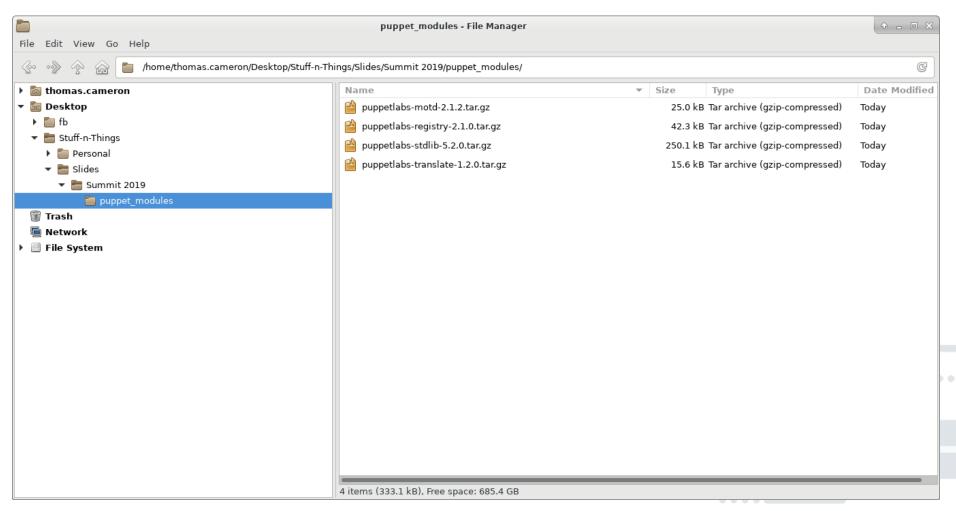
. .

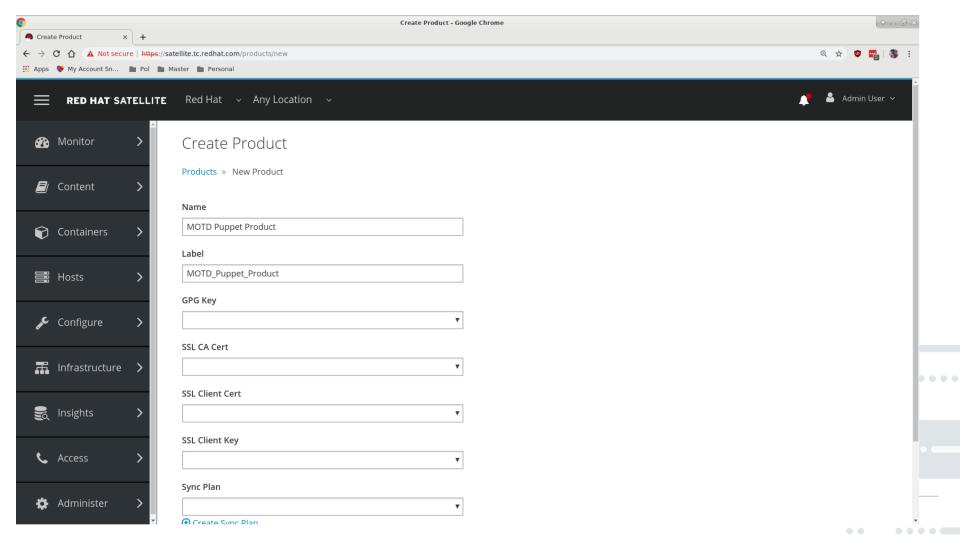


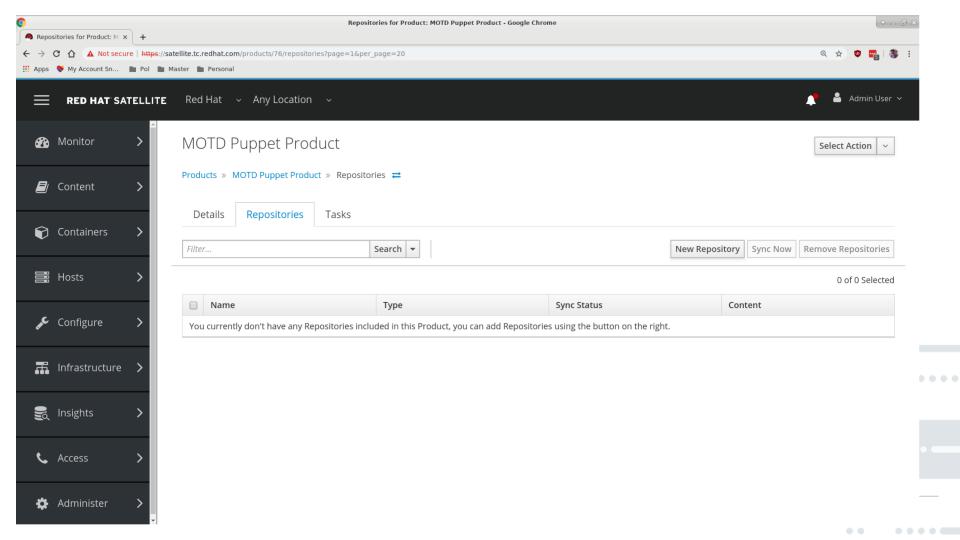
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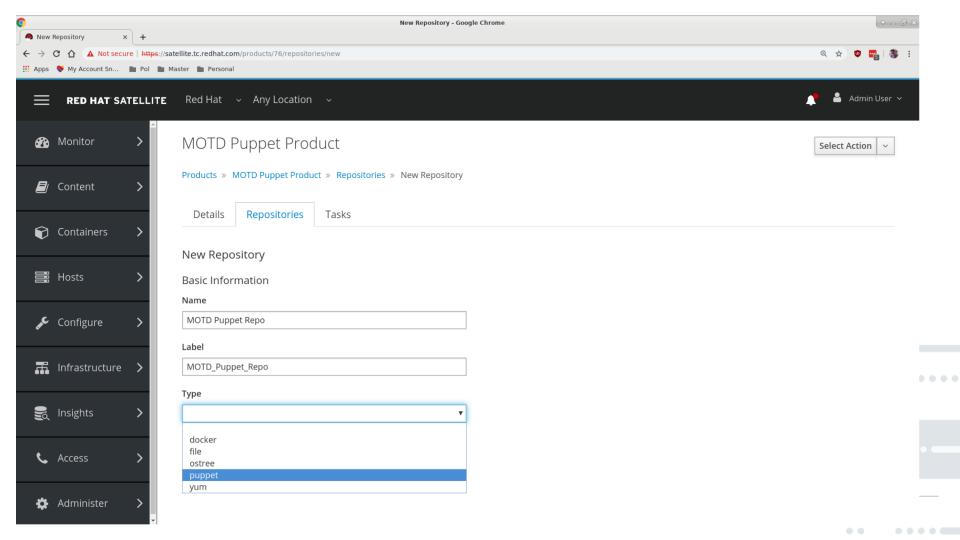


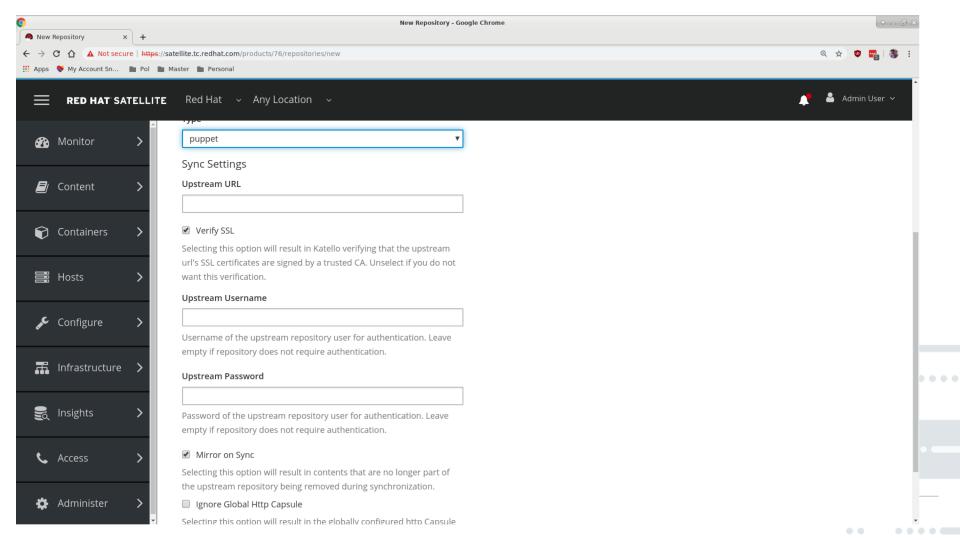
translate

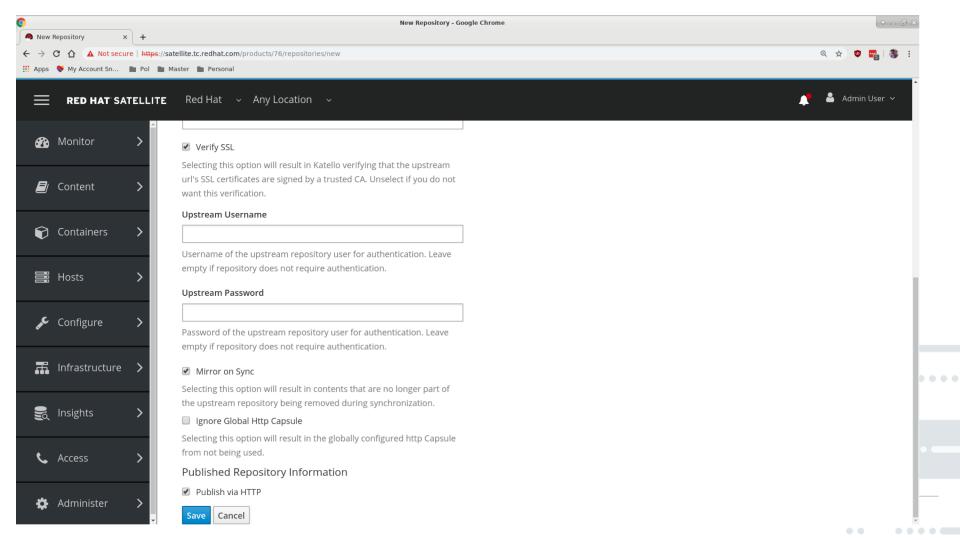


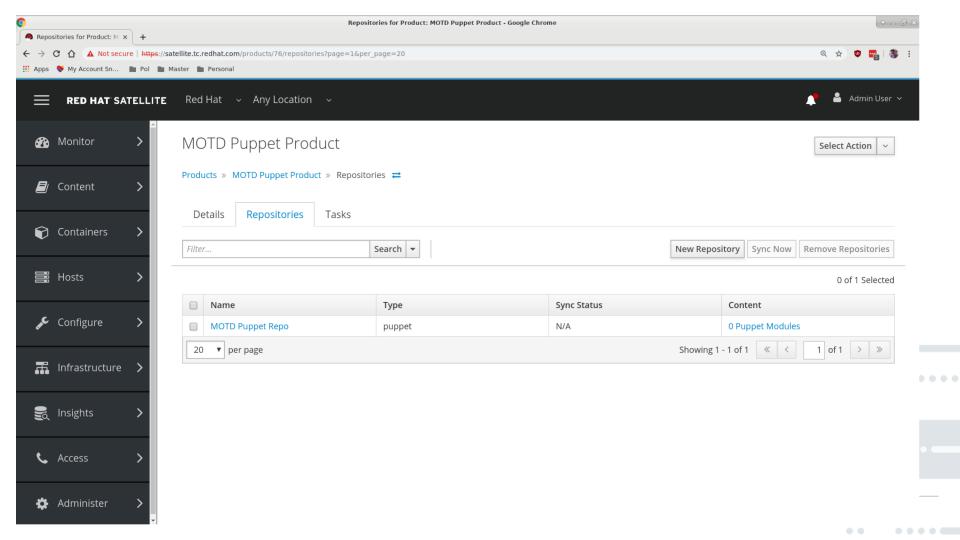


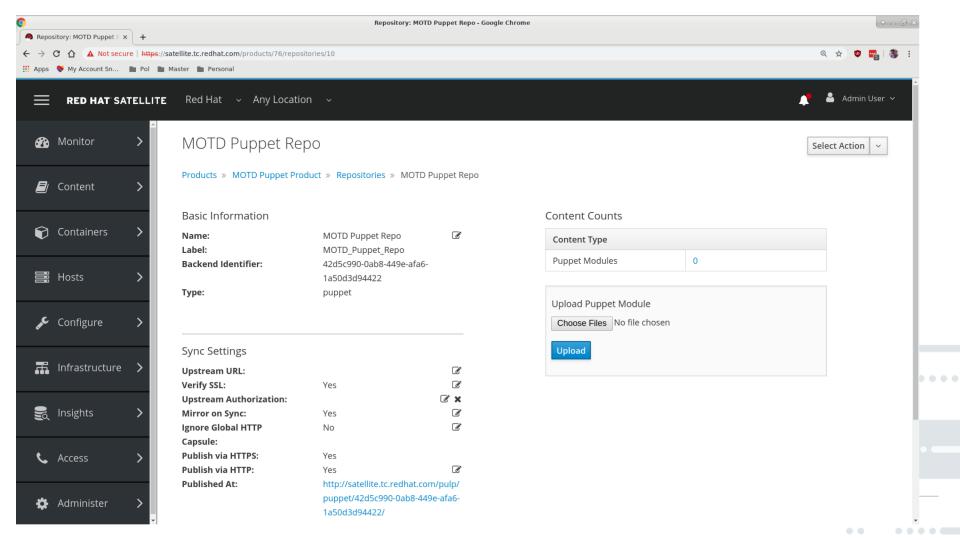


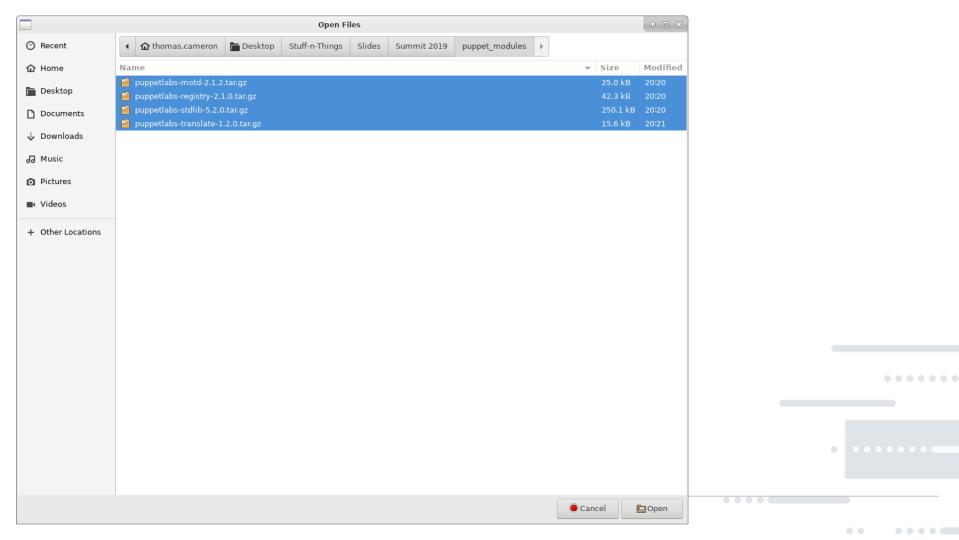


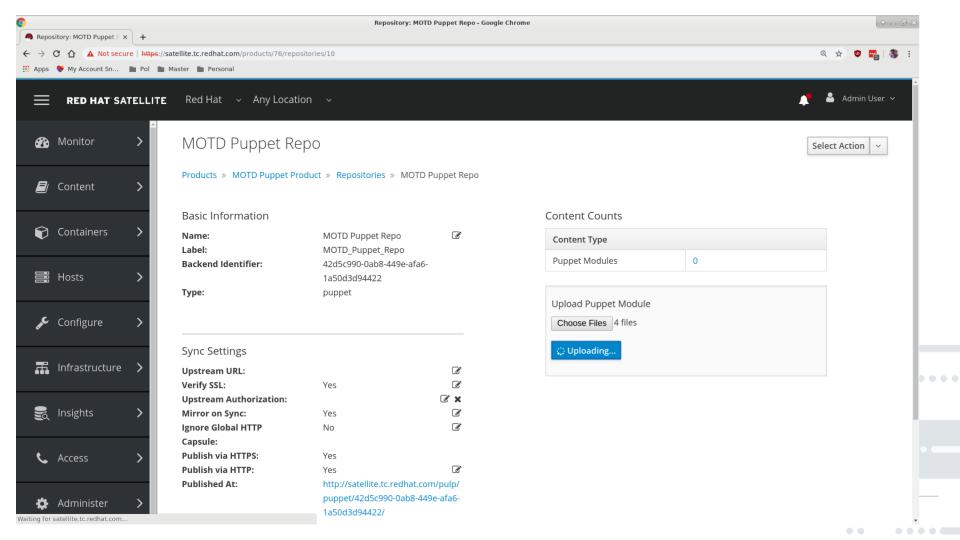


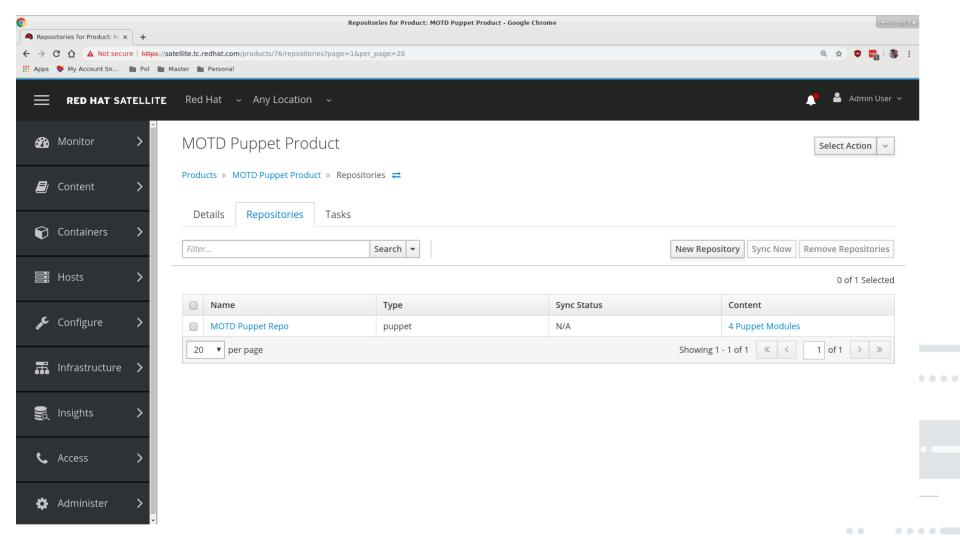


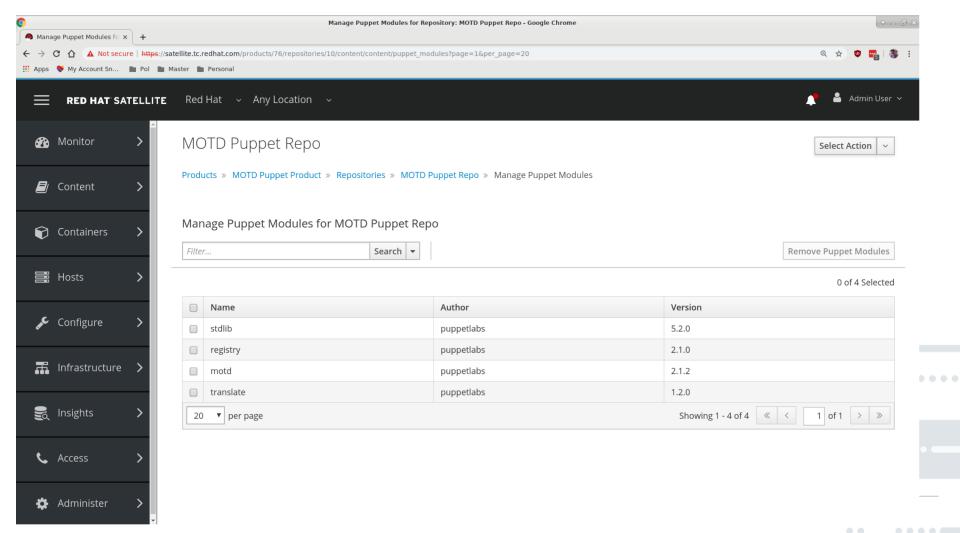


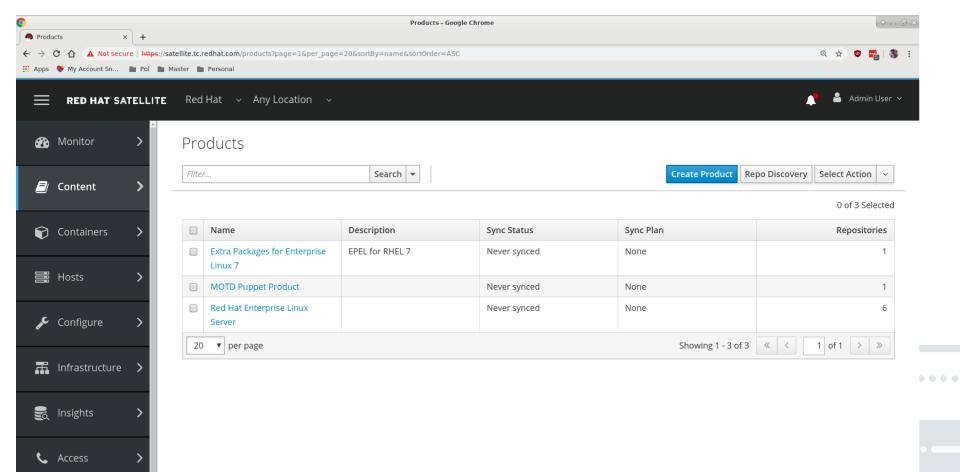










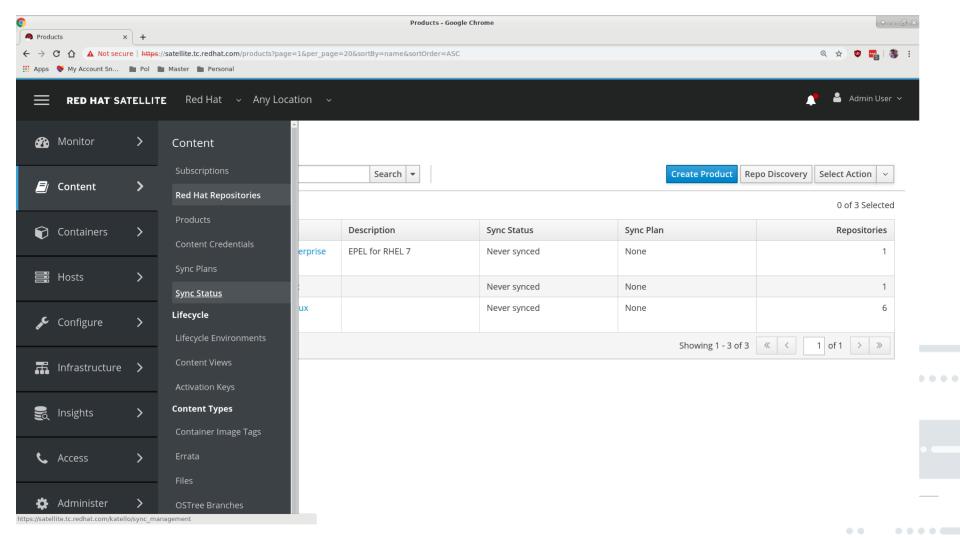


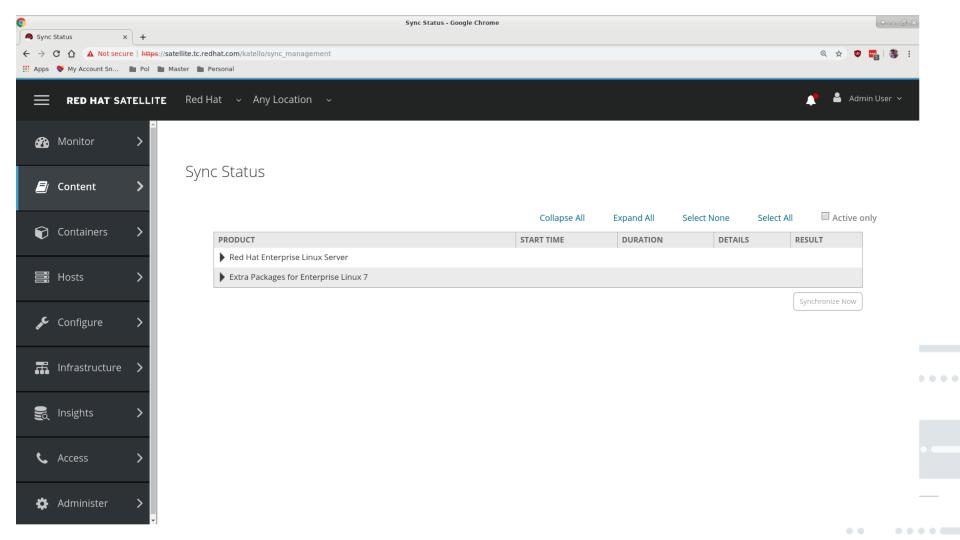
Administer

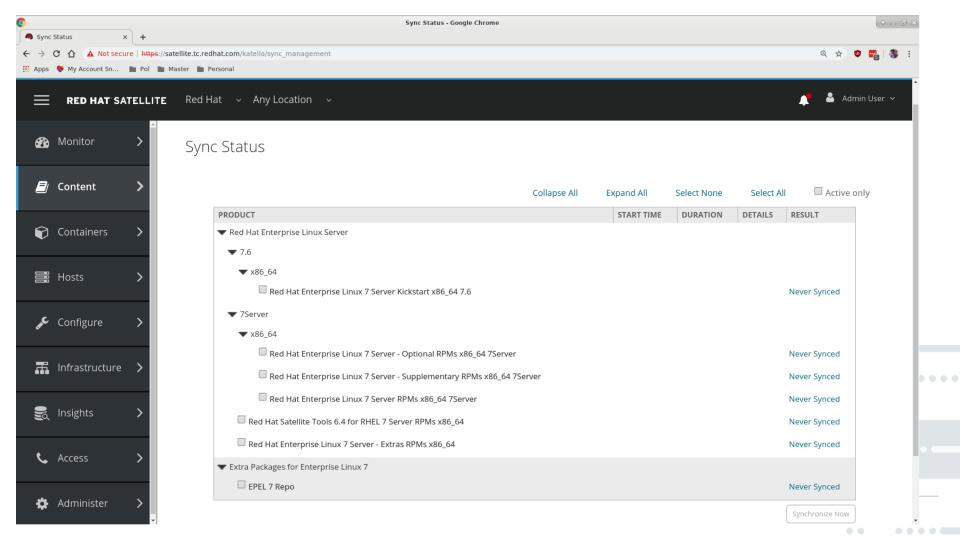
SYNCING CONTENT

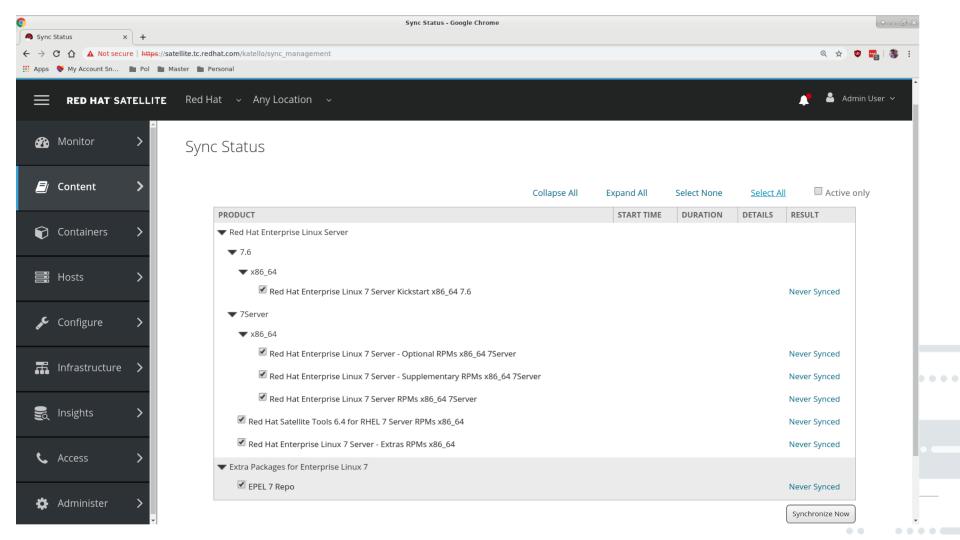
Now that we've defined our content, it's time to go fetch it

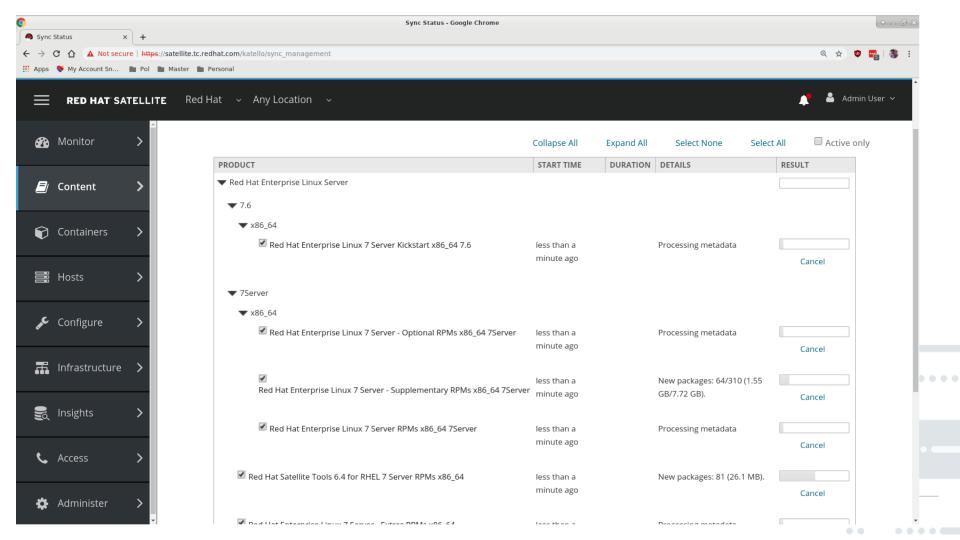
- Manual
- Automated

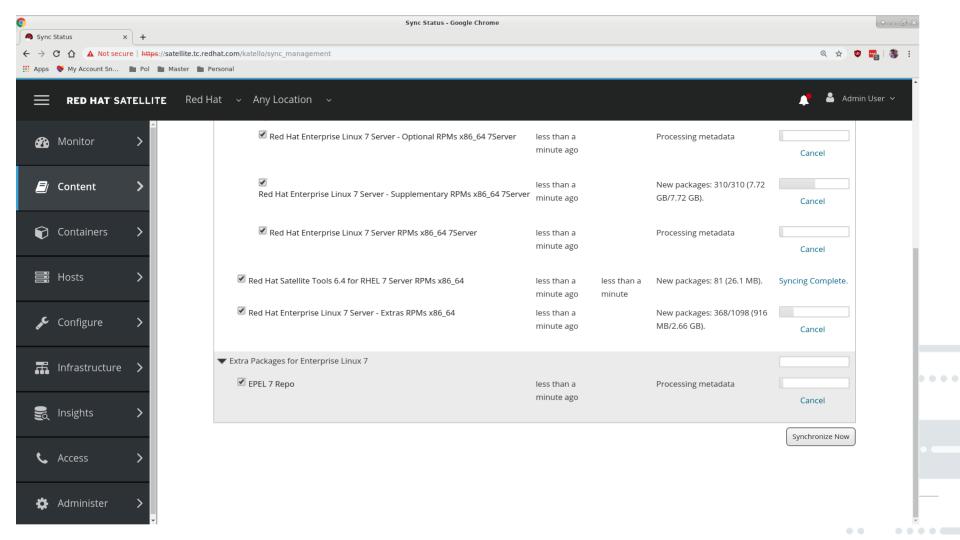


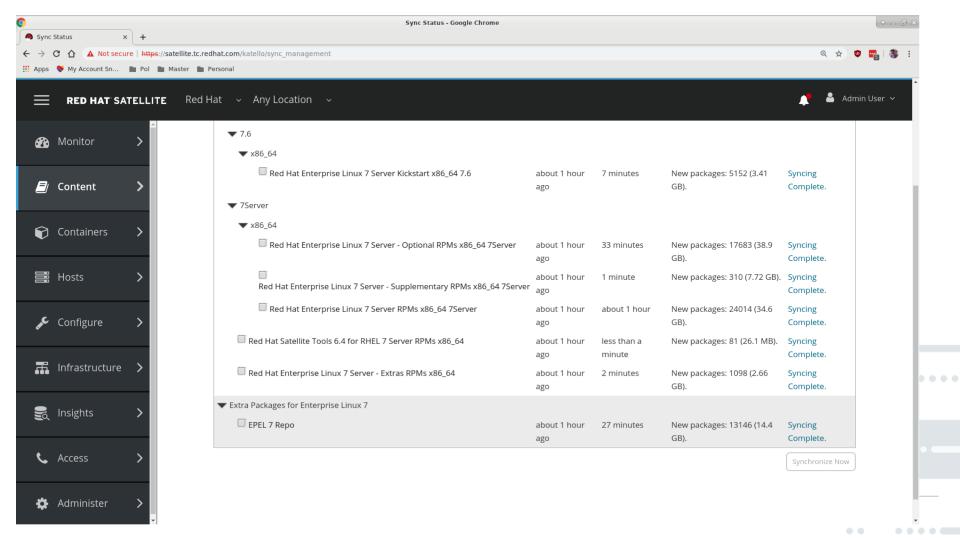


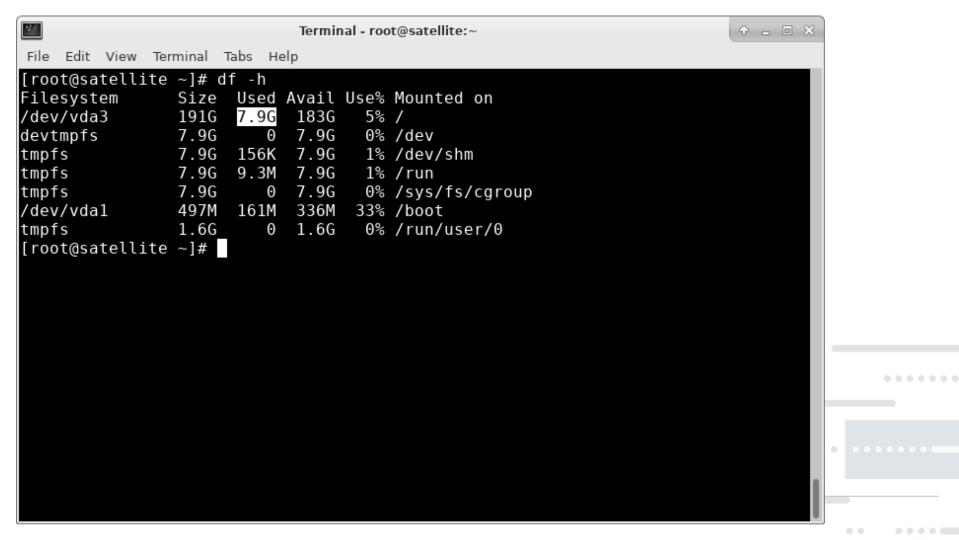


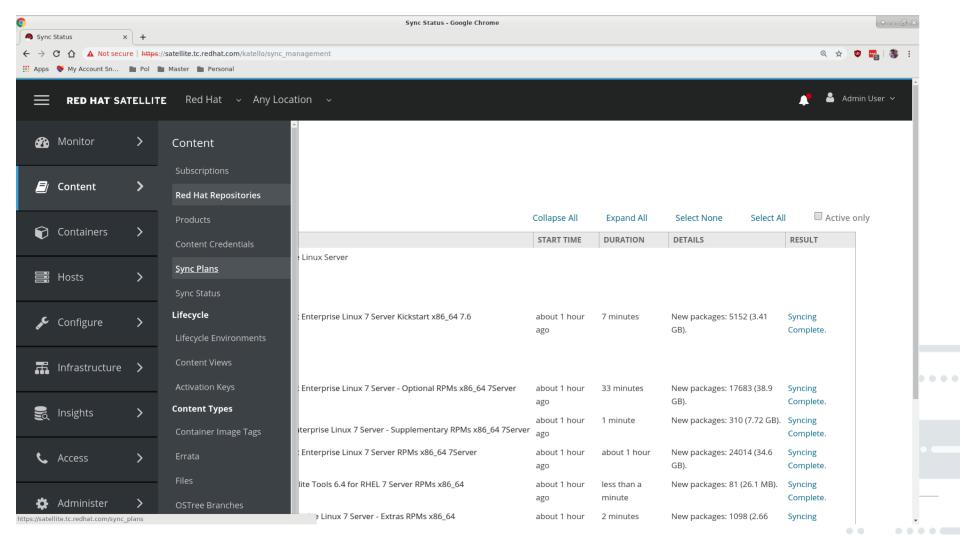


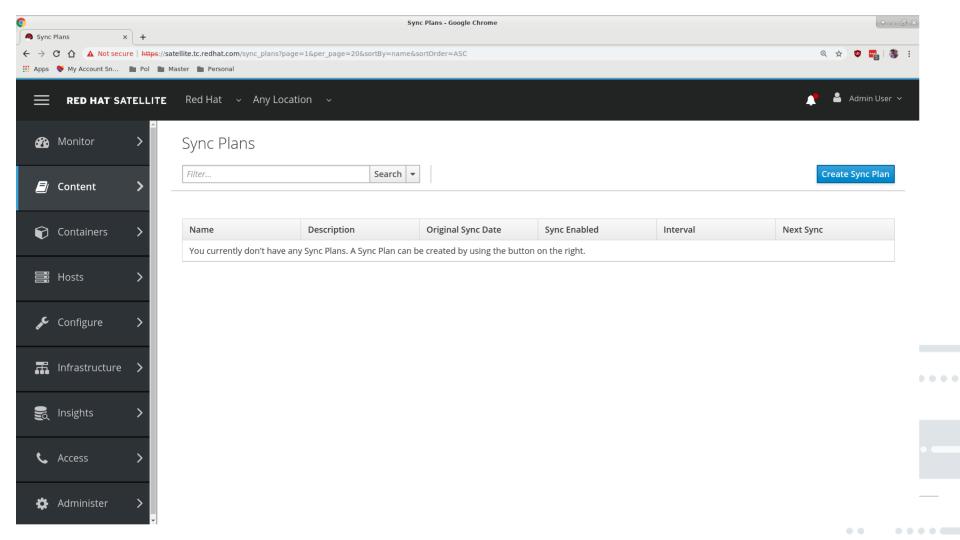


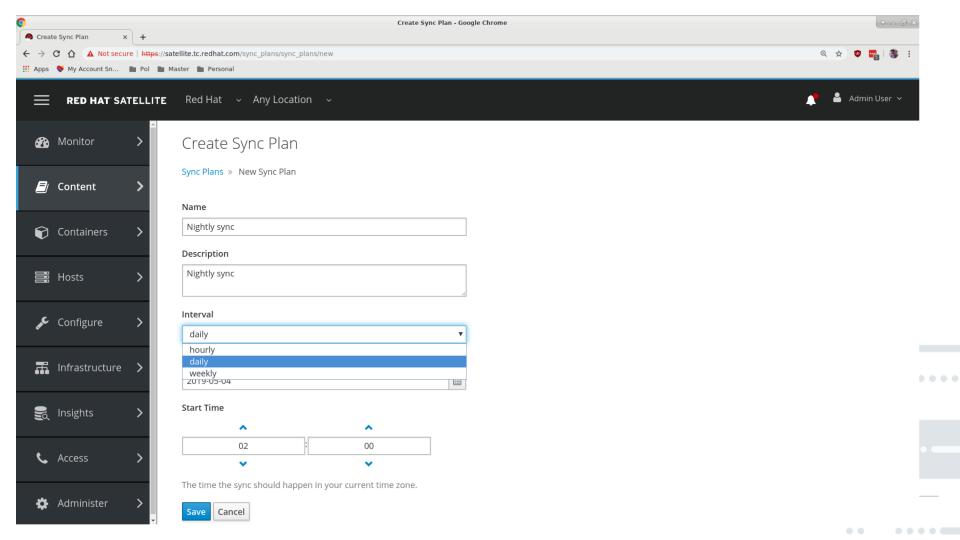


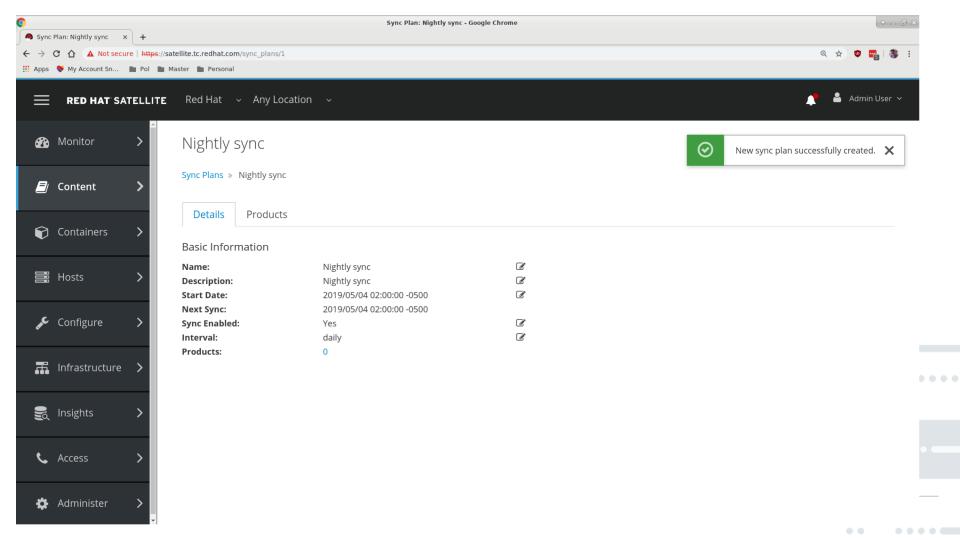


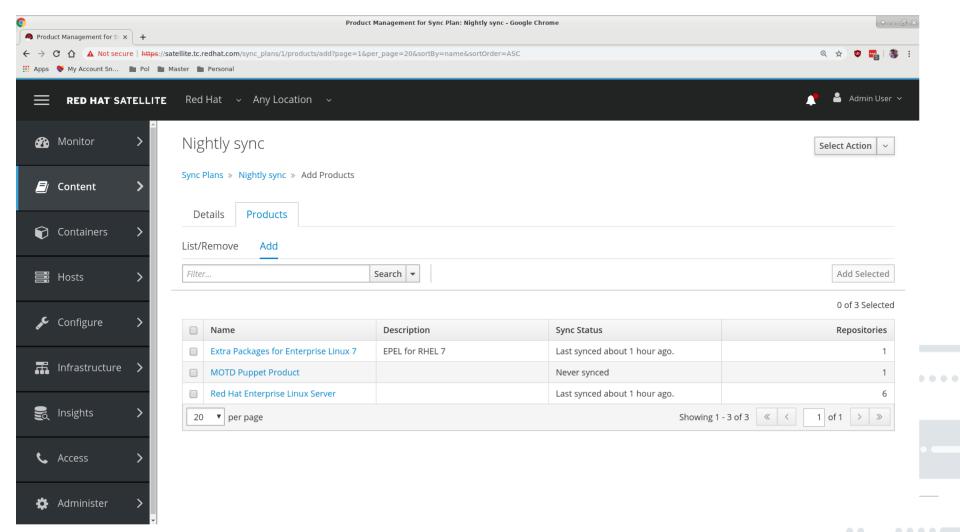


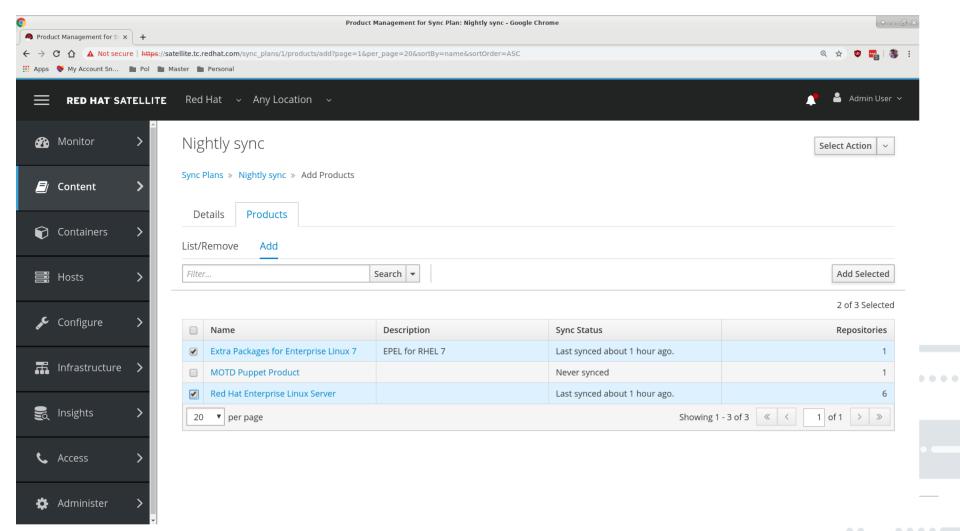


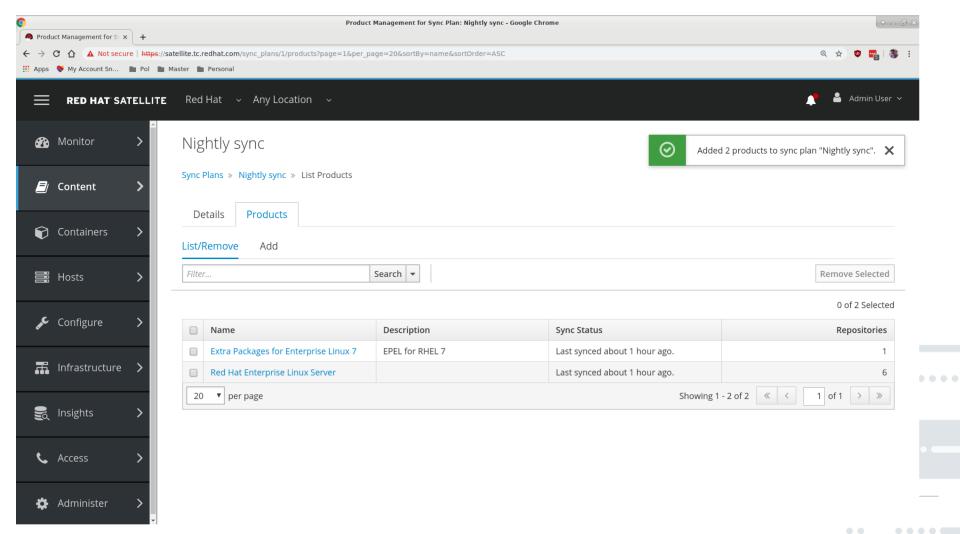


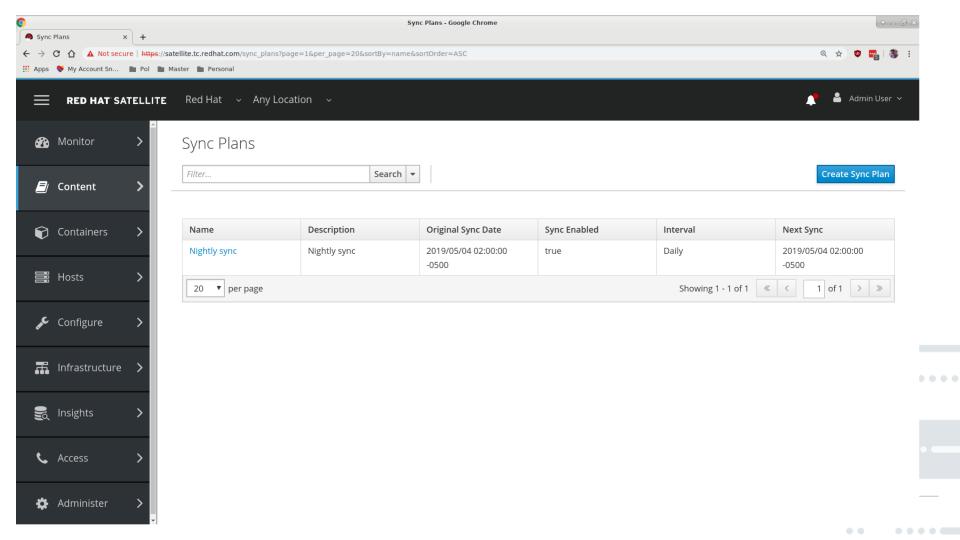


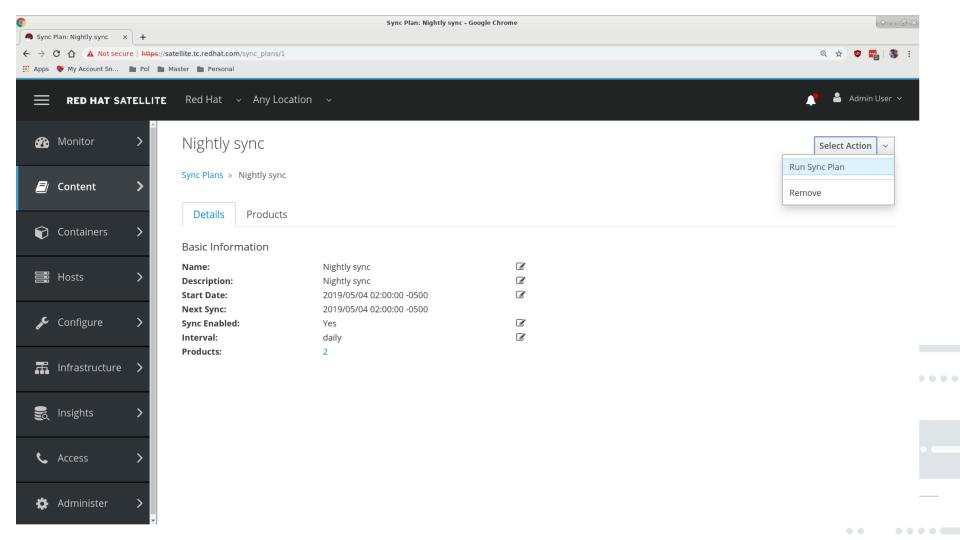












TELL THE SATELLITE ABOUT YOUR WORLD

TELL SATELLITE ABOUT YOUR WORLD

Because Satellite is built for large, distributed environments, you have to tell it about your infrastructure!

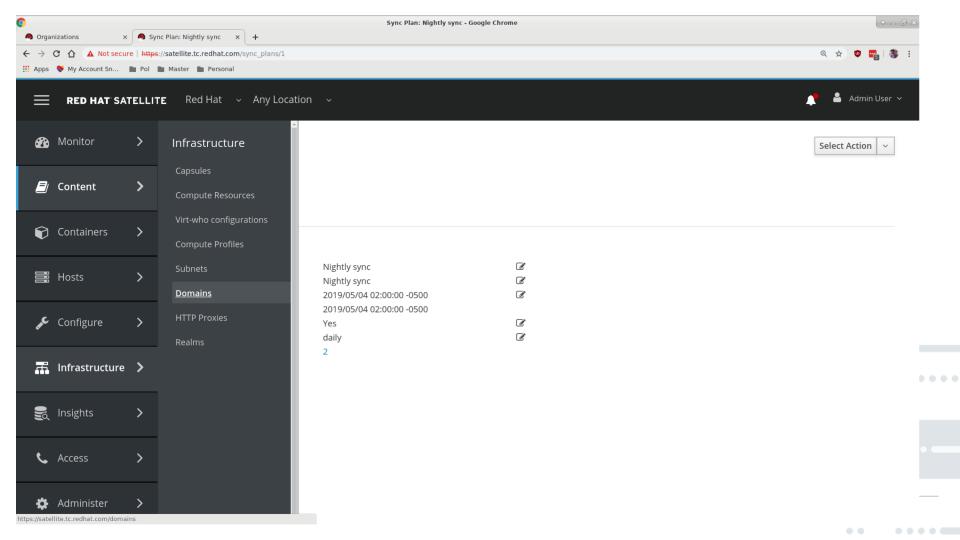
- Tell it about:
 - Your DNS domain
 - Subnets it can manage
 - Locations
 - Organizations within your enterprise
- If it doesn't know about these constructs, it won't manage them

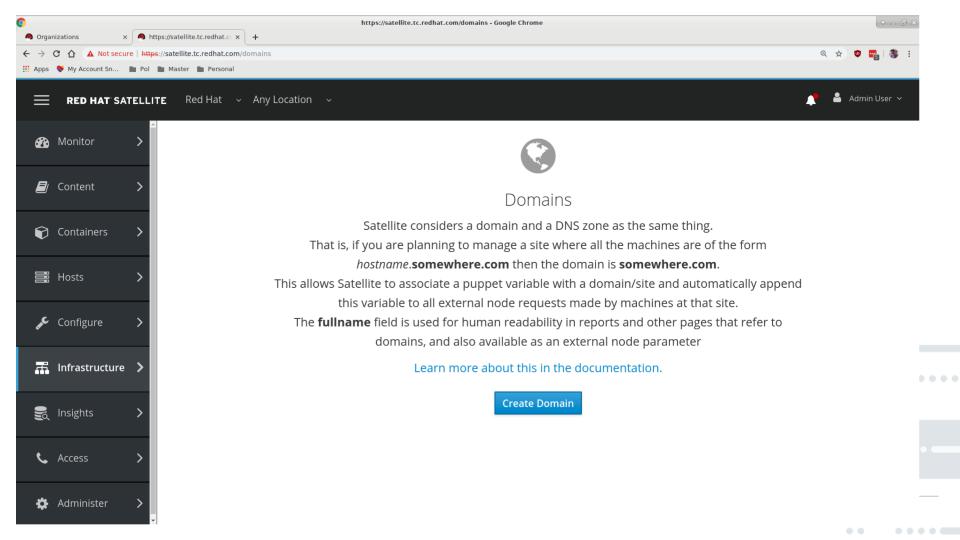


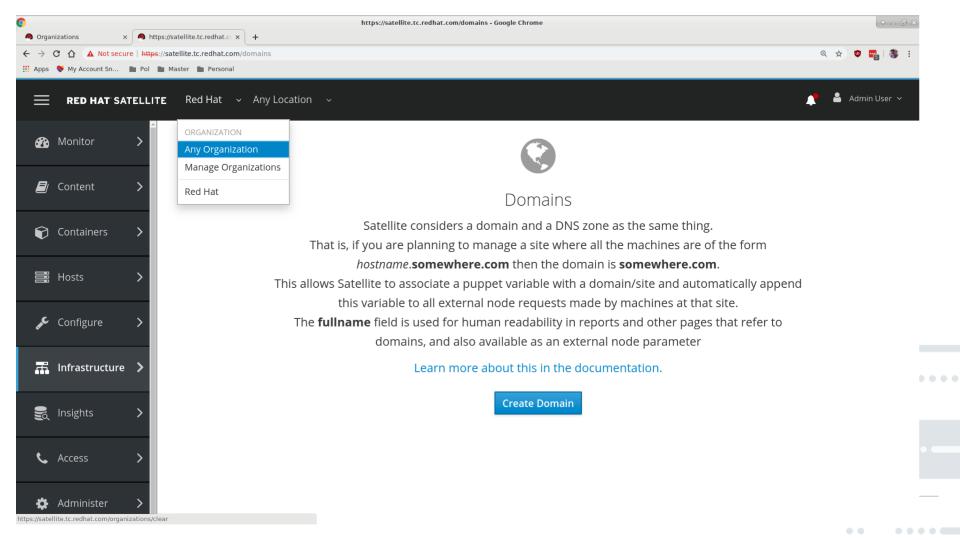
DOMAINS

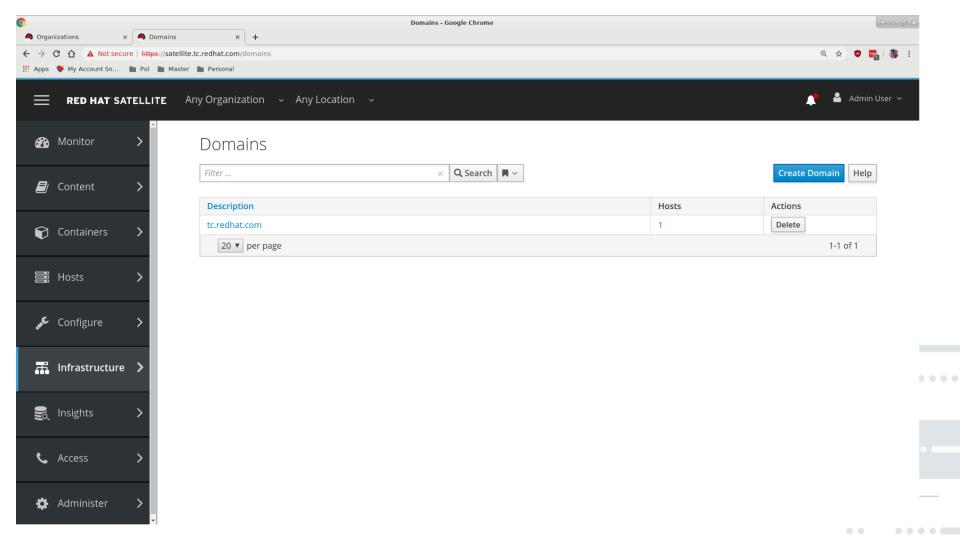
You need to configure the DNS domains the Satellite can work in

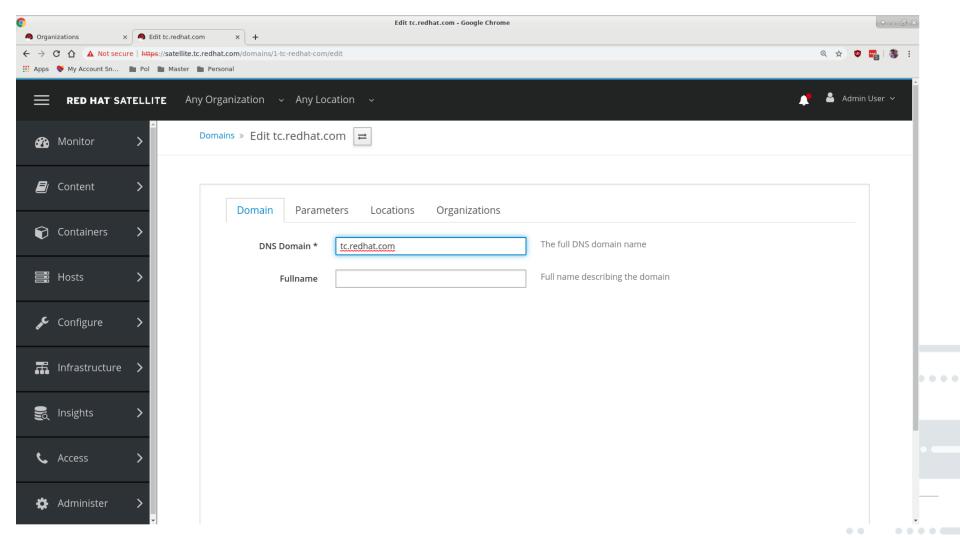
- Note that the default domain you set the server up with is not part of the default organization by default
- It's also not available to the default location

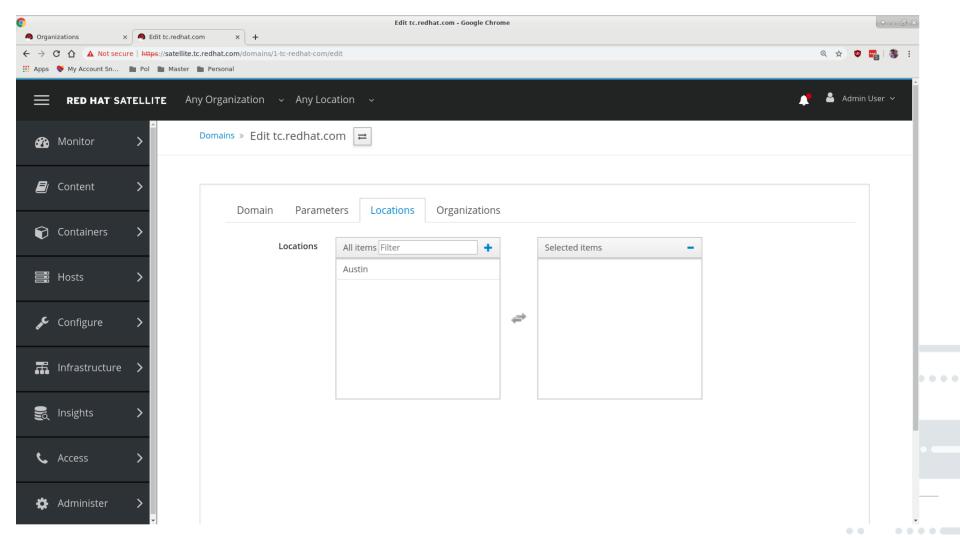


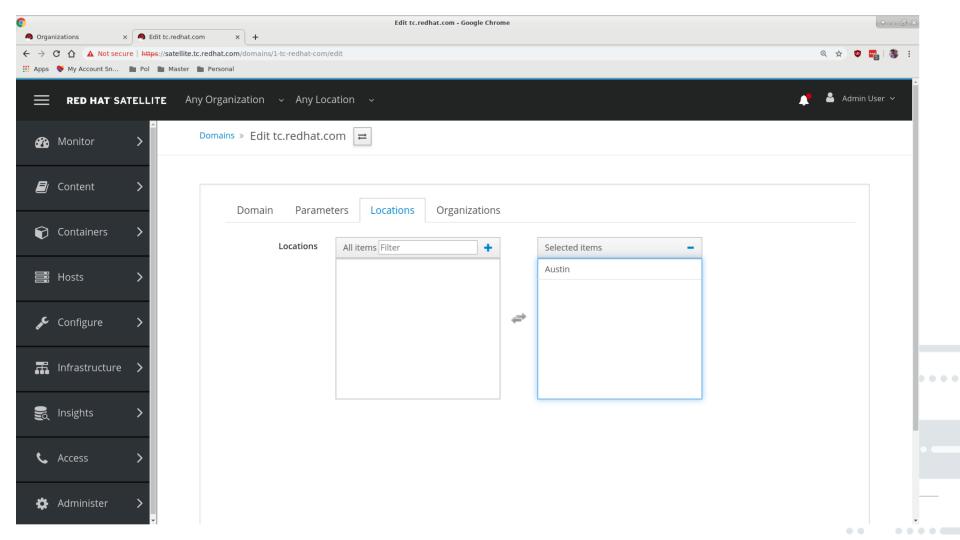


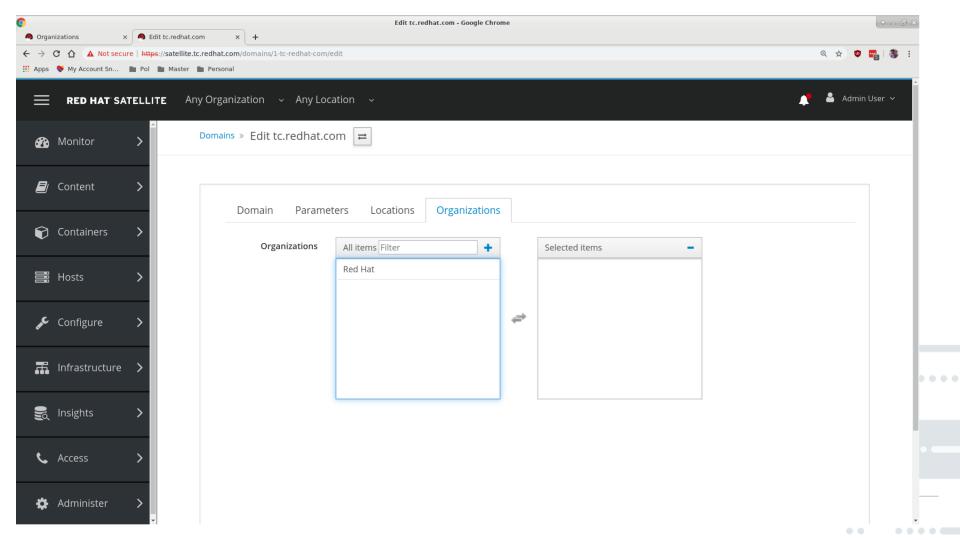


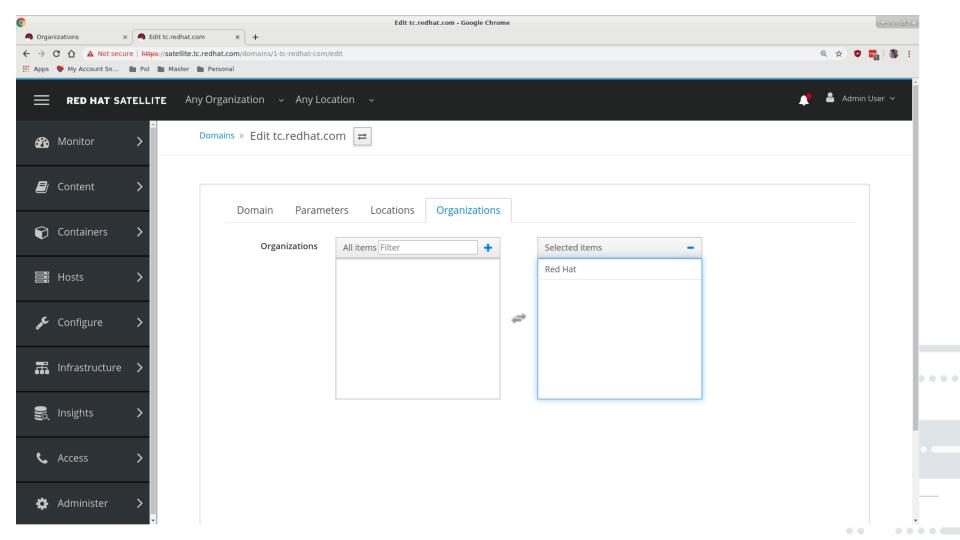


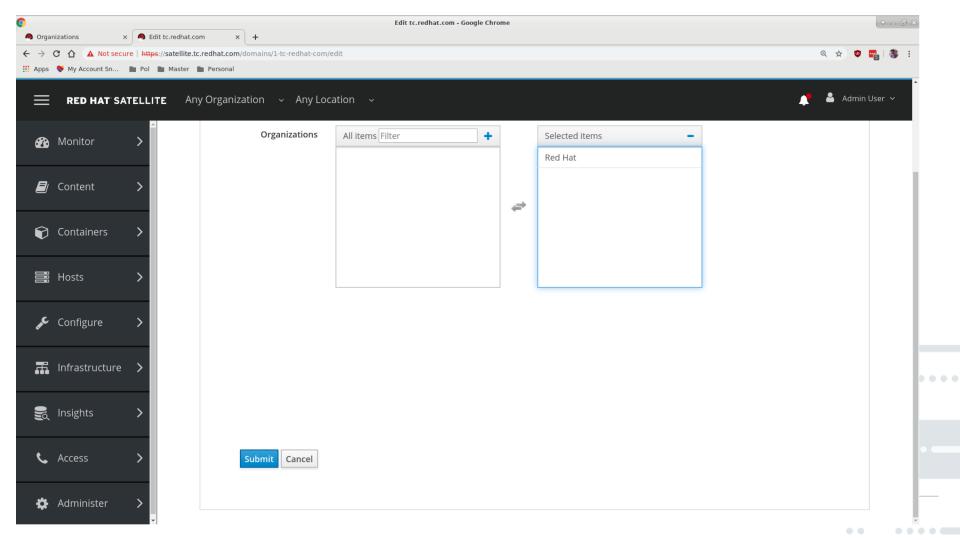


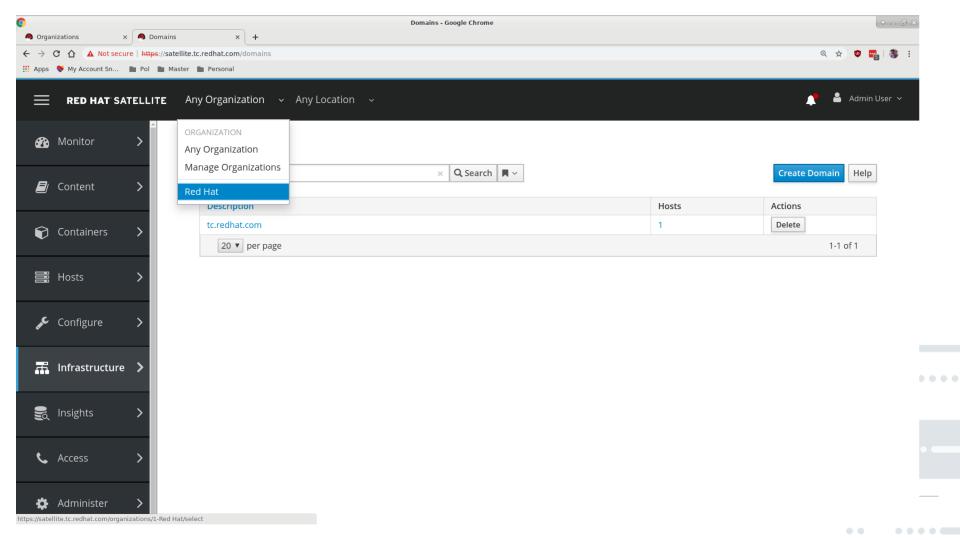


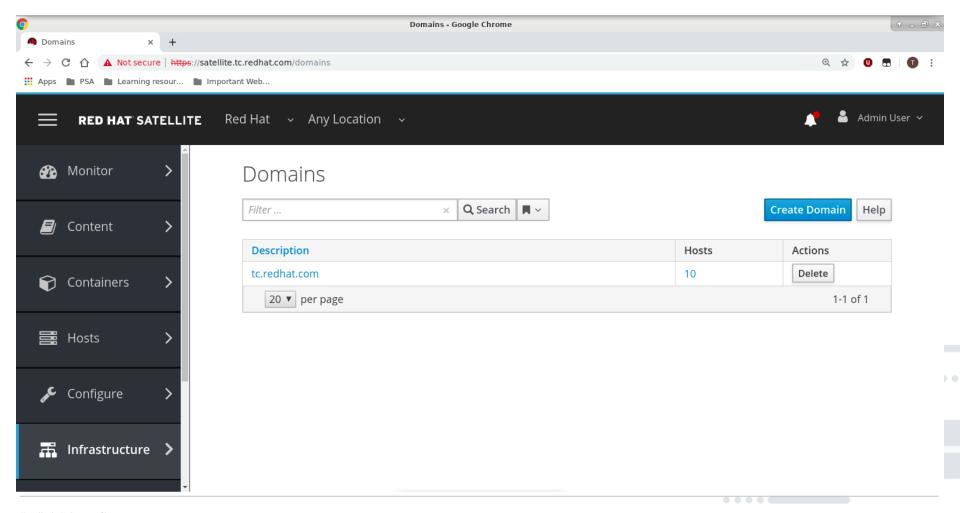












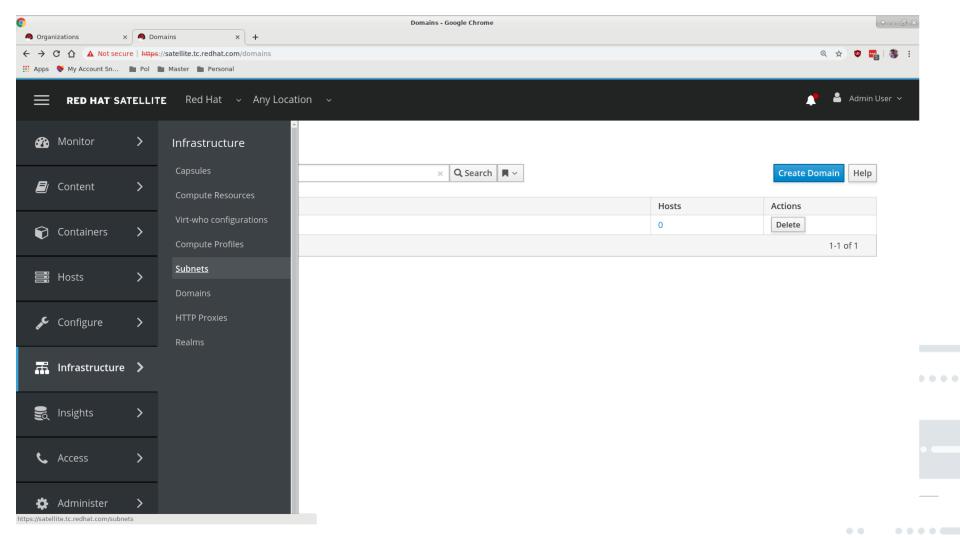
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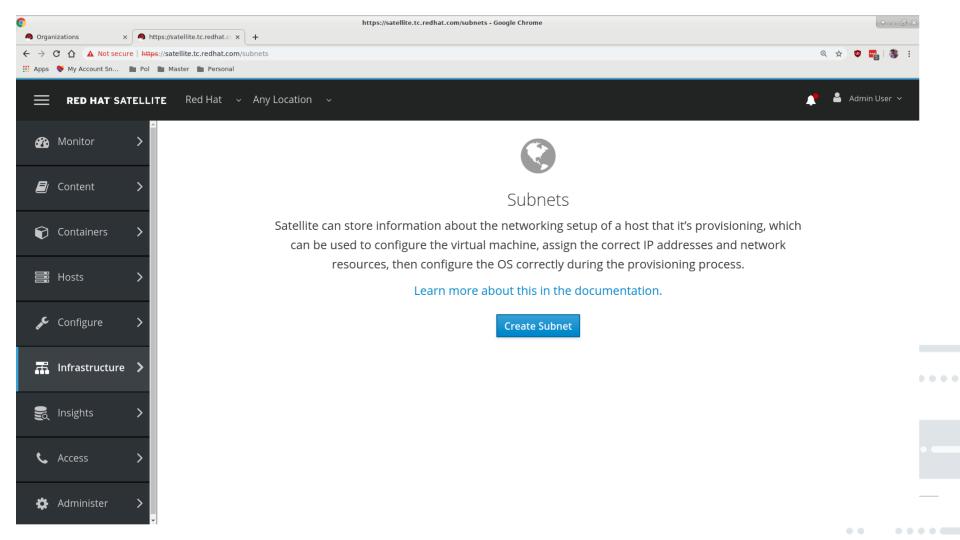


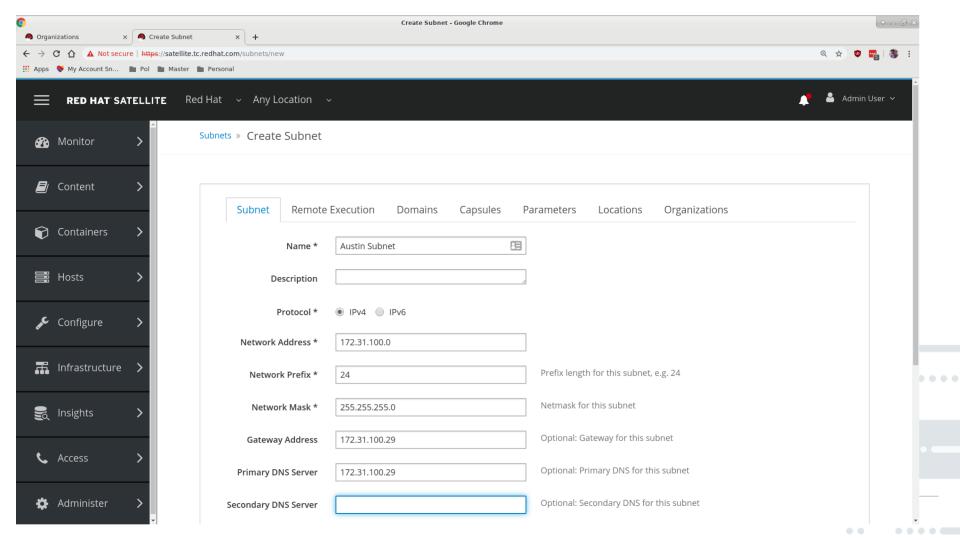
SUBNETS

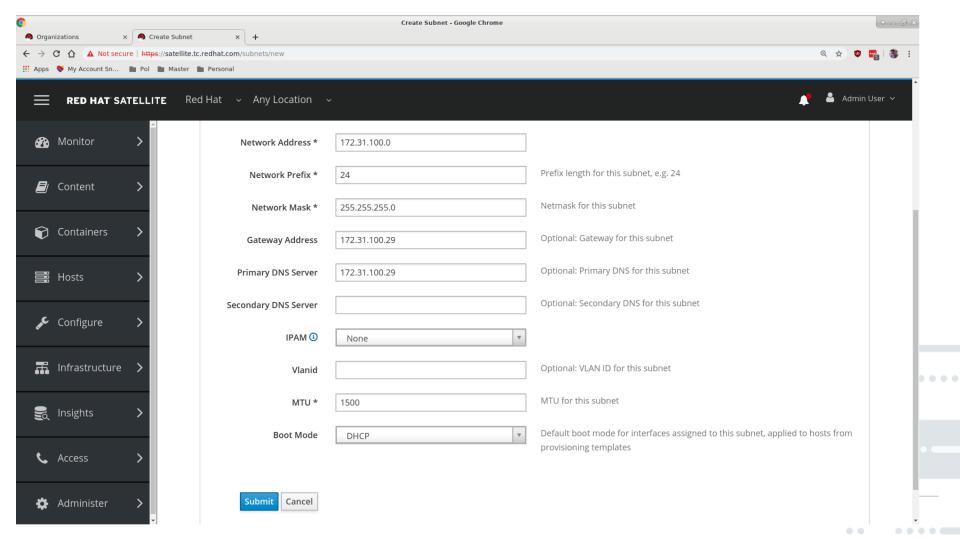
Configure subnets.

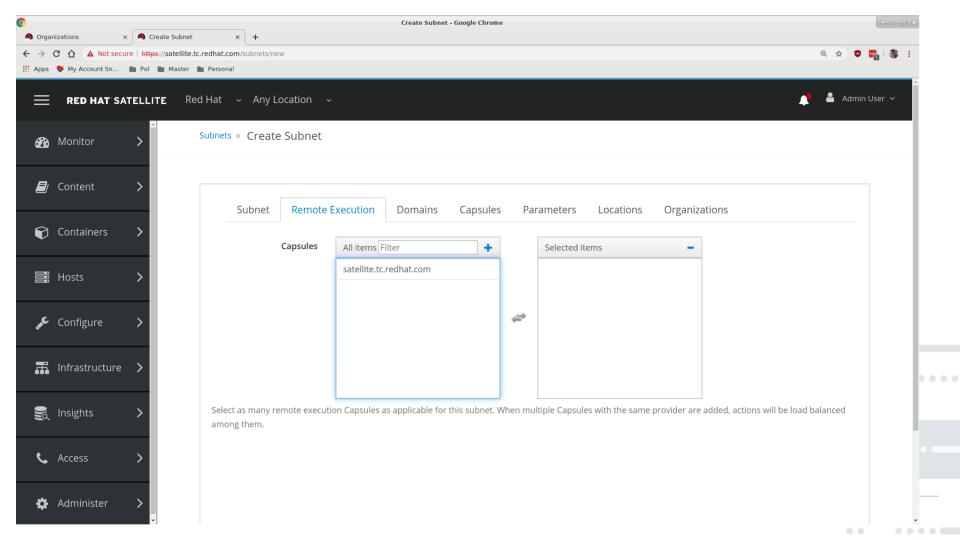
• Tell the Satellite server which subnets it is able to manage and provision servers on

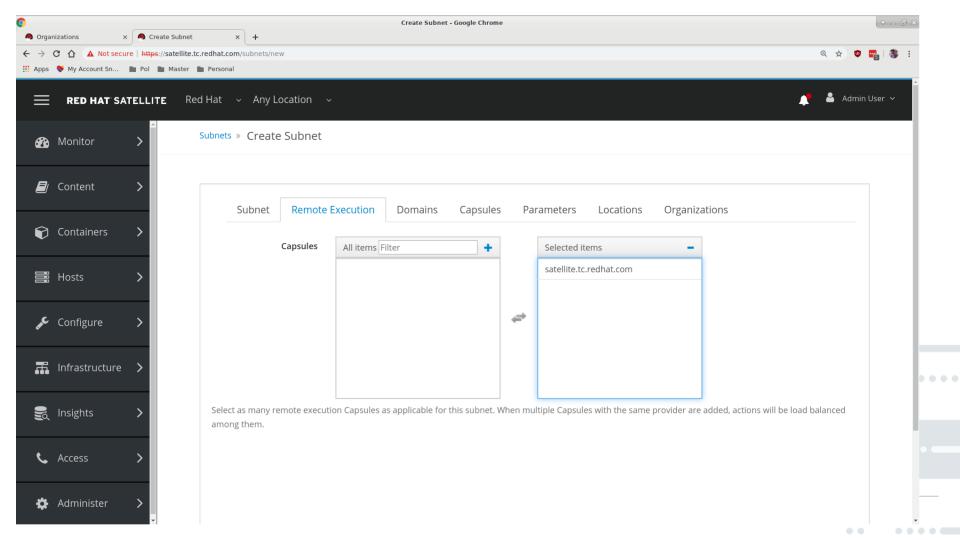


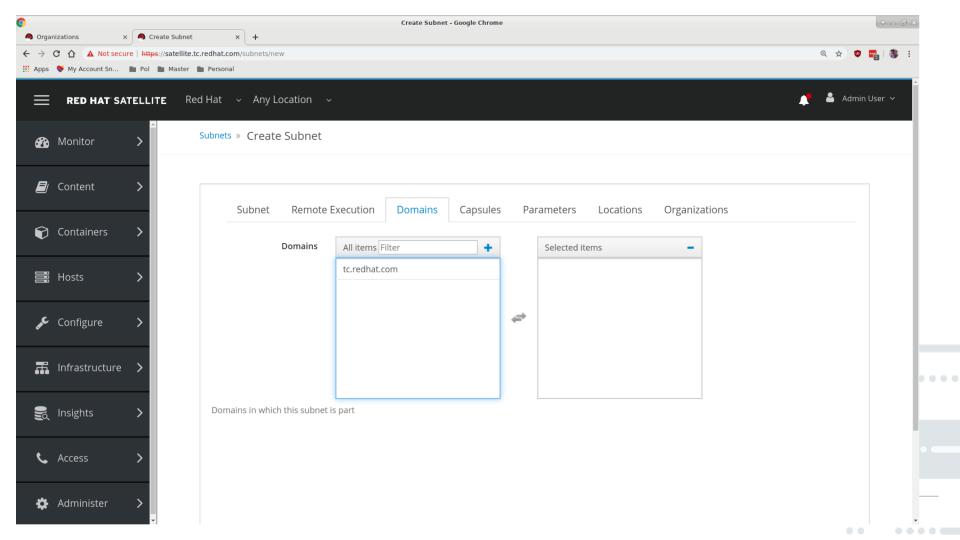


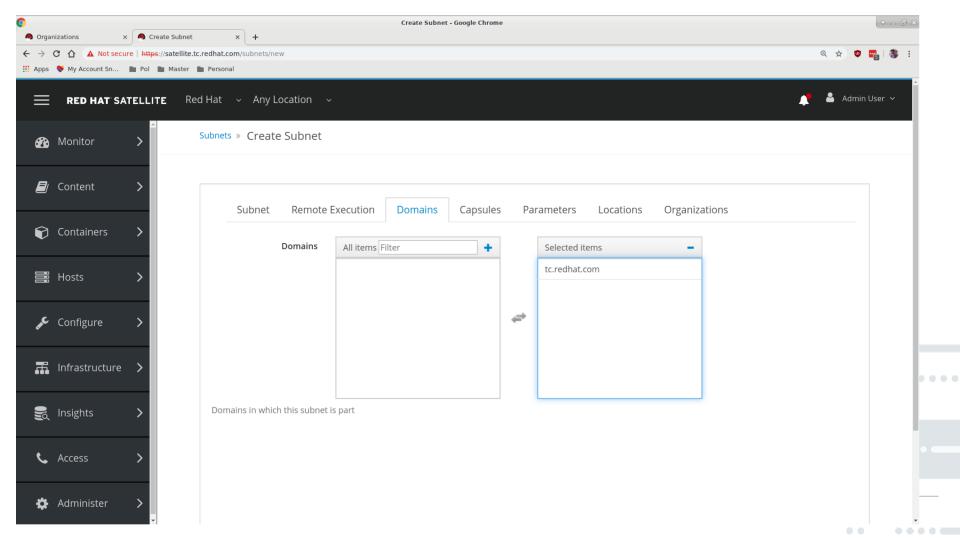


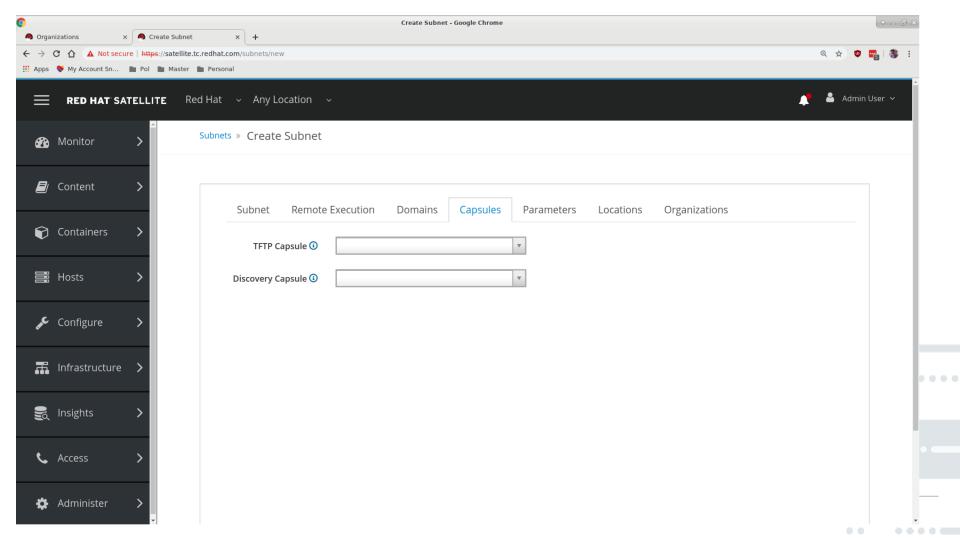


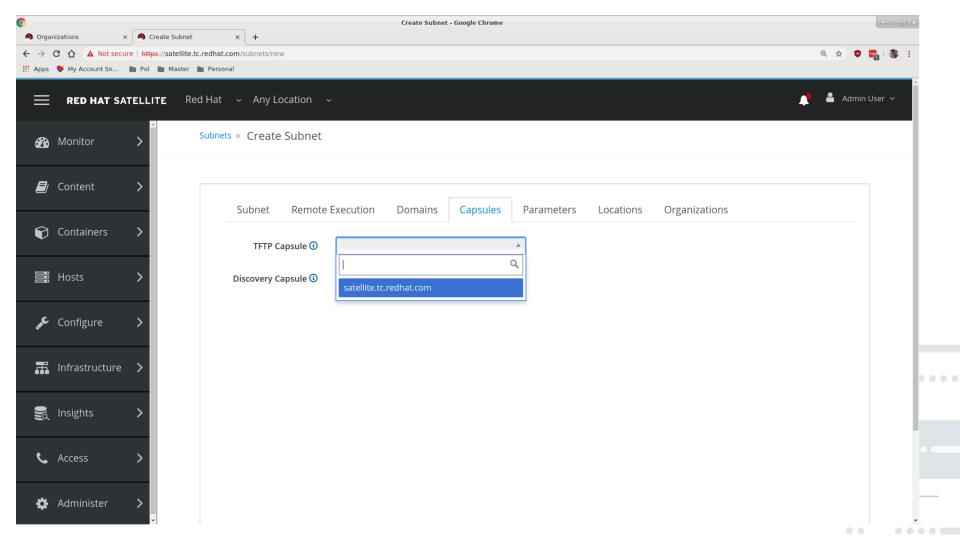


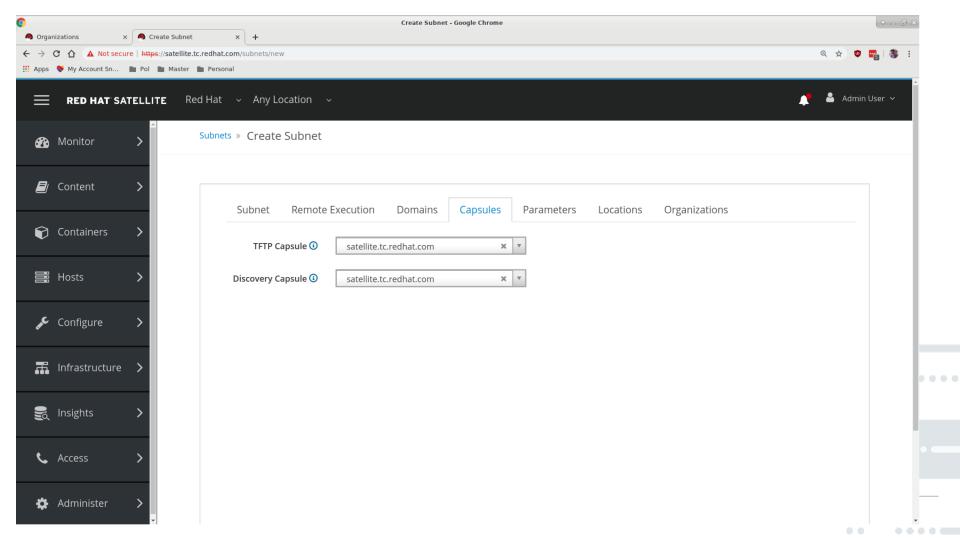


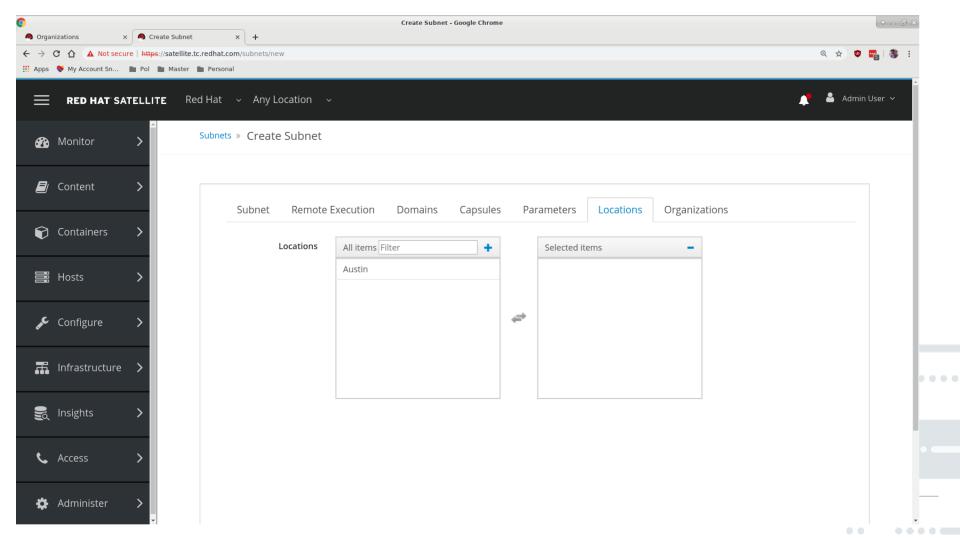


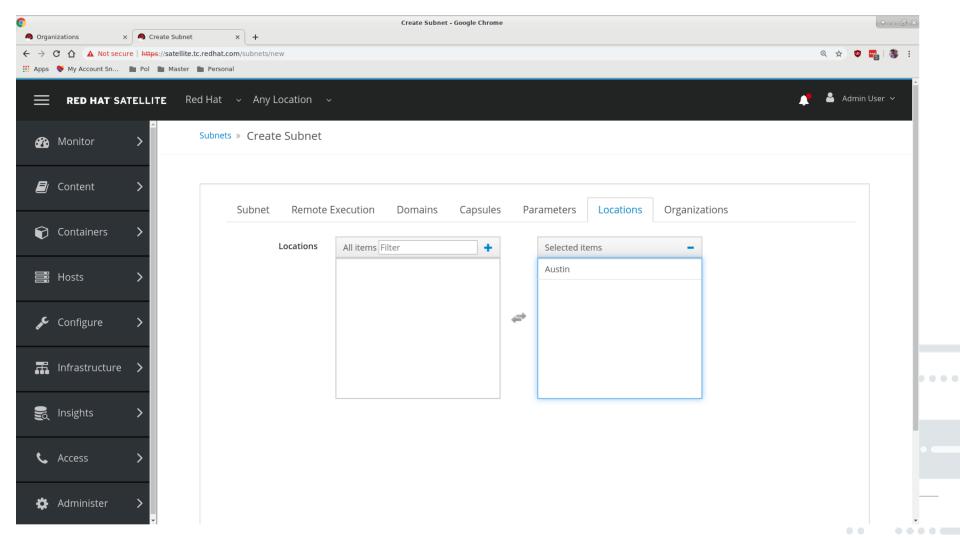


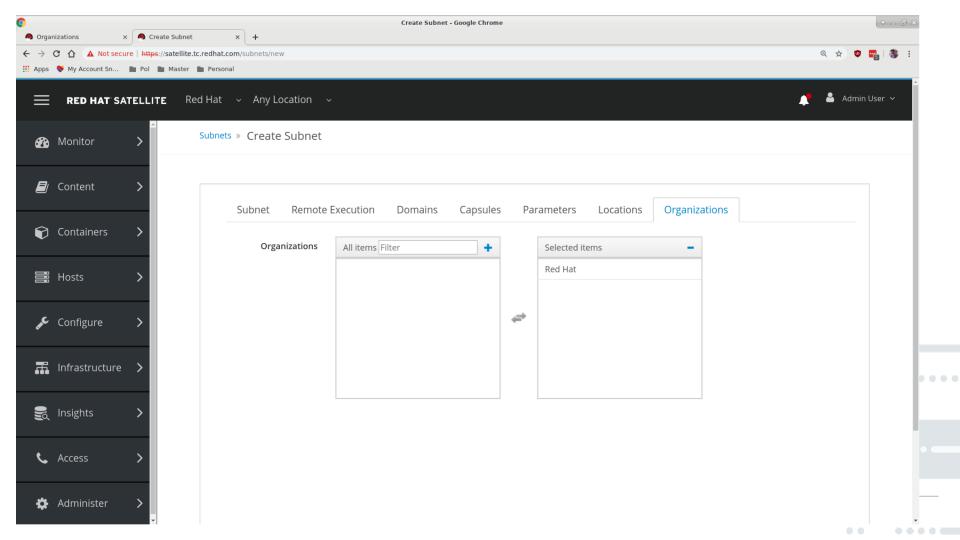


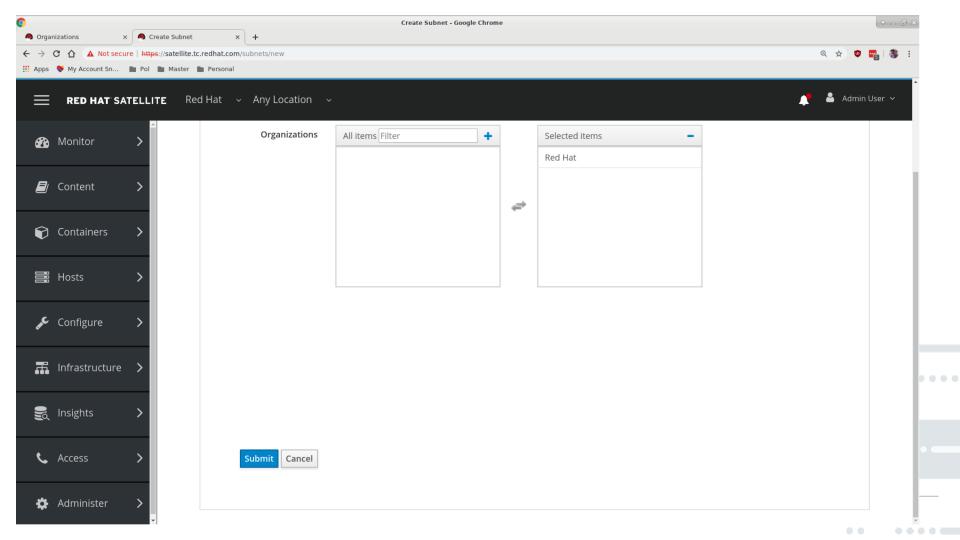


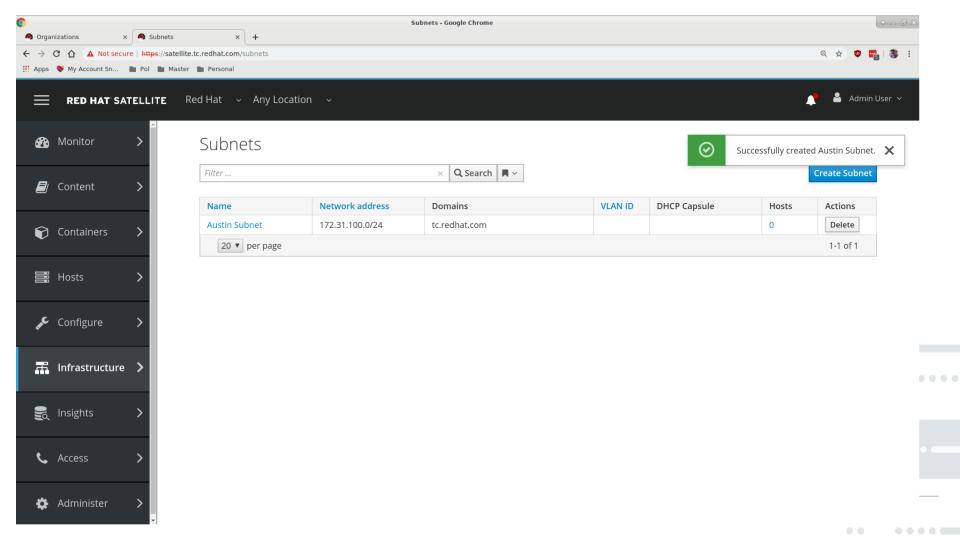












LOCATIONS

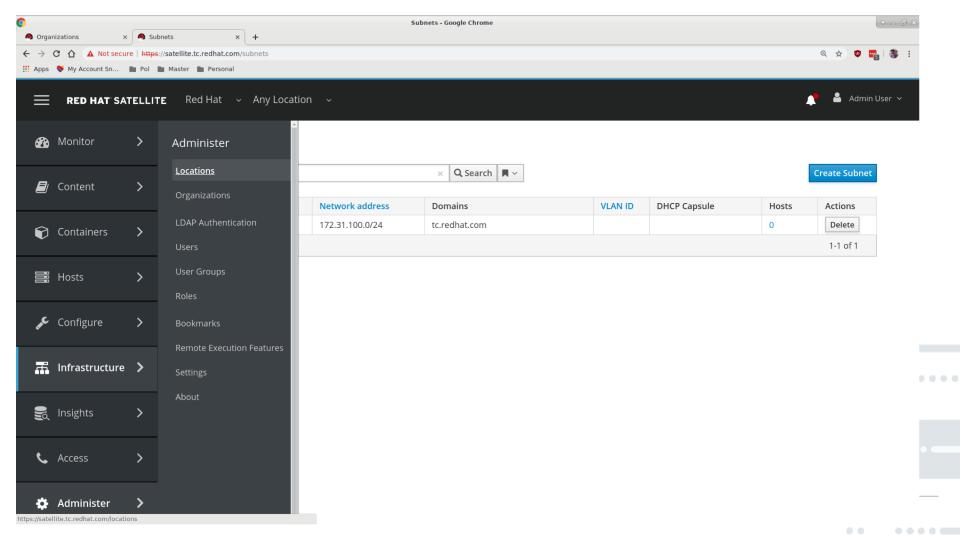
LOCATIONS

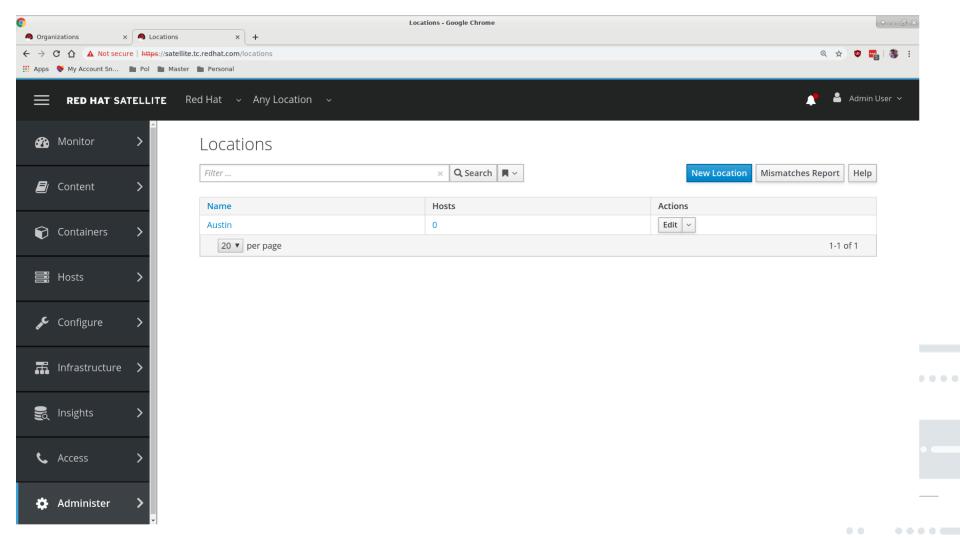
Locations are usually physical locations, like Austin, Dallas, and Houston, or North America, Europe, APAC, and so on.

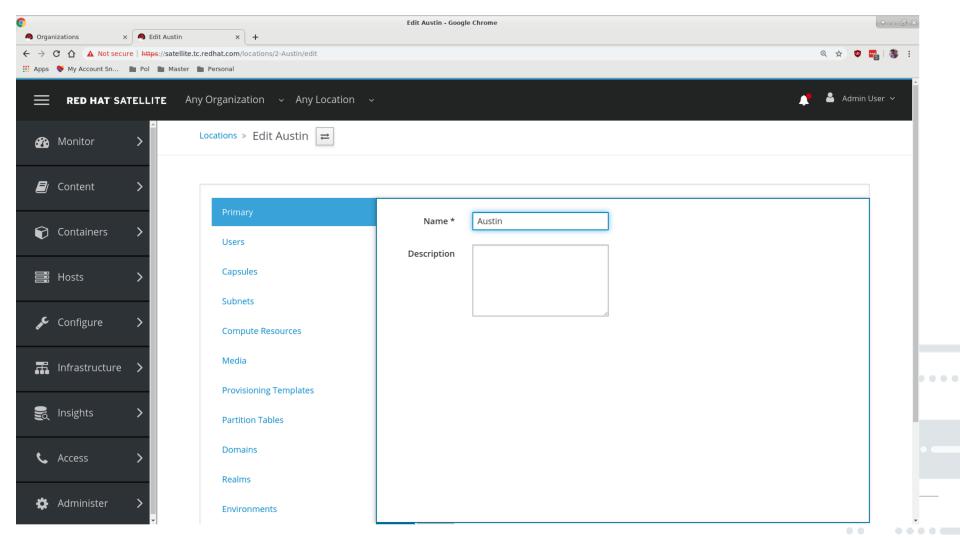
Tell the Satellite about what locations it can manage

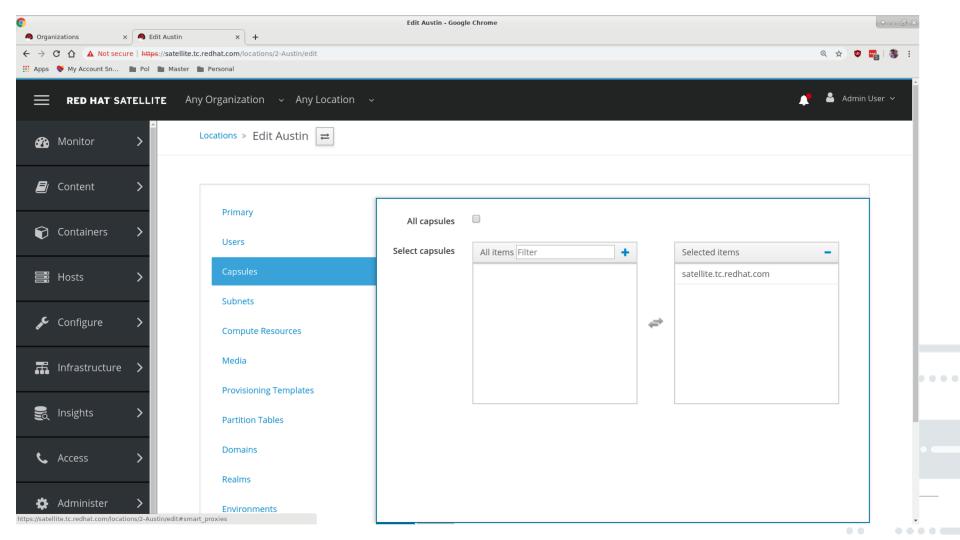
• Make sure that the locations reflect the correct organization, subnet, capsule, etc.

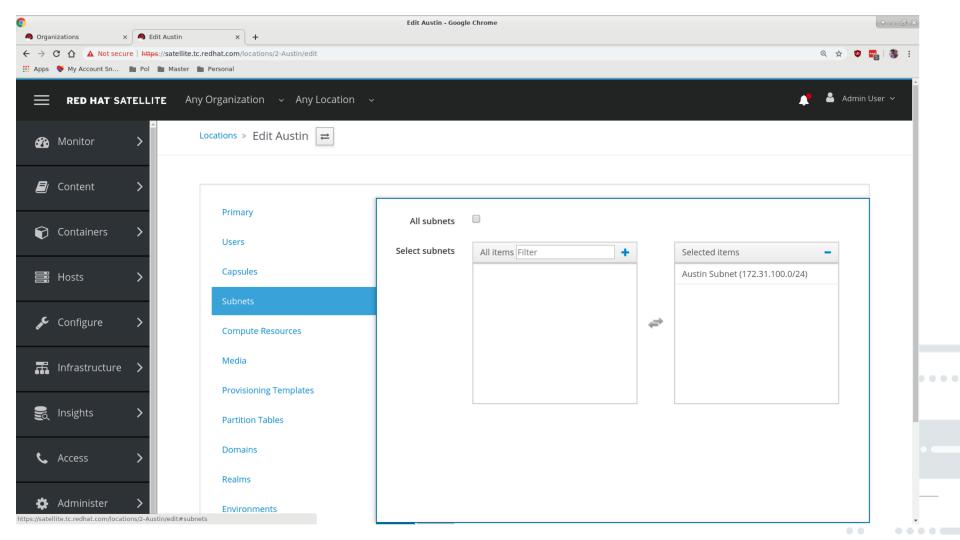


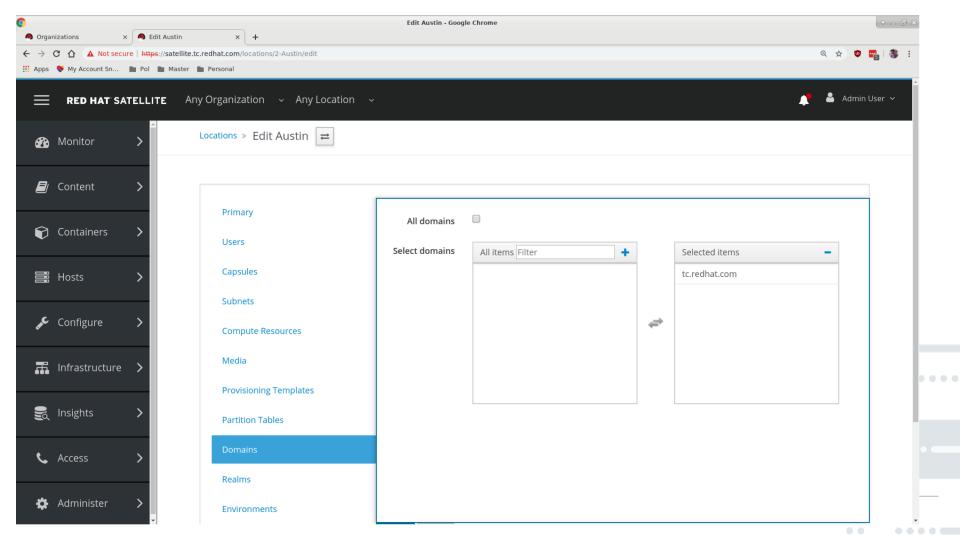


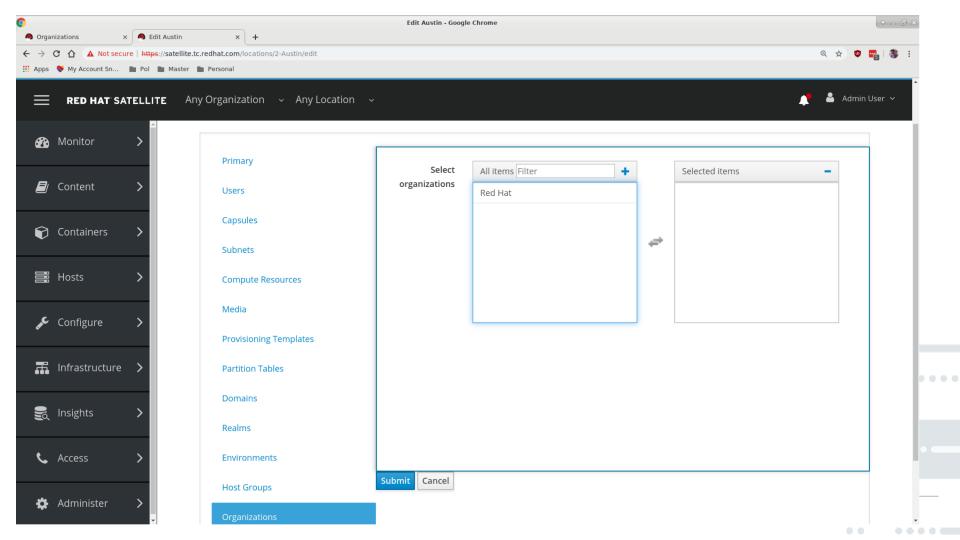


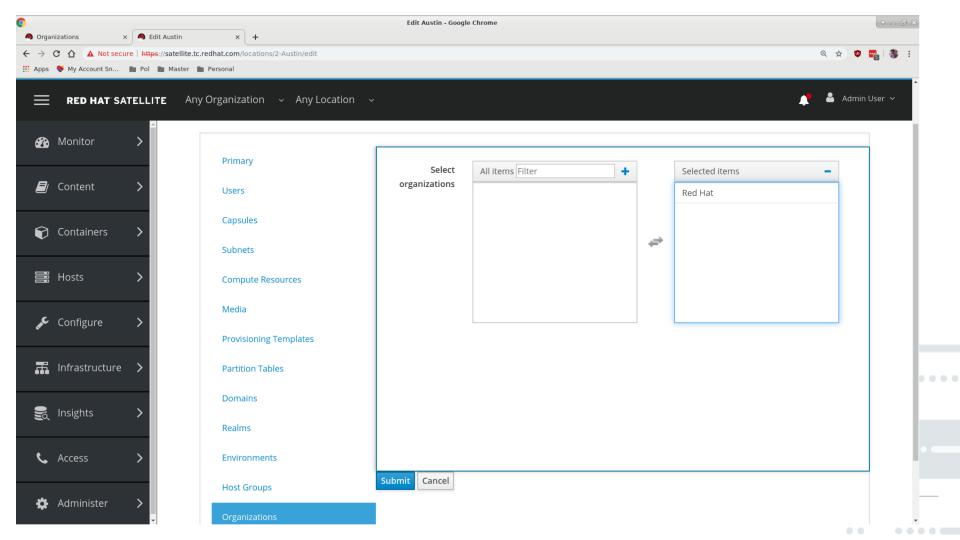


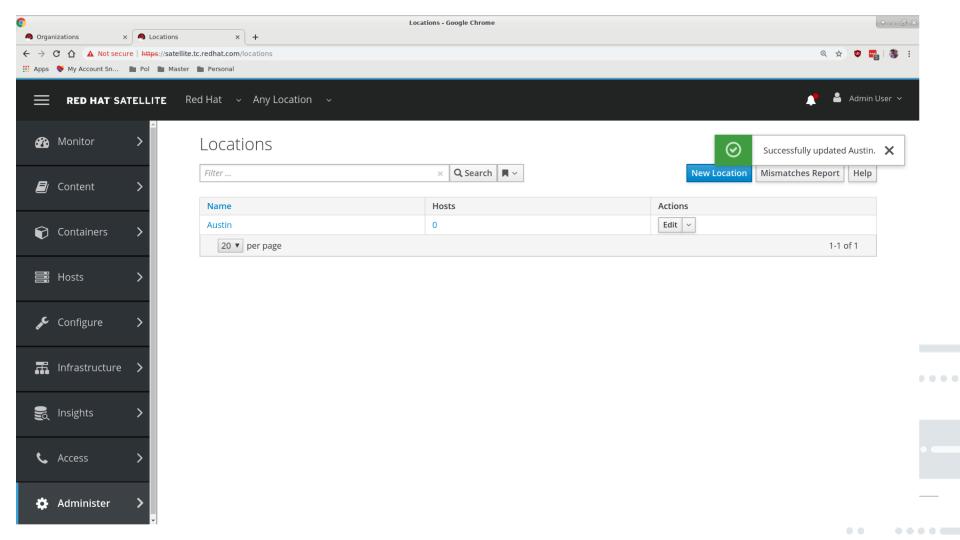










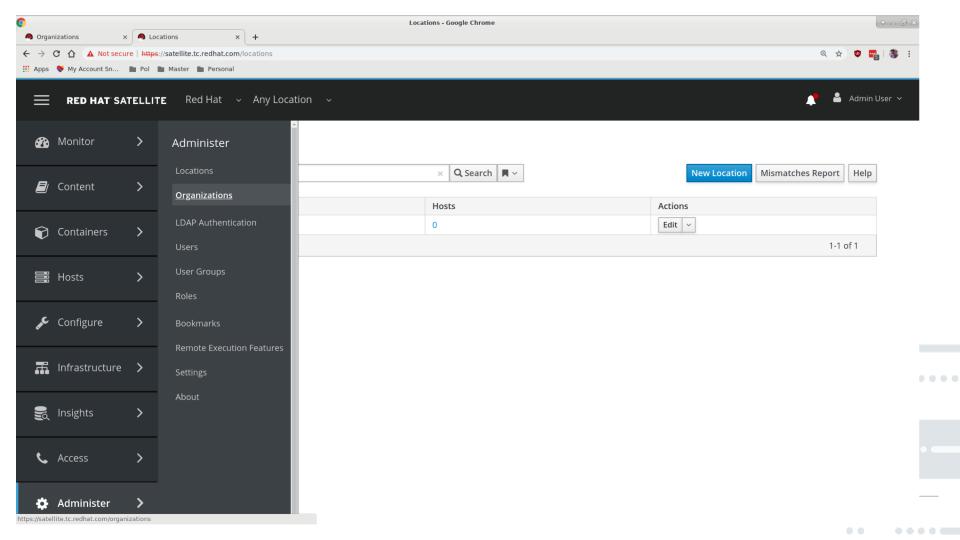


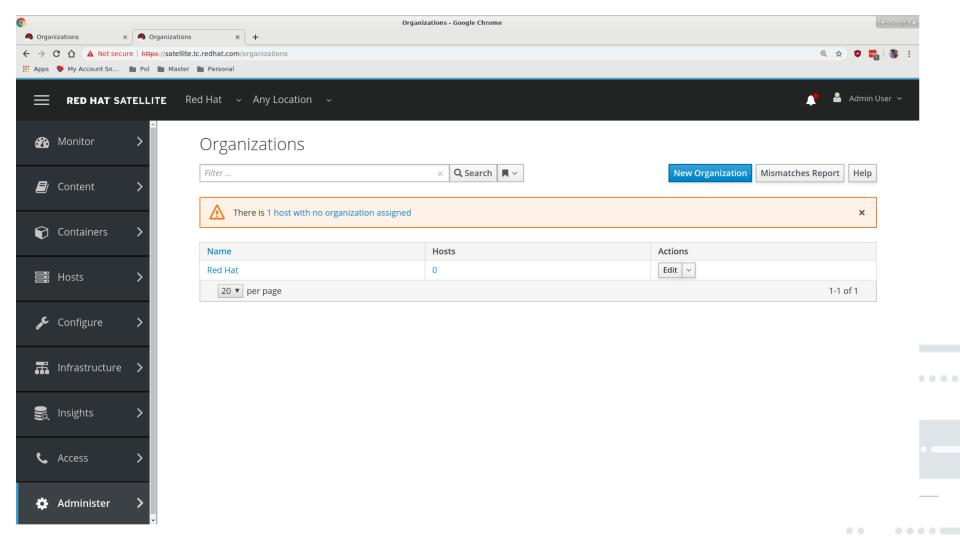
ORGANIZATIONS

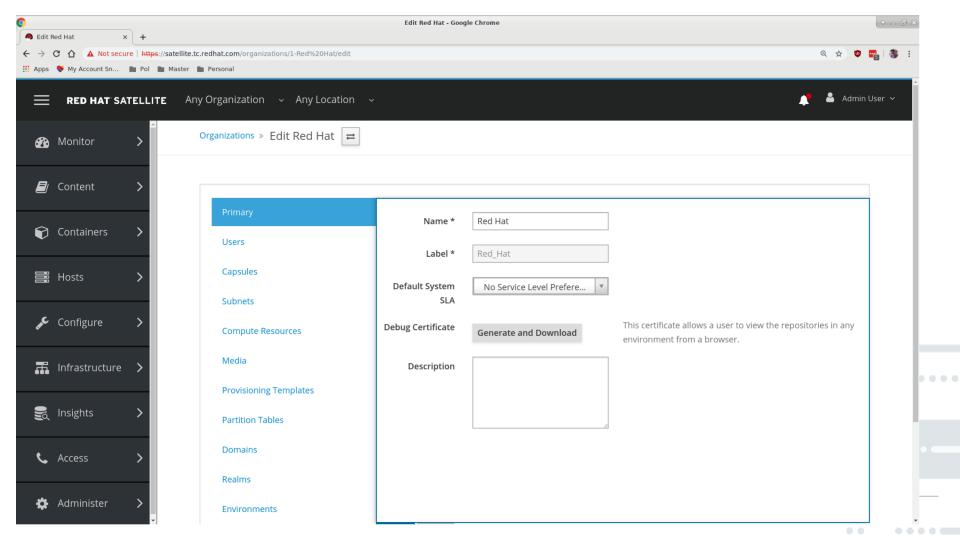
ORGANIZATIONS

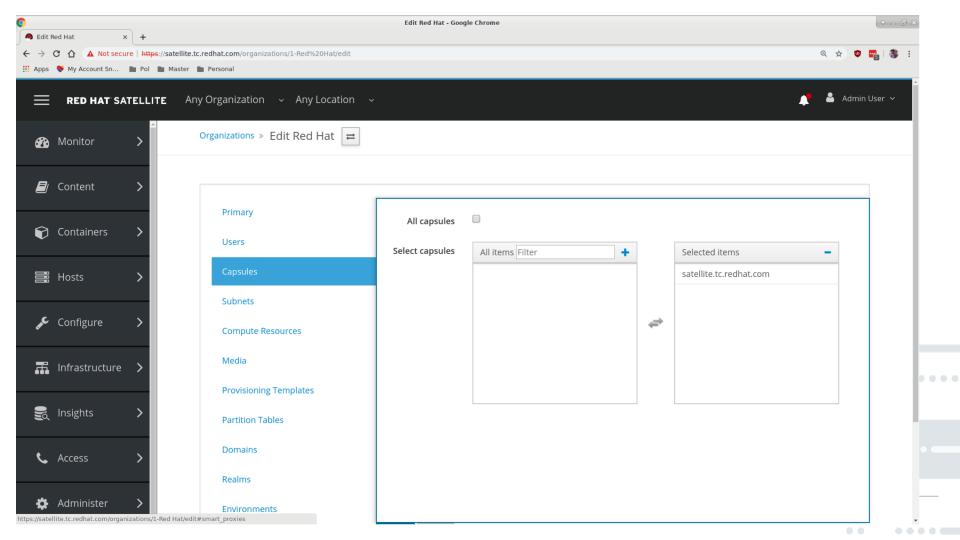
Organizations are units which allow you to segregate workloads and subscriptions

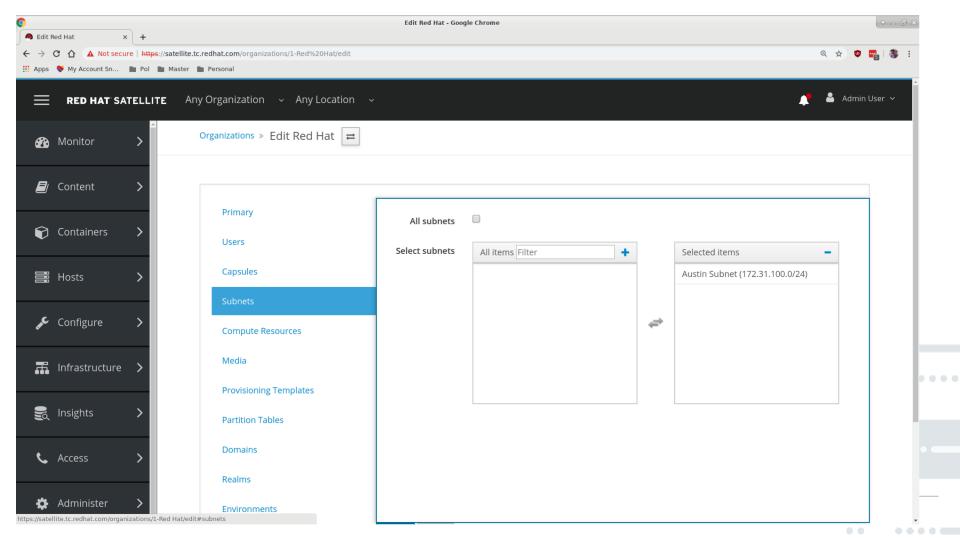
- You might have multiple companies under one parent company
- You might have outsource partners who manage a set of systems
- You might have cost or organizational requirements

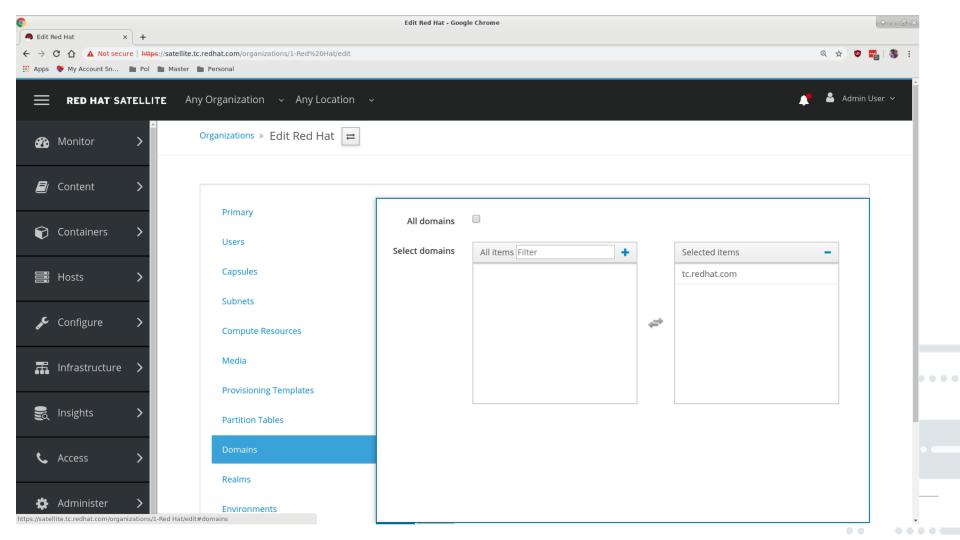


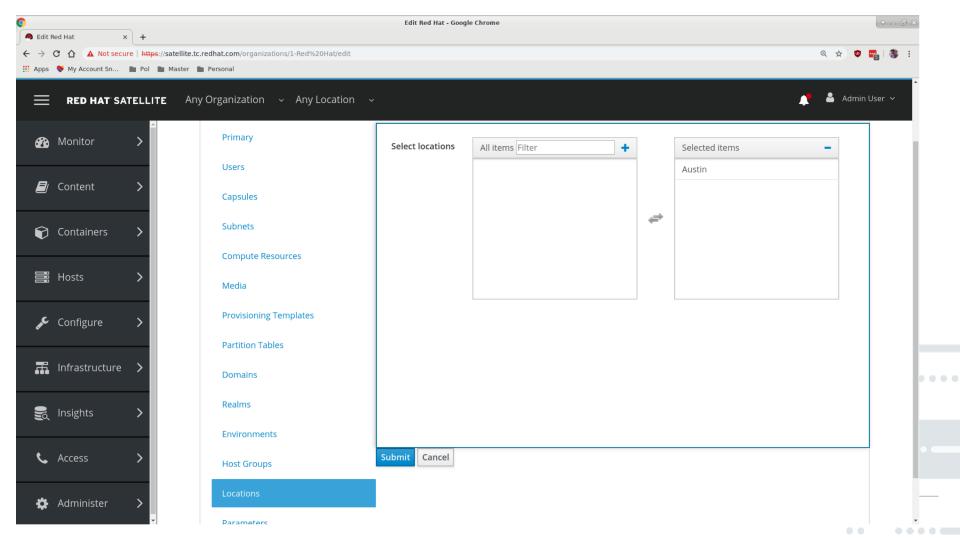












LIFECYCLE ENVIRONMENTS

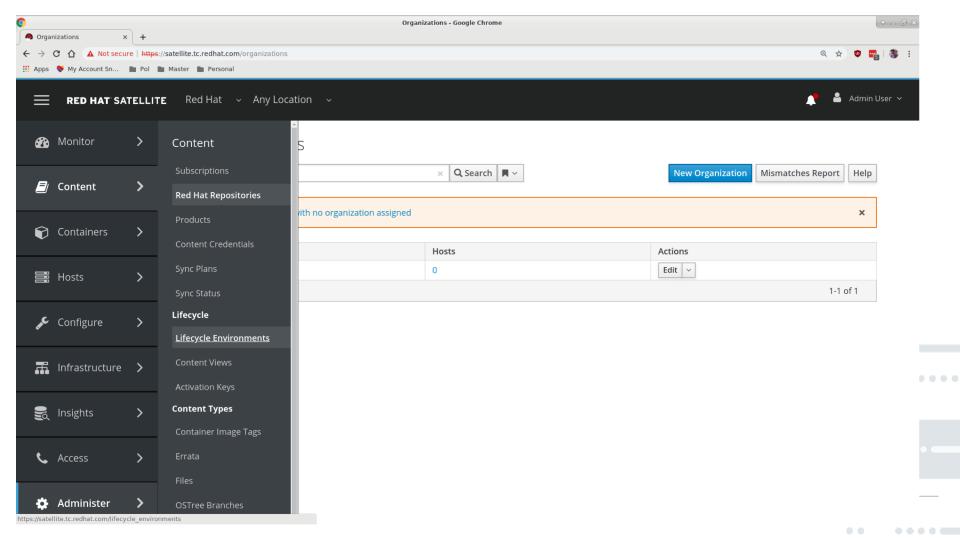
LIFECYCLE ENVIRONMENTS

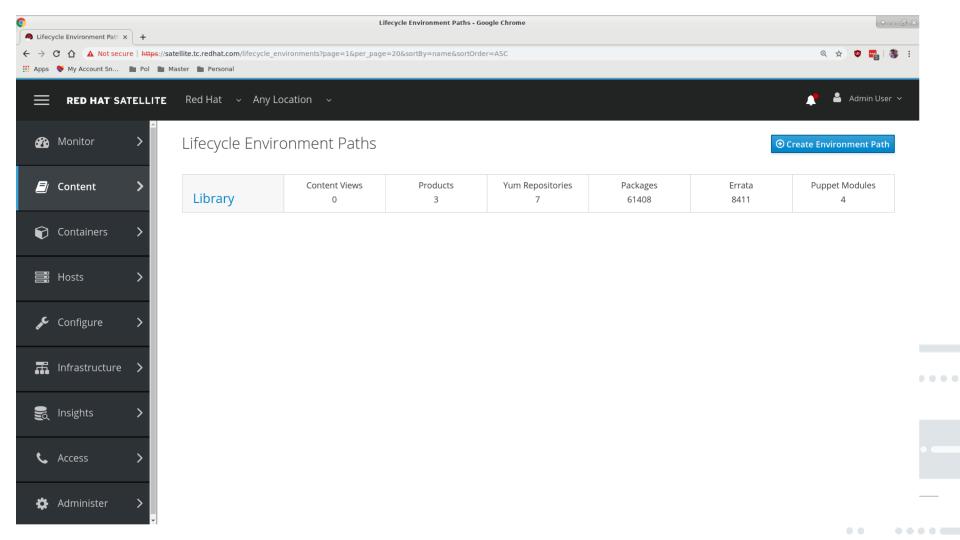
Lifecycle environments are used to group servers and determine what software is available to which servers

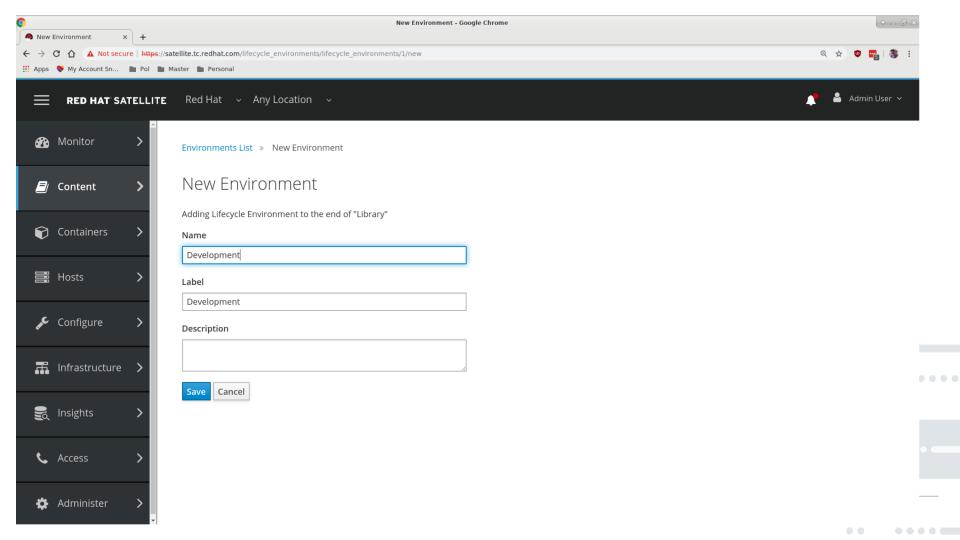
- A common way to have Dev, QA, and Production lifecycle environments
- Attach development servers to the dev lifecycle, QA servers to QA, and production to prod
- Allows new software to be tested in dev, checked in QA, and not released to prod until it's fully vetted and tested.

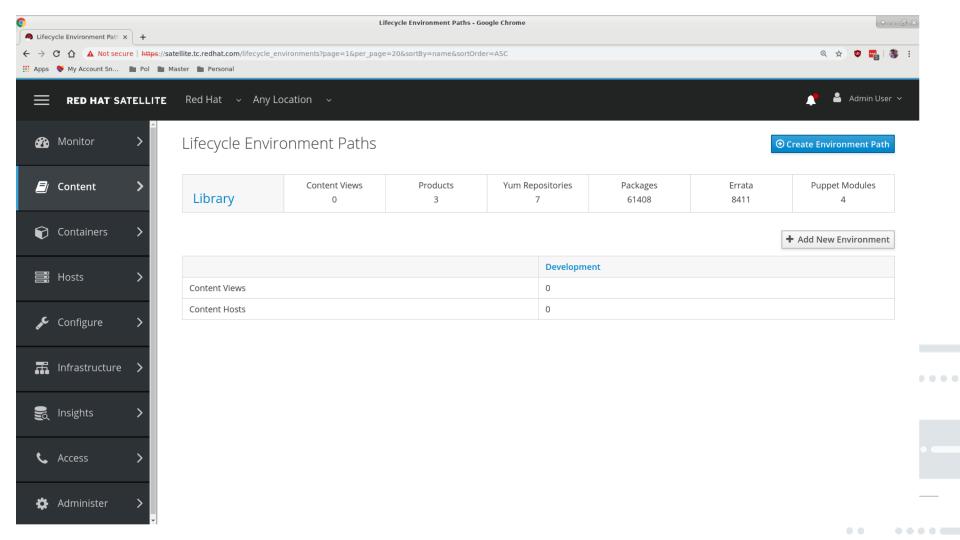
Satellite pulls packages from the Red Hat CDN to a lifecycle environment called the Library.

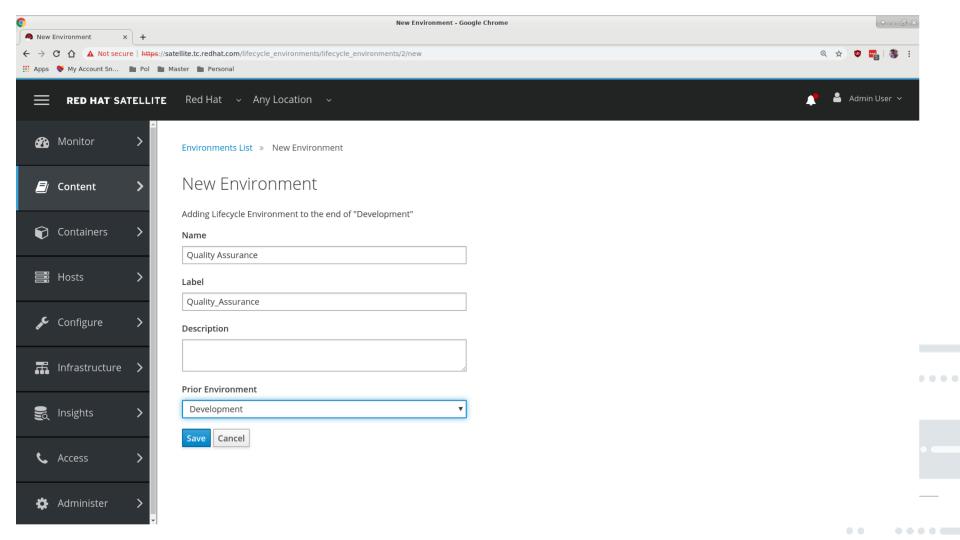
- You should not attach systems to the Library. Its content will change pretty much every time you sync.
- Instead, copy content from the Library to dev, and test deployment on test servers. Then move
 that software to QA and test function on QA servers. Finally, once testing is passed, move it to
 production servers.

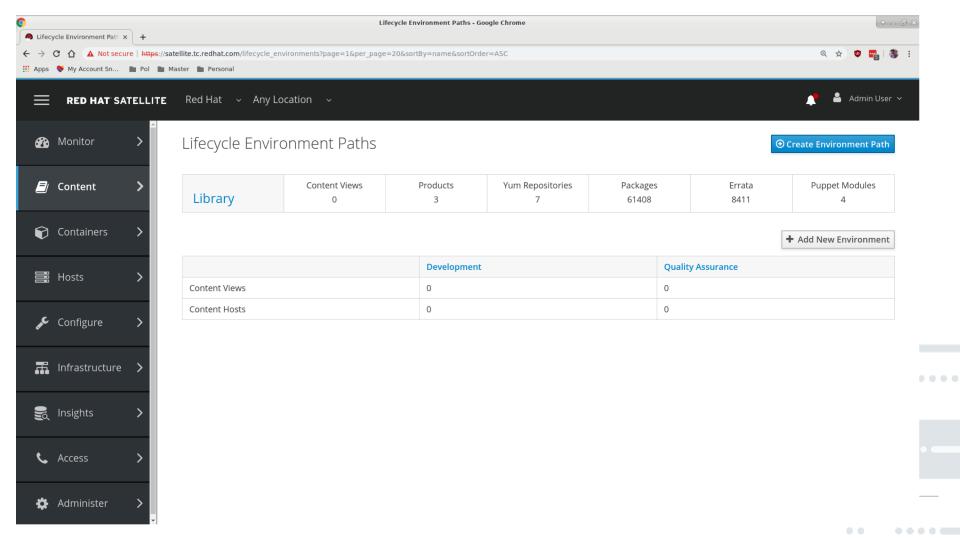


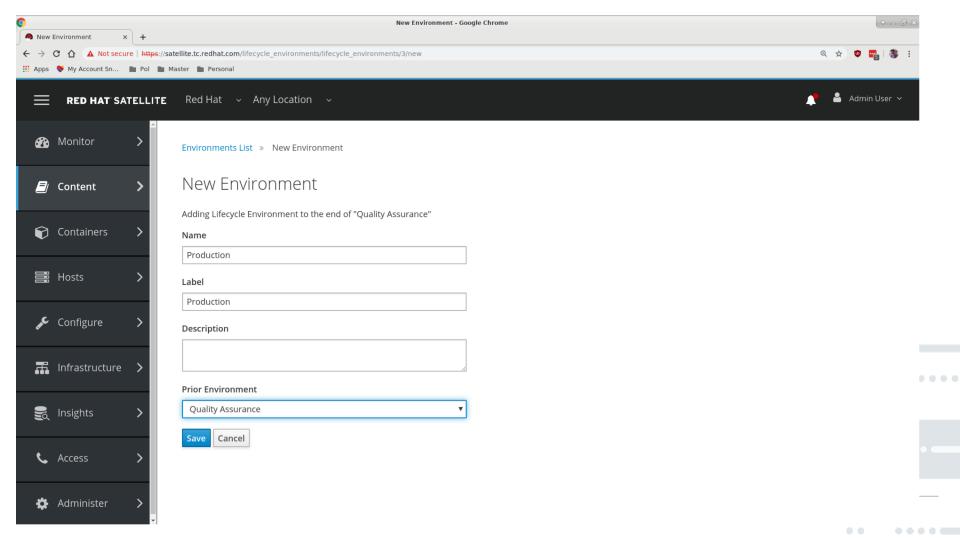


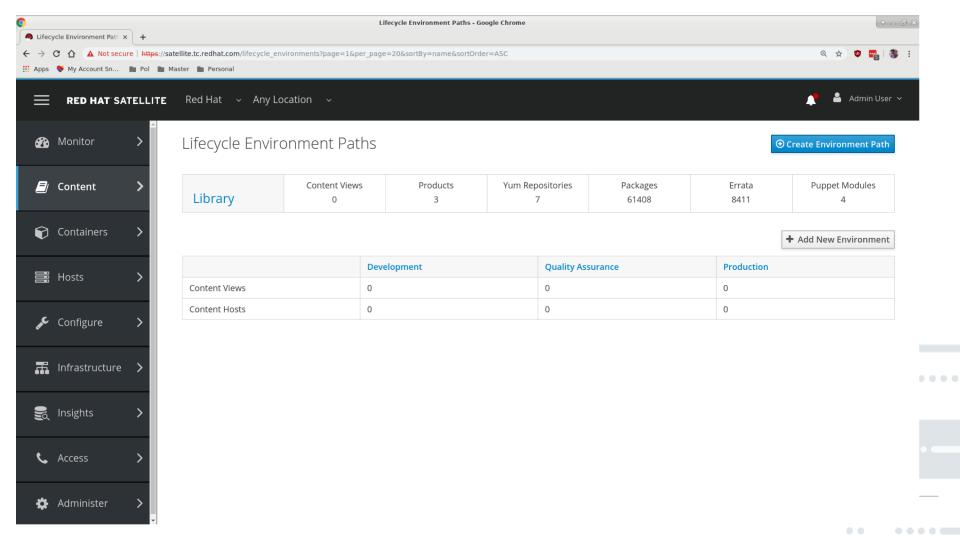












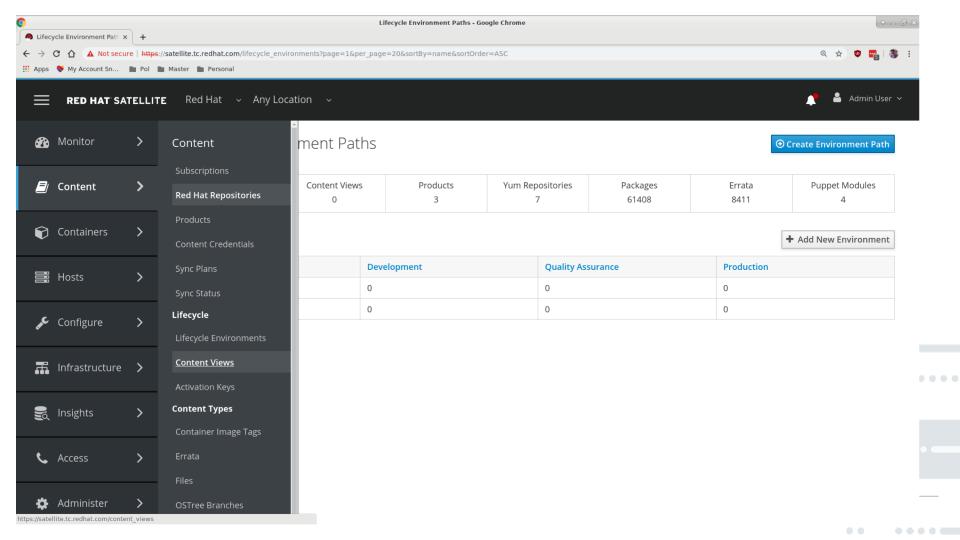
CONTENT VIEWS

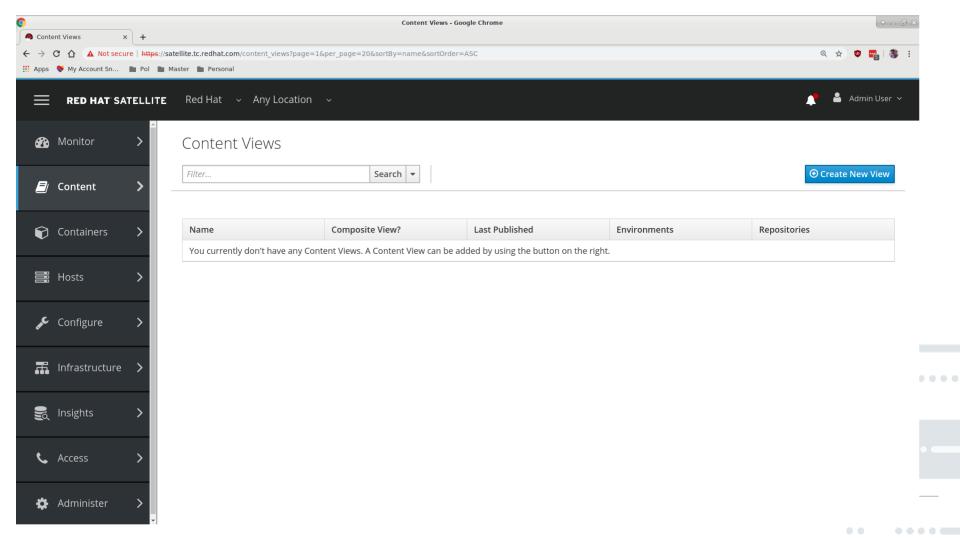
CONTENT VIEWS

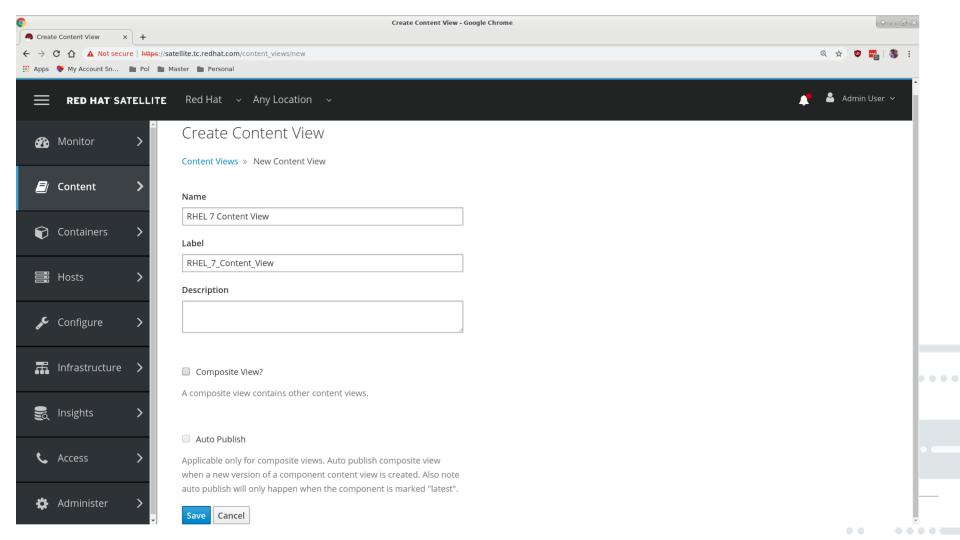
Content views allow you to group repositories together and make them available as an installation and update source.

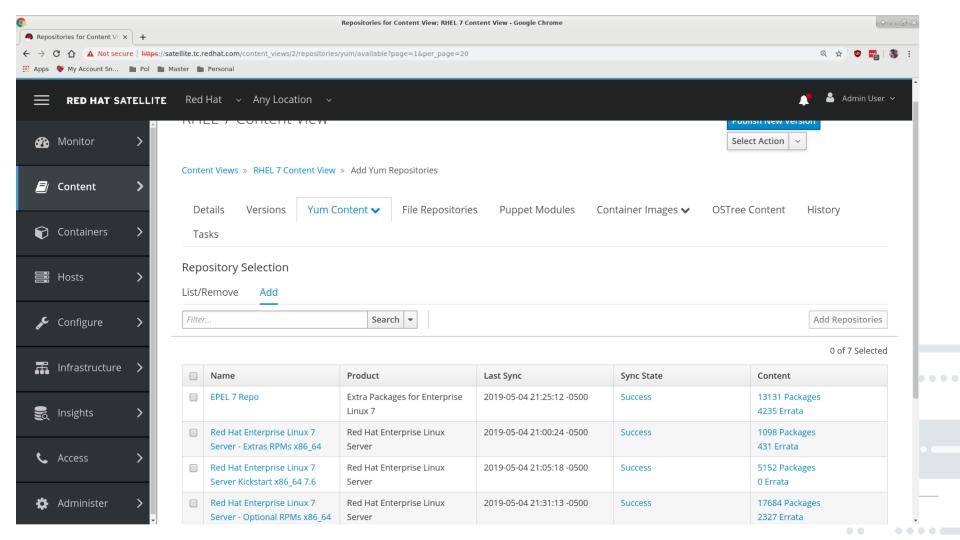
- You can have a simple setup where everything is under one CV base OS, extras, EPEL, supplementary, HA clustering and Resilient Storage, etc. Nothing wrong with that in smaller environments
- You can have complex setups where there's a CV for the base OS, a CV for extras, supplementary, optional, a CV for middleware, and so on.
- CVs can be aggregated as composite content views (CCVs).

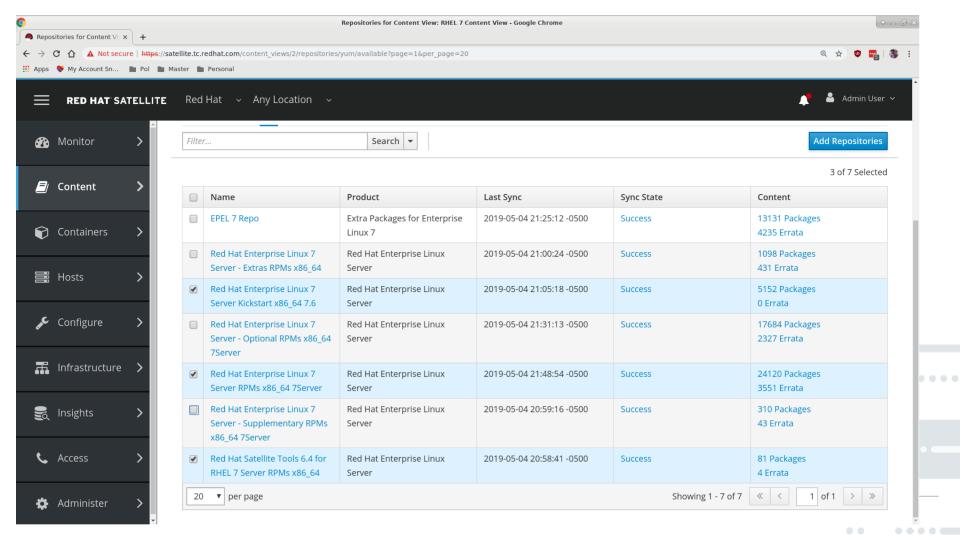


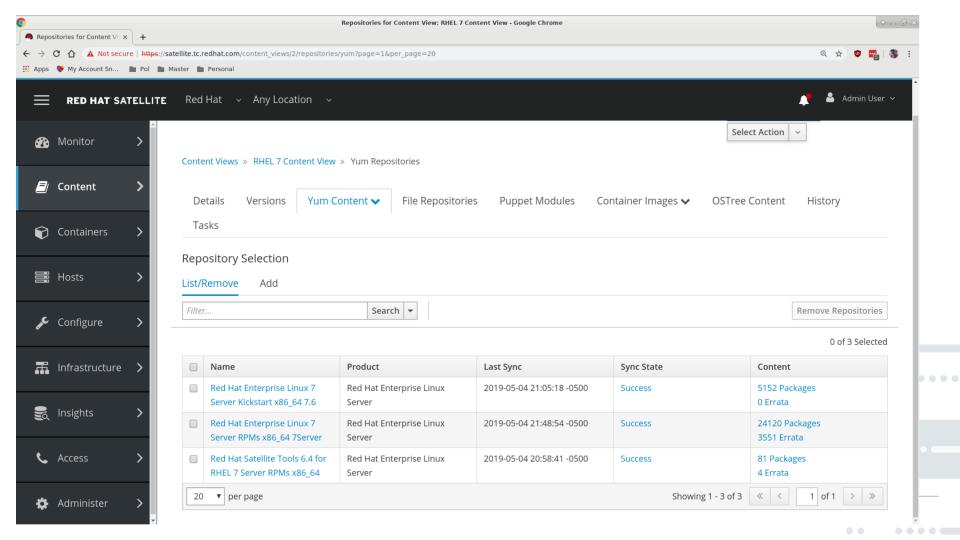


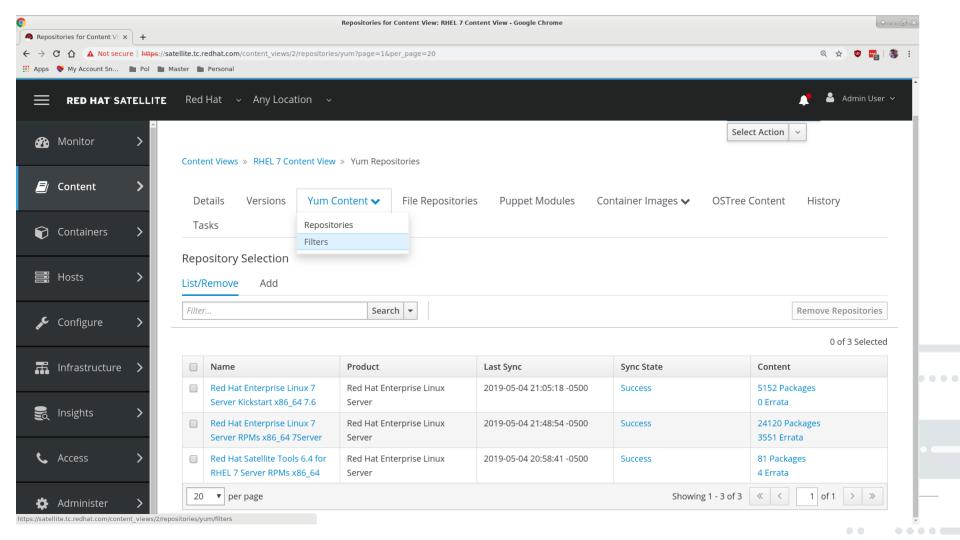


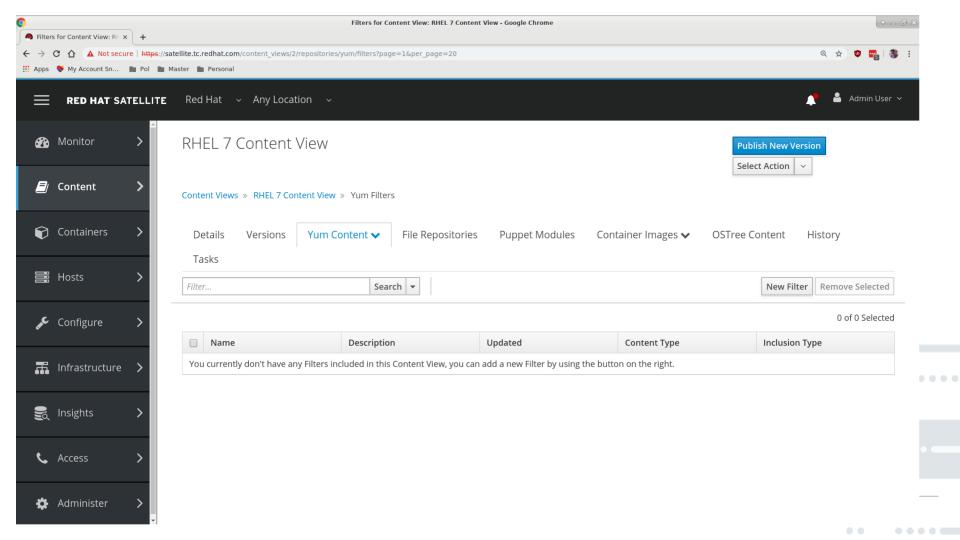








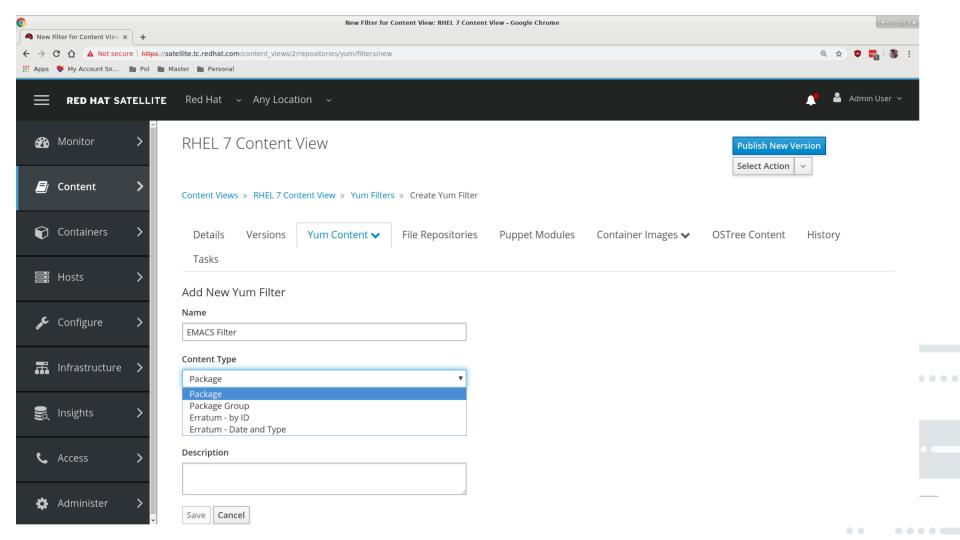


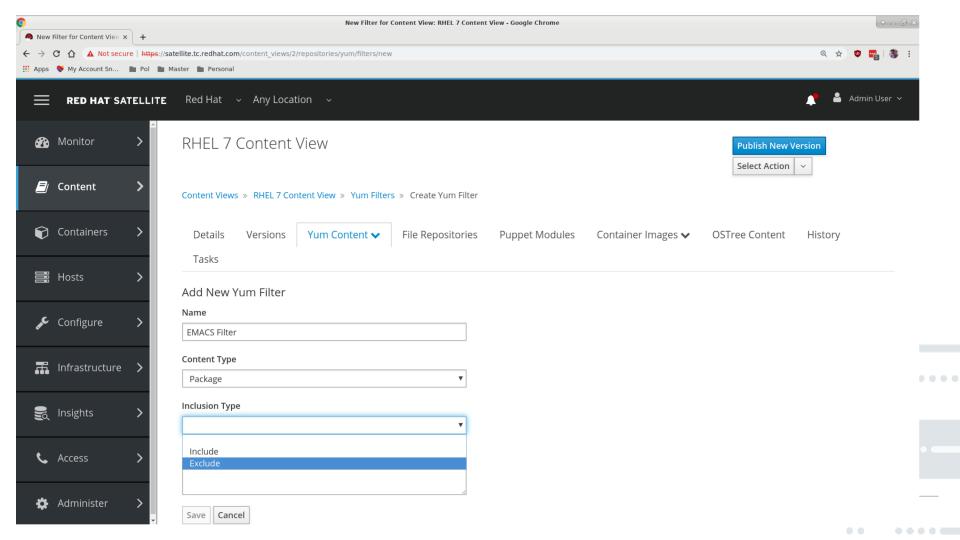


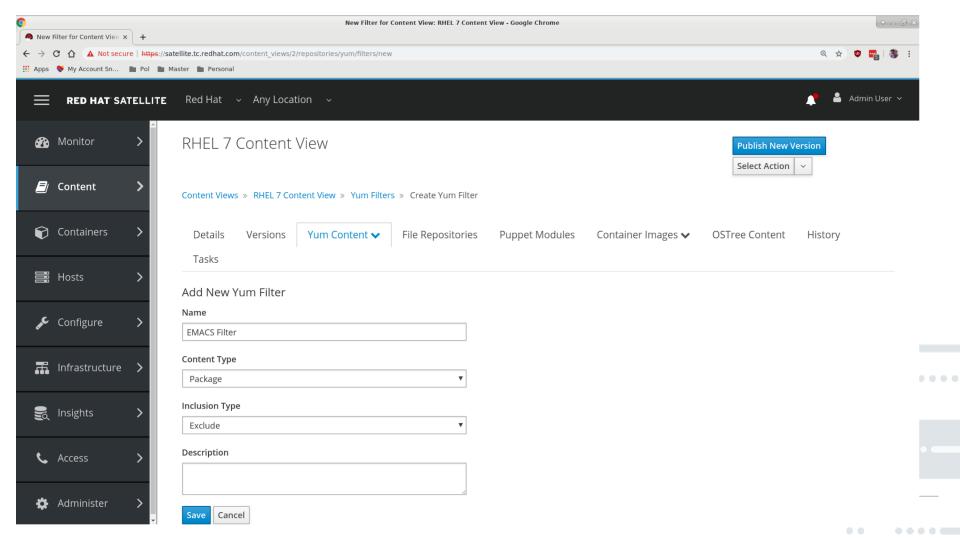
CONTENT VIEWS

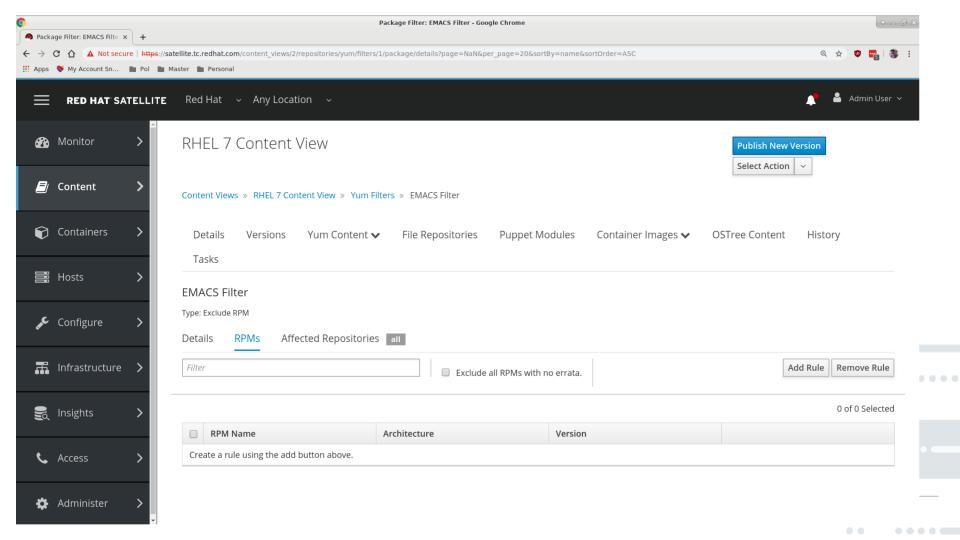
Filters

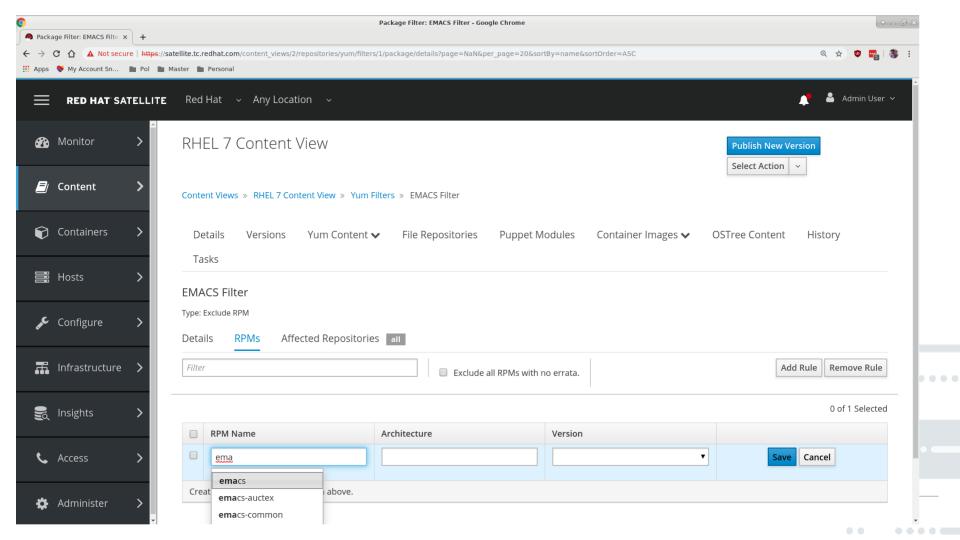
- Filter by date, by package name, etc.
- This is how you freeze a release by date

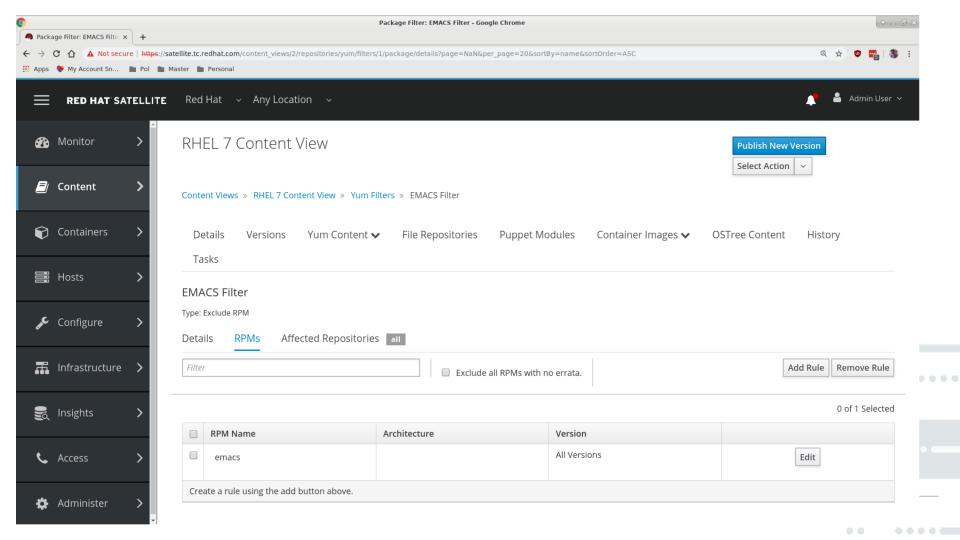


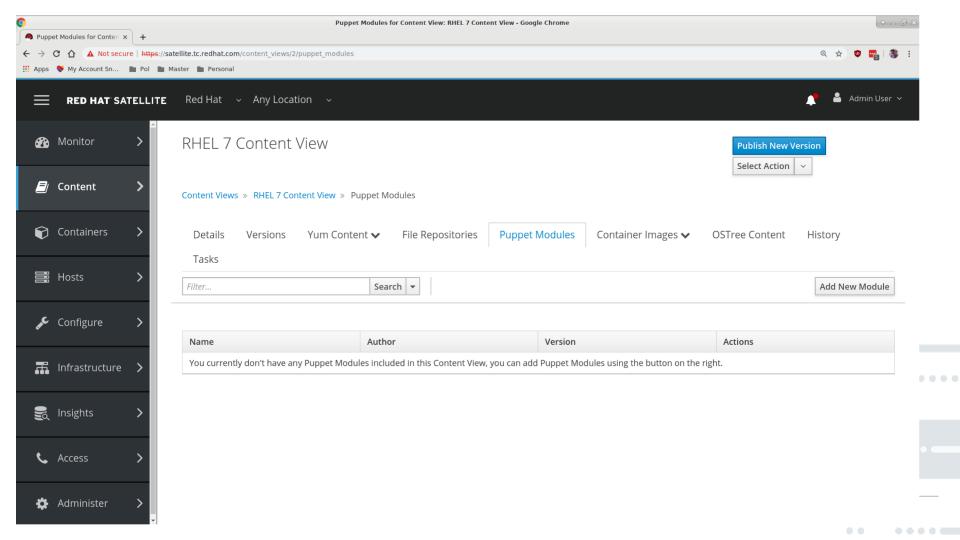


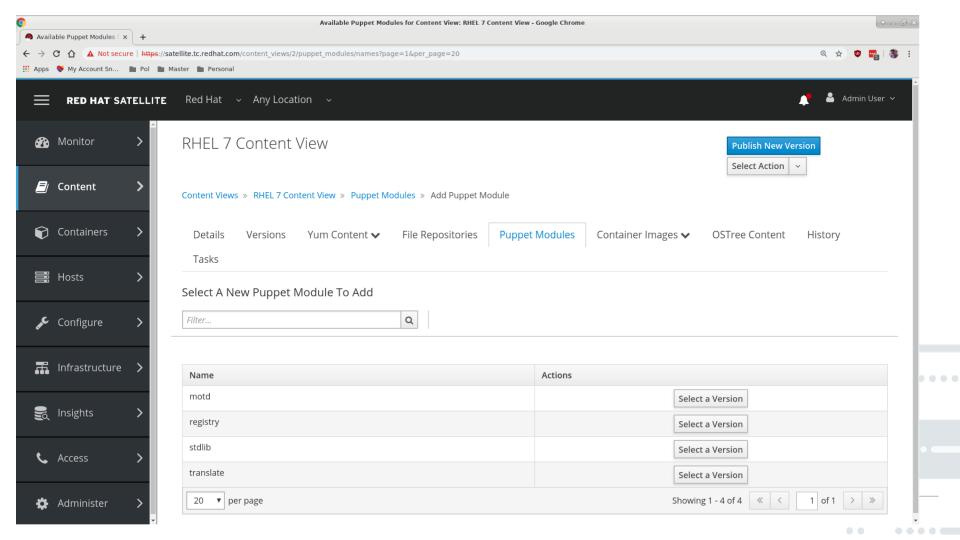


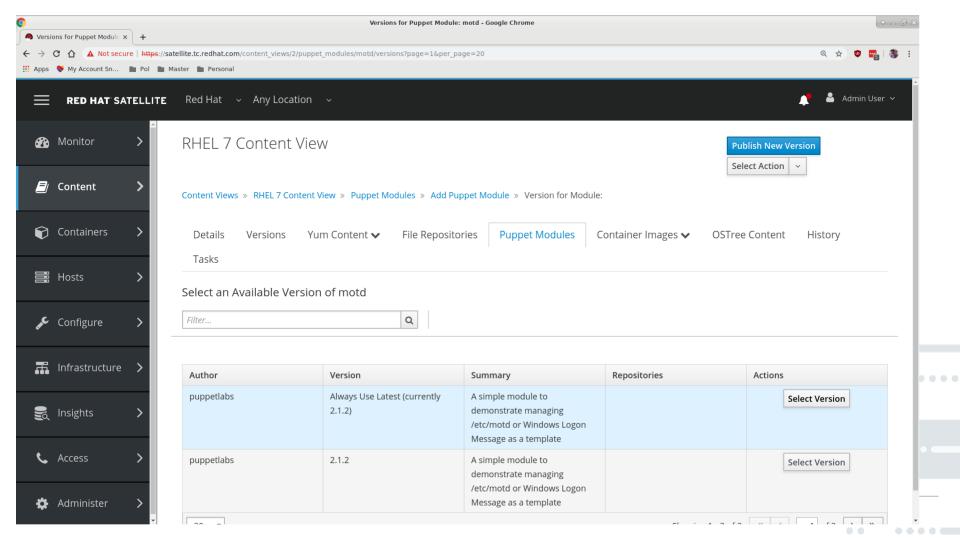


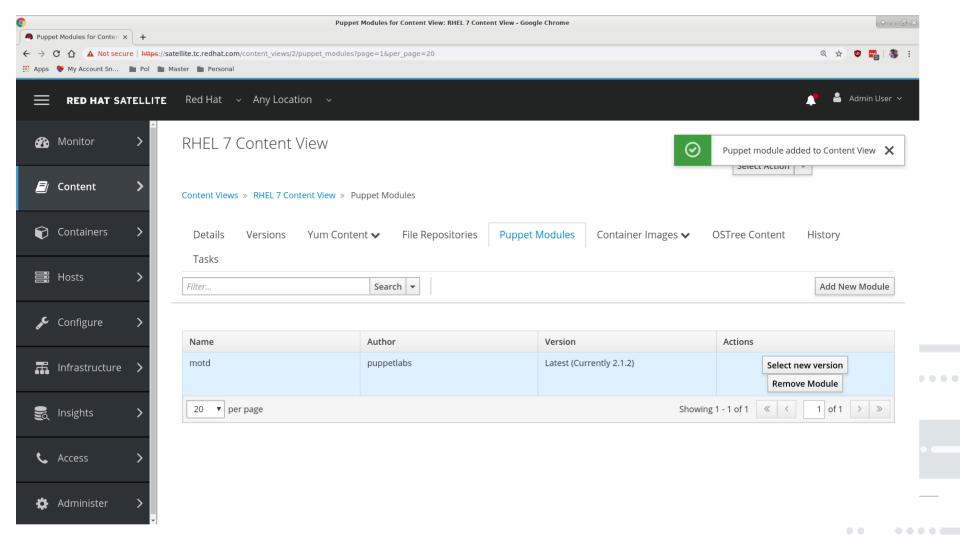


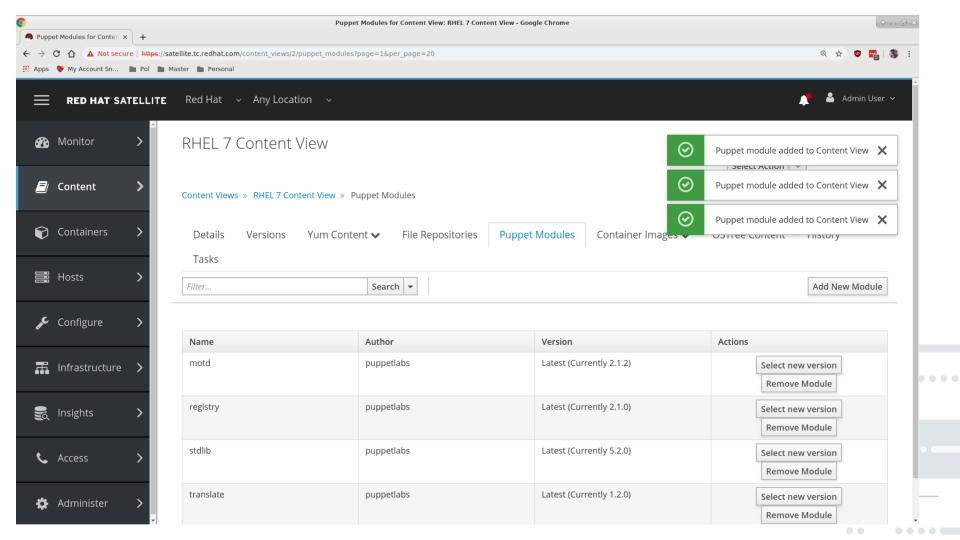


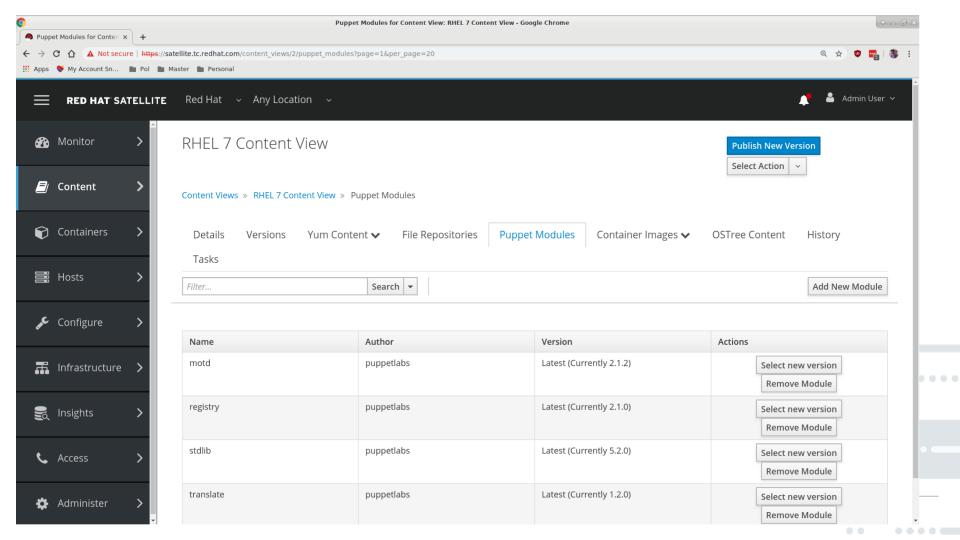


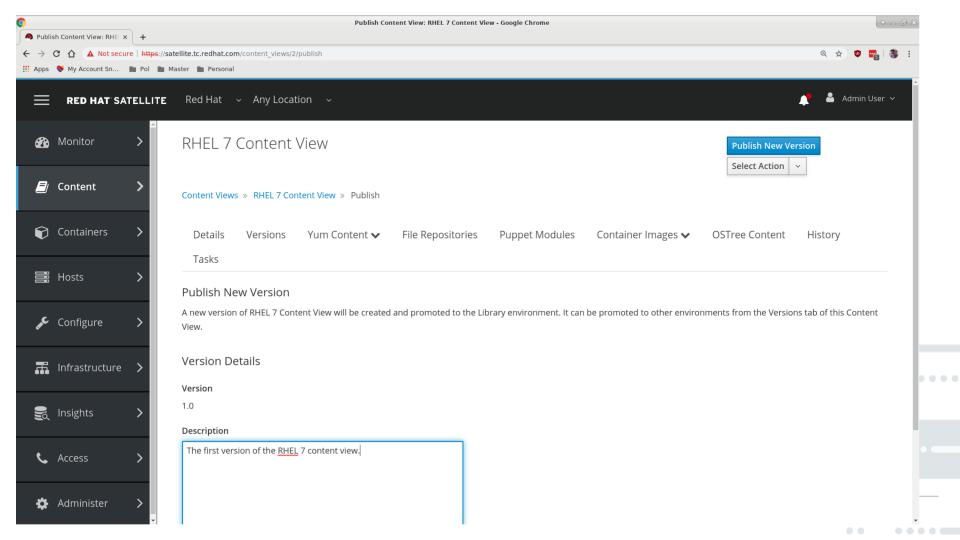


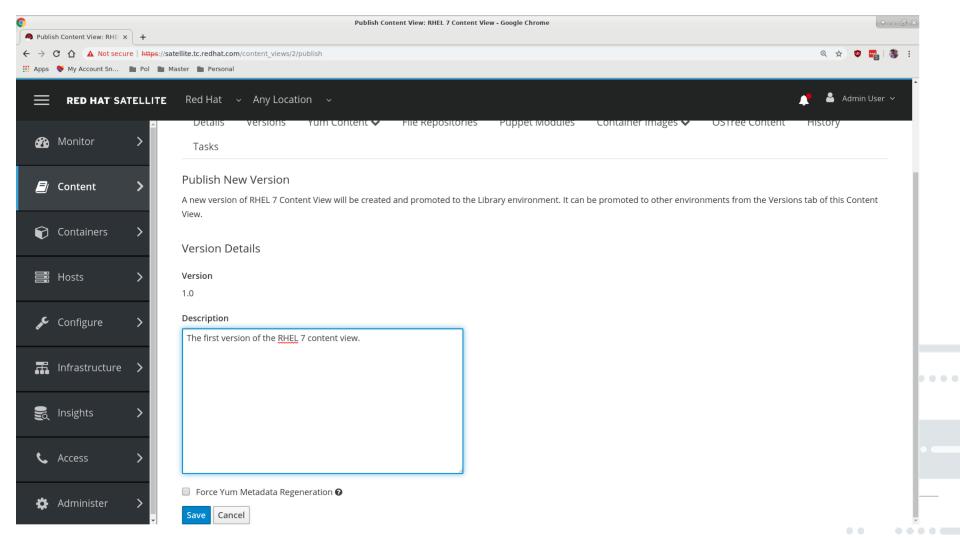


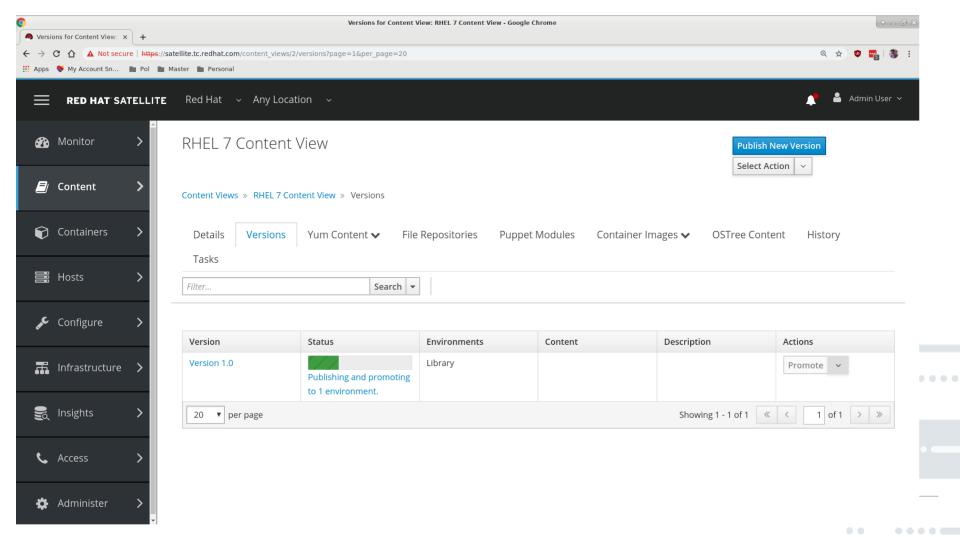


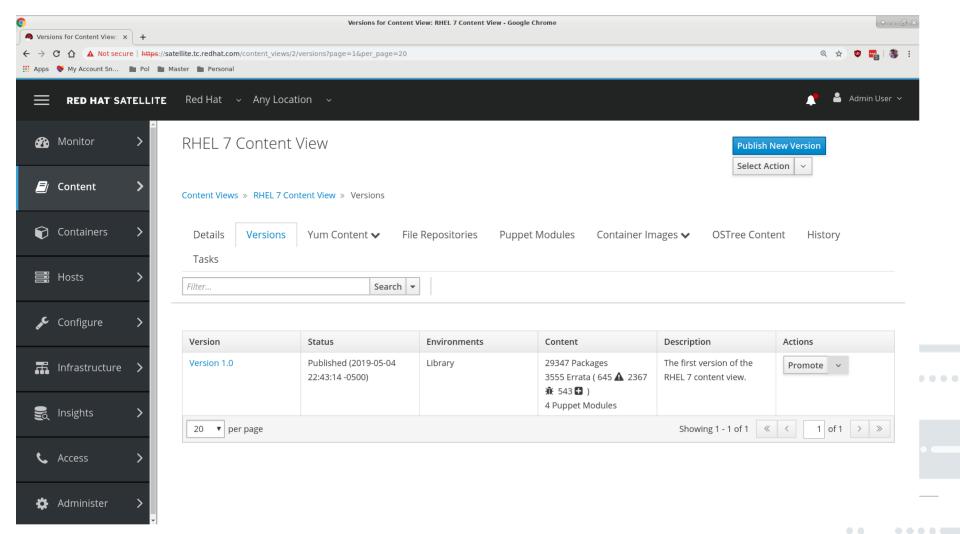


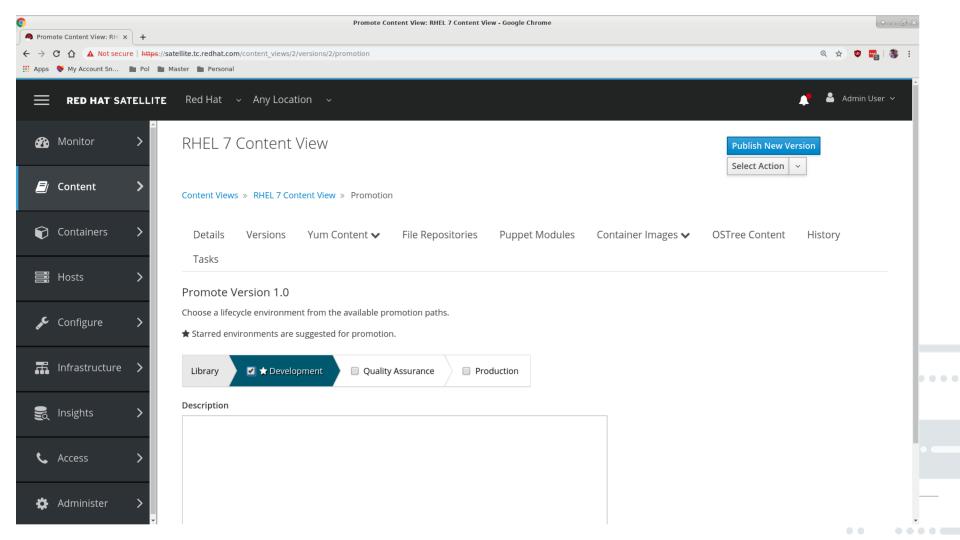


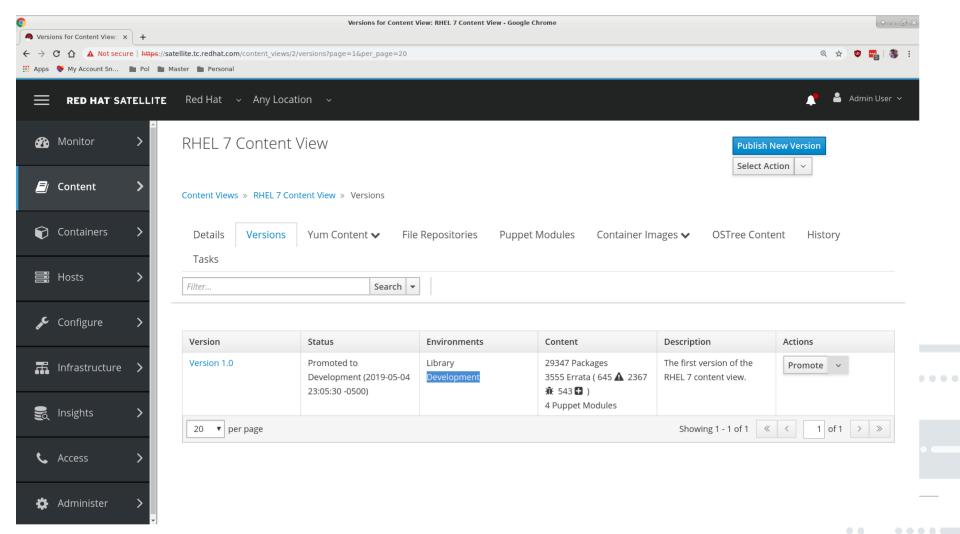


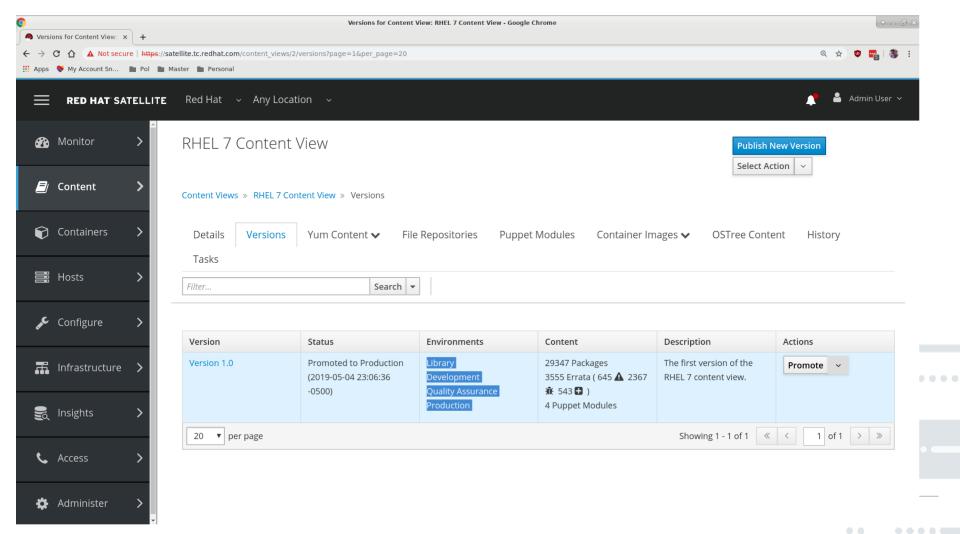


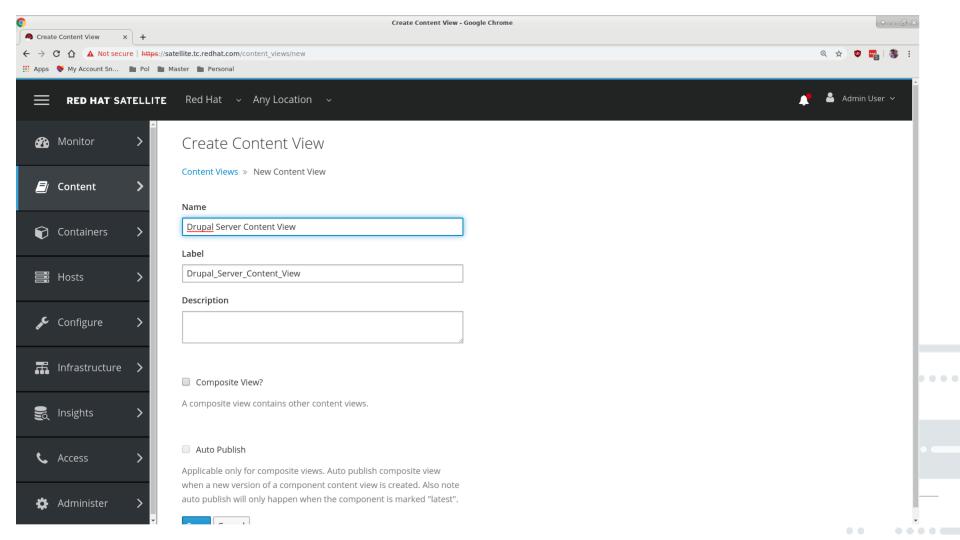


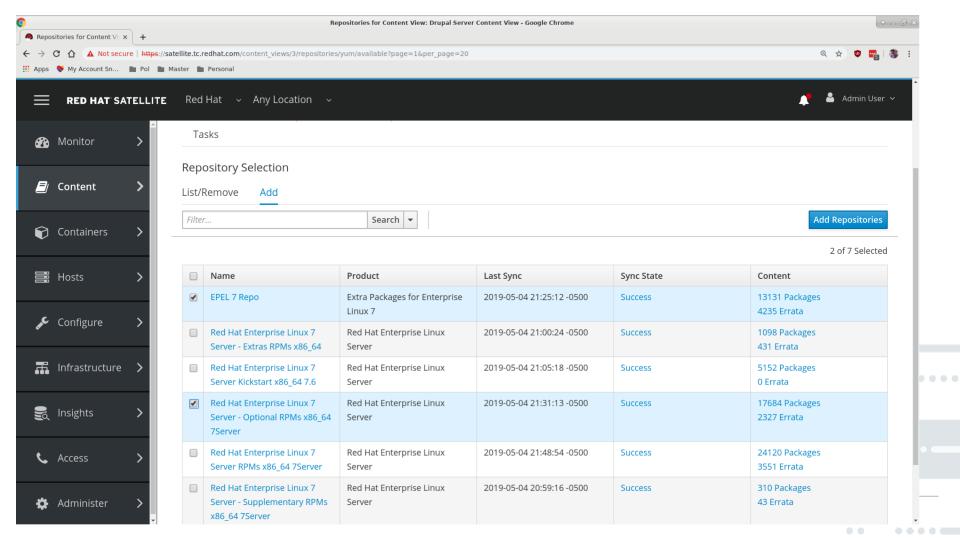


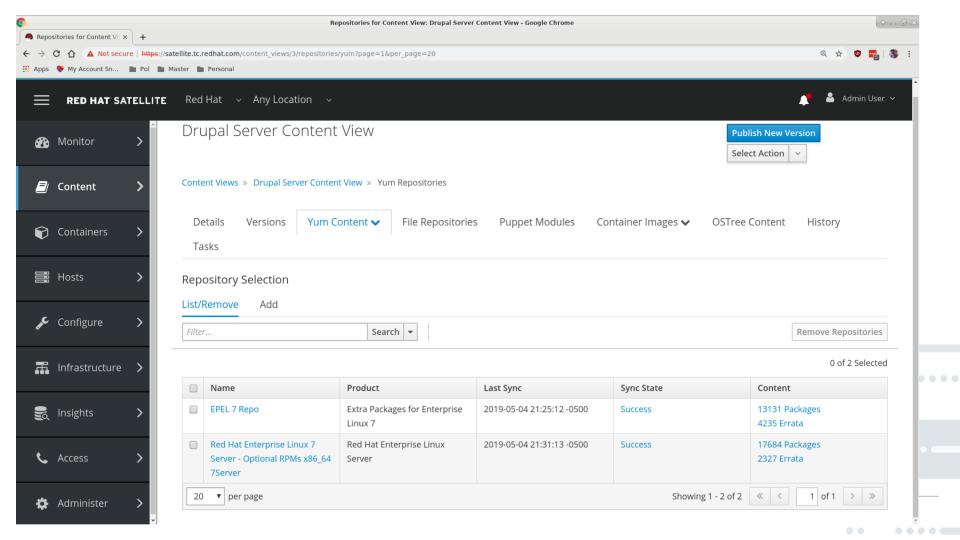


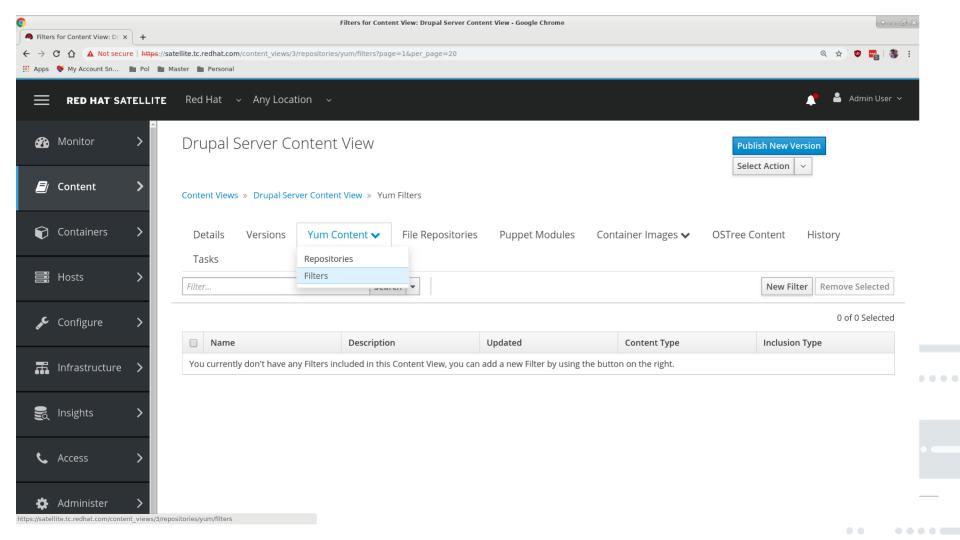


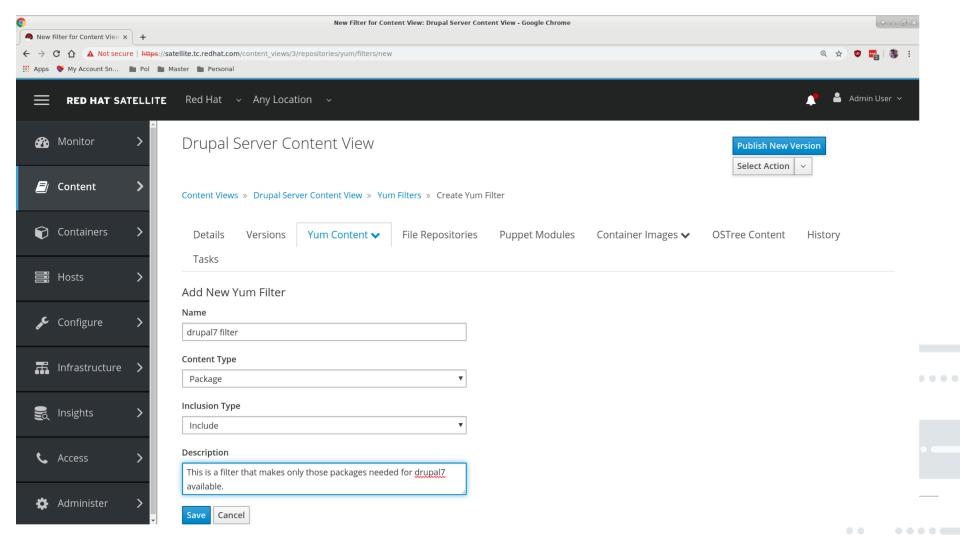


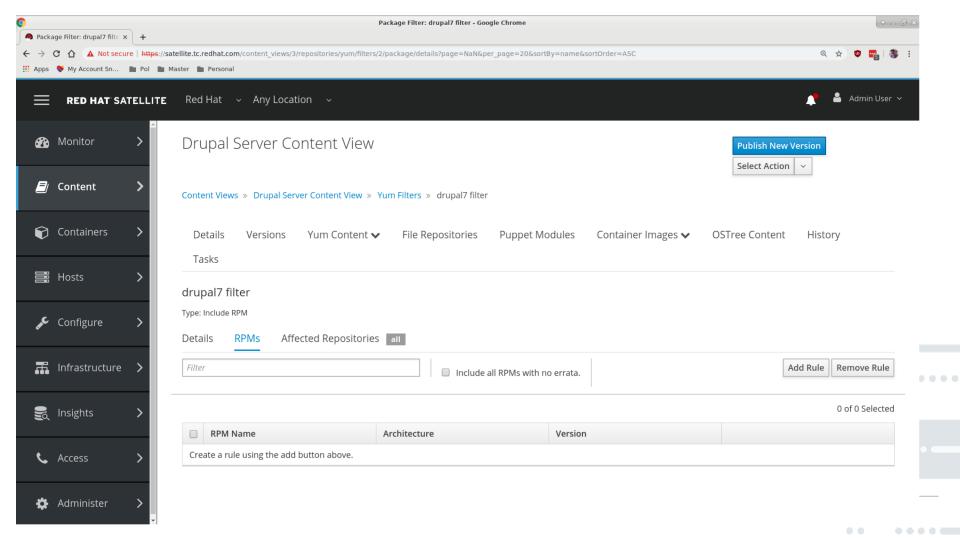


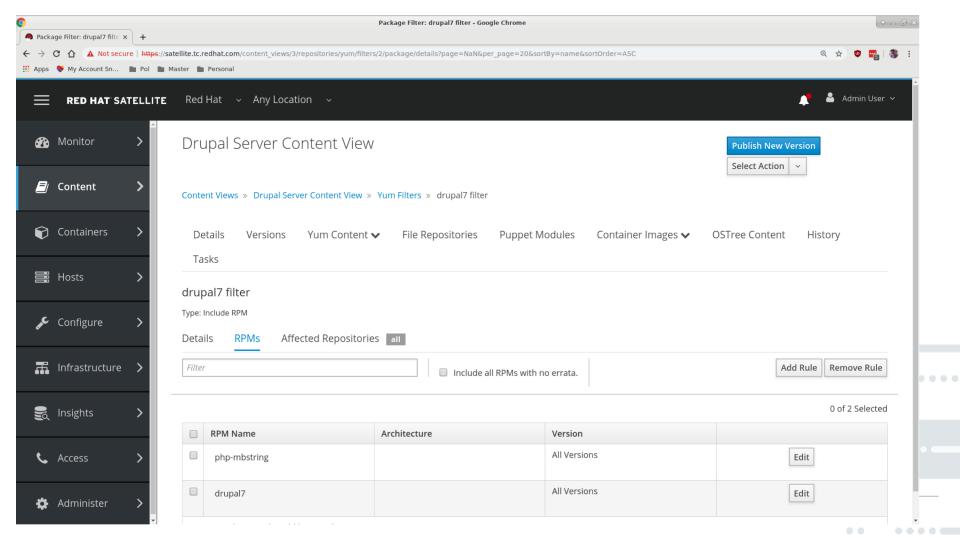


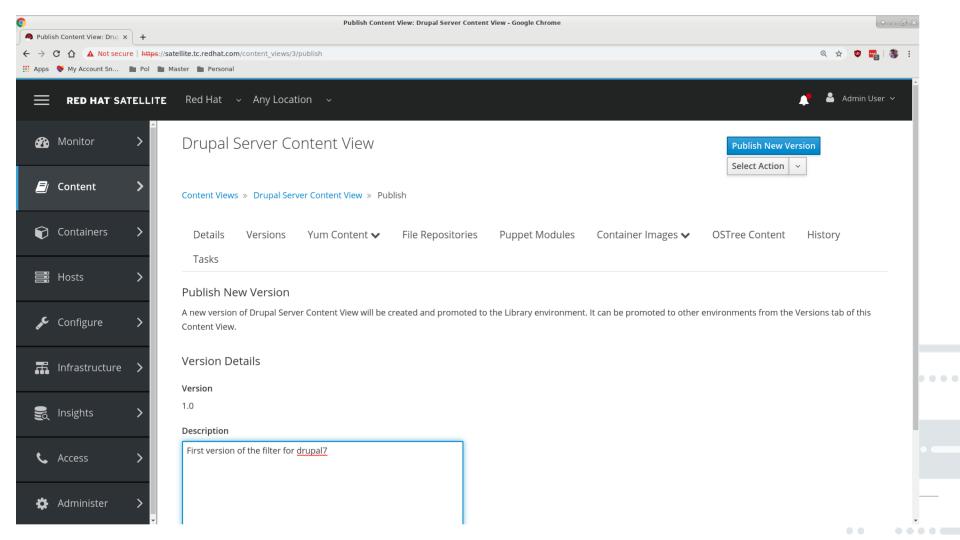


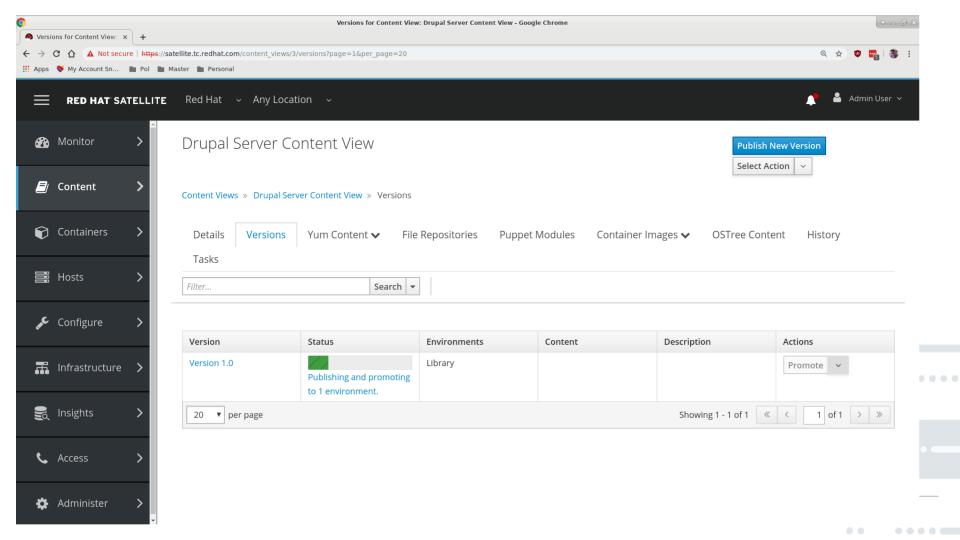


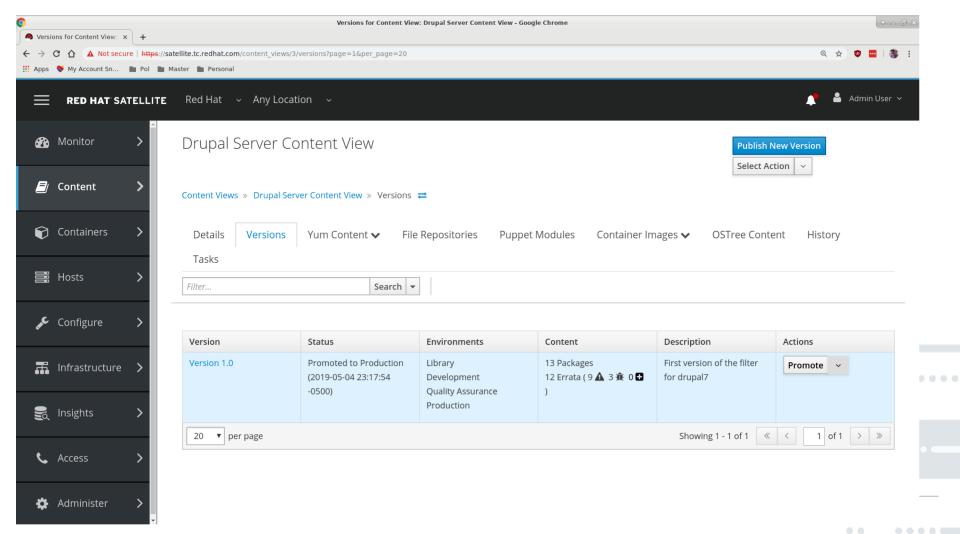


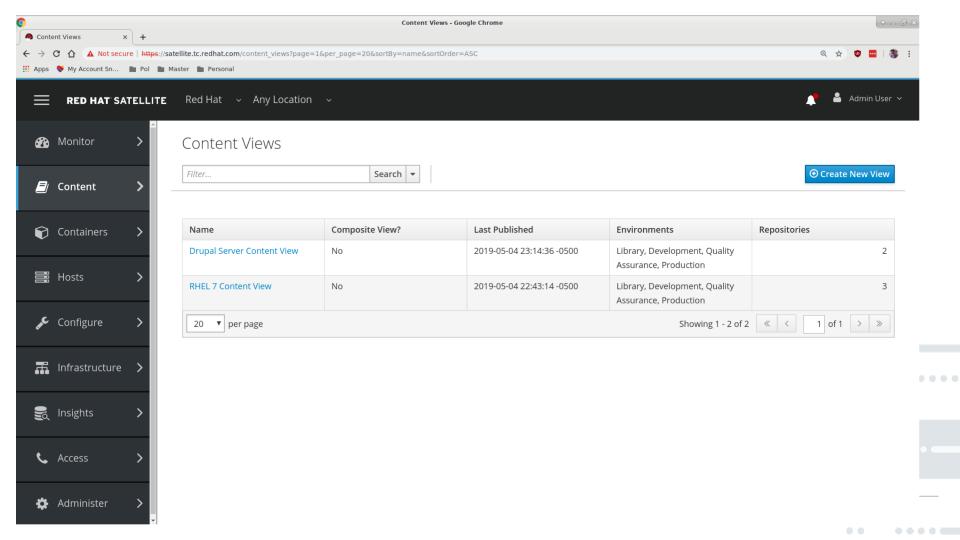


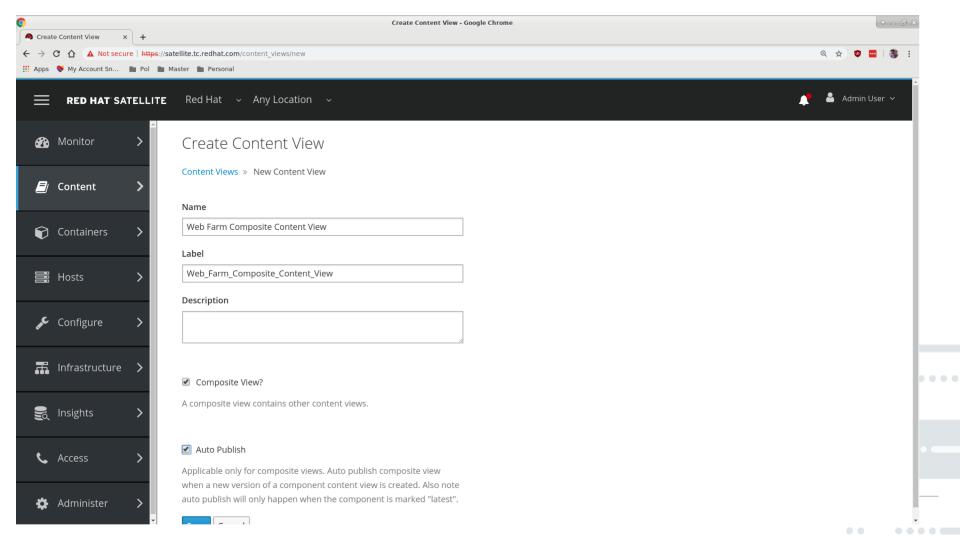


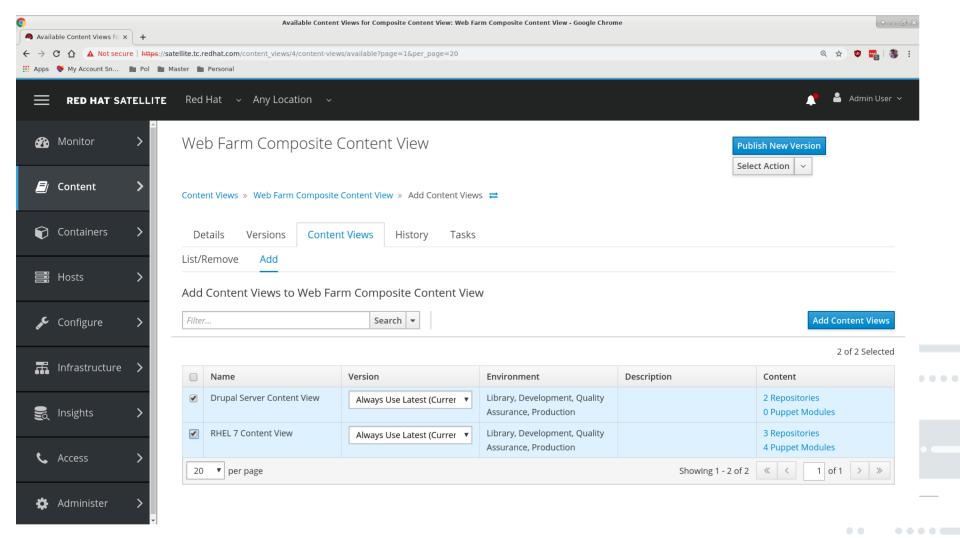


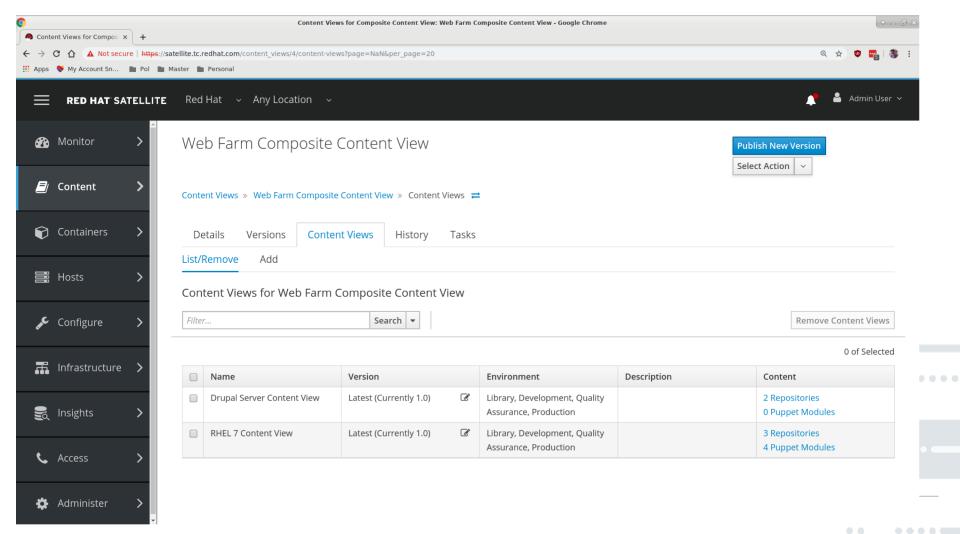


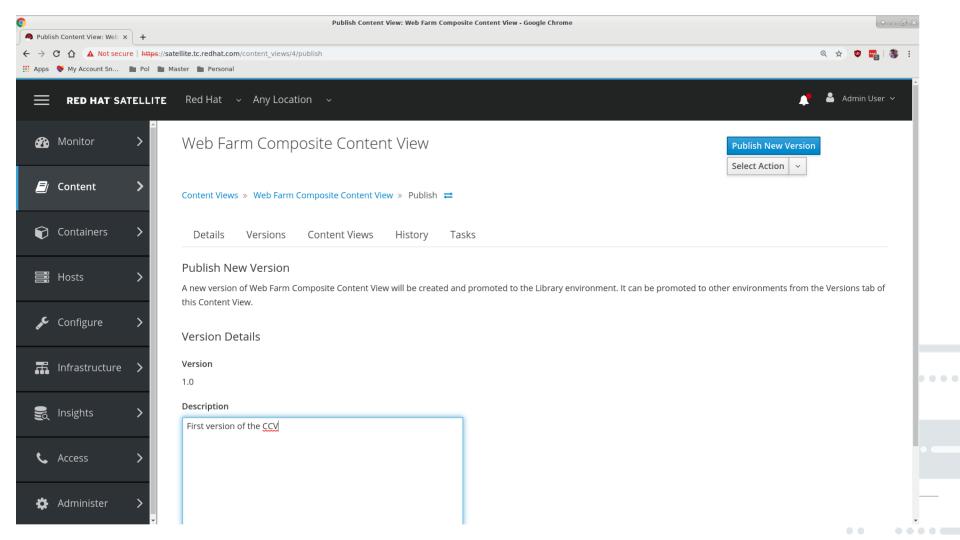


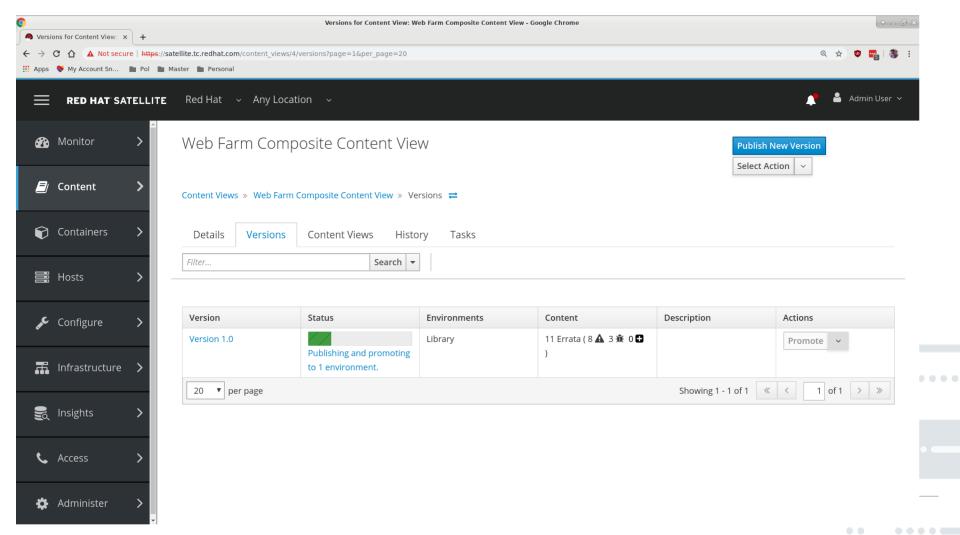


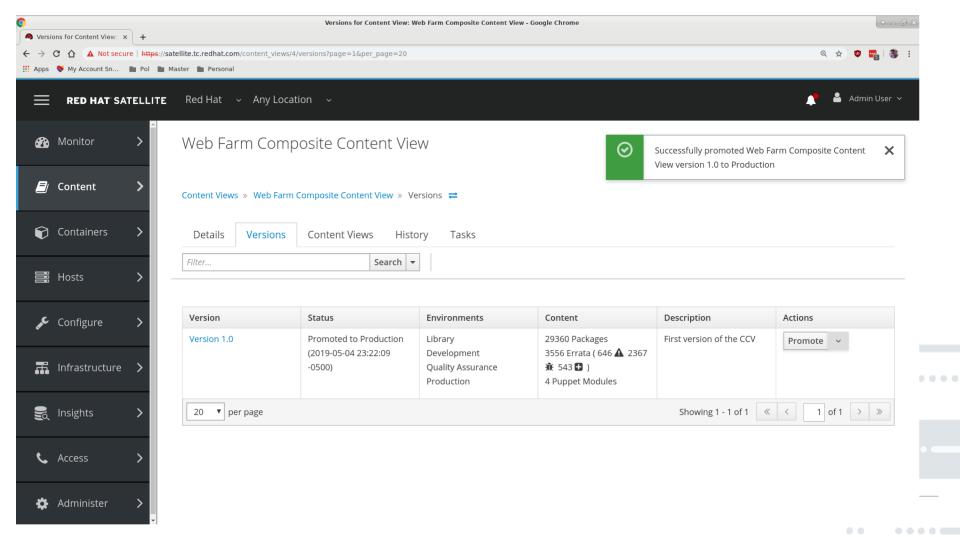


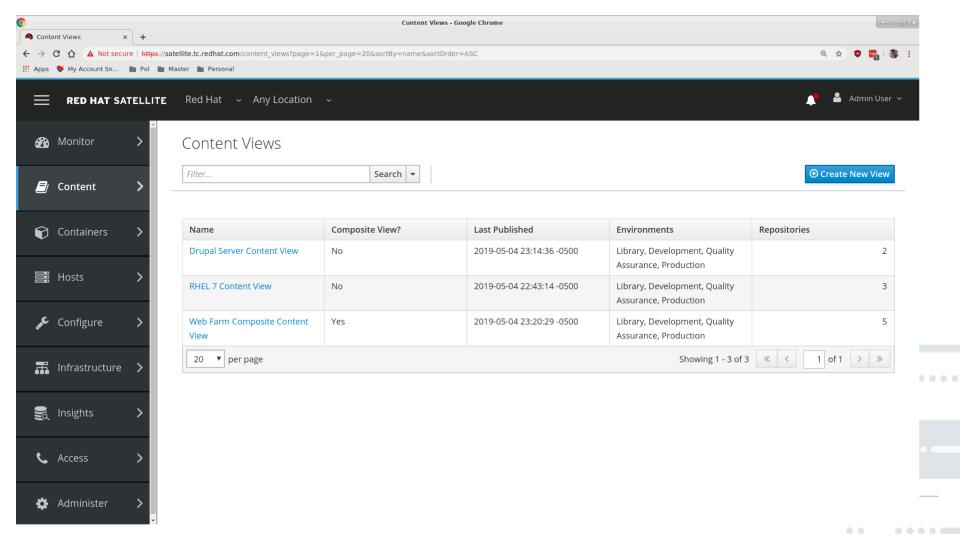










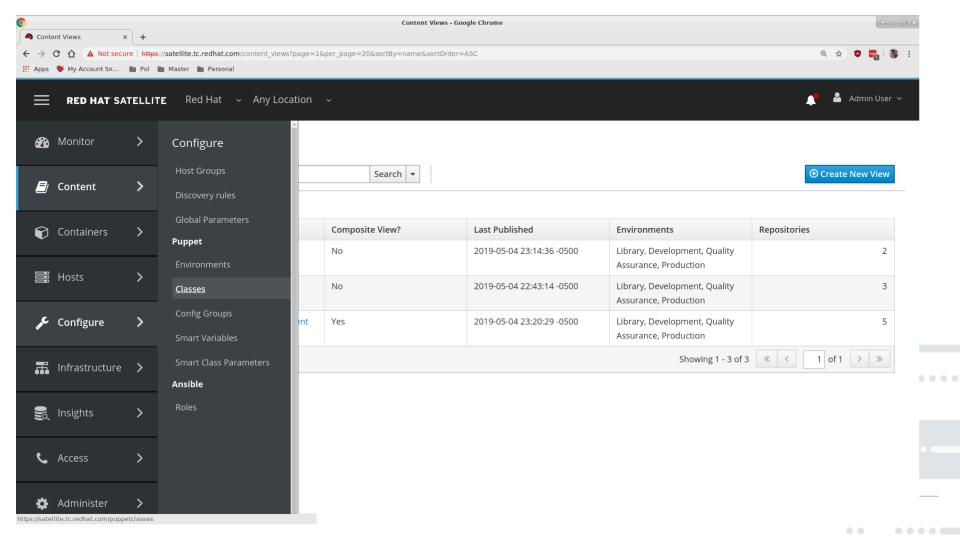


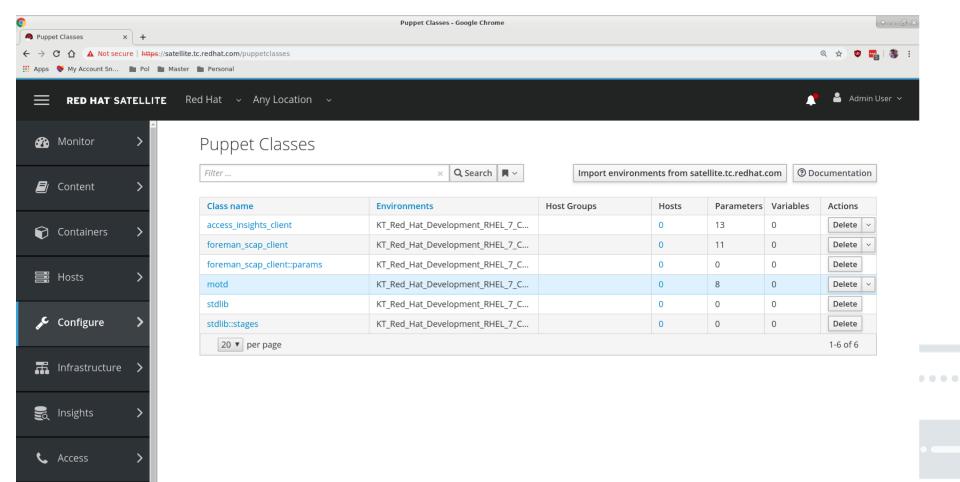
PUPPET CLASSES

PUPPET CLASSES

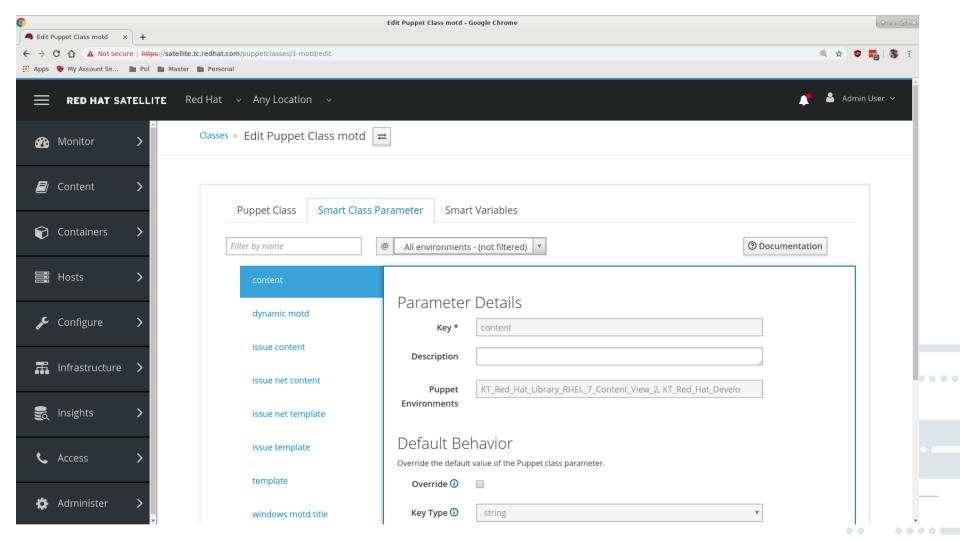
Puppet is used for configuration management

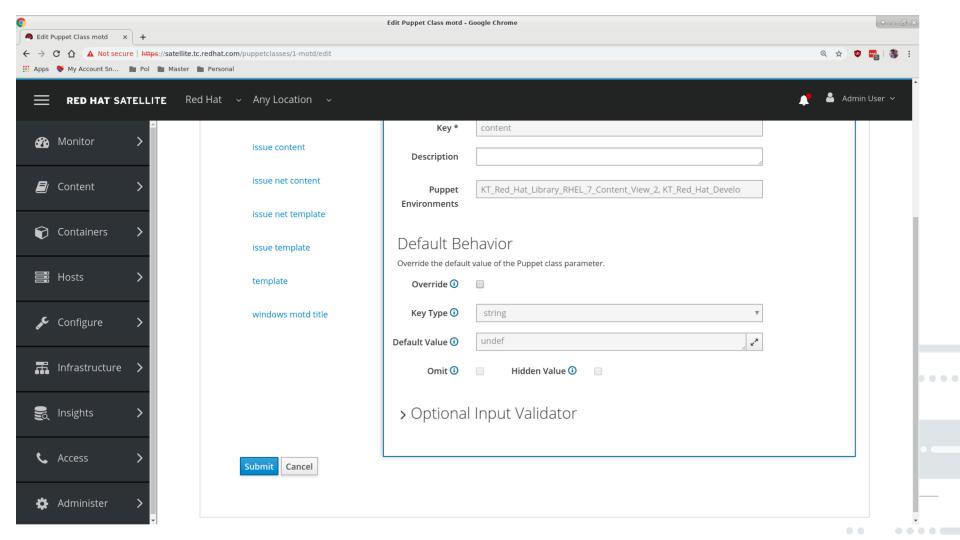
• Set up customization for your puppet modules, if so desired

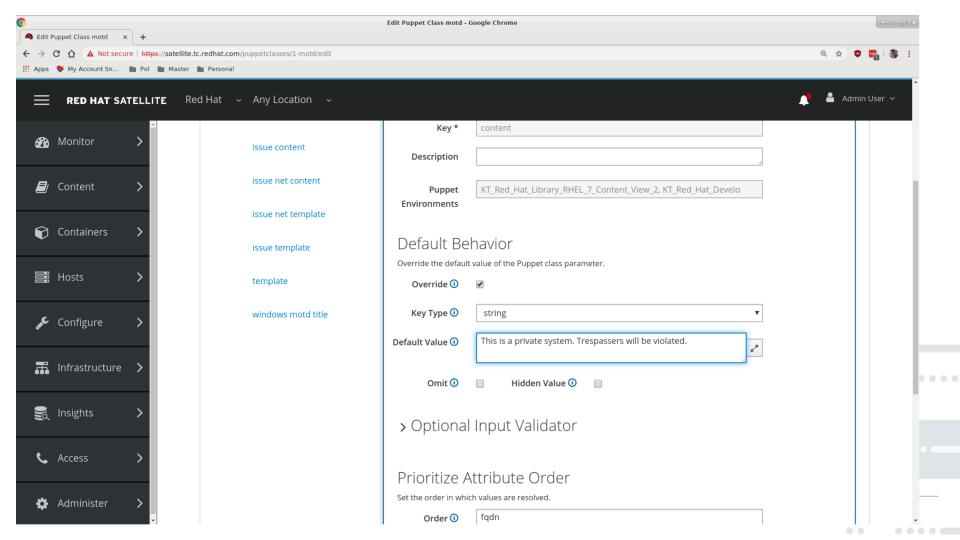


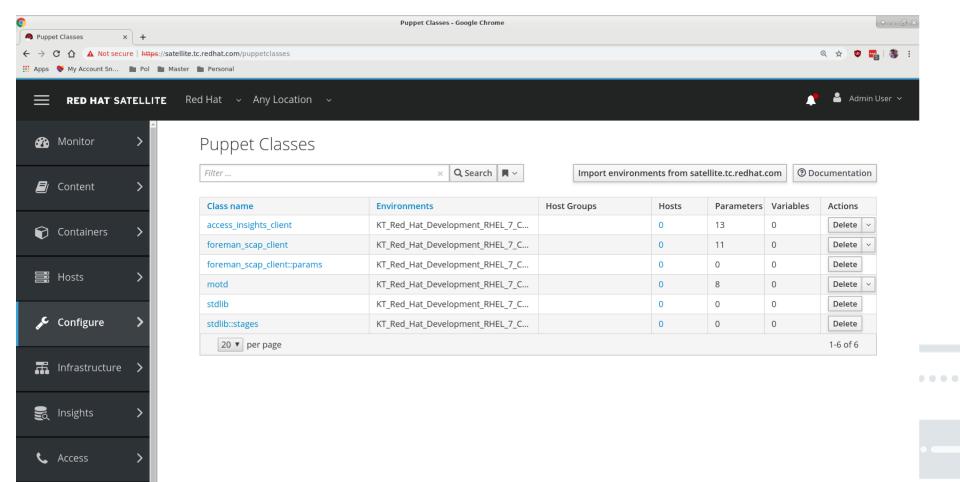


Administer









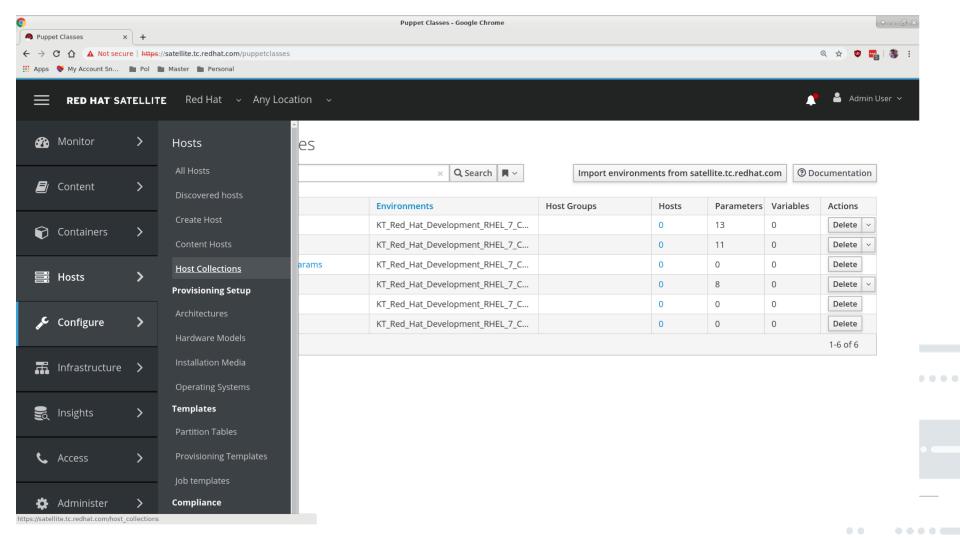
Administer

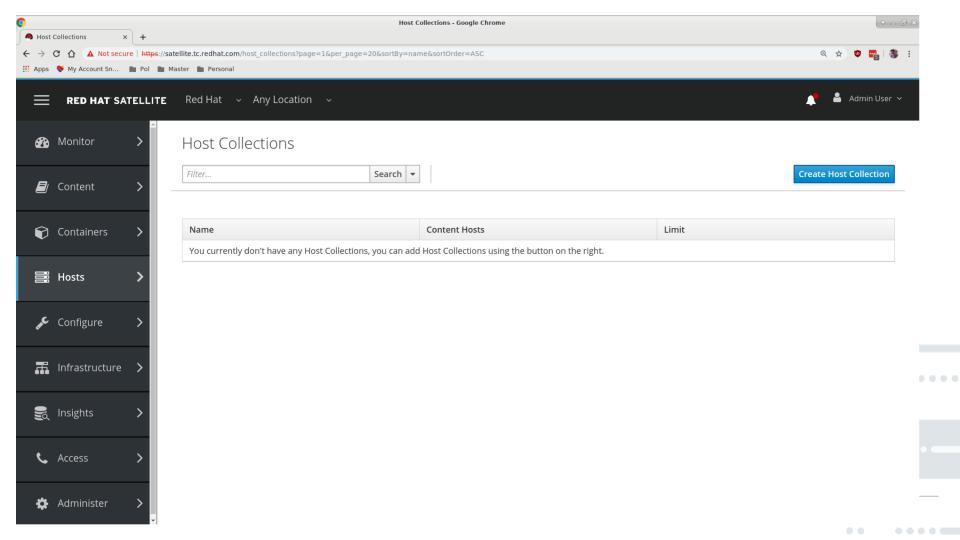
HOST COLLECTIONS

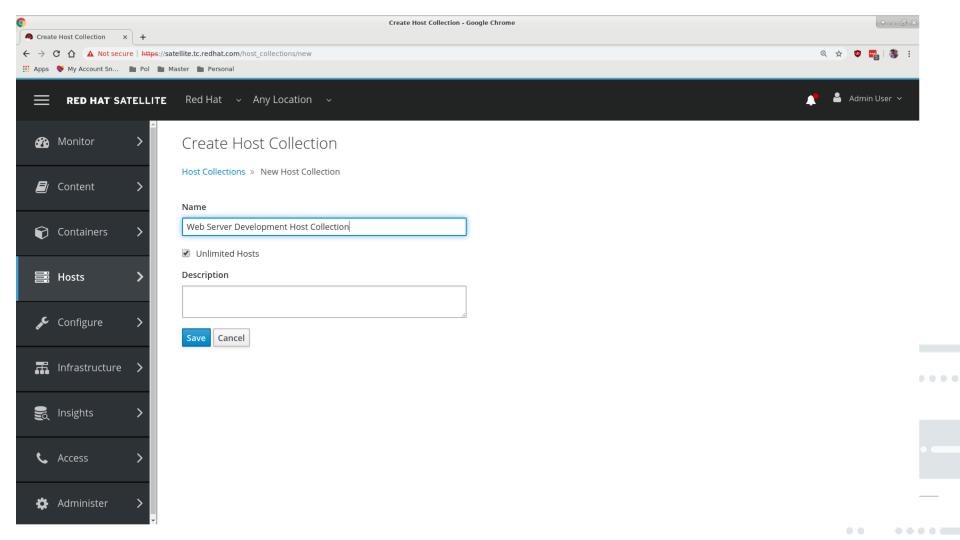
HOST COLLECTIONS

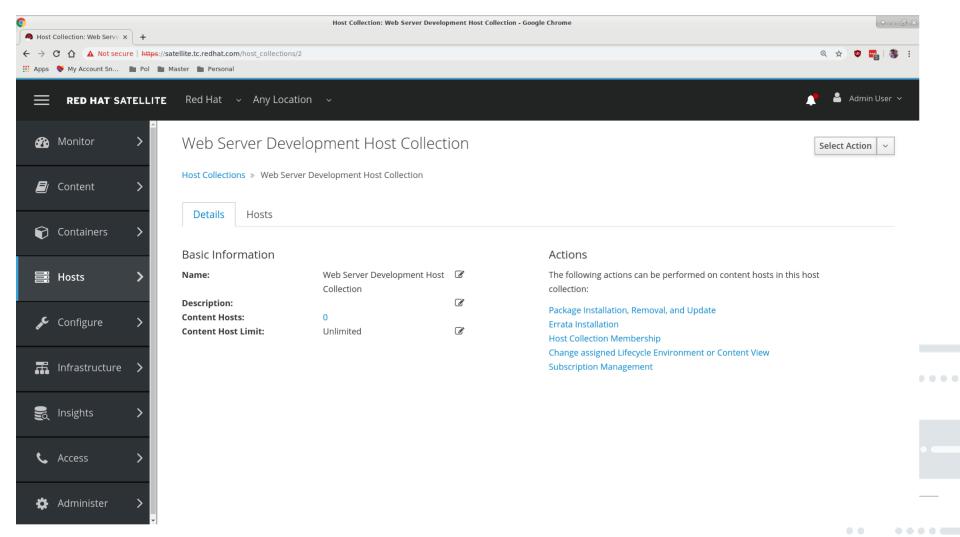
Host collections are used to install and remove software, apply errata, etc.

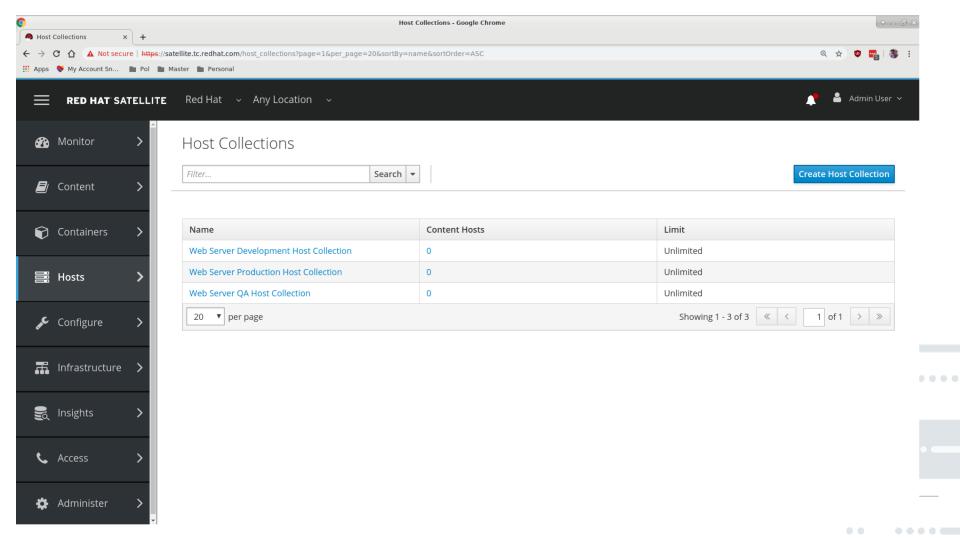
- Define your host collections
- Later, content hosts will go into these host collections











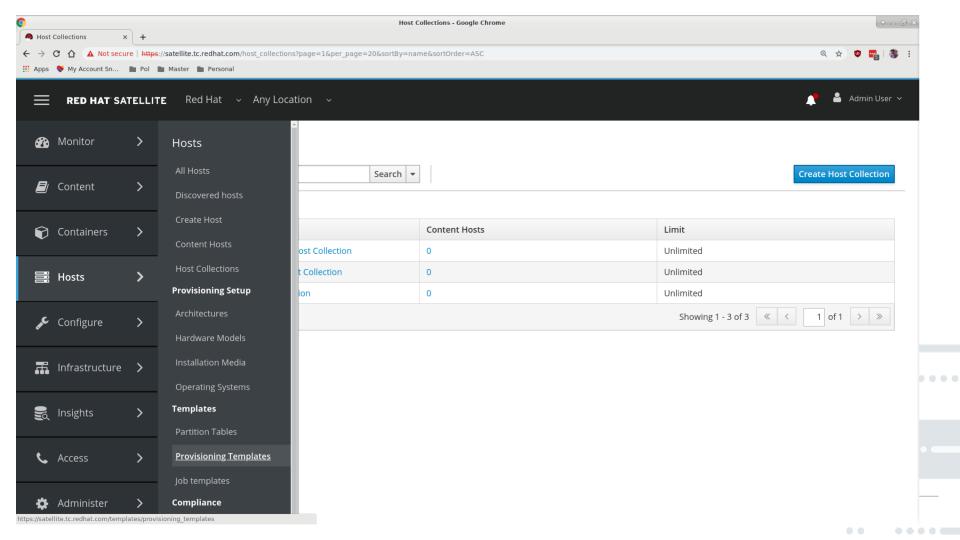
PROVISIONING TEMPLATES

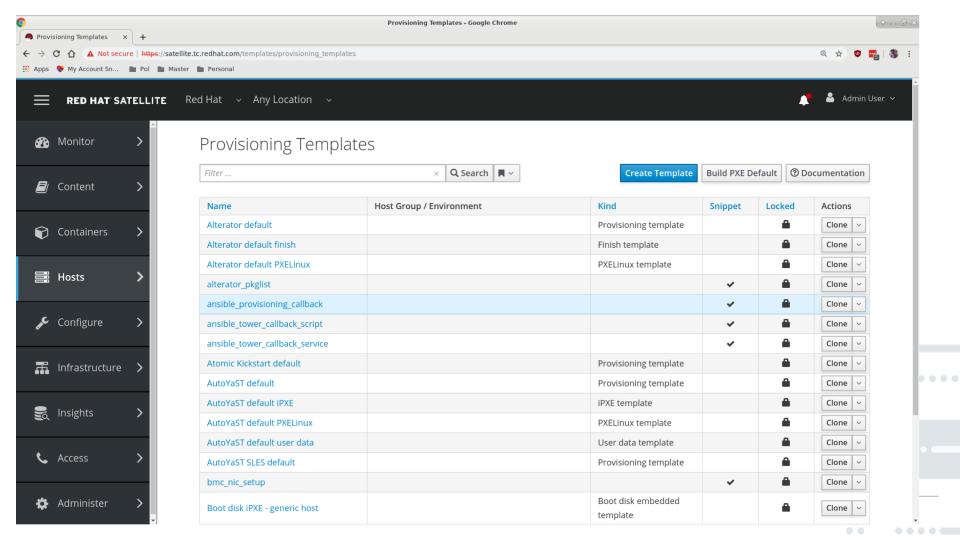
PROVISIONING TEMPLATES

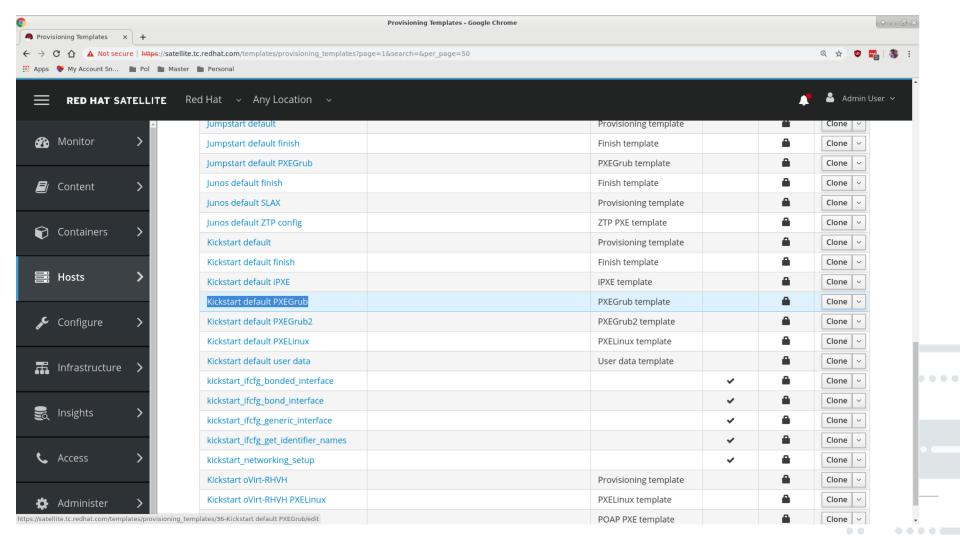
Provisioning templates are small, focused bits of snippets and code for the Foreman and Puppet to create kickstarts to build machines

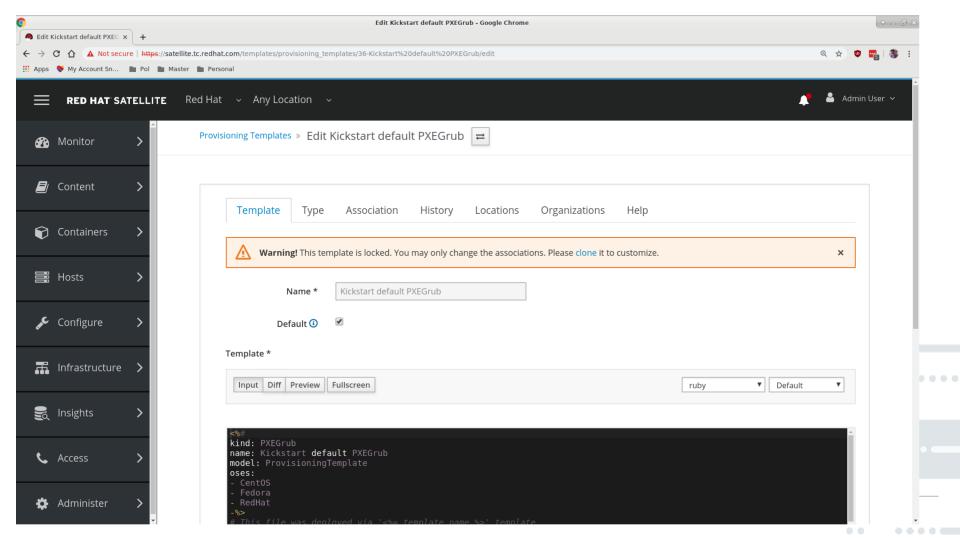
- There are almost 90 templates in Satellite, inherited from the upstream Foreman project.
 - We really only use a handful for managing RHEL servers
- Many of the templates are locked. It is highly recommended you clone locked templates and modify the cloned templates

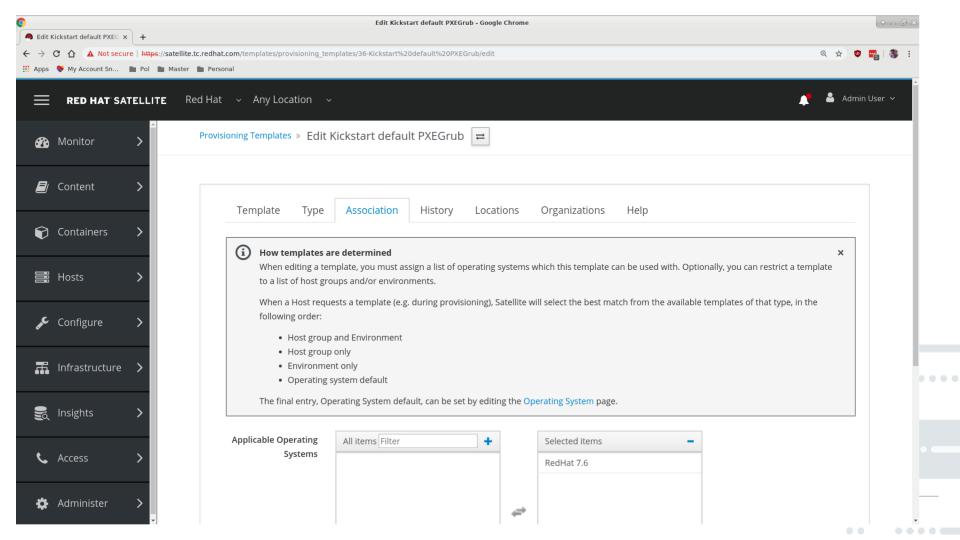


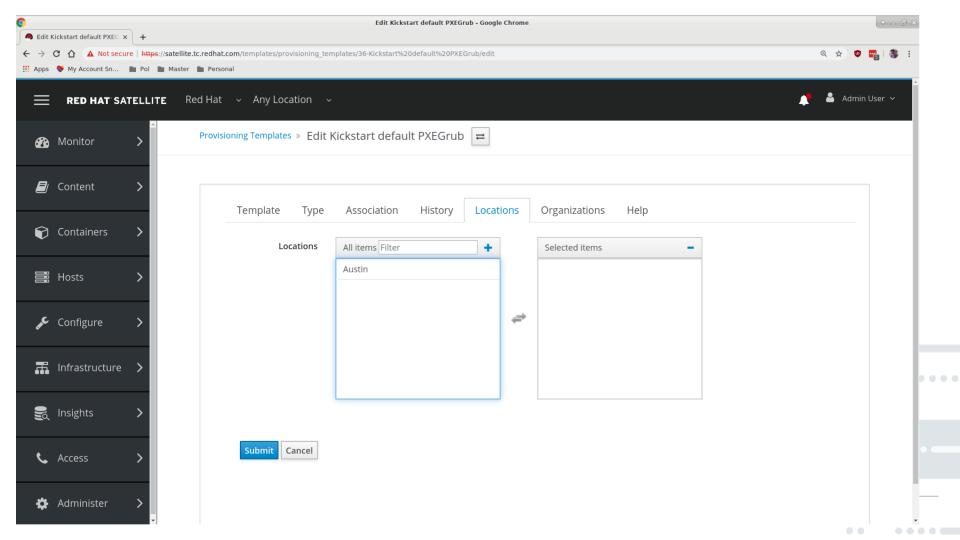


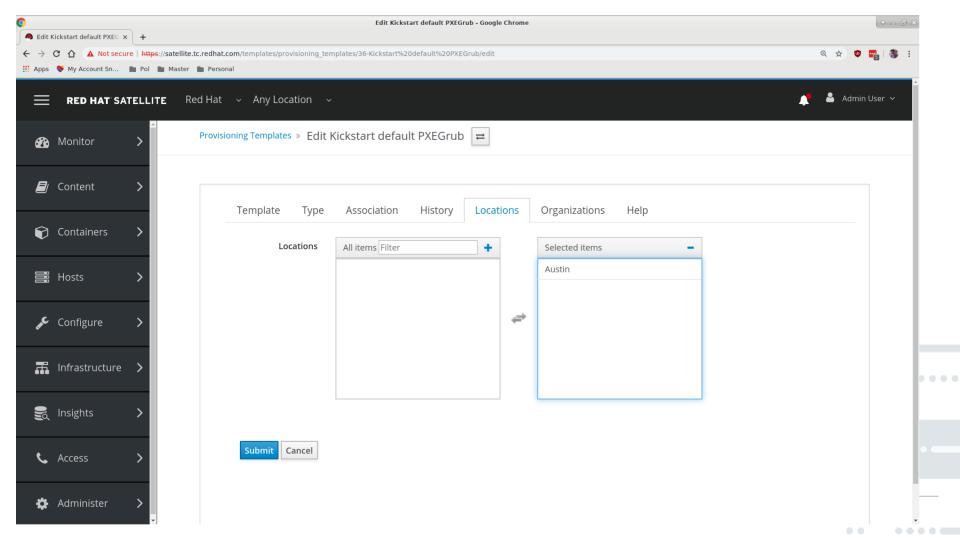


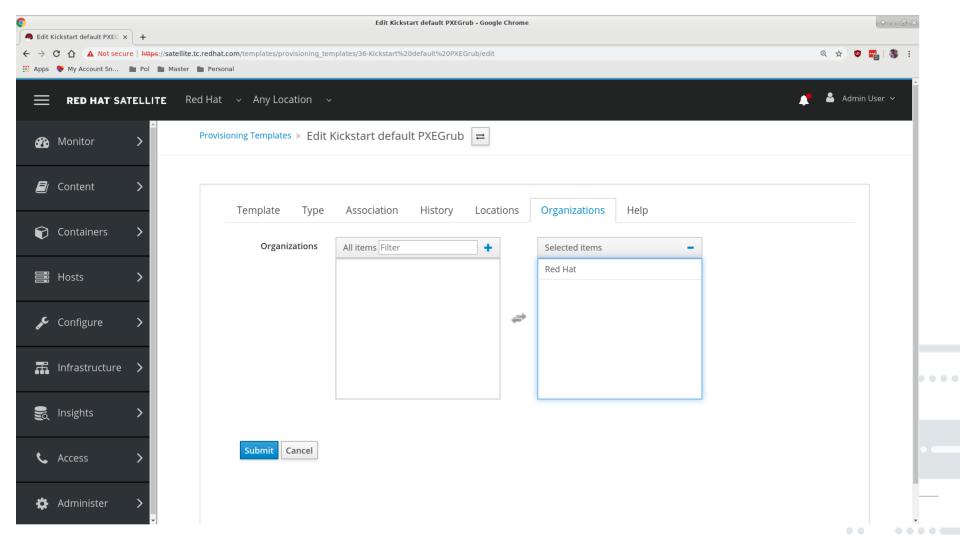


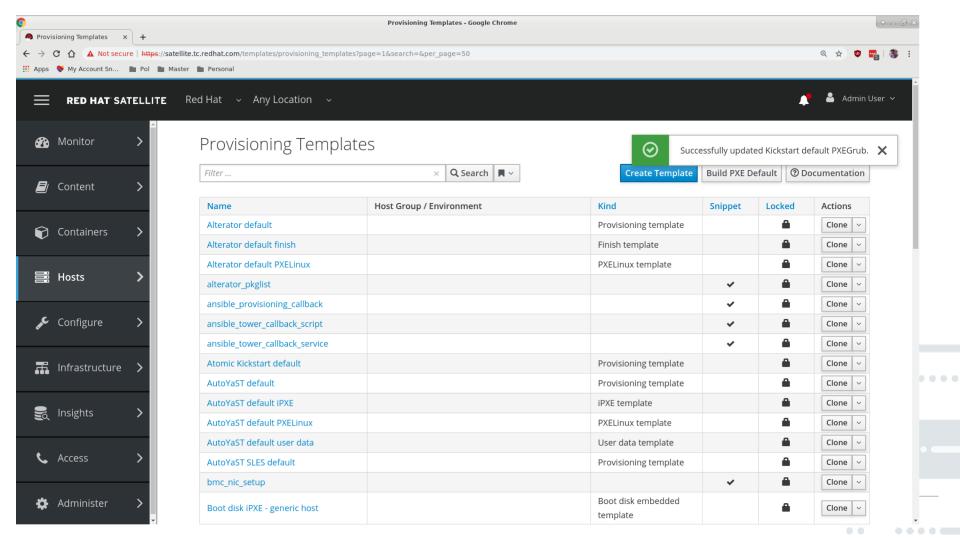


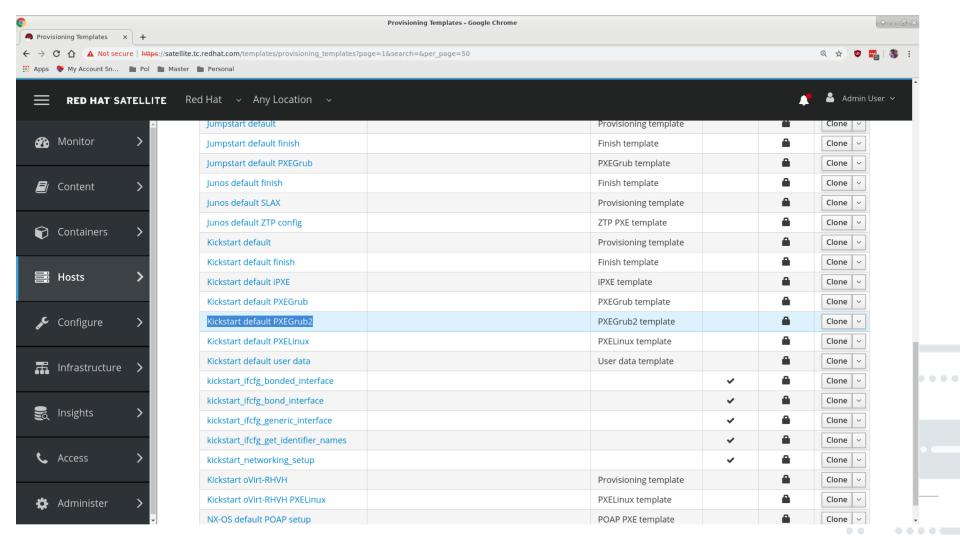


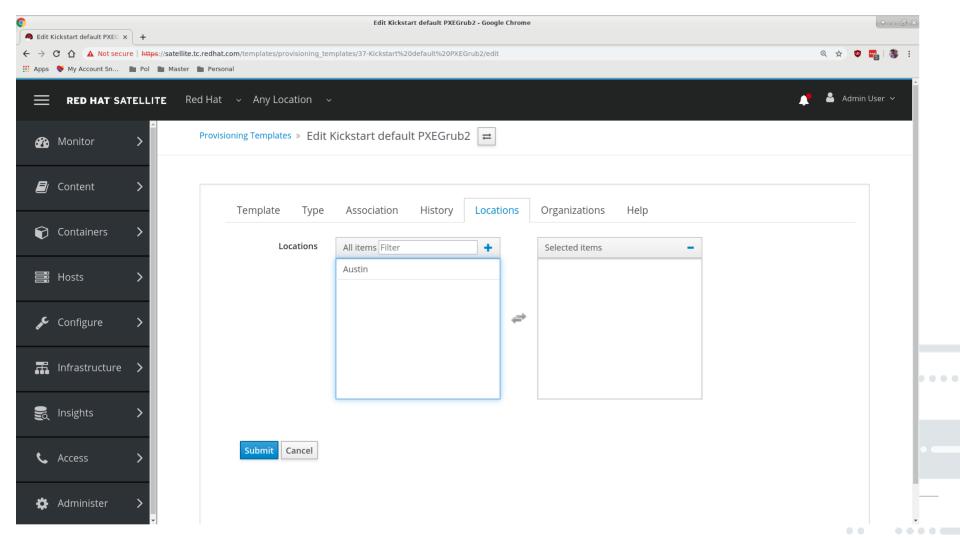


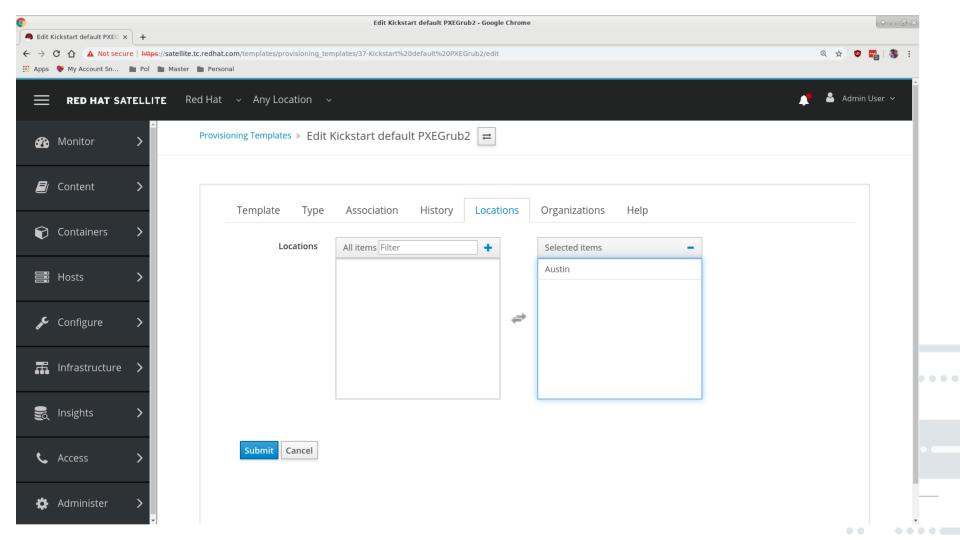


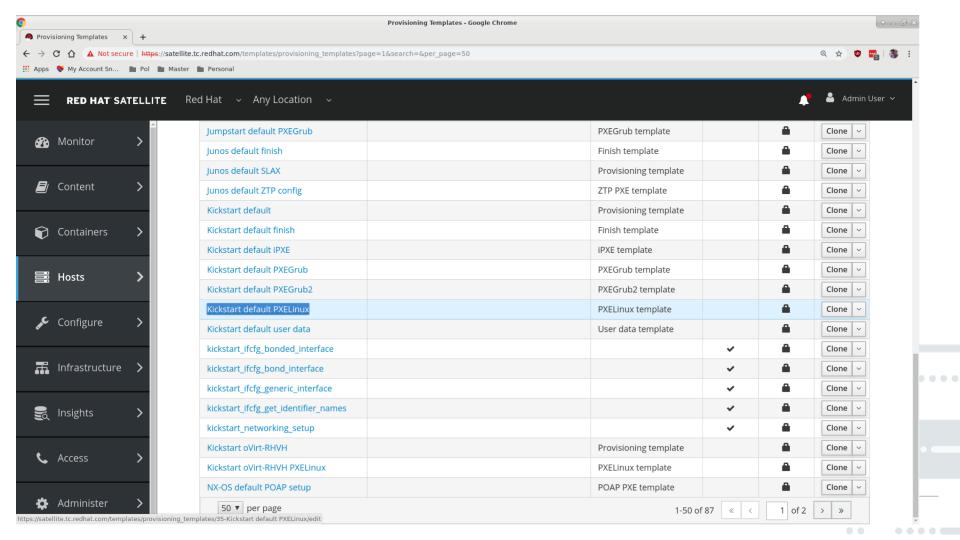


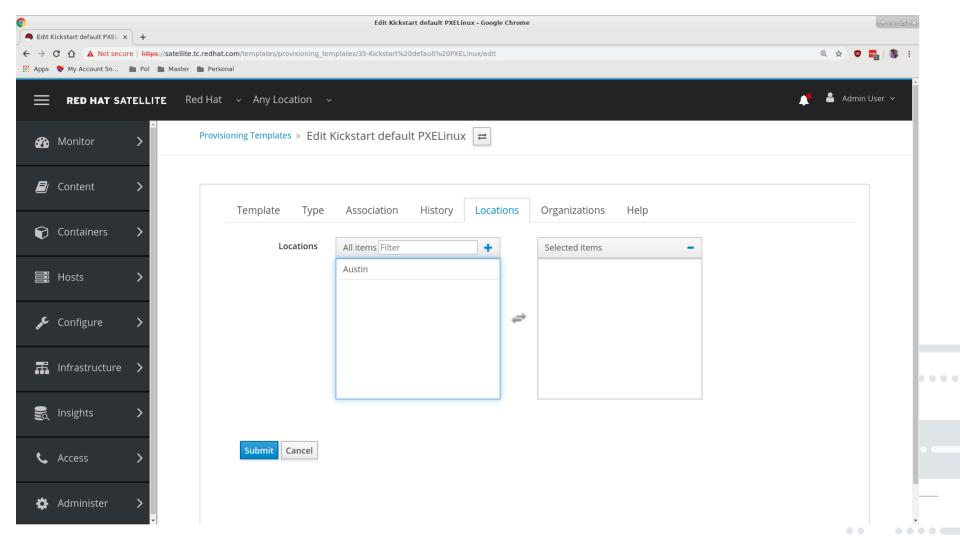


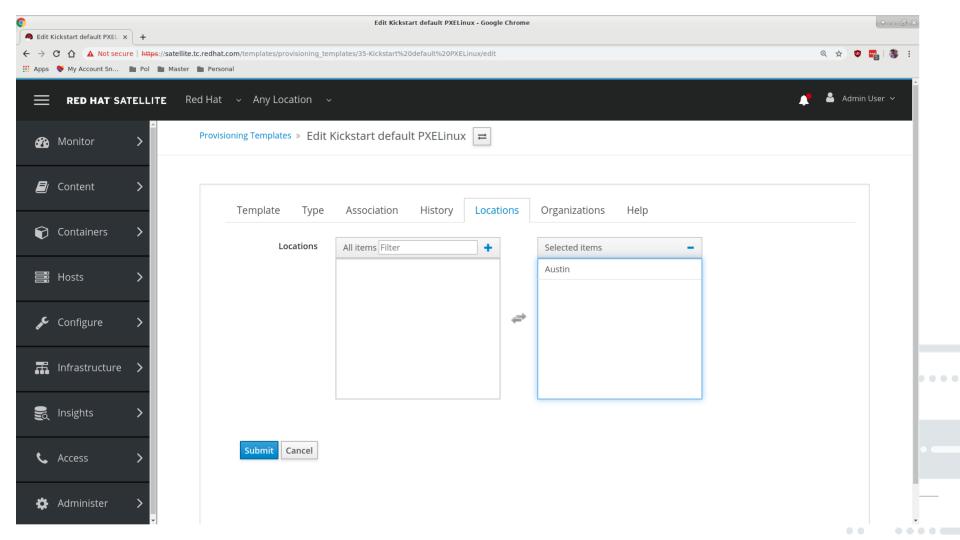


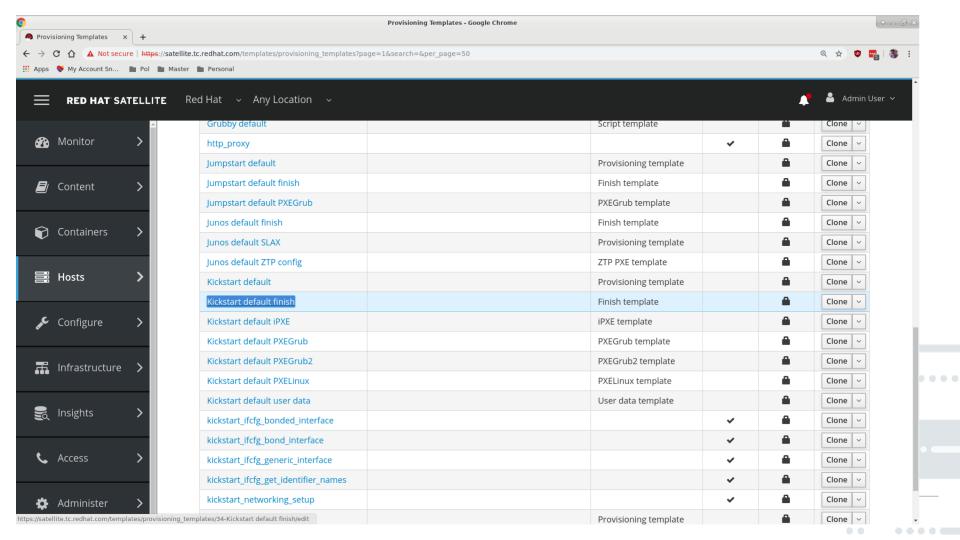


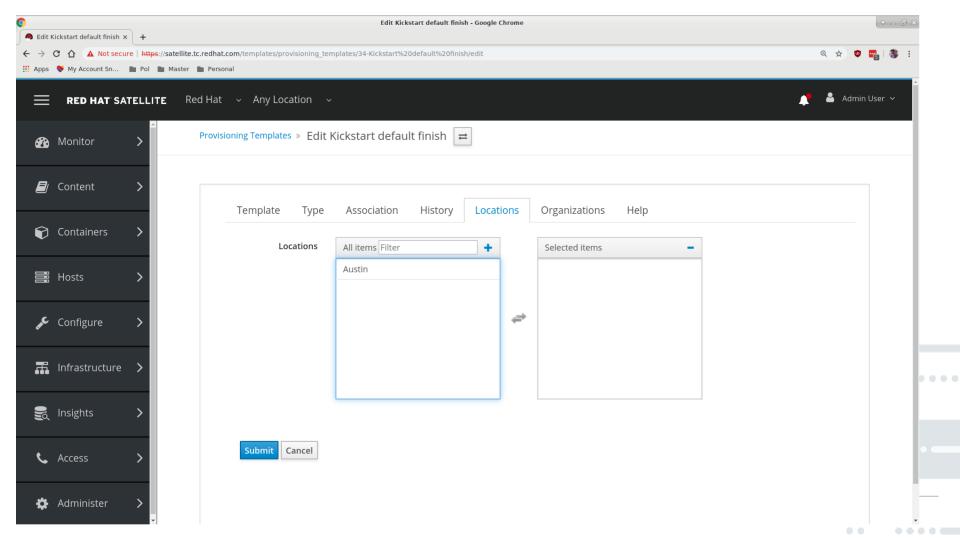


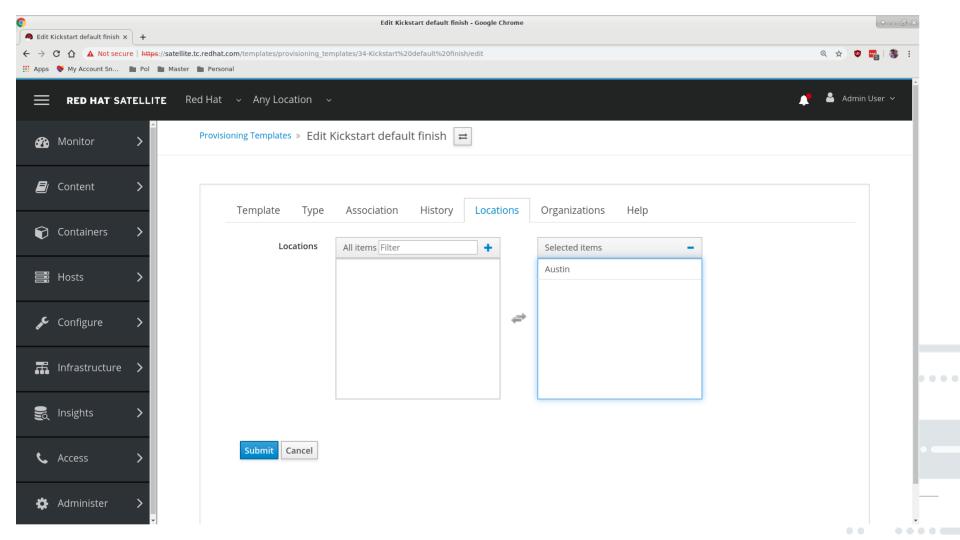


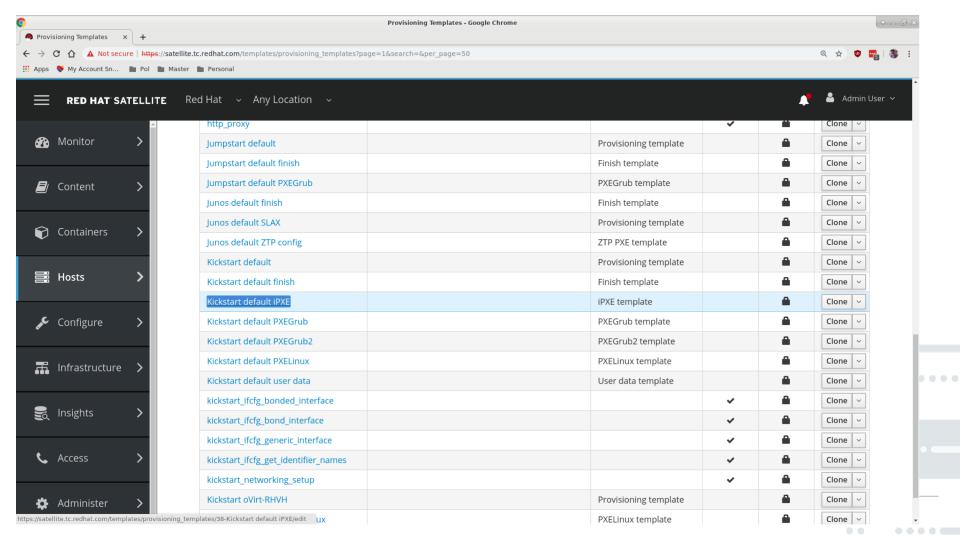


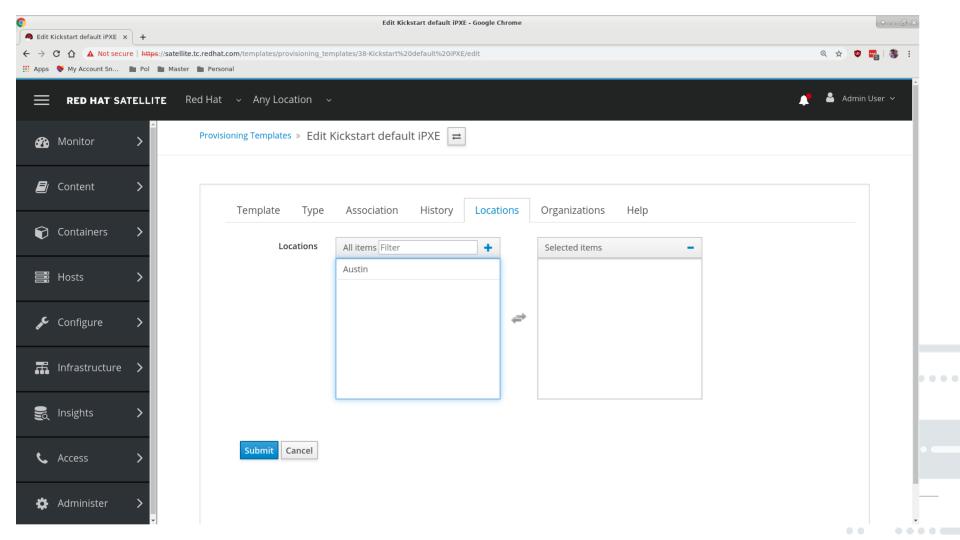


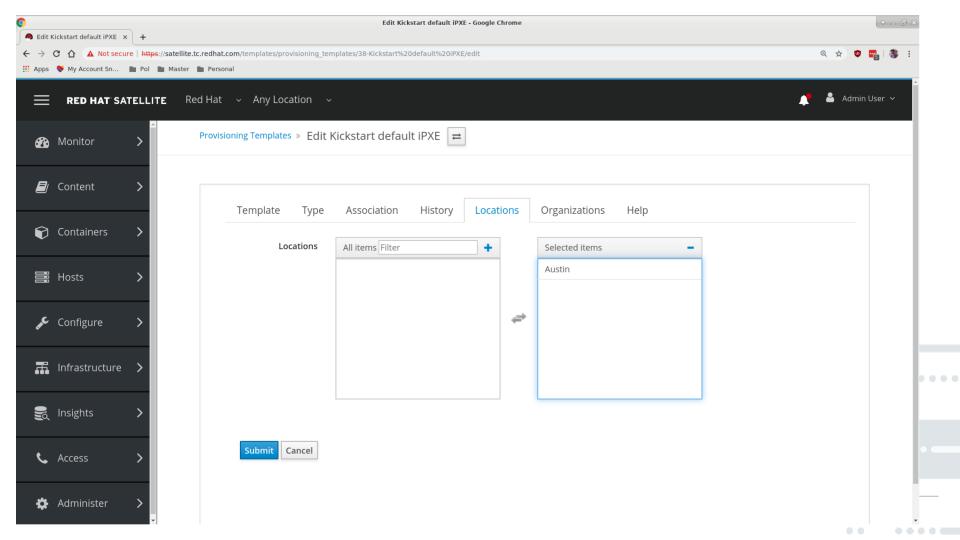


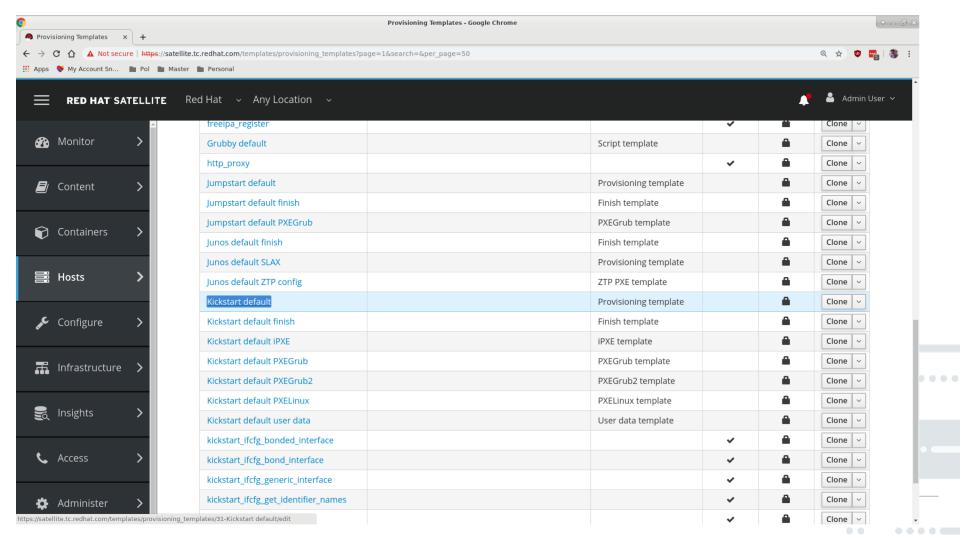


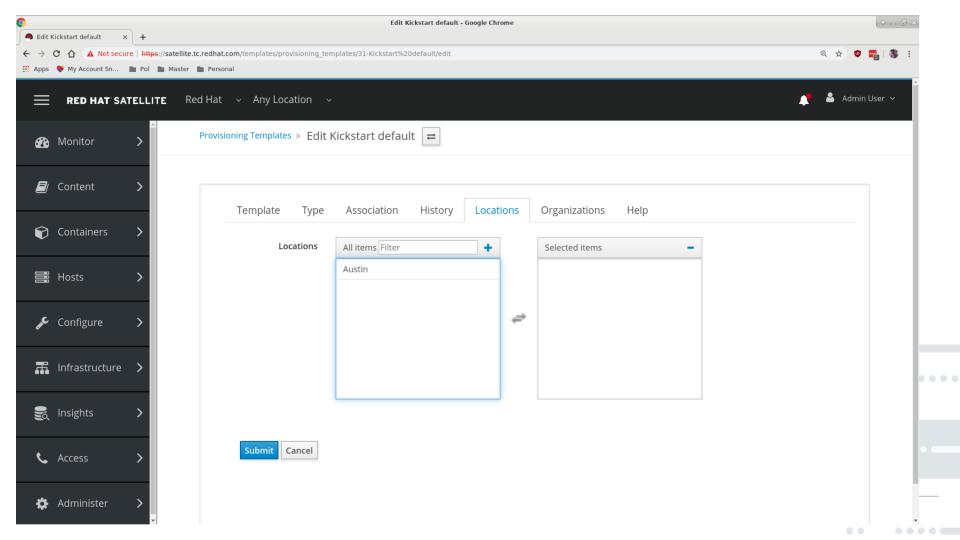


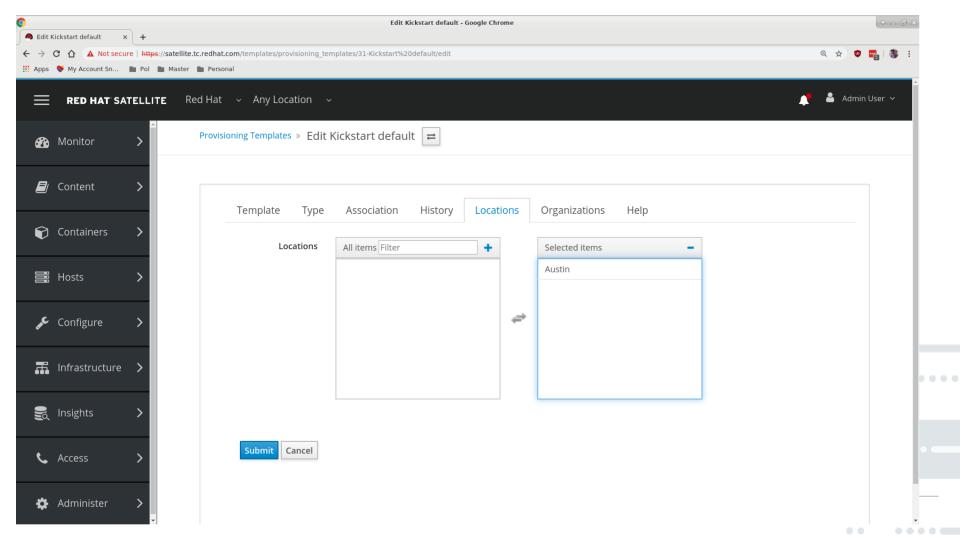


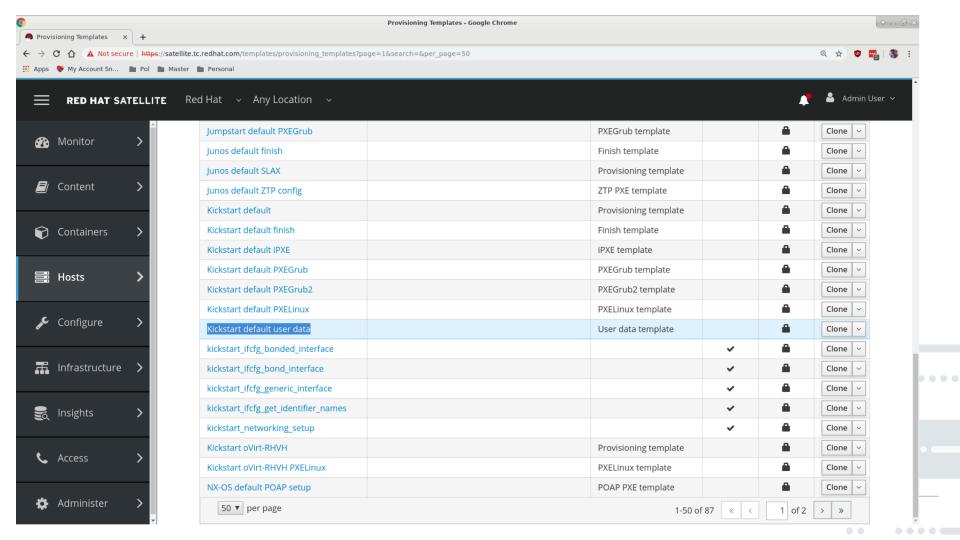


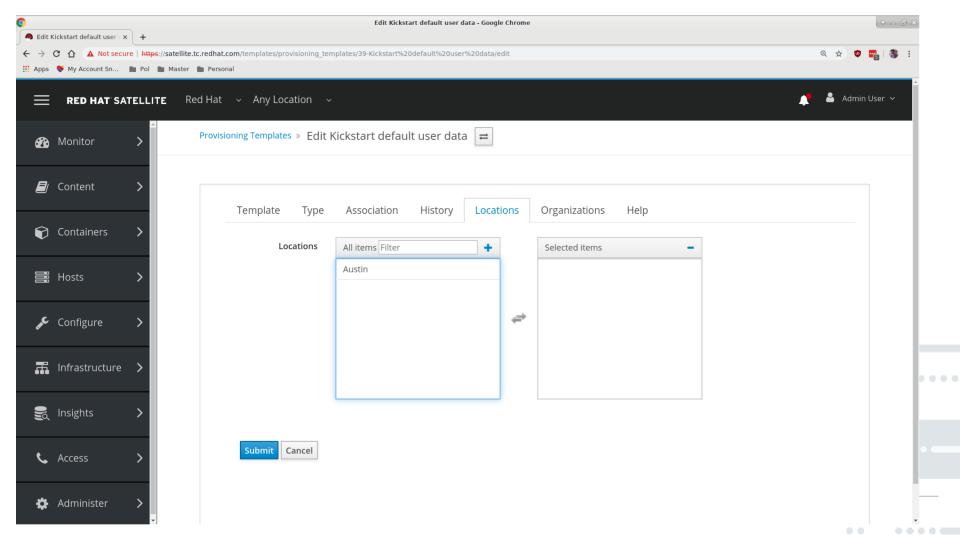


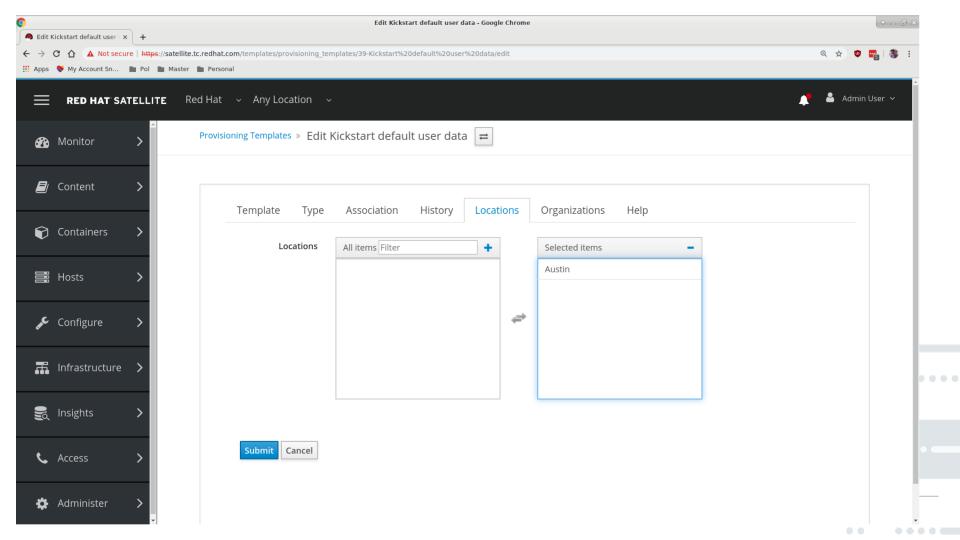


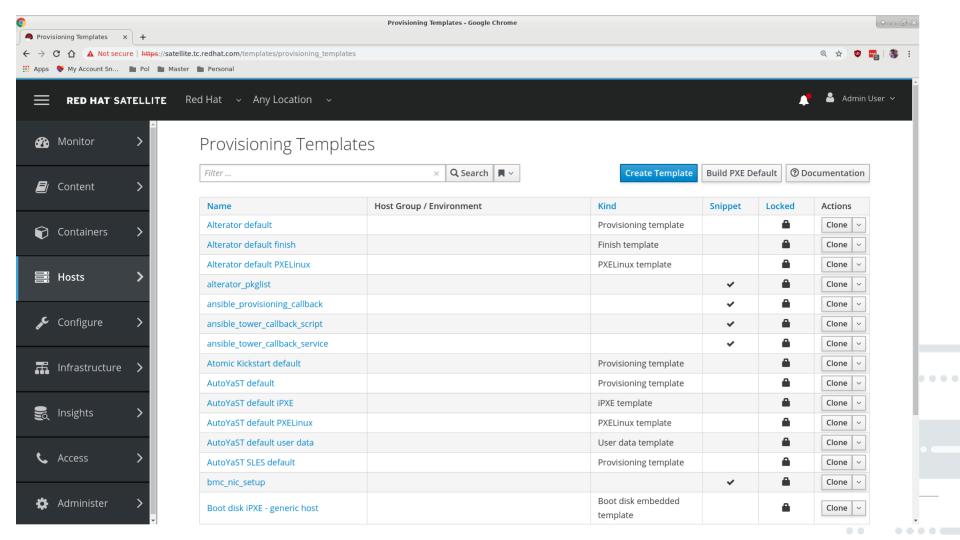


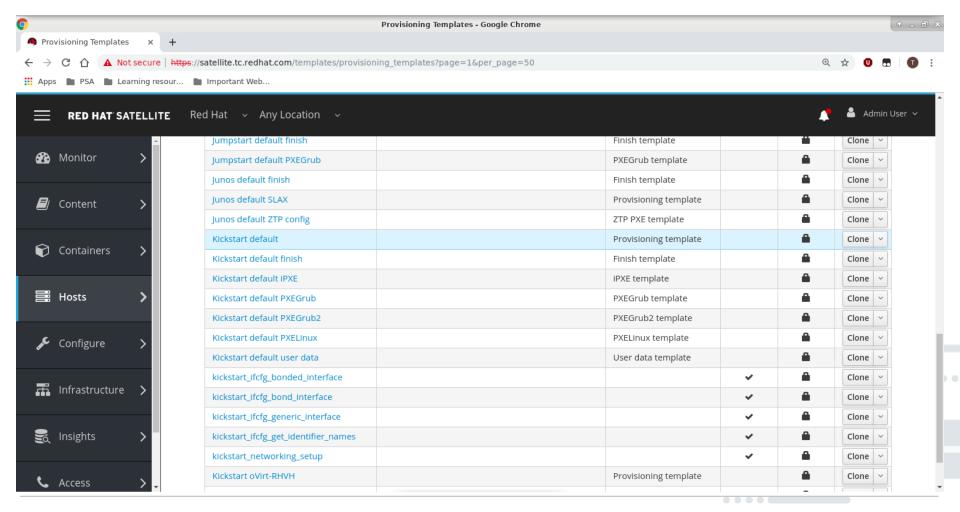






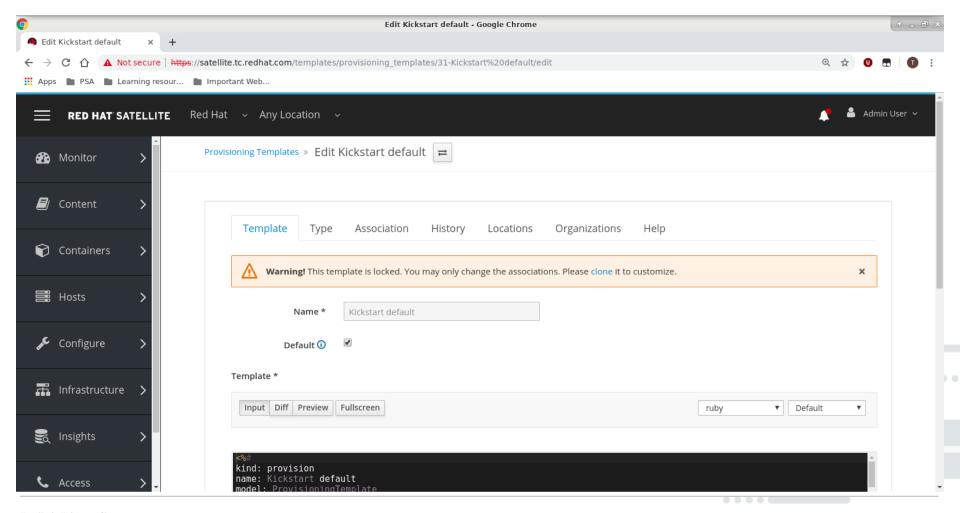


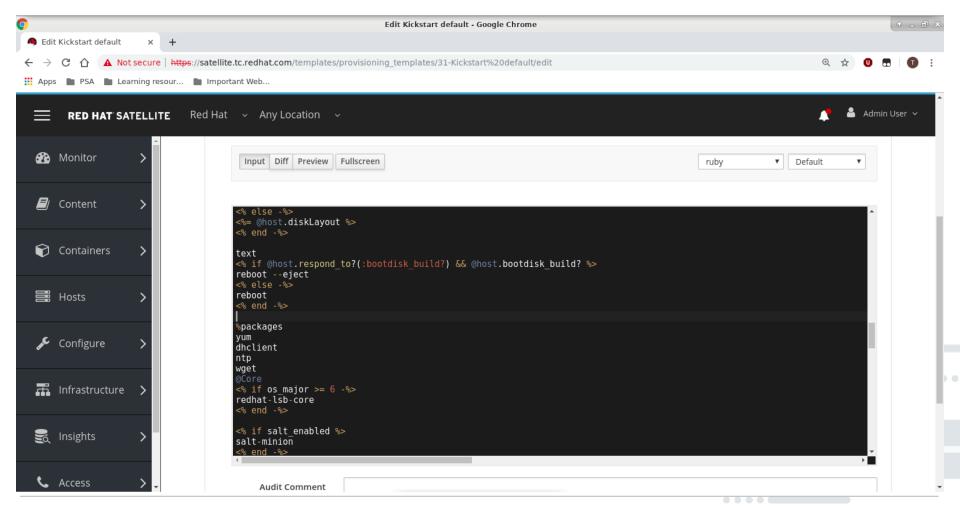


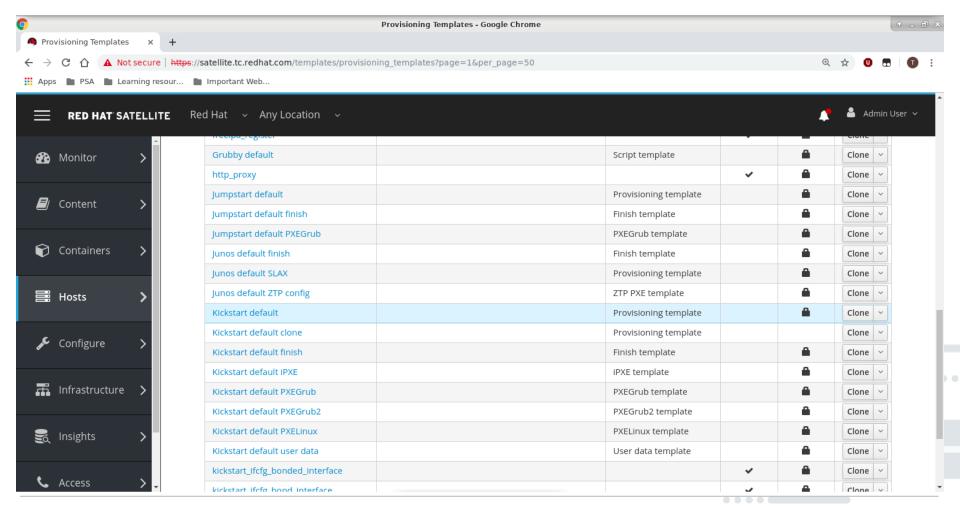


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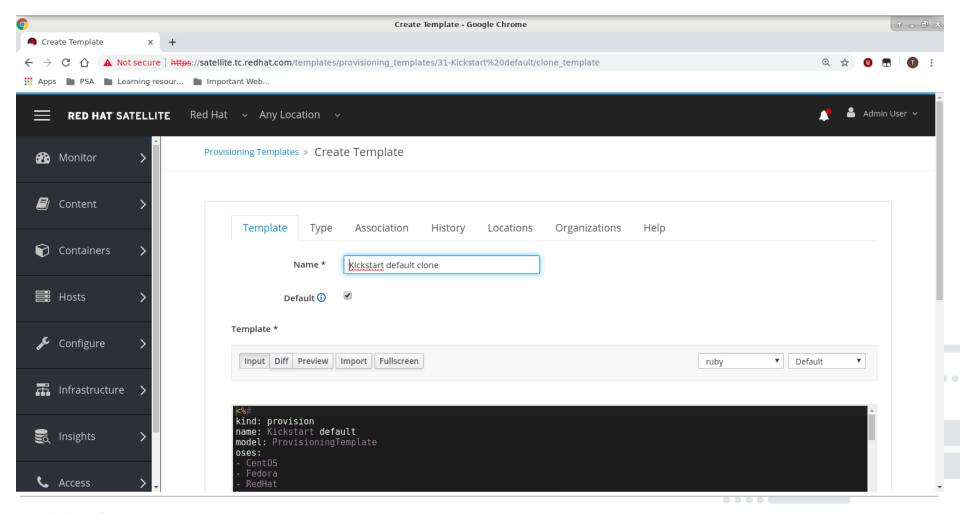


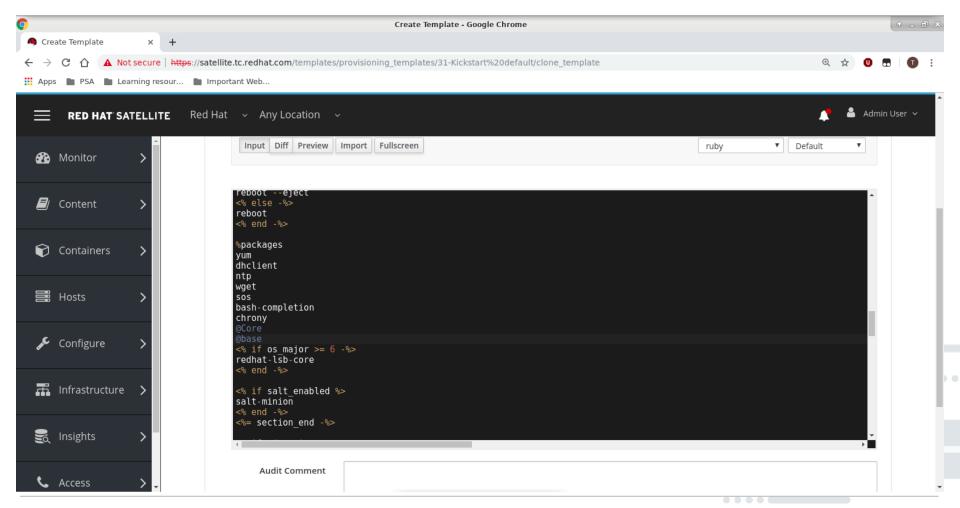


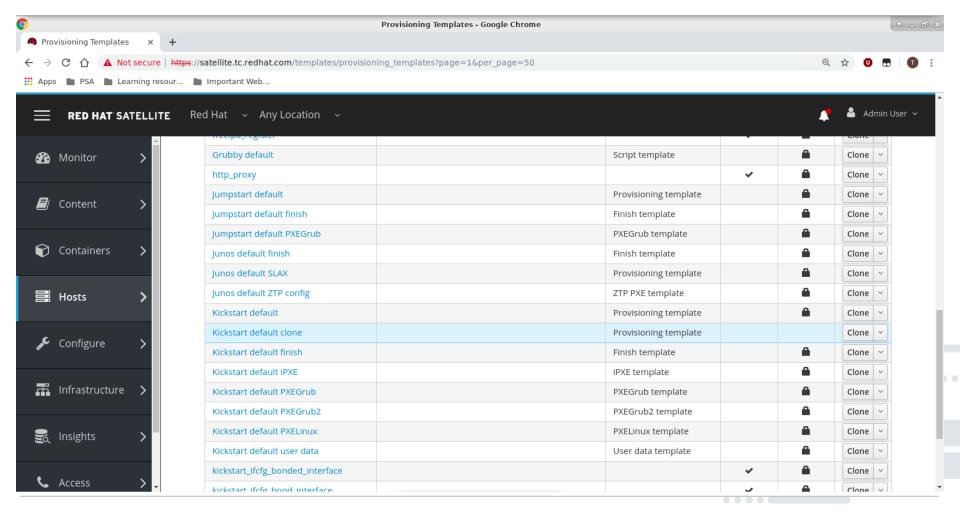


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0.0

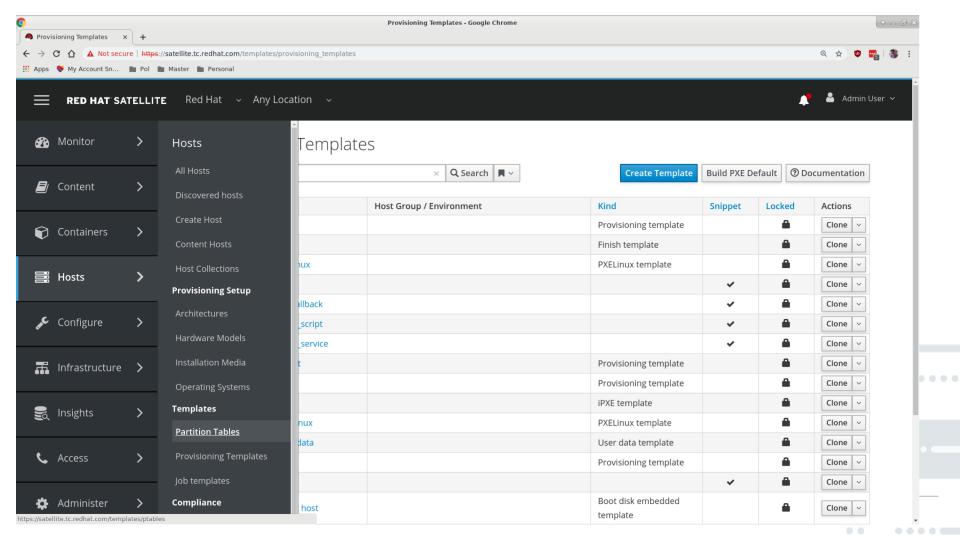
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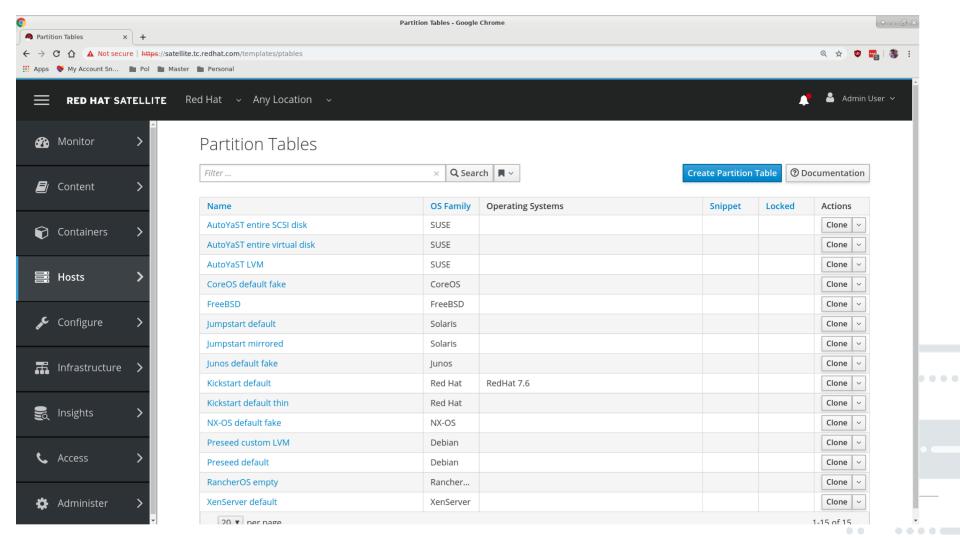
PARTITION TABLES

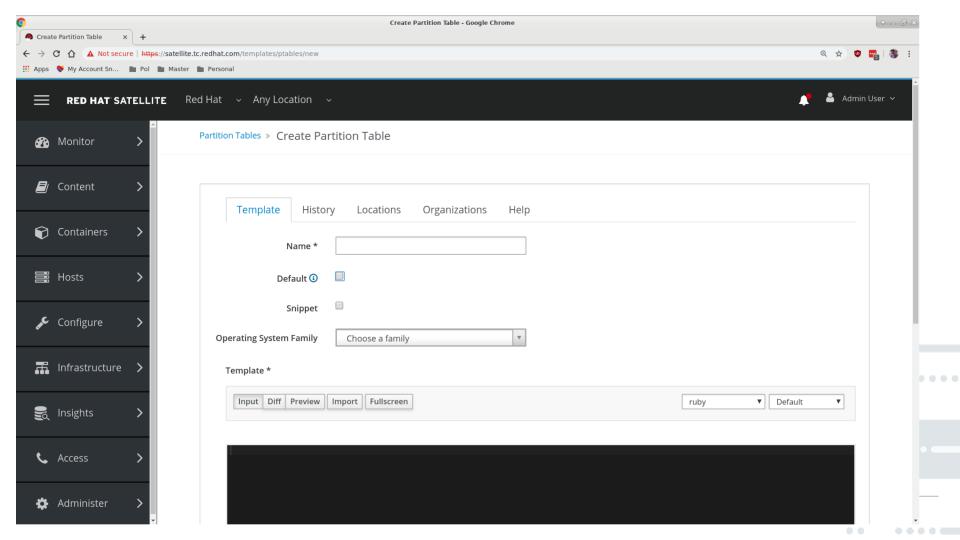
PARTITION TABLES

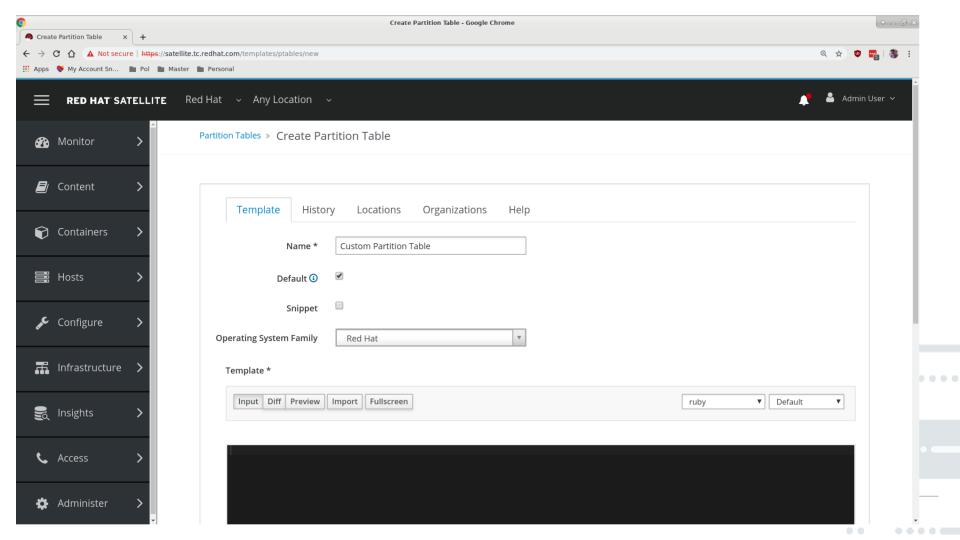
The default snippet for partitioning tells the installer to do automatic partitioning, which creates a large /home directory.

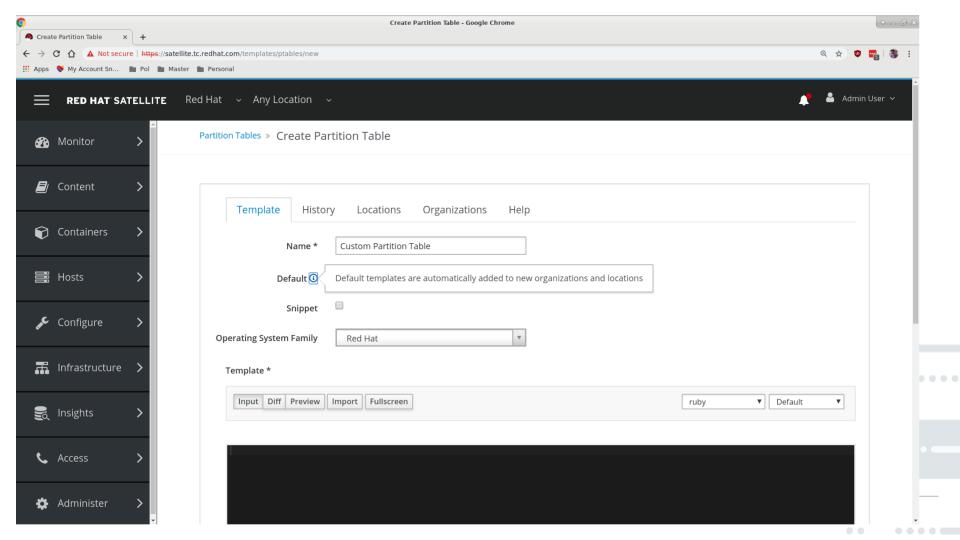
It's 2019. No one has a home directory on a production server.

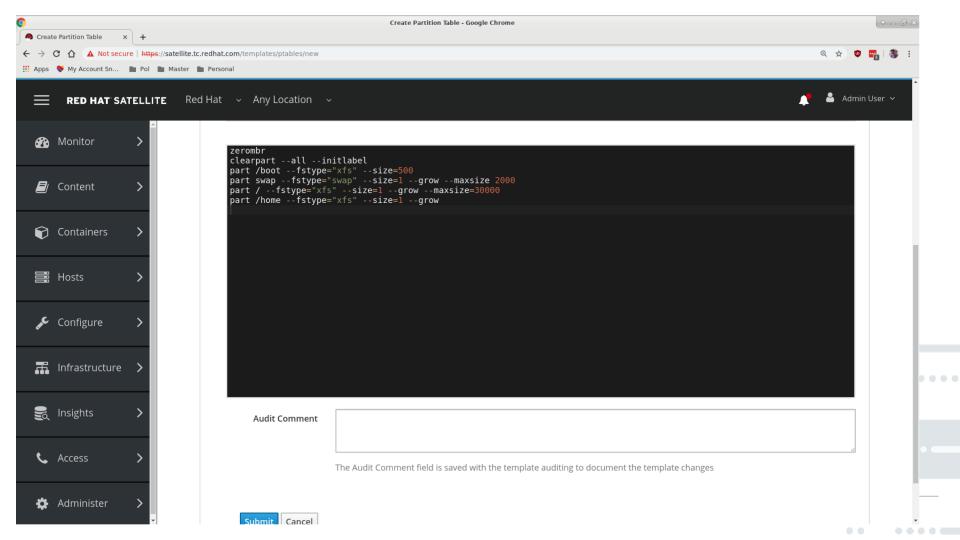


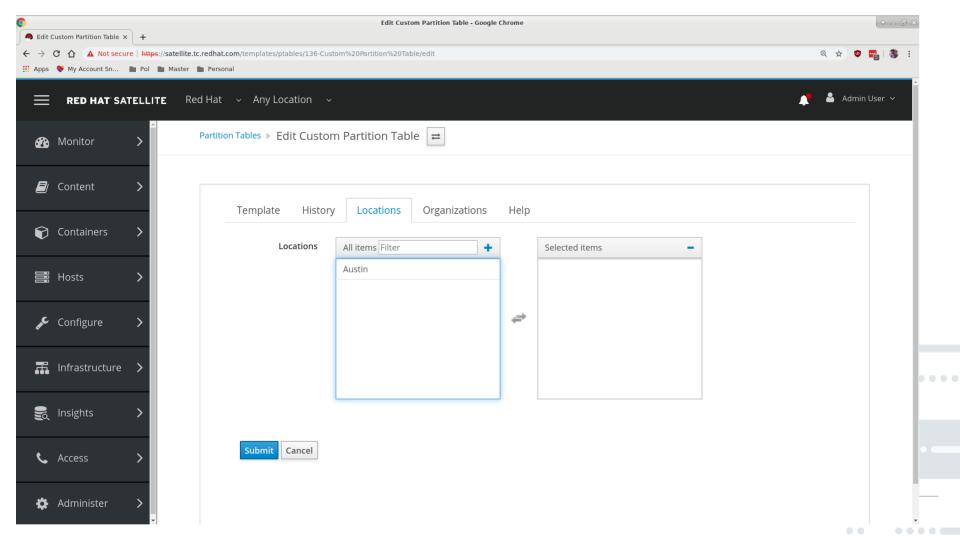


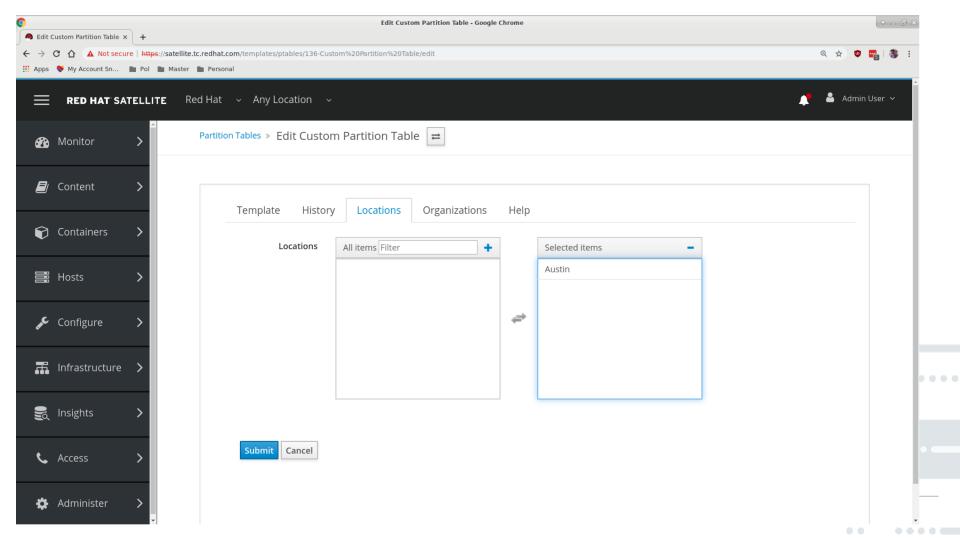








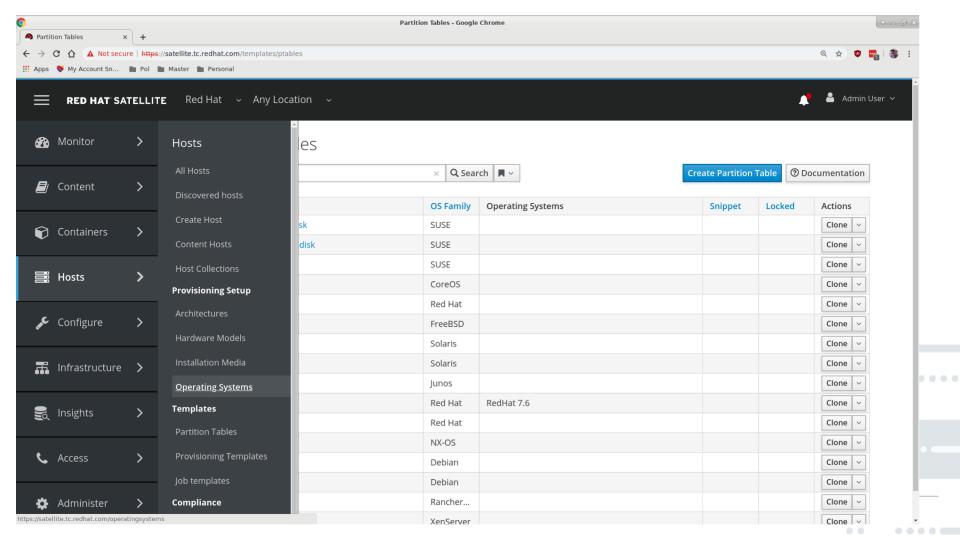


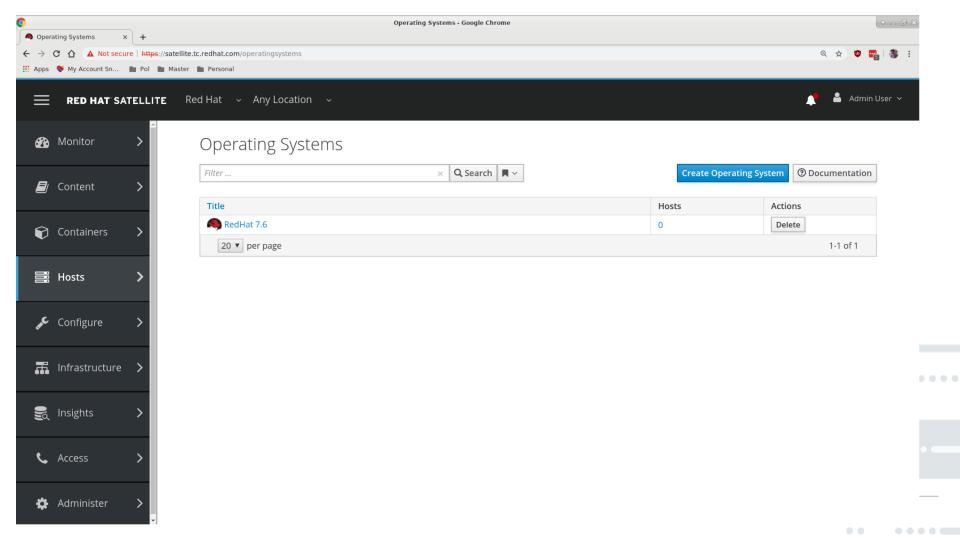


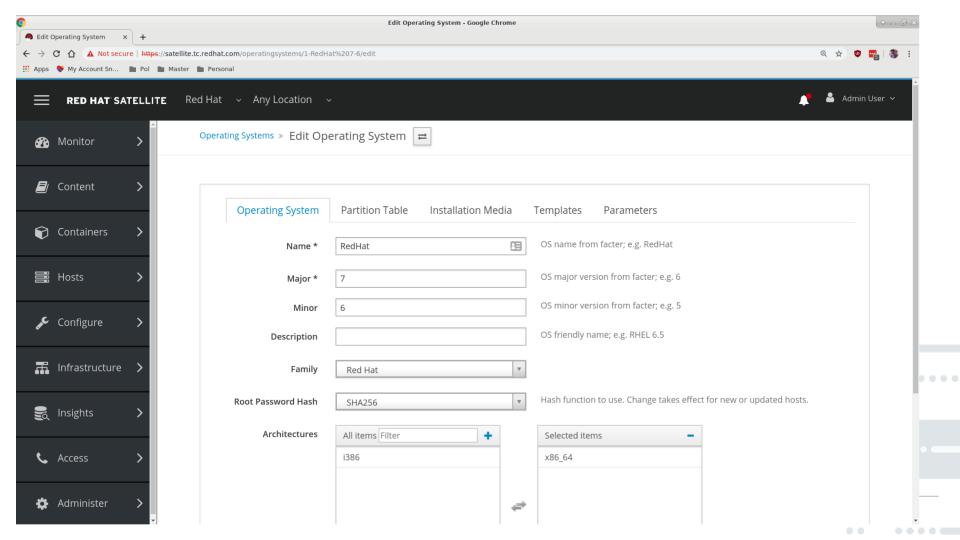
OPERATING SYSTEMS

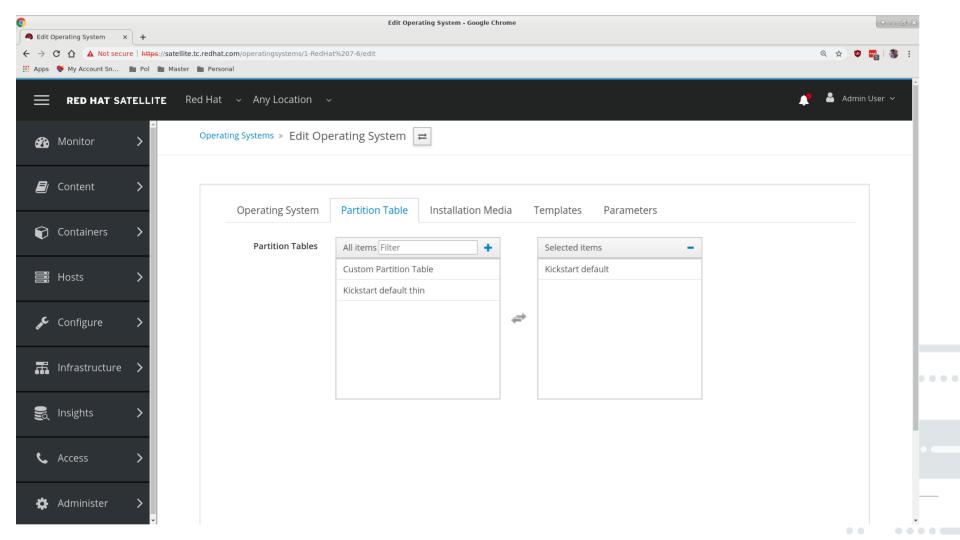
OPERATING SYSTEMS

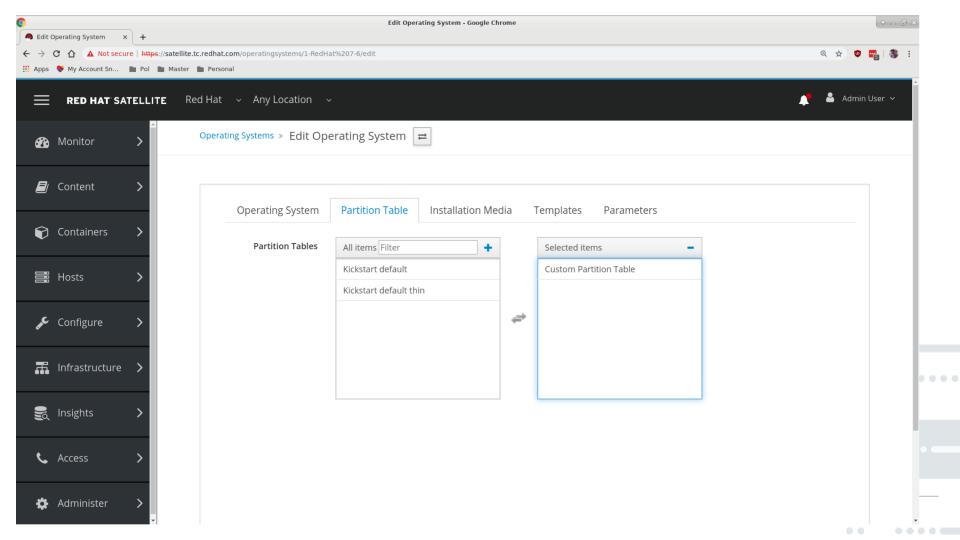
Under Operating Systems, you can set parameters for what operating systems are available throughout your enterprise.

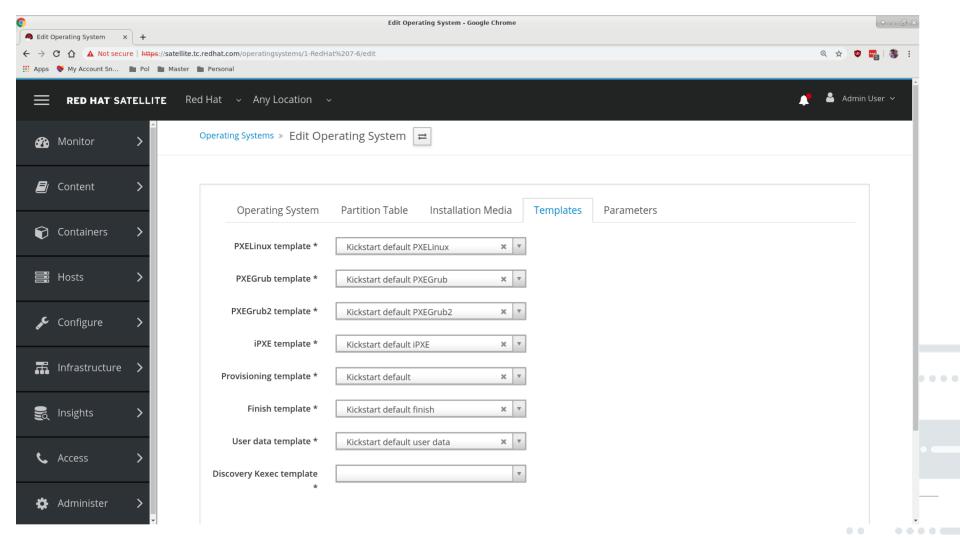


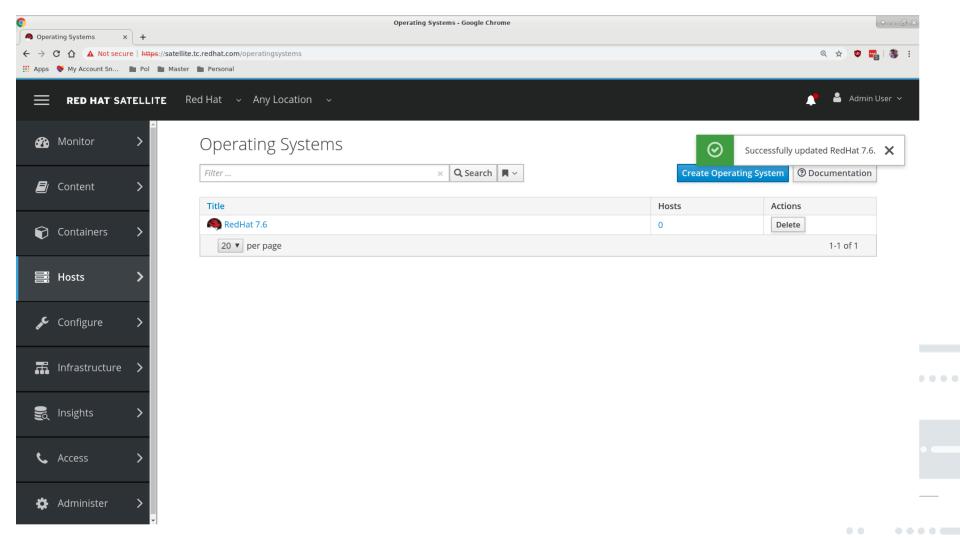










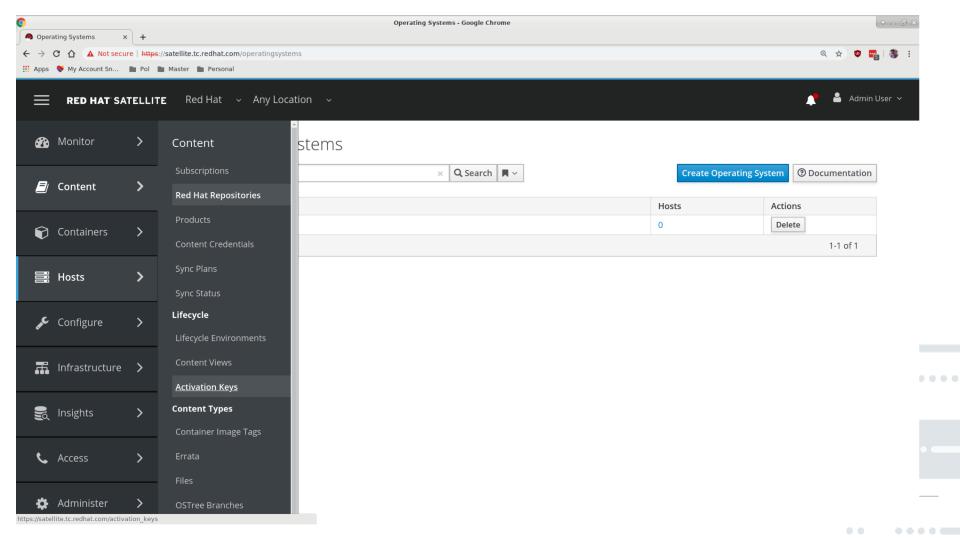


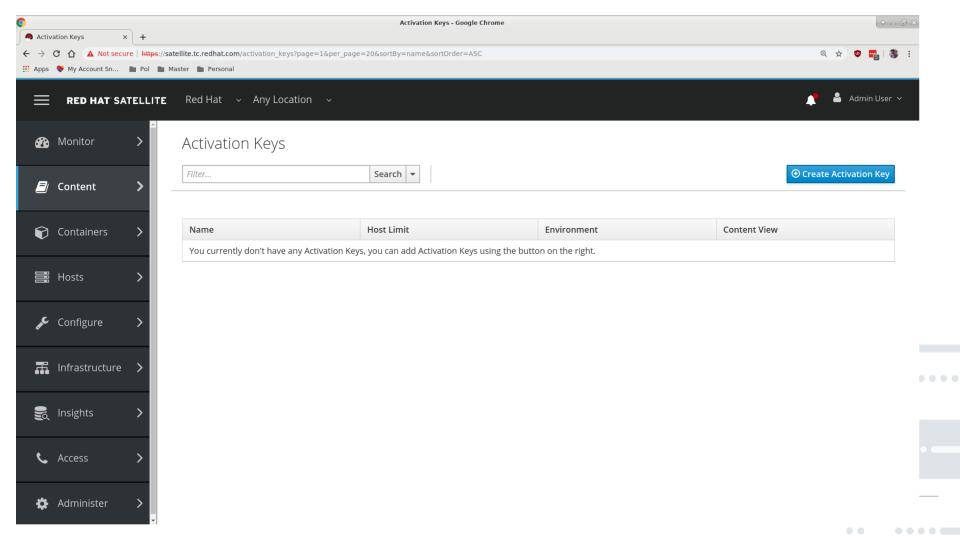
ACTIVATION KEYS

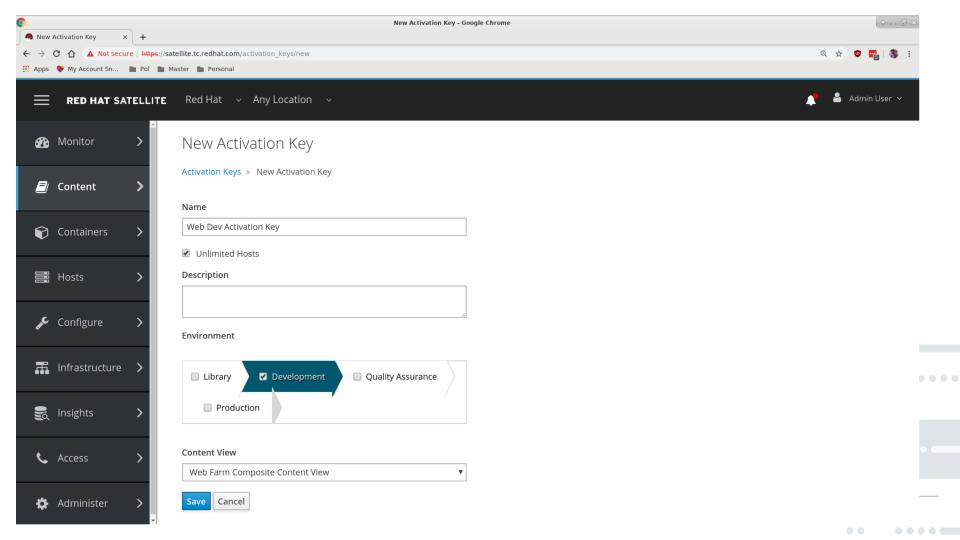
ACTIVATION KEYS

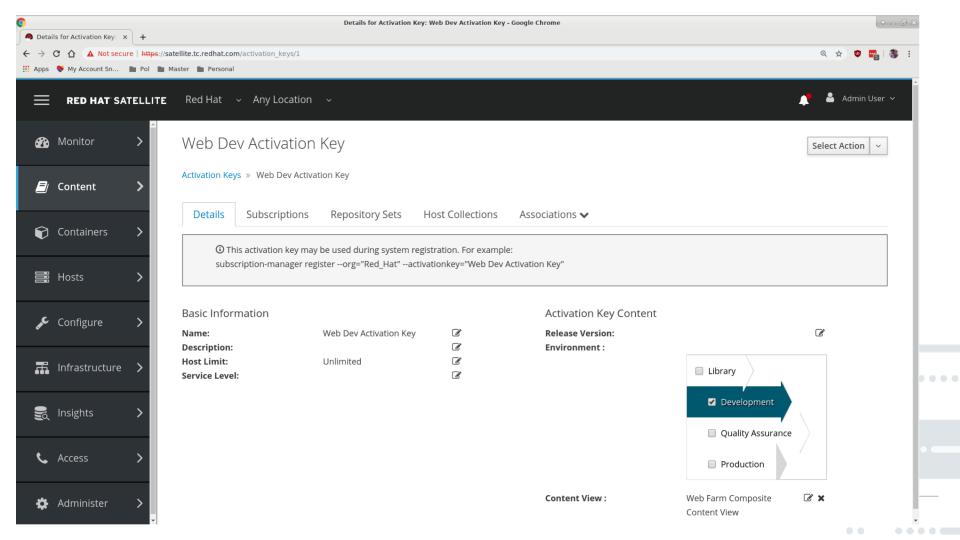
Activation Keys start to tie everything together. When we register to the Satellite using AKs, we can set:

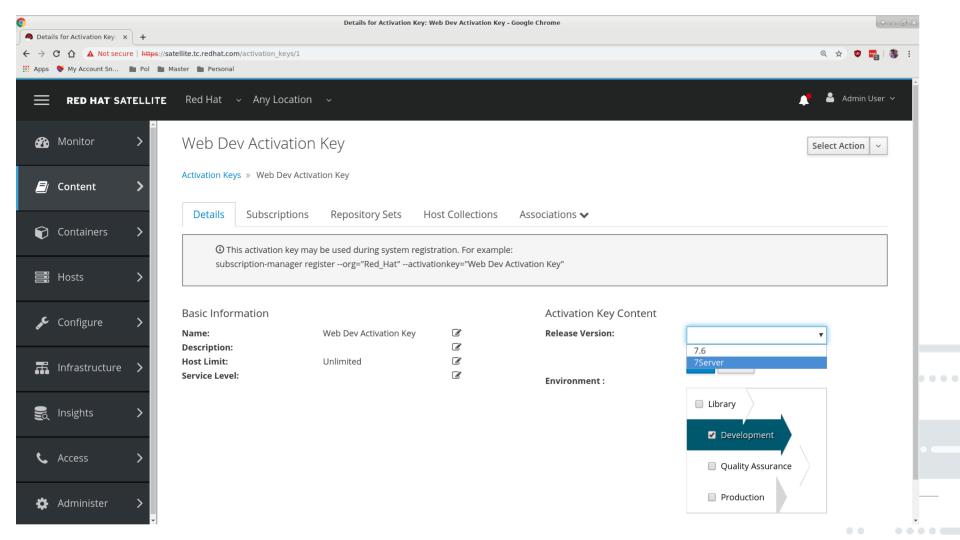
- Lifecycle environment
- Content View
- OS version
- Manage subscriptions
- Enable/disable repositories
- Assigned Host Groups

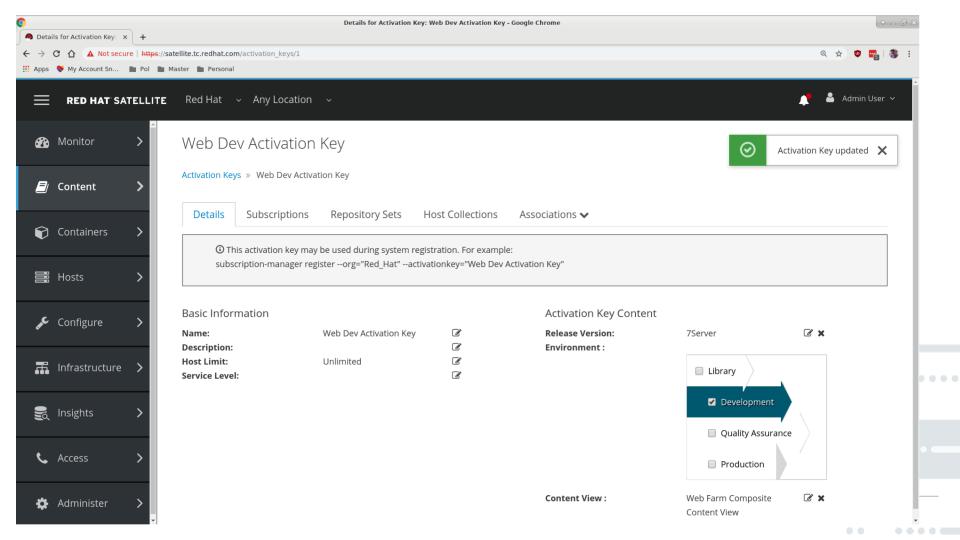


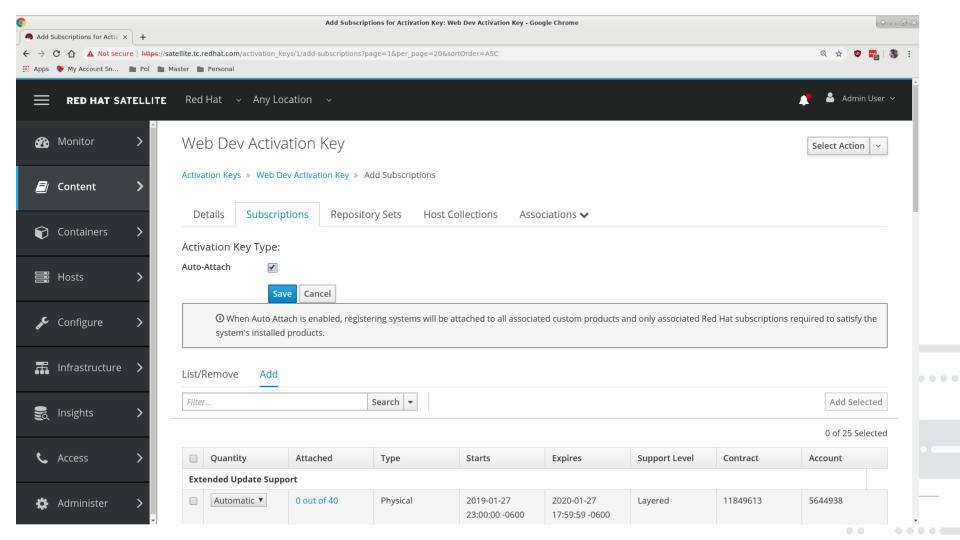


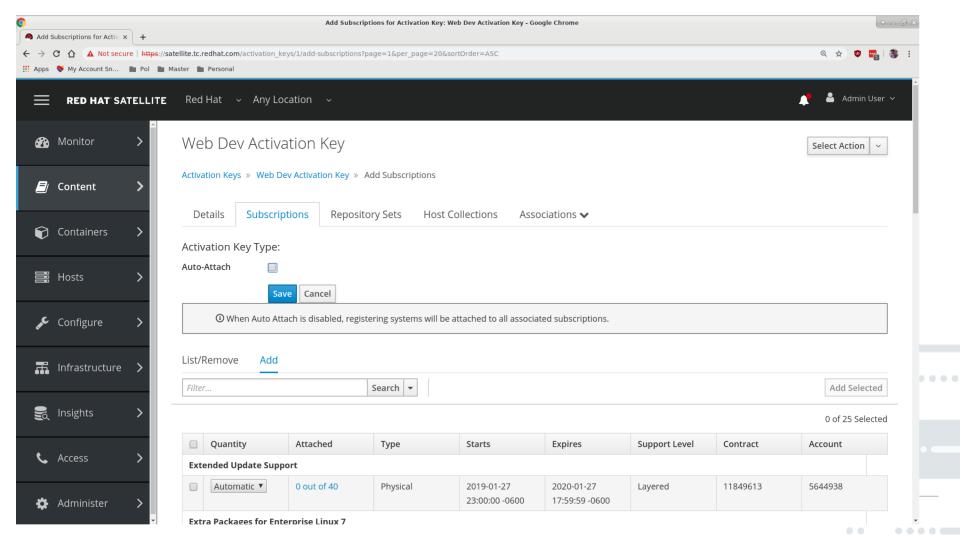


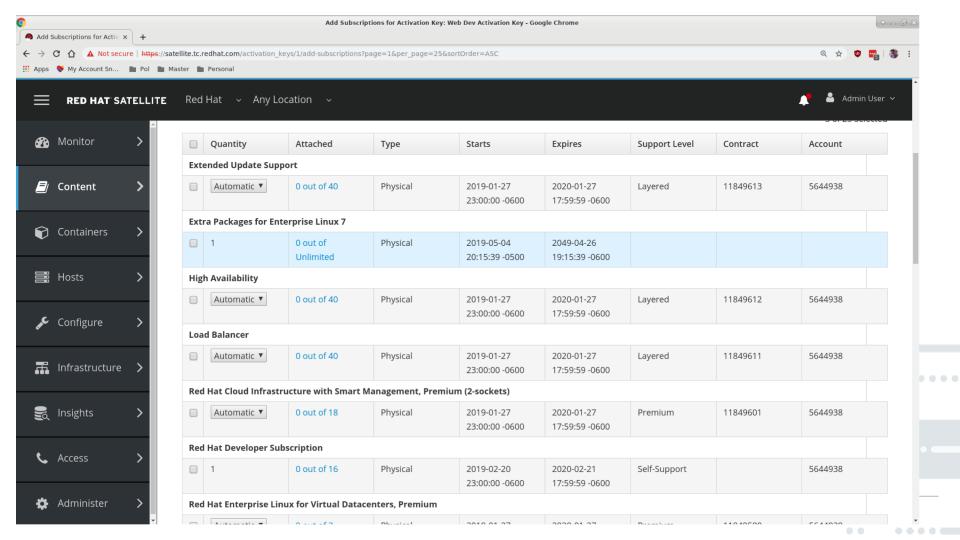


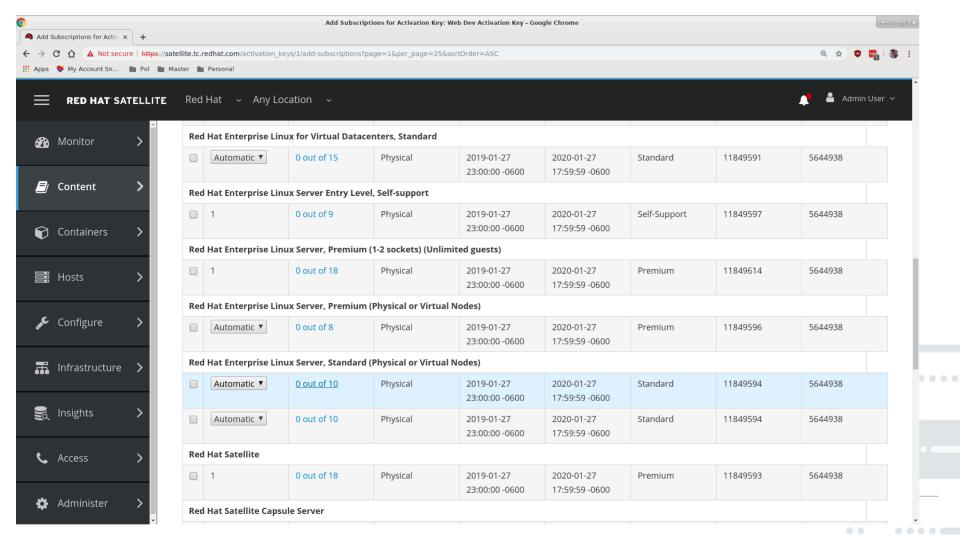


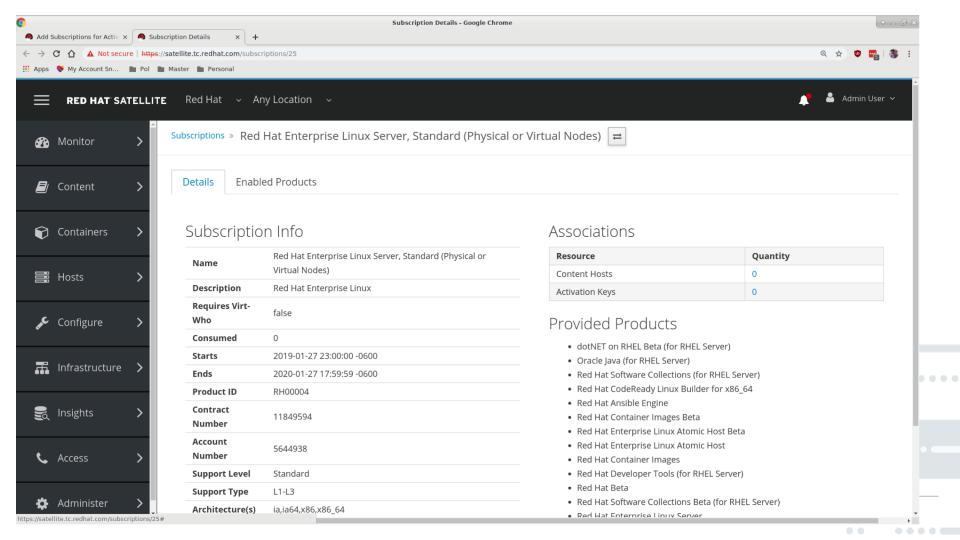


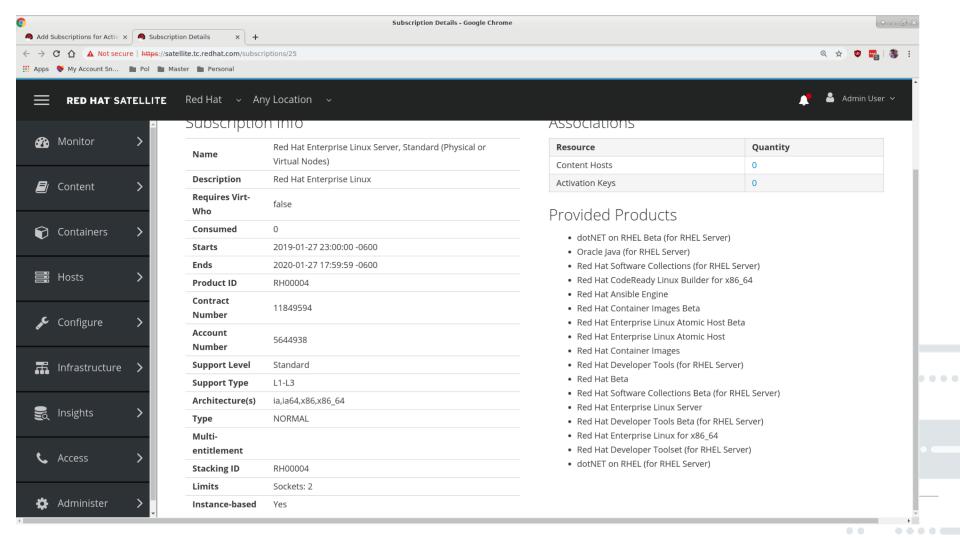


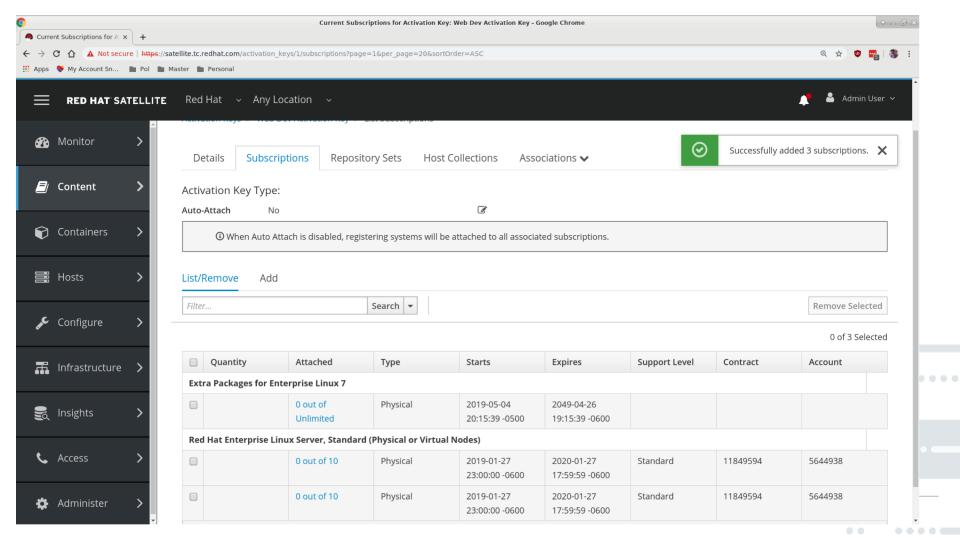


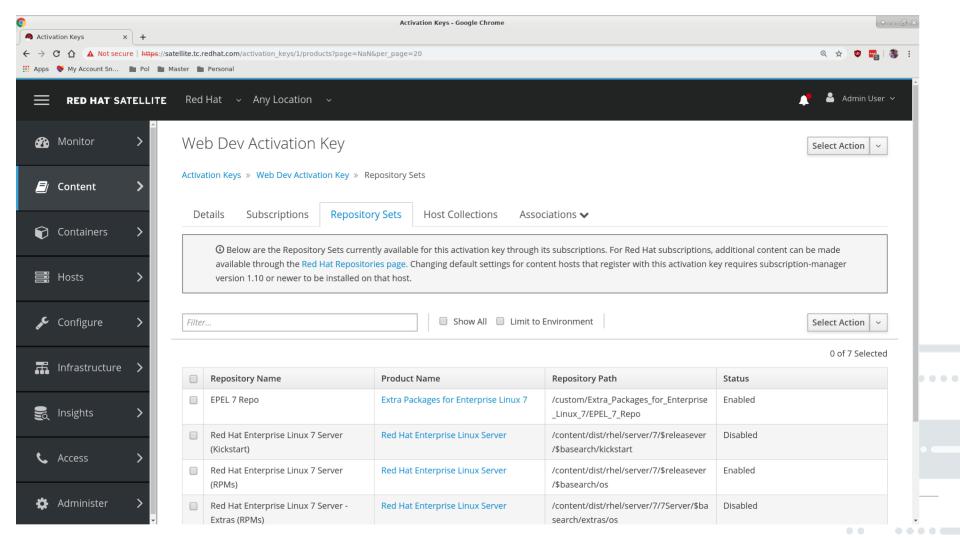


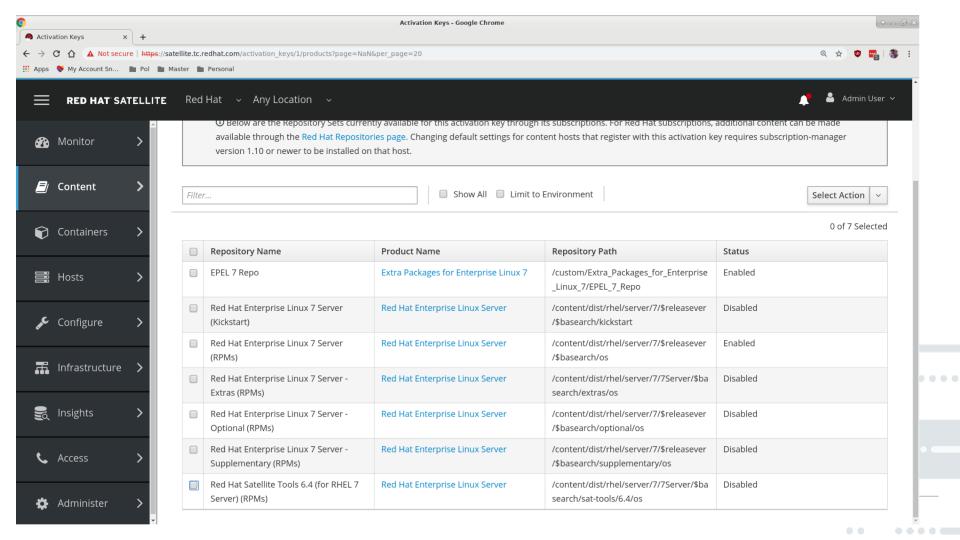


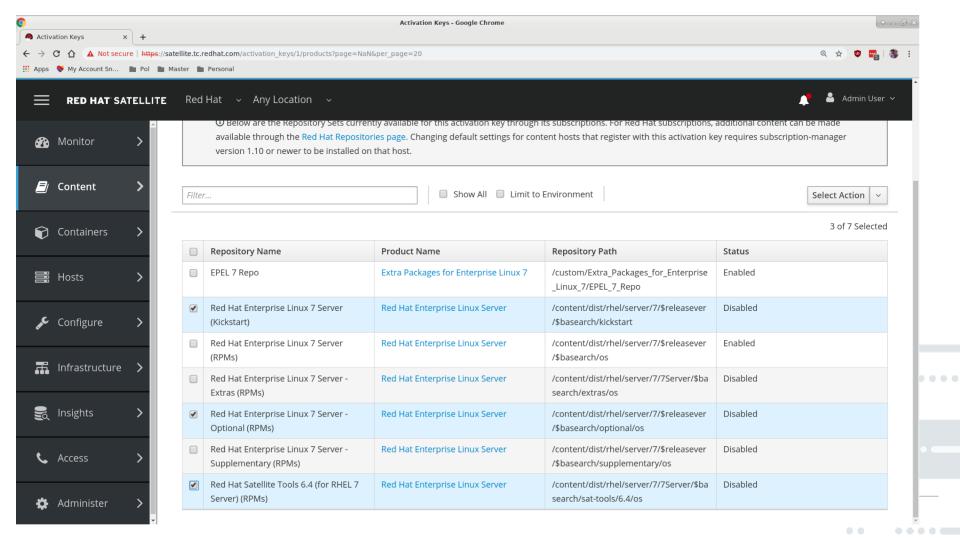


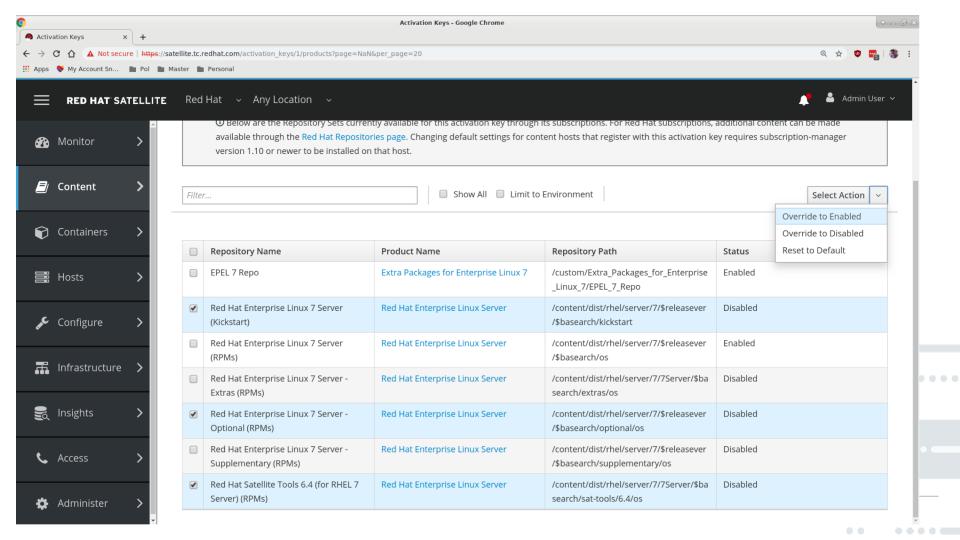


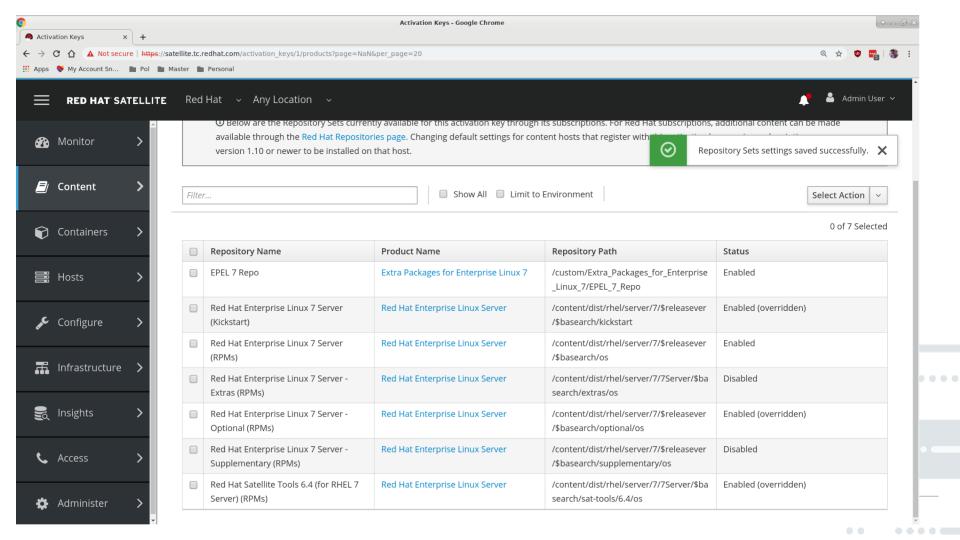


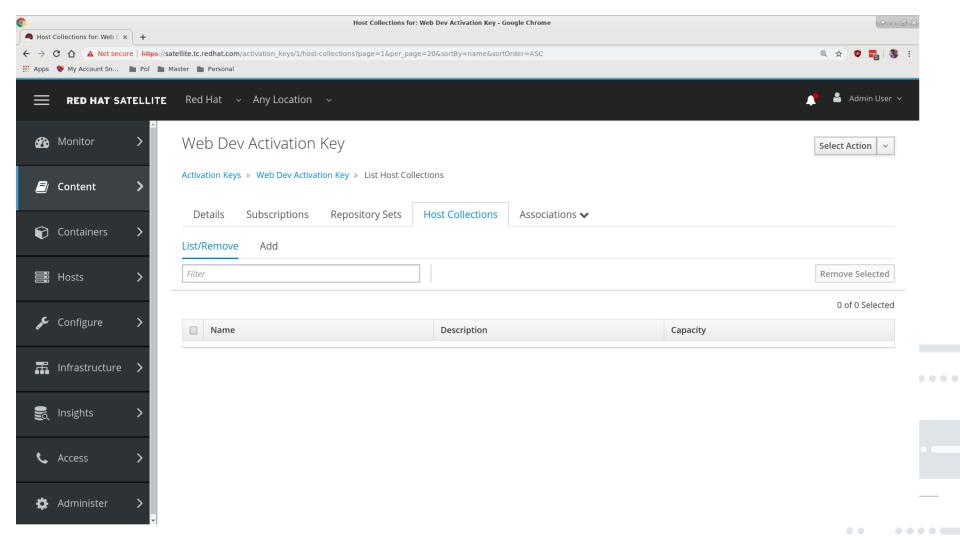


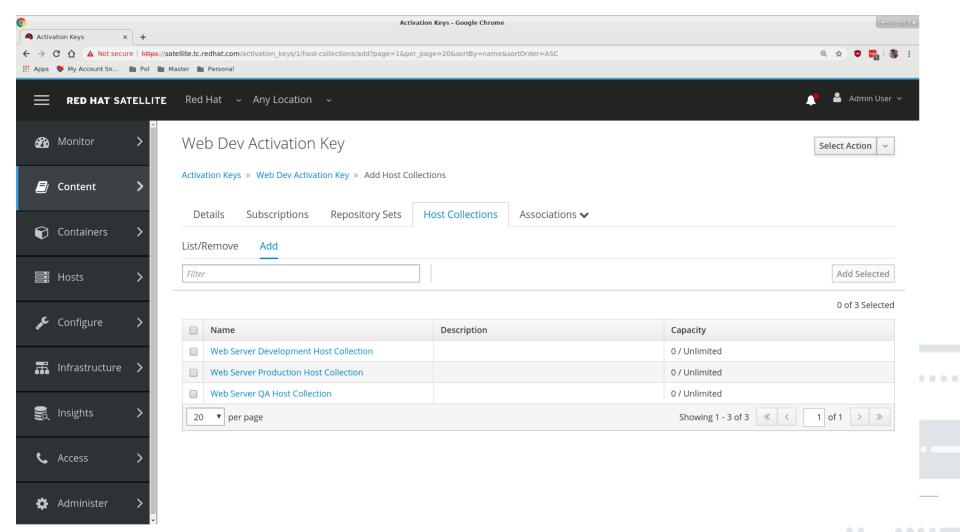


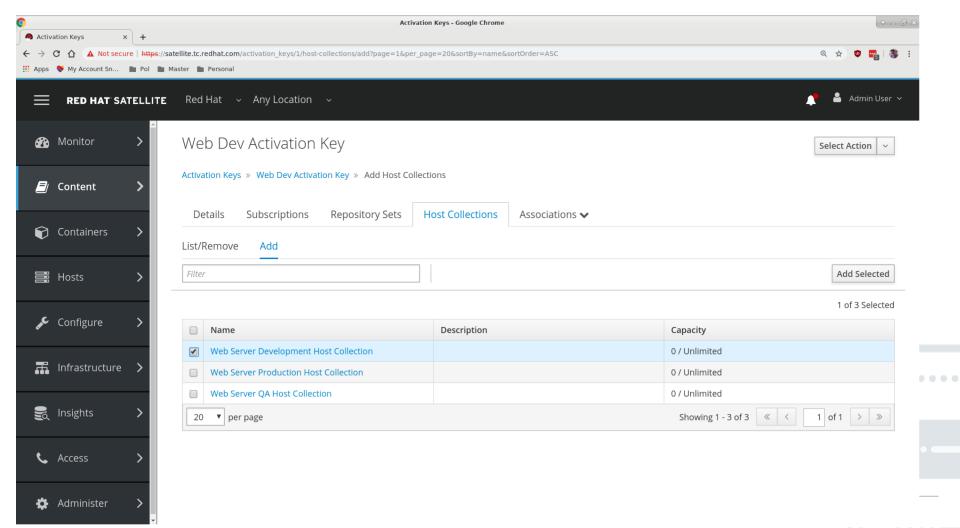


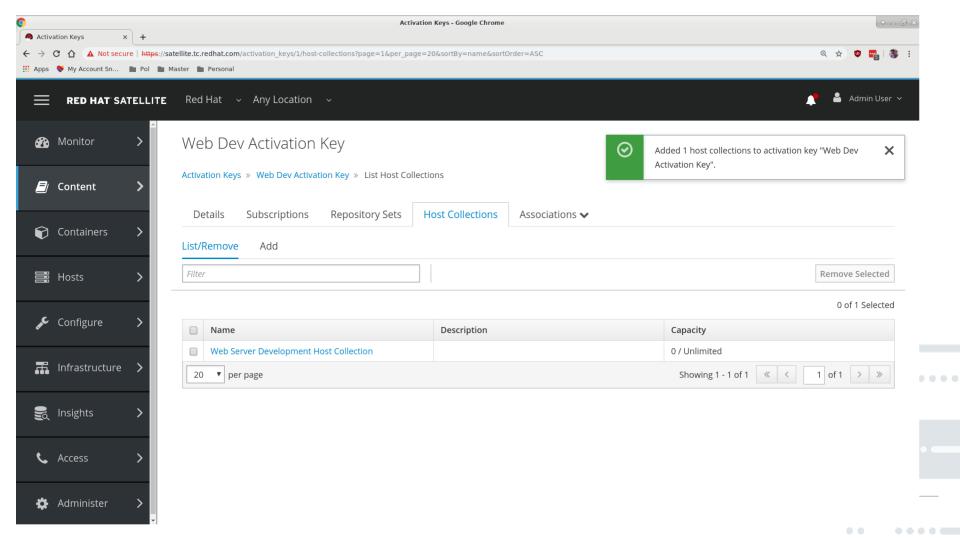


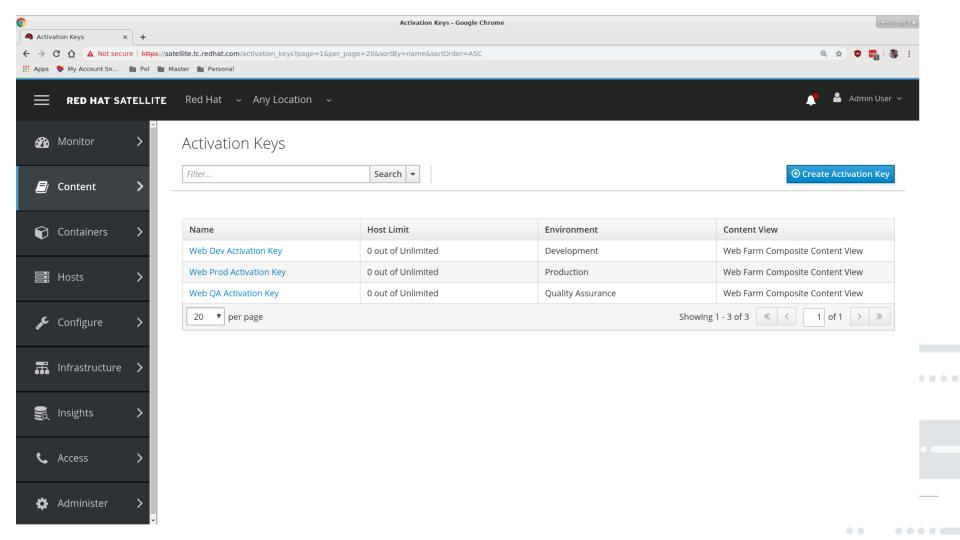










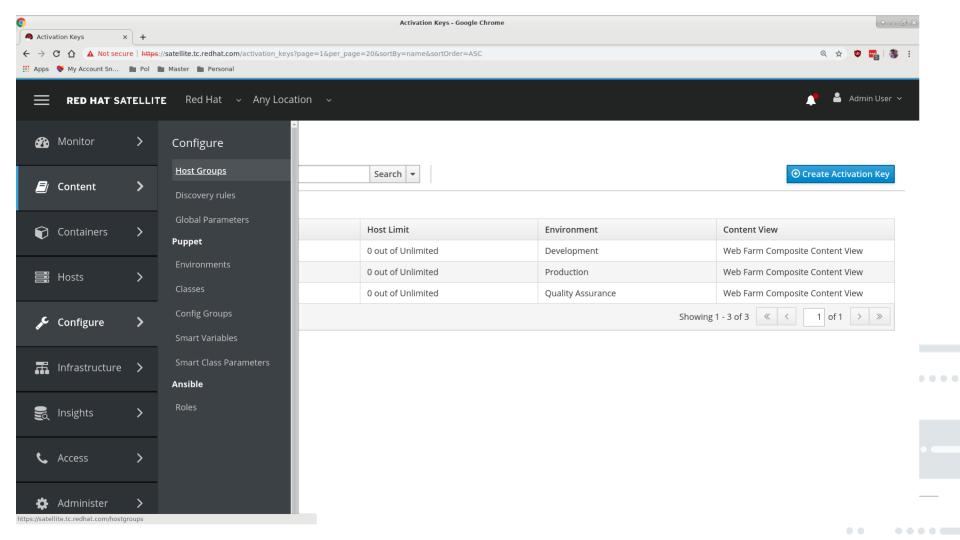


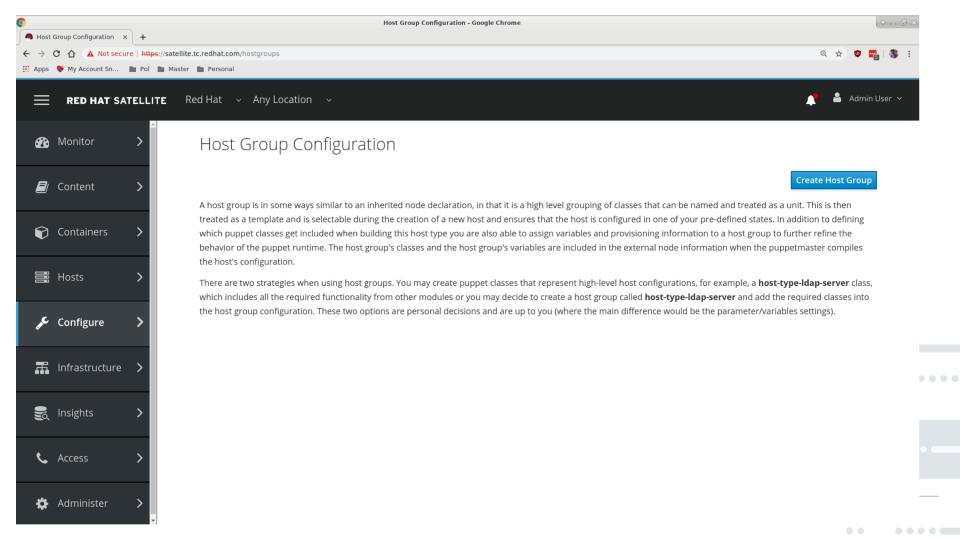
HOST GROUPS

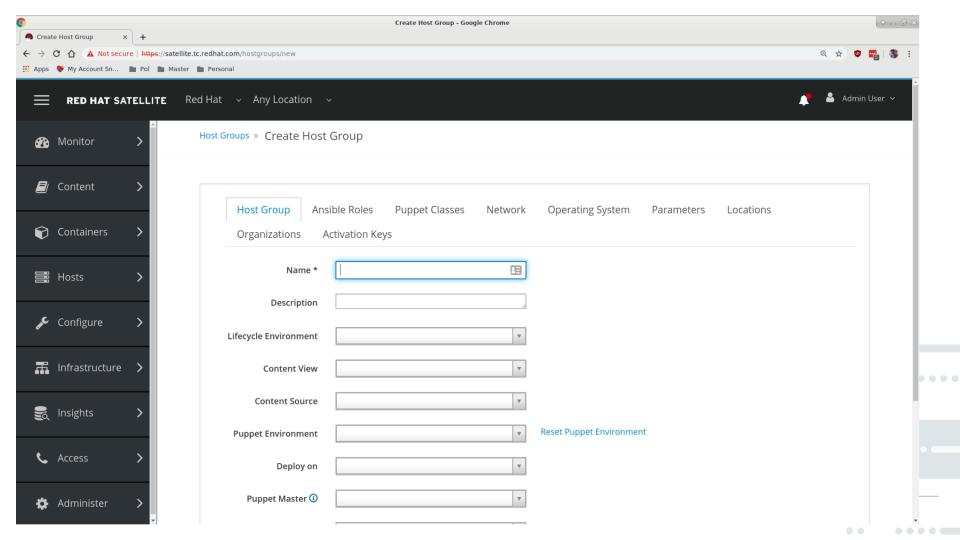
HOST GROUPS

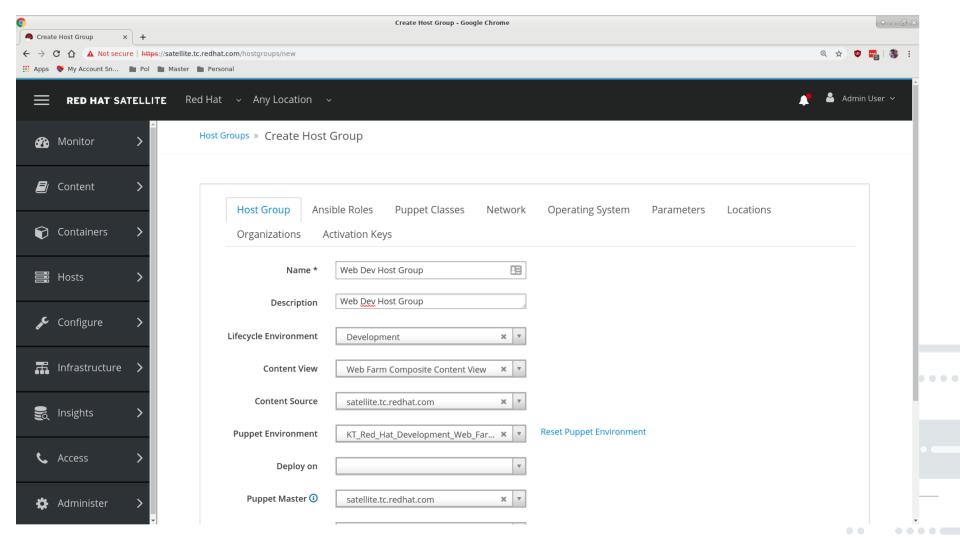
Host groups are used for provisioning. You'll associate:

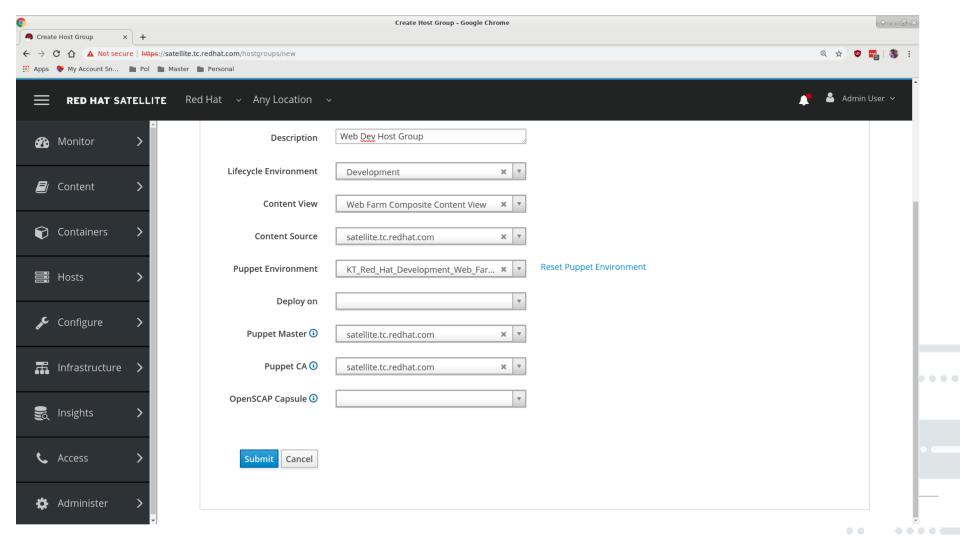
- Lifecycle environments
- Content Views
- Puppet infrastructure
- Puppet classes
- Networks
 - Note don't limit your HG to a subnet if you shouldn't
- Operating system parameters
 - Partition tables
- Locations
- Orgs
- Activation Keys

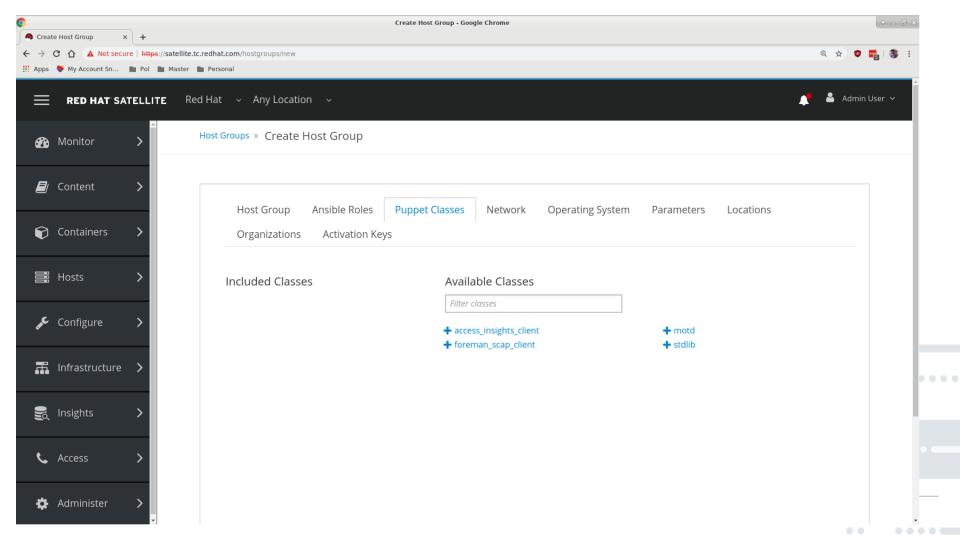


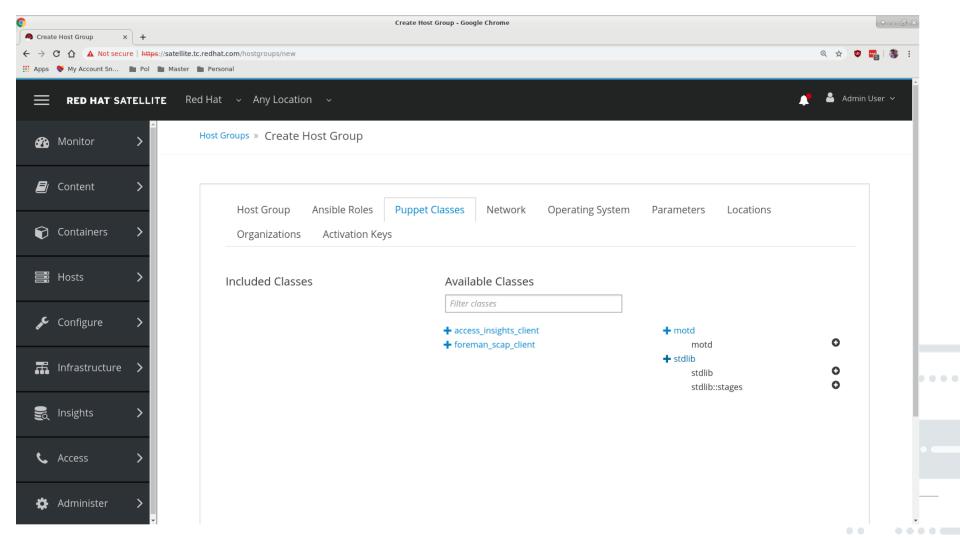


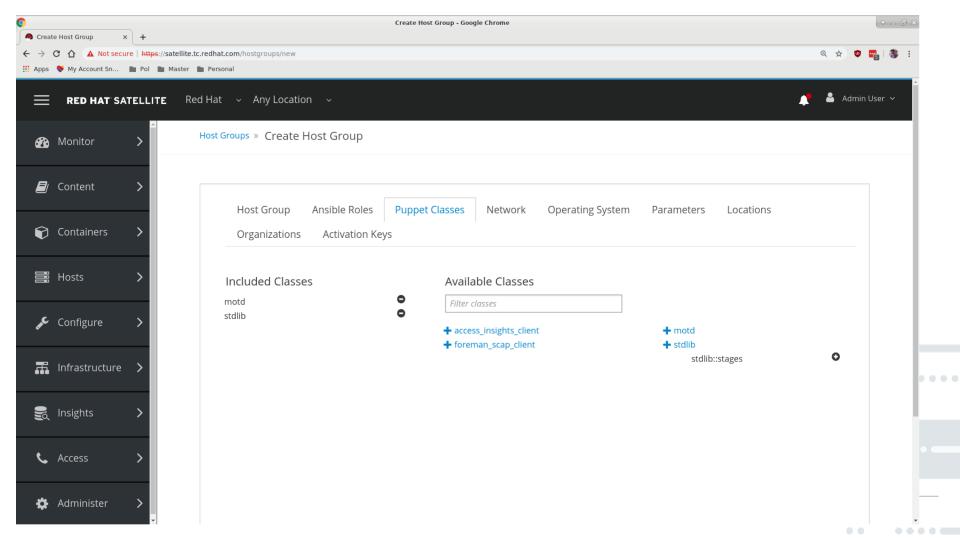


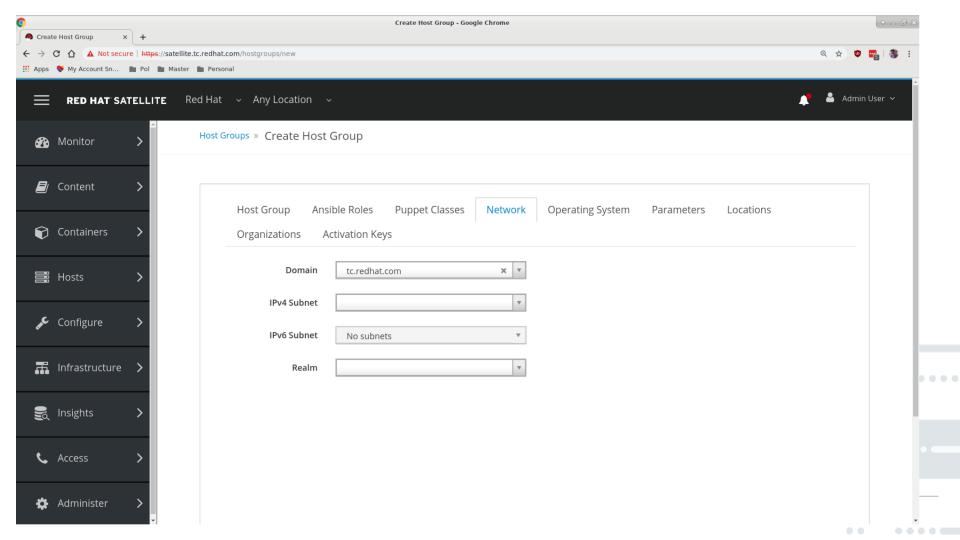


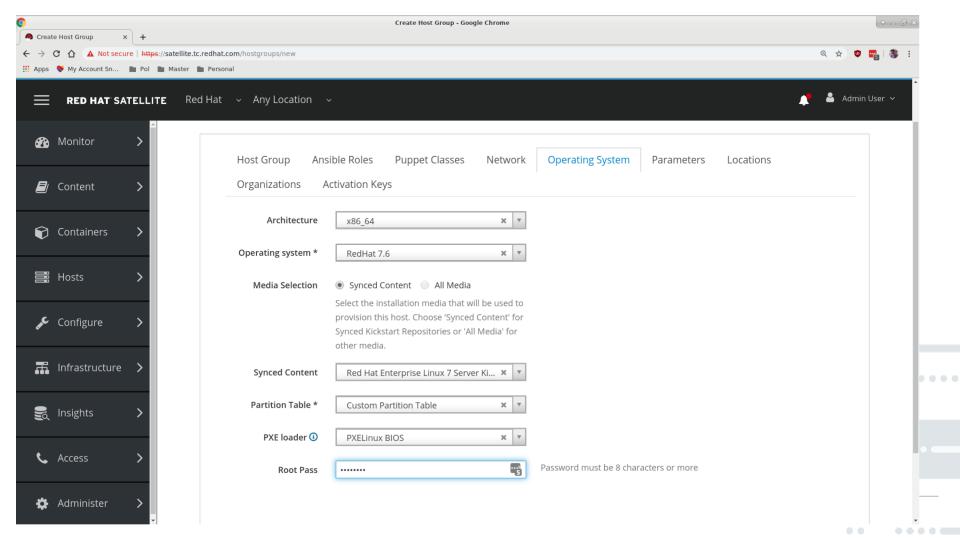


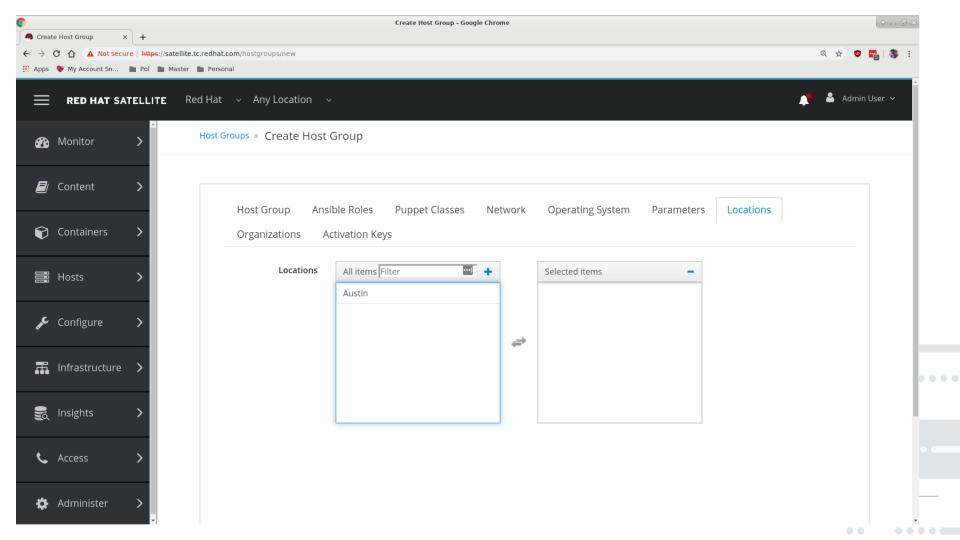


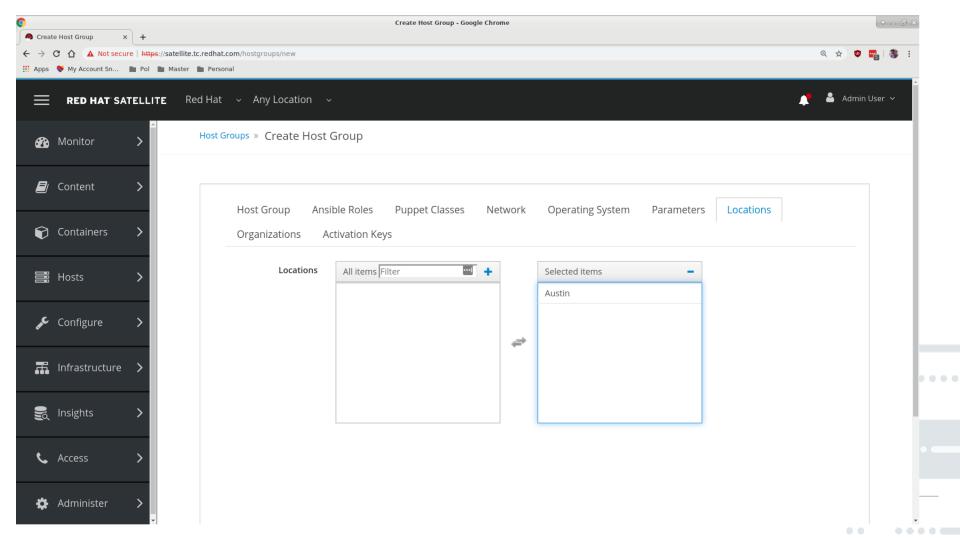


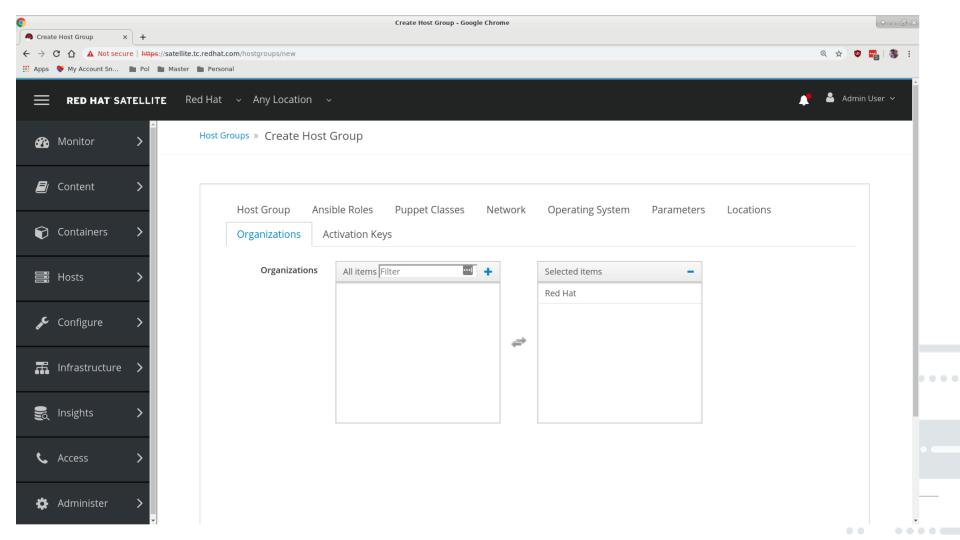


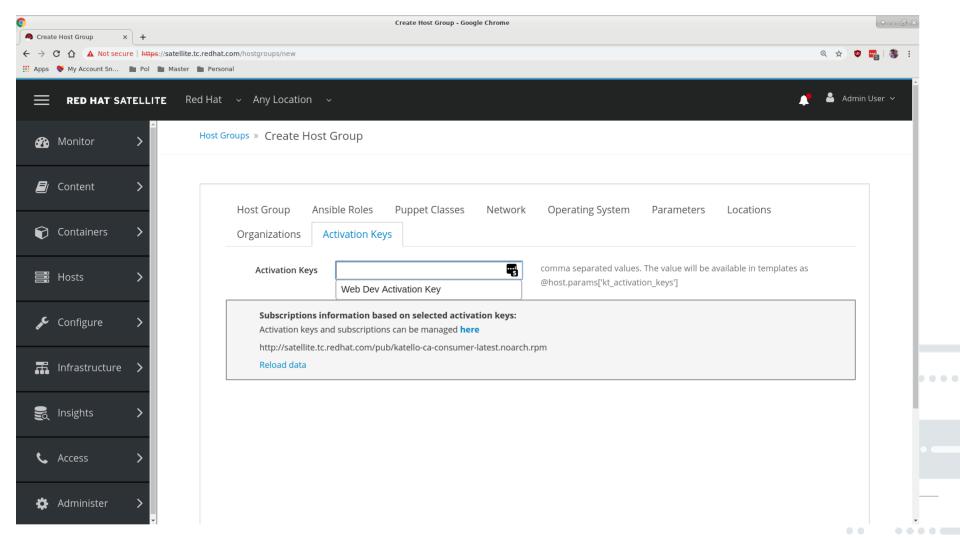


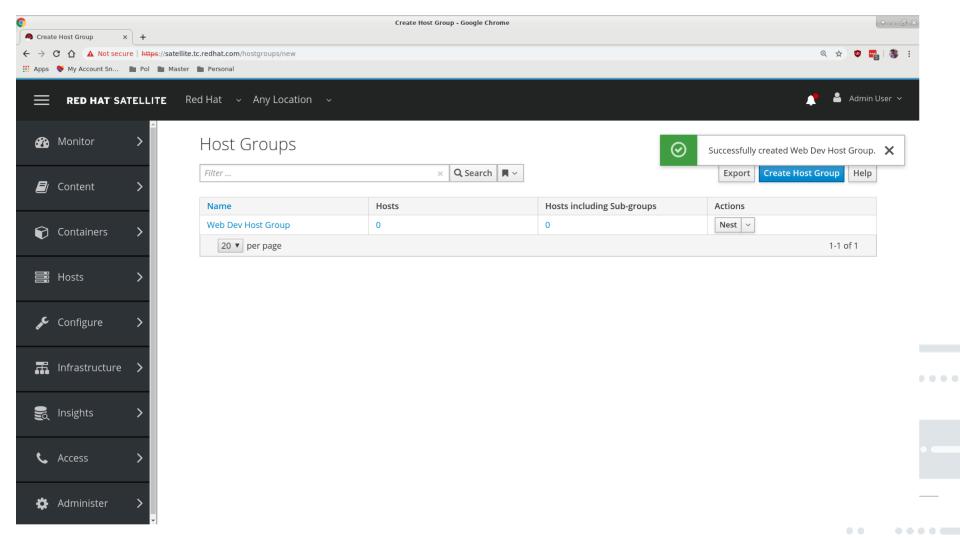


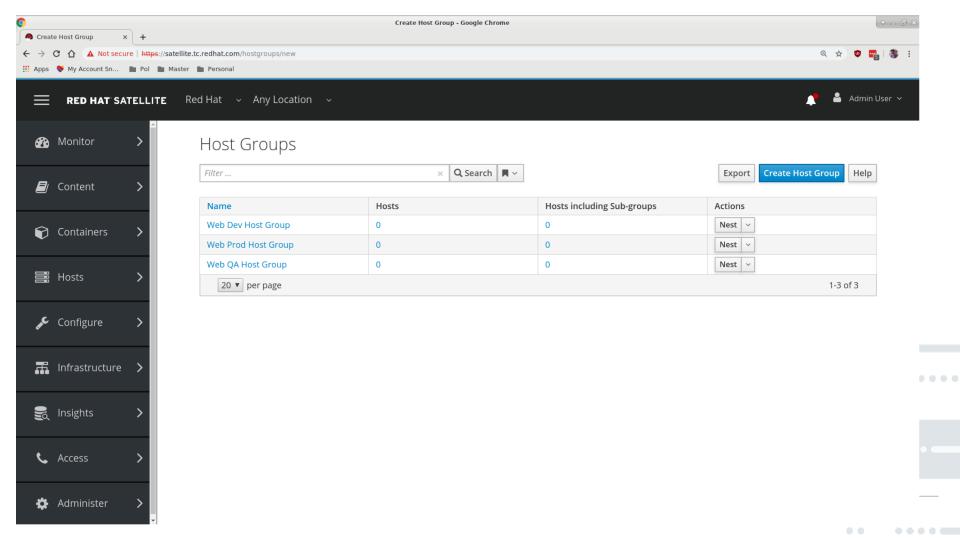










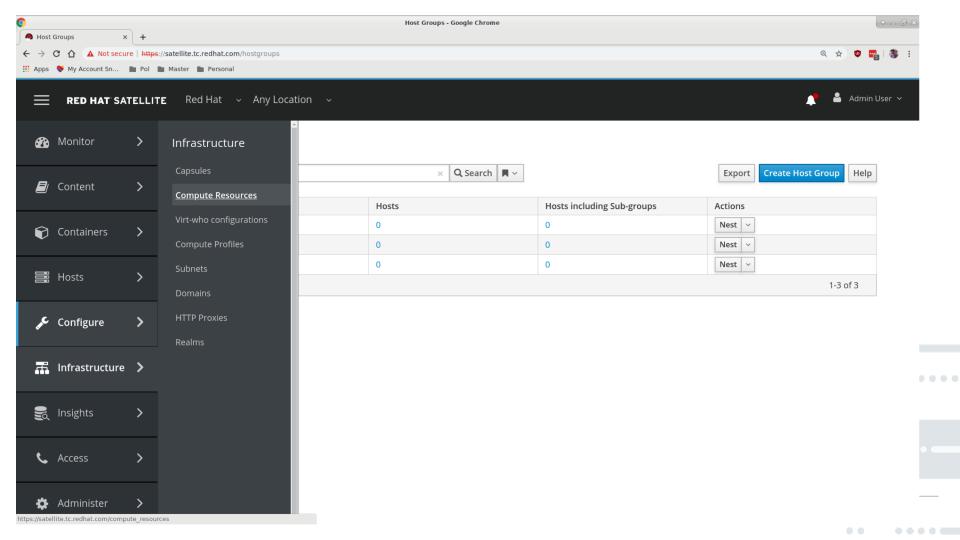


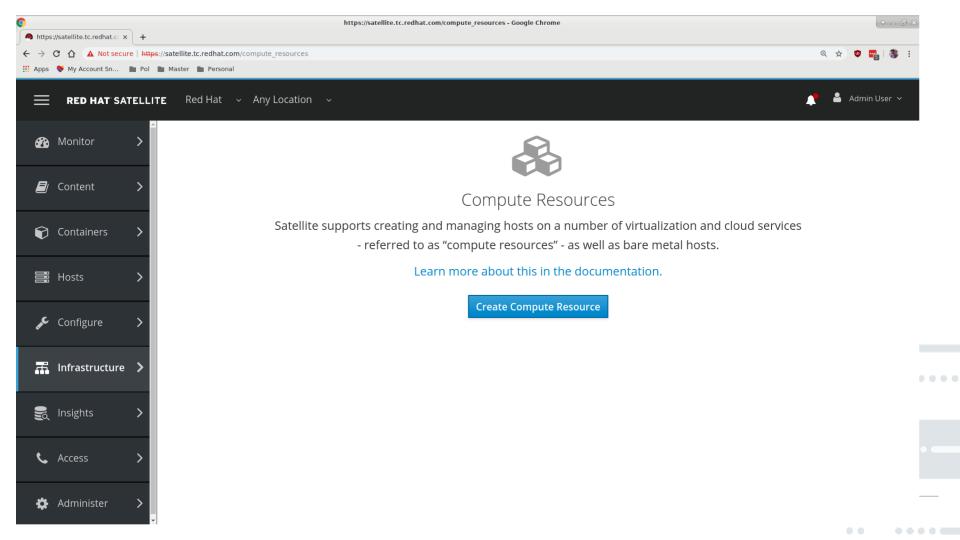
COMPUTE RESOURCES

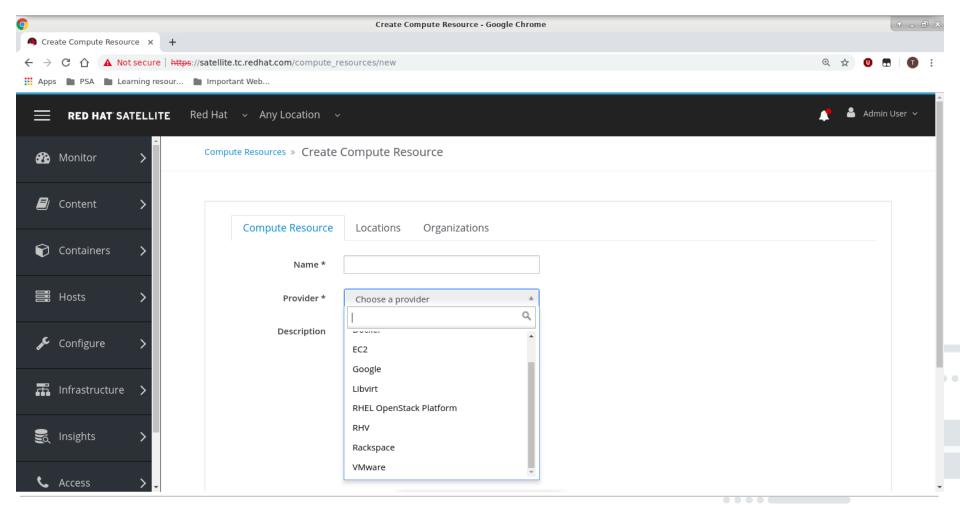
COMPUTE RESOURCES

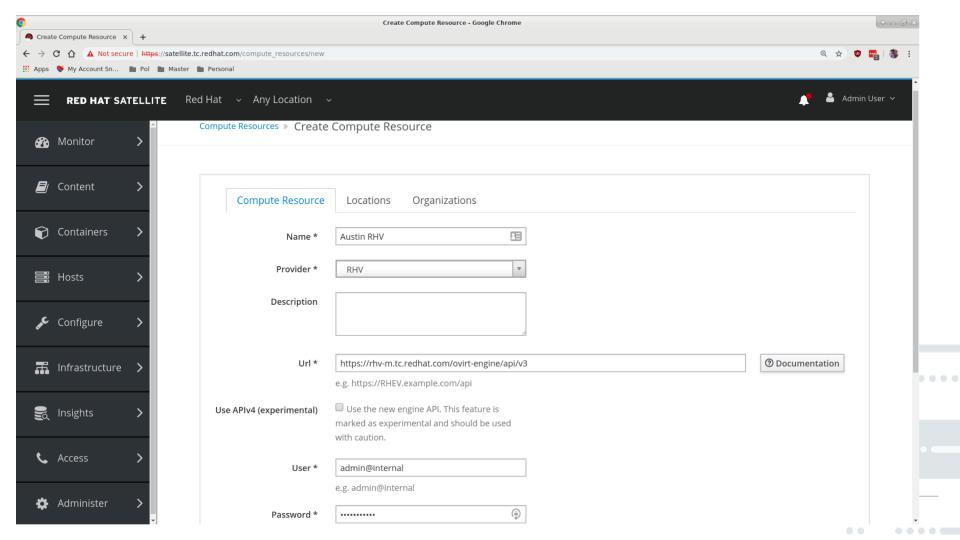
Compute resources are virtualization platforms with which Satellite can integrate

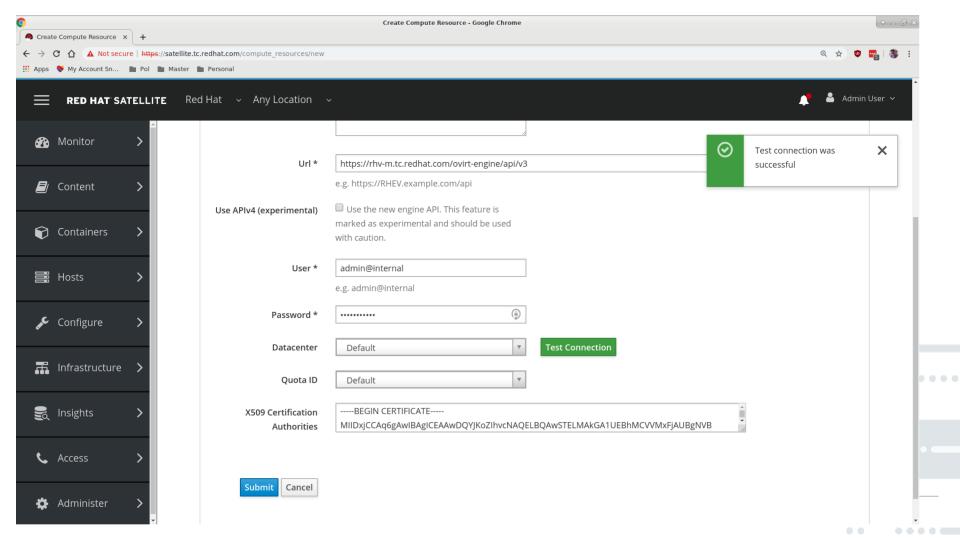
- Red Hat Virtualization
- Amazon EC2
- Google
- Libvirt
- Red Hat OpenStack
- Rackspace
- VMWare

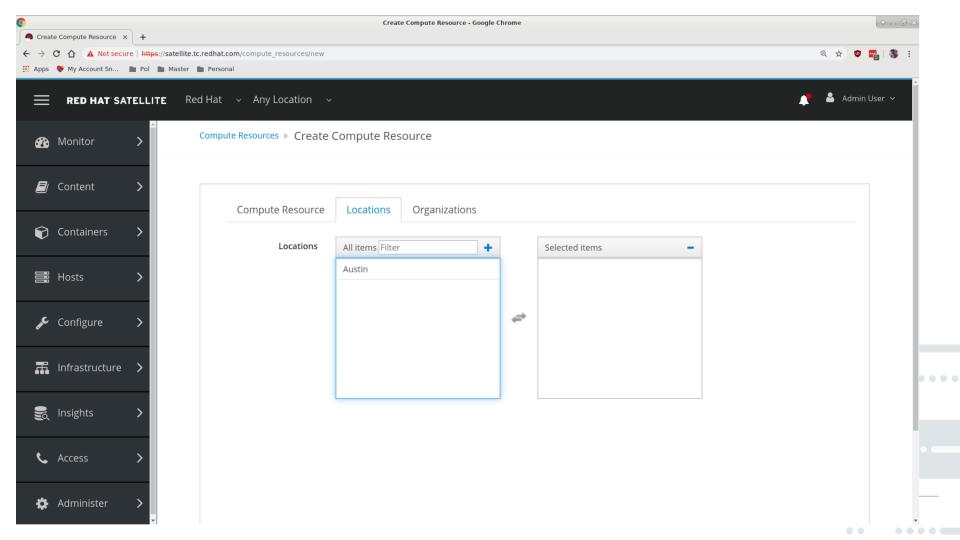


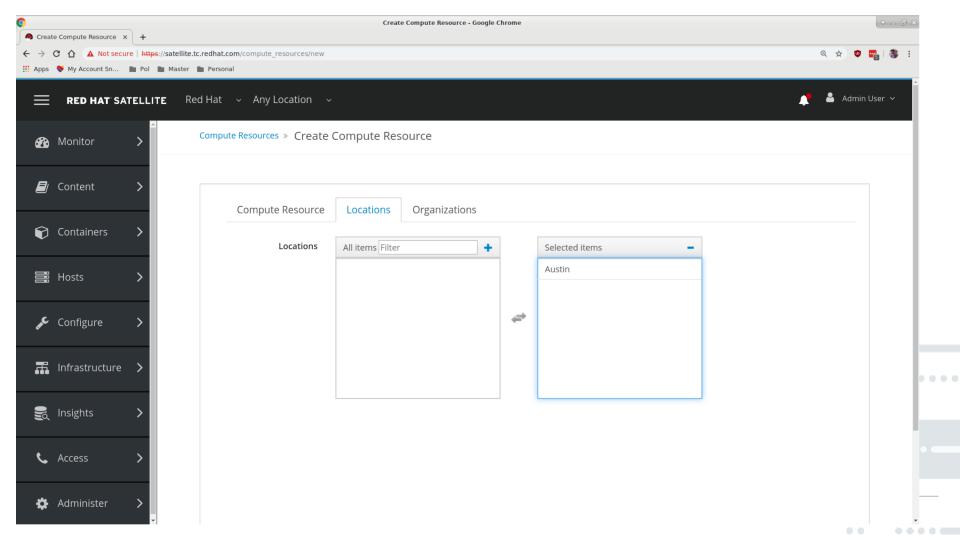


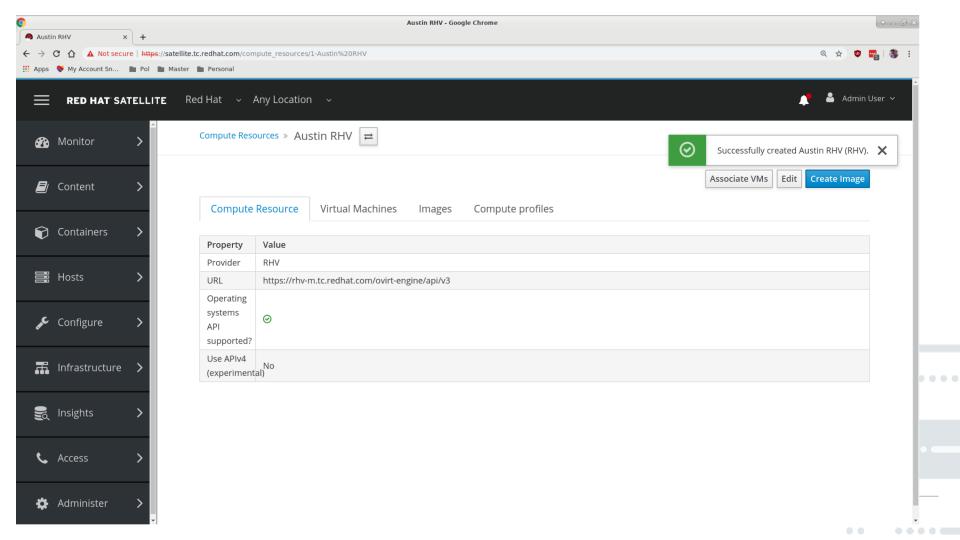


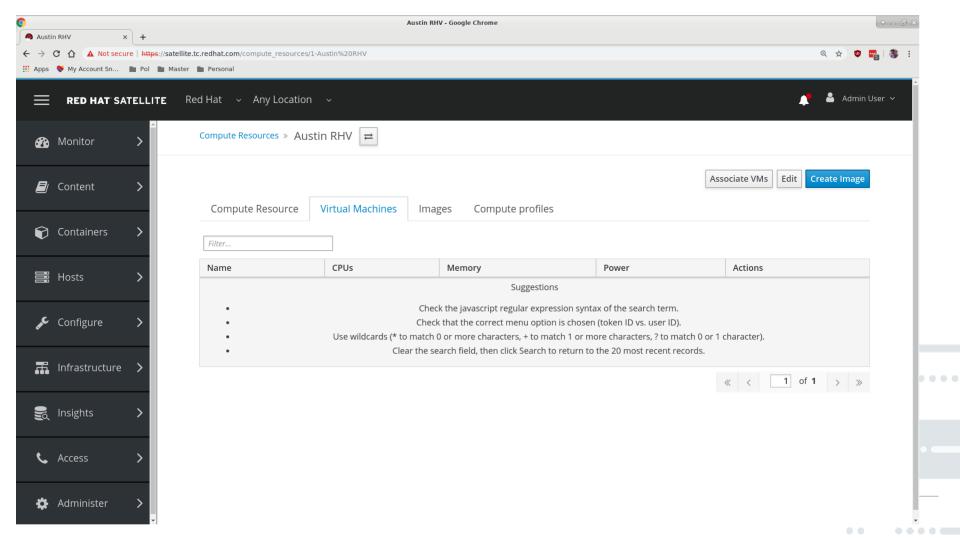


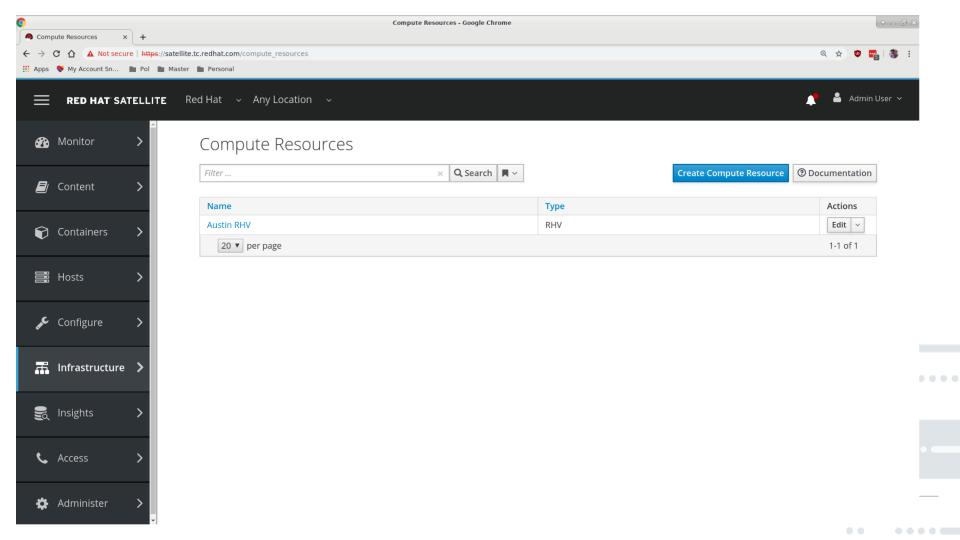










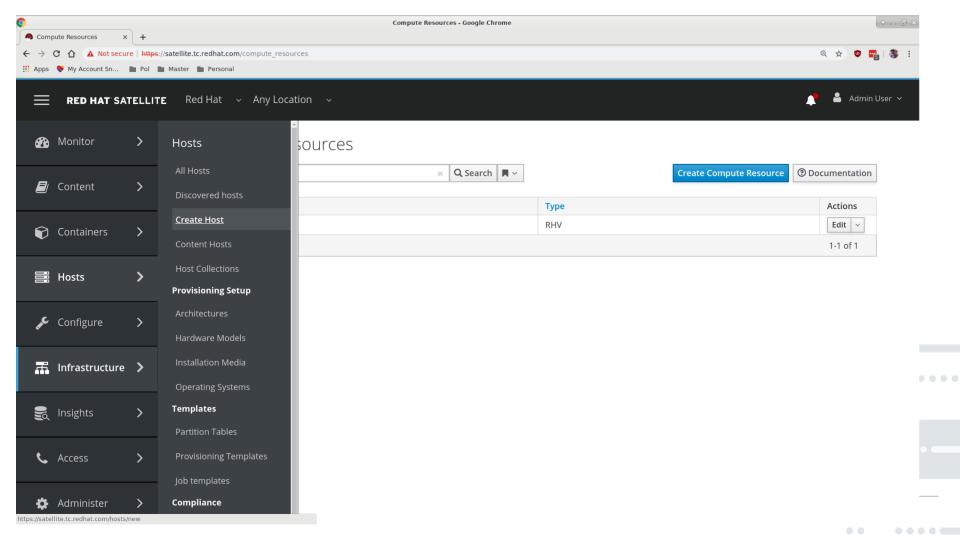


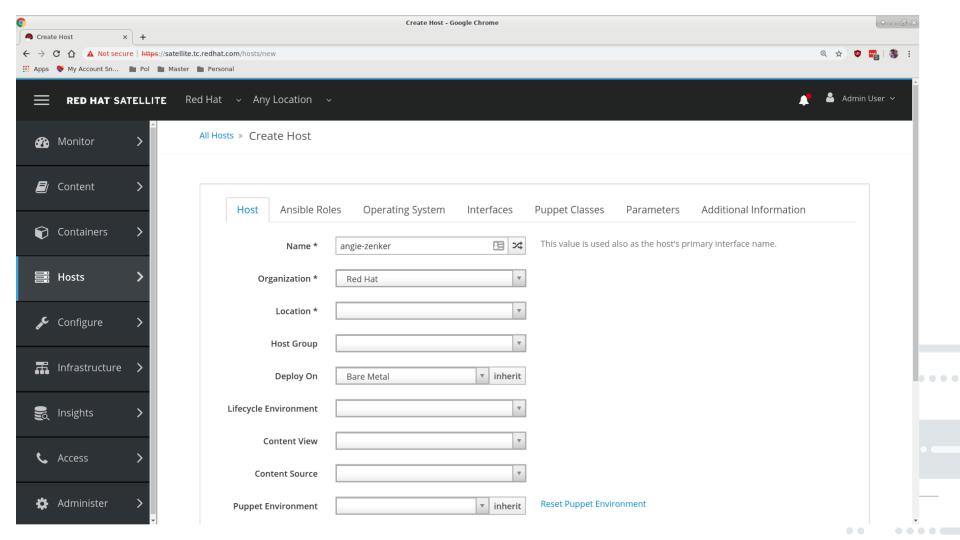


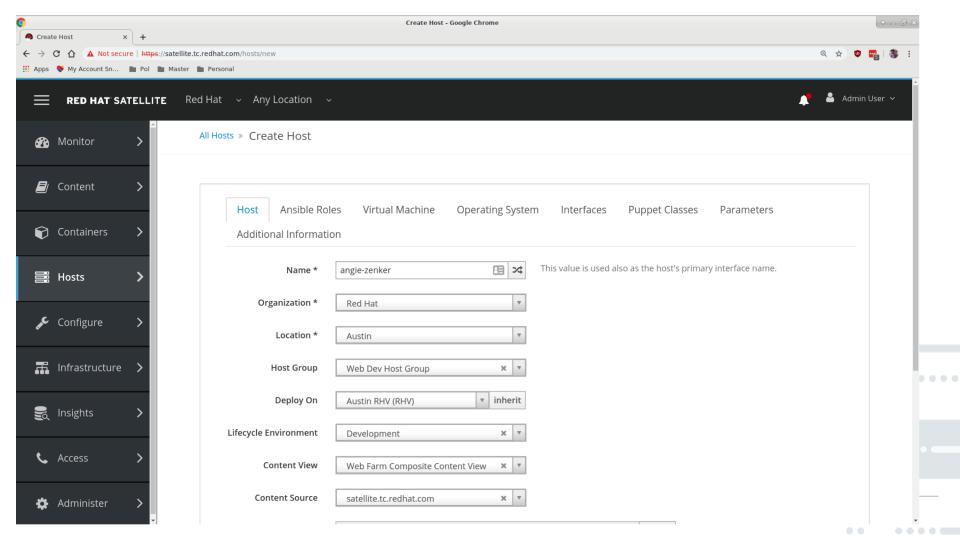
BUILD A VM

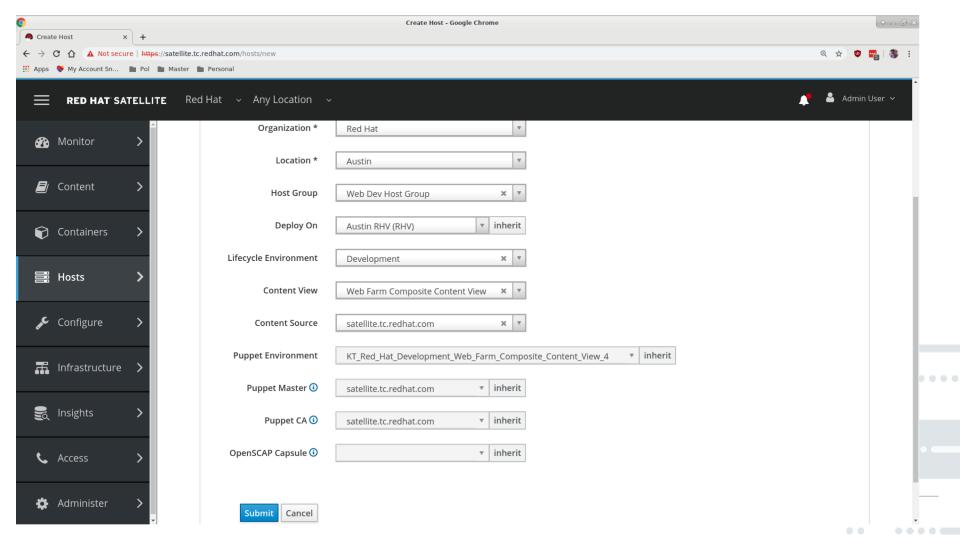
We're seeing the benefit of all our work! Red Hat Satellite enables you to deploy virtual machines, bare metal machines, and manage existing machines

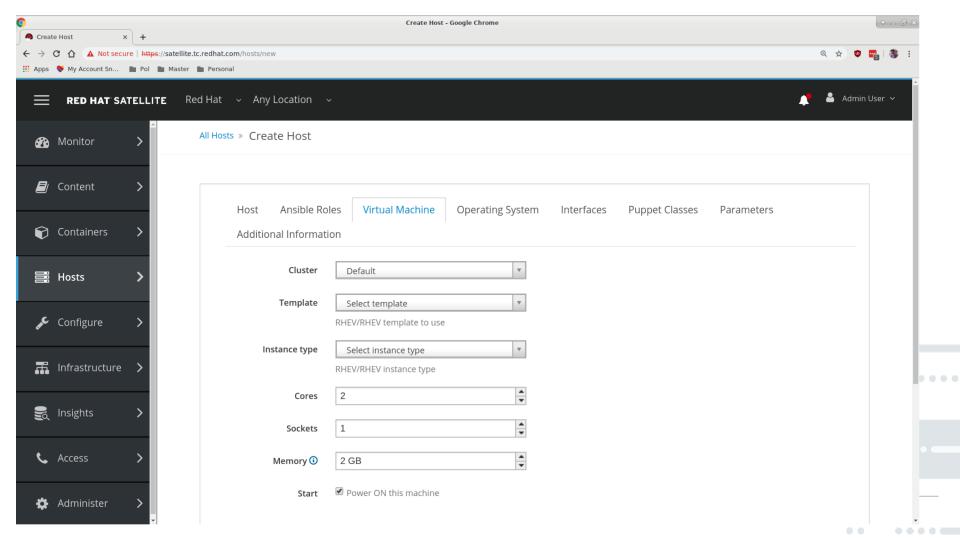
- First we'll show you a VM
- Then we'll show you what a bare metal installation looks like
- Finally, we'll go over adding existing systems to the Satellite

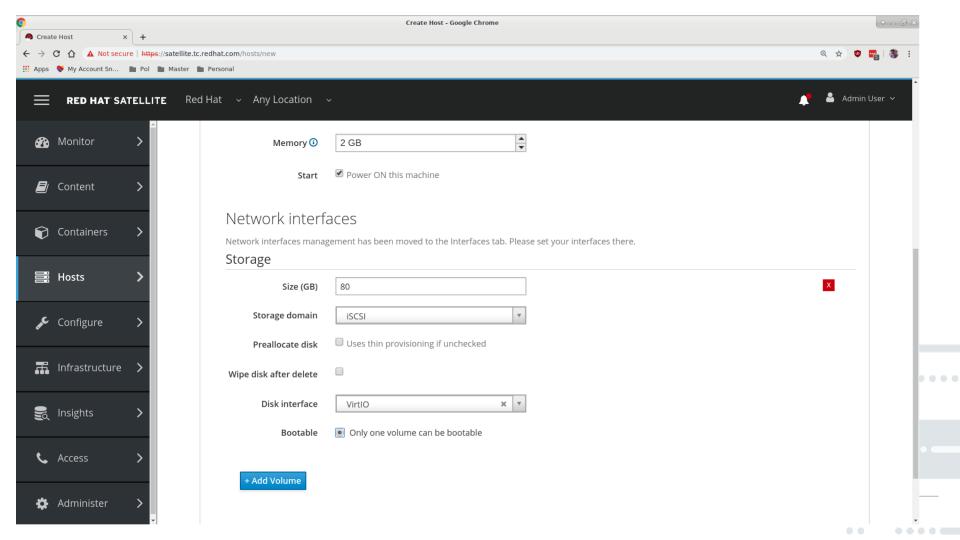


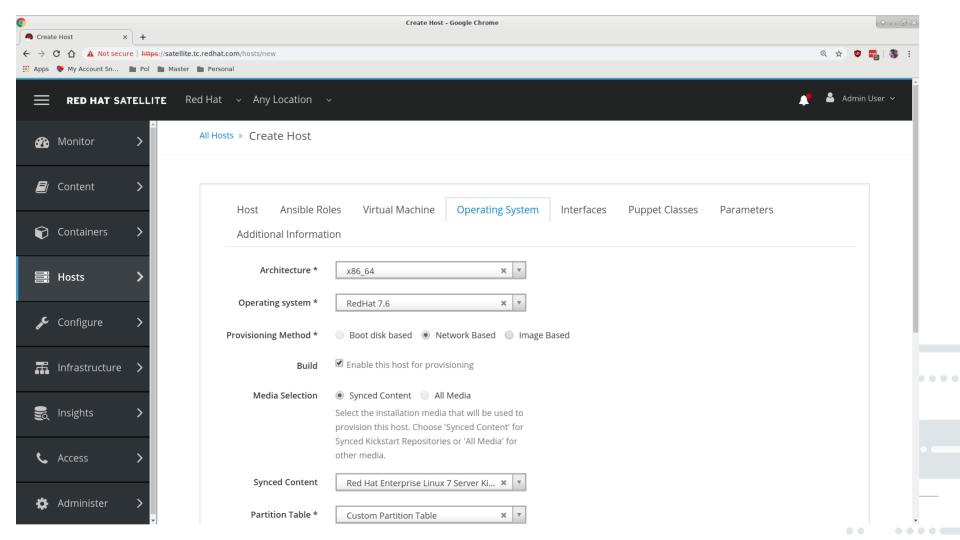


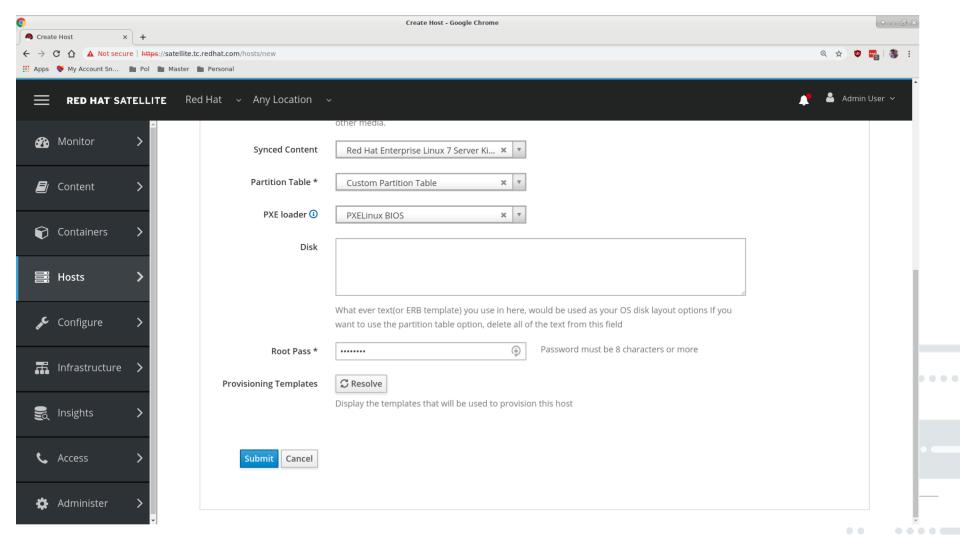


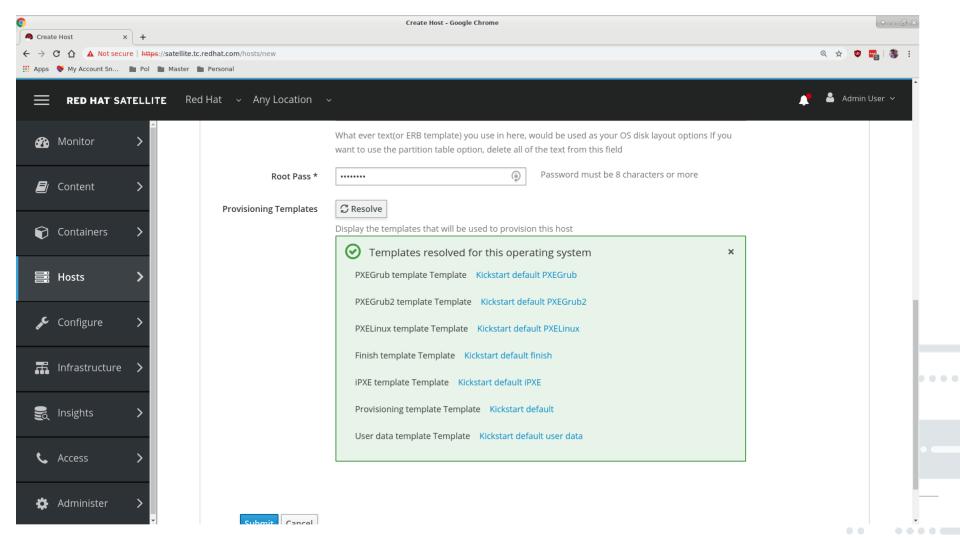


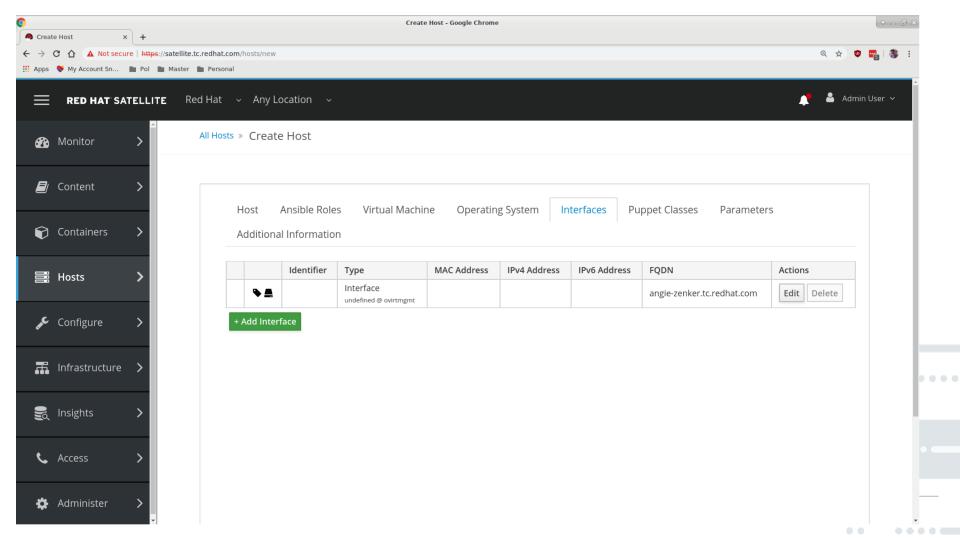


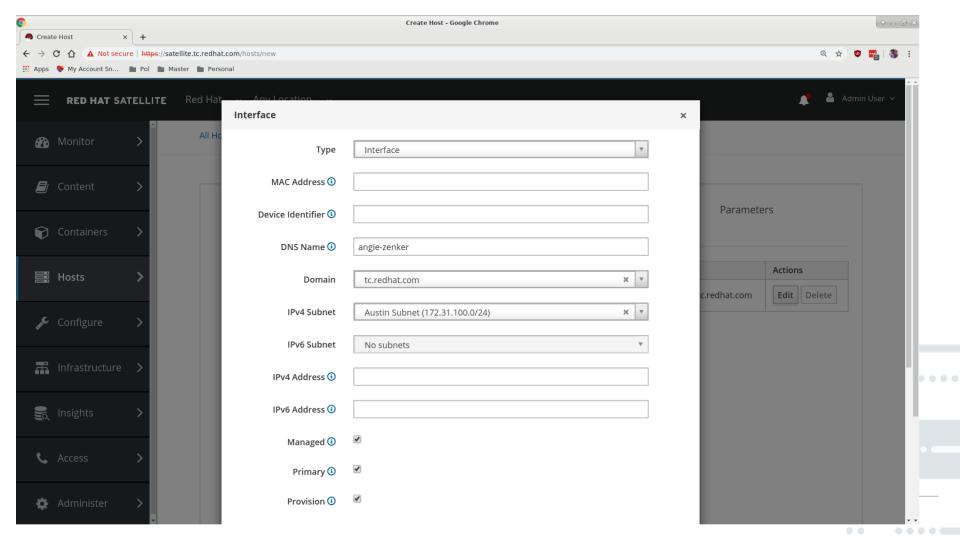


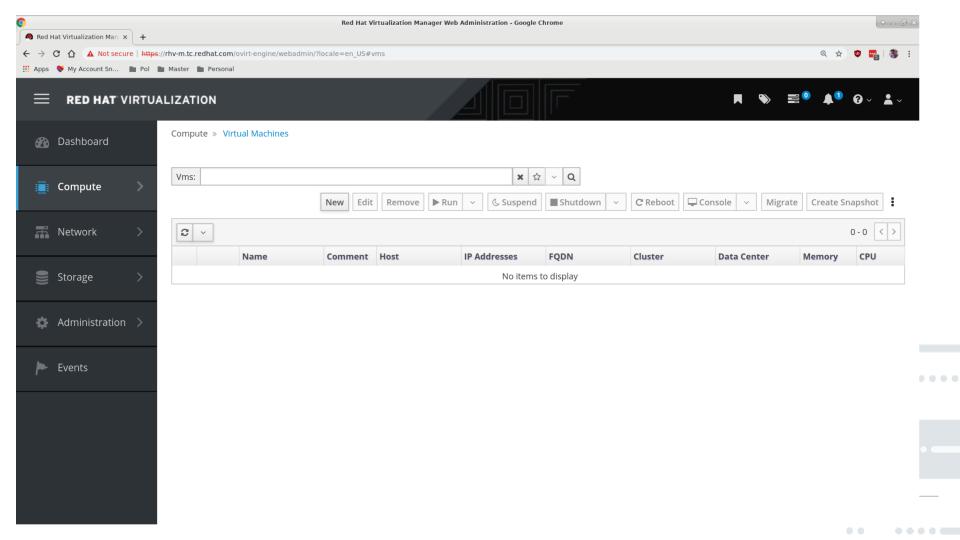


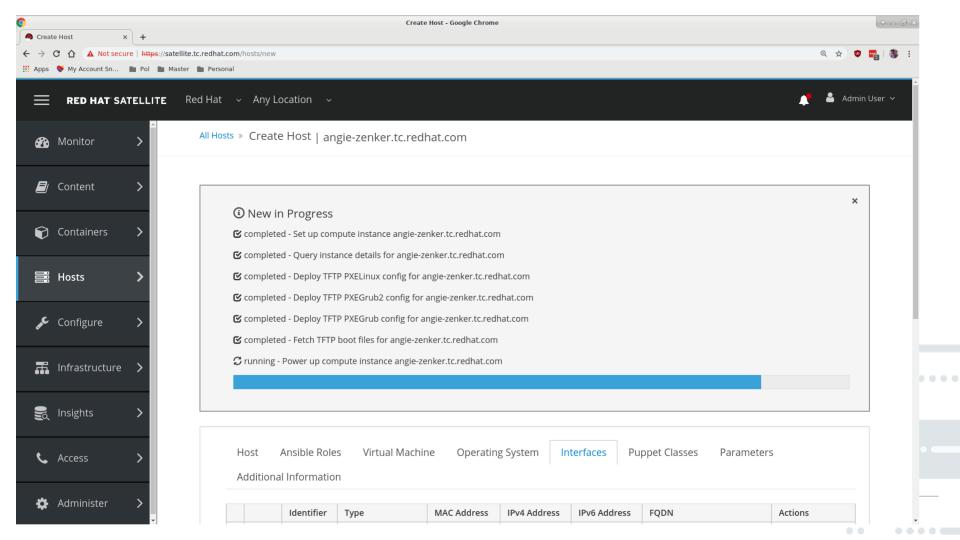


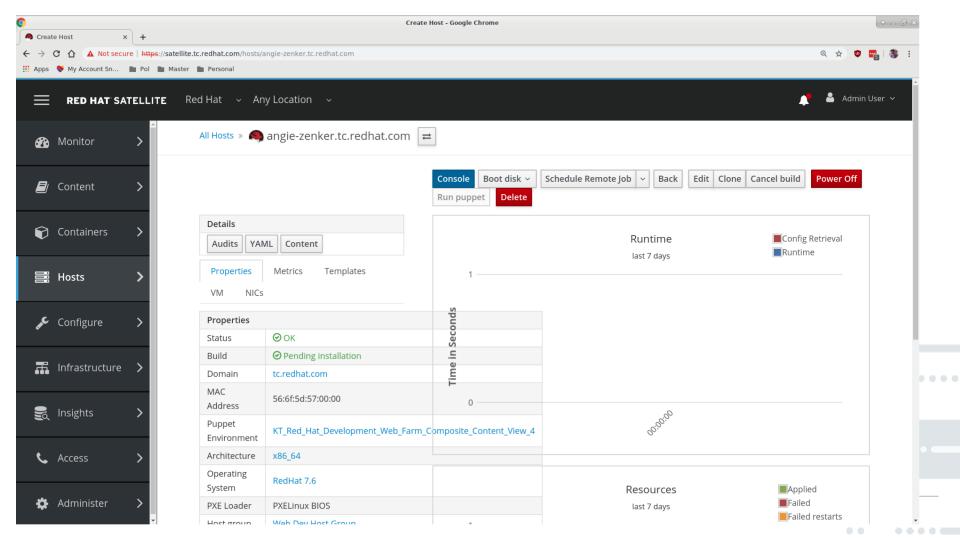


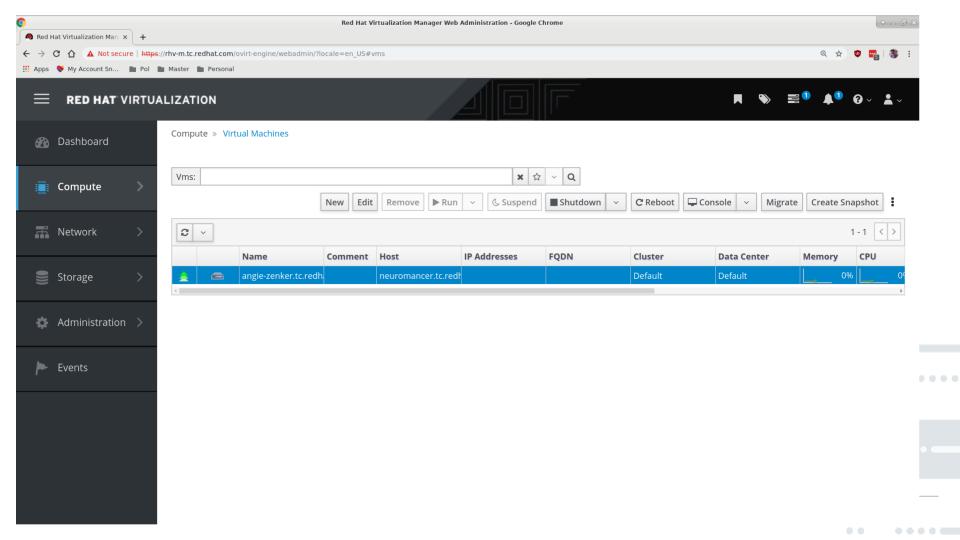


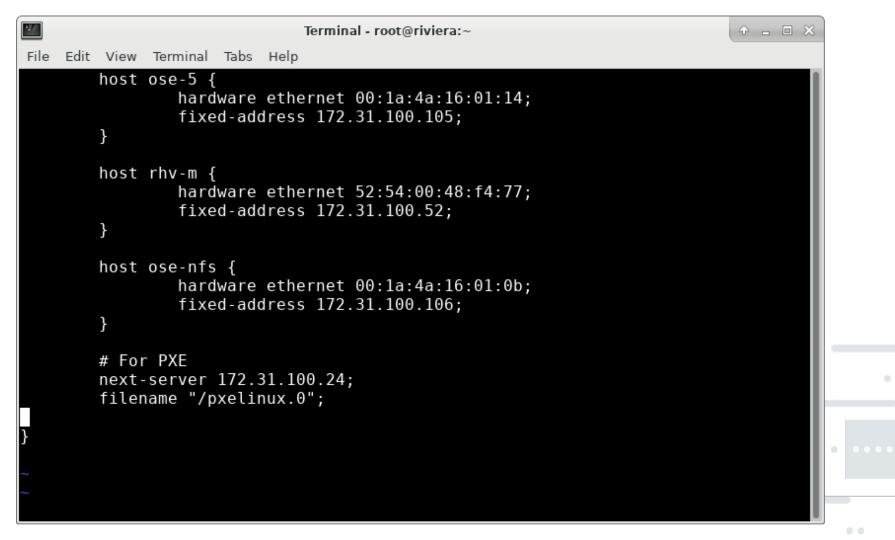














angie-zenker.tc.redhat.com:1 - Remote Viewer



File View Sendkey Help

```
iPXE 1.0.0+ (4e85b27) -- Open Source Network Boot Firmware -- http://ipxe.org
Features: DNS HTTP iSCSI TFTP AOE ELF MBOOT PXE bzImage Menu PXEXT
net0: 56:6f:5d:57:00:00 using virtio-net on 0000:00:03.0 (open)
 [Link:up, TX:0 TXE:0 RX:0 RXE:0]
Configuring (net0 56:6f:5d:57:00:00)........... ok
net0: 172.31.100.214/255.255.255.0 gw 172.31.100.29
Next server: 172.31.100.24
Filename: ∕pxelinux.0
tftp://172.31.100.24//pxelinux.0... ok
pxelinux.0 : 26743 bytes [PXE-NBP]
PXELINUX 4.05 0x5ba365f6  Copyright (C) 1994-2011 H. Peter Anvin et al
PXE entry point found (we hope) at 9C6C:0160 via plan A
UNDI code segment at 9C6C len 0802
UNDI data segment at 9CFO len 2CEO
Getting cached packet 01 02 03
My IP address seems to be AC1F64D6 172.31.100.214
ip=172.31.100.214:172.31.100.24:172.31.100.29:255.255.255.0
BOOTIF=01-56-6f-5d-57-00-00
SYSUUID=26f484f1-dbd1-8b42-a954-b65ad8b53511
TFTP prefix: /
Trying to load: pxelinux.cfg/01-56-6f-5d-57-00-00
                                                                   ok
Loading boot/RedHat-7.6-x86_64-vmlinuz.....
Loading boot/RedHat-7.6-x86_64-initrd.img......
```

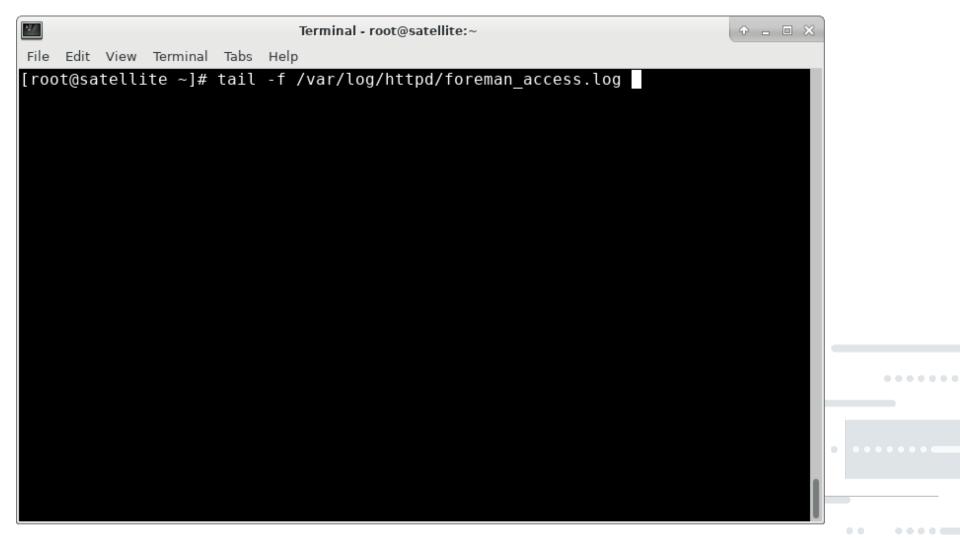
0 000000





File View Sendkey Help Starting installer, one moment... anaconda 21.48.22.147-1 for Red Hat Enterprise Linux 7.6 started. * installation log files are stored in /tmp during the installation * shell is available on TTY2 * when reporting a bug add logs from /tmp as separate text/plain attachments 07:07:54 Not asking for UNC because of an automated install 07:07:54 Not asking for UNC because text mode was explicitly asked for in kickstart Starting automated install.... Checking software selection Generating updated storage configuration Checking storage configuration... Installation 1) [x] Language settings 2) [x] Time settings (English (United States)) (UTC timezone) 3) [x] Installation source 4) [x] Software selection (http://satellite.tc.redhat.com (Custom software selected) 6) [x] Kdump /pulp/repos/Red Hat/Development /Web Farm Composite Content Vie (Kdump is enabled) w/content/dist/rhel/server/7/7. 8) [] User creation 6/x86 64/kickstart/) (No user will be created) 5) [x] Installation Destination (Custom partitioning selected) 7) [x] Network configuration (Wired (eth0) connected) Progress Setting up the installation environment Creating disklabel on /dev/vda Creating xfs on /dev/vda2 Creating swap on /dev/vda5 Creating xfs on /dev/vda3 Creating xfs on /dev/vda1

Running pre-installation scripts Starting package installation process





File Edit View Terminal Tabs Help

zNjcxNTY0YTc00GQveHotNS4yLjItMS5lbDcueDg2XzY0LnJwbSIsICJleHBpcmF0aW9uIjogMTU1NzA 0MDMyM30%3D;signature=BnKXiw1_B_B-7EawgH0aRaFiBEZ2prmjCTNhEQxE4glNrgmy3hrH6WAW6t wW_mZqYz_QsBd0d653MB9P7HHXjKp_vMrJllnsdbi0rjcLfo0hBnTWFje590dKvxAA16gUs-ePie303I _FBtn6Q1FPsM4SBeI2MRCxcMYoKbdZpFITAYct1nRL0Eb9XM9kPuXBrNRP6NCZh_IYw0i9eV7N5sqyrB XldXSNSMeqZZu0FqqrBKSDRScrMkCs0z6z92QzUlBjzy56Ap-m2MhDXE0hzGBEWILGzSkr8P-lyP0t6Y HBkw5pLU060pjUJQvRIXkn9UfLzrofIdR6lC-prqqpKQ%3D%3D HTTP/1.1" 200 234148 "-" "url grabber/3.10 yum/3.4.3"

172.31.100.215 - - [05/May/2019:02:10:33 -0500] "GET /pulp/repos/Red_Hat/Develop ment/Web_Farm_Composite_Content_View/content/dist/rhel/server/7/7.6/x86_64/kicks tart/Packages/m/make-3.82-23.el7.x86_64.rpm HTTP/1.1" 302 - "-" "urlgrabber/3.10 yum/3.4.3"

172.31.100.215 - [05/May/2019:02:10:33 -0500] "GET /streamer/var/lib/pulp/content/units/rpm/1d/ff1aa5e939f64127da970f63bfca1503ade9c21e210c654bf68c5dfd811c55/make-3.82-23.el7.x86_64.rpm?policy=eyJleHRlbnNpb25zIjogeyJyZWlvdGVfaXAi0iAiMTcyLjMxLjEwMC4yMTUifSwgInJlc291cmNlIjogIi9zdHJlYW1lci92YXIvbGliL3B1bHAvY29udGVudC91bml0cy9ycG0vMWQvZmYxYWE1ZTkz0WY2NDEyN2RhOTcwZjYzYmZjYTE1MDNhZGU5YzIxZTIxMGM2NTRiZjY4YzVkZmQ4MTFjNTUvbWFrZS0zLjgyLTIzLmVsNy540DZfNjQucnBtIiwgImV4cGlyYXRpb24i0iAxNTU3MDQwMzIzfQ%3D%3D;signature=0Fe76aUY4vH538LnR-UGga9QqMcY5c-ABdjPuRFa5r0VpTpaqSEcUC8KqEp9dsQlUUJaxqr6Aluv1r-qPCQmut7gEiM87n088zckPDJLFSDyhFrEEoUWruaX43n5eg4MYMNbi94TbXCB0Fx9s9yRCc01jeeM2JFxZhHR5EdEXt_J1WUFlkmp2ay5YwXG3Yi_7SEYhRMjK7Uuj4zscLgz0A40kfpL9w003GMyyMM8Bp1VMTCDy8d0rdiQYeYVMMWMqF-6qG8q0HBPiyarsmSxM7zxcI8wGAzlRrl5XynD6BvDBcS02dEIwEgbSon5zZ3MkyGXuenH75pF6qVqUk6LNA%3D%3D HTTP/1.1" 200 430608 "-" "urlgrabber/3.10 yum/3.4.3"







00000

```
File View Sendkev Help
Installing libassuan (65/354)
Installing p11-kit (66/354)
Installing tar (67/354)
Installing groff-base (68/354)
Installing e2fsprogs-libs (69/354)
Installing xz (70/354)
Installing make (71/354)
Installing libgomp (72/354)
Installing libunistring (73/354)
Installing slang (74/354)
Installing newt (75/354)
Installing gdbm (76/354)
Installing ethtool (77/354)
Installing libnfnetlink (78/354)
Installing jansson (79/354)
Installing pciutils-libs (80/354)
Installing tcp_wrappers-libs (81/354)
Installing Izo (82/354)
Installing keuutils-libs (83/354)
Installing lz4 (84/354)
Installing libnetfilter conntrack (85/354)
Installing iptables (86/354)
Installing iproute (87/354)
Installing less (88/354)
Installing libteam (89/354)
Installing ipset-libs (90/354)
Installing ipset (91/354)
Installing libxslt (92/354)
Installing acl (93/354)
Installing vim-minimal (94/354)
Installing spax (95/354)
Installing patch (96/354)
Installing bc (97/354)
Installing libdb-utils (98/354)
Installing pinentry (99/354)
Installing libss (100/354)
Installing kmod-libs (101/354)
Installing time (102/354)
Installing m4 (103/354)
Installing ed (104/354)
Installing libpng (105/354)
Installing freetype (106/354)
Installing GeoIP (107/354)
Installing psmisc (108/354)
Installing libselinux-utils (109/354)
Installing linux-firmware (110/354)
```





```
File View Sendkev Help
Installing redhat-support-tool (324/354)
Installing sudo (325/354)
Installing Red Hat Enterprise Linux-Release Notes-7-en-US (326/354)
Installing e2fsprogs (327/354)
Installing btrfs-progs (328/354)
Installing xfsprogs (329/354)
Installing wget (330/354)
Installing iprutils (331/354)
Installing sg3_utils (332/354)
Installing kernel-tools (333/354)
Installing libsusfs (334/354)
Installing iw15000-firmware (335/354)
Installing iwl105-firmware (336/354)
Installing iwl6000g2a-firmware (337/354)
Installing rootfiles (338/354)
Installing iwl2030-firmware (339/354)
Installing iw17265-firmware (340/354)
Installing ivtv-firmware (341/354)
Installing iwl4965-firmware (342/354)
Installing iwl135-firmware (343/354)
Installing iwl6000g2b-firmware (344/354)
Installing iwl5150-firmware (345/354)
Installing iwl6000-firmware (346/354)
Installing iwl1000-firmware (347/354)
Installing iwl2000-firmware (348/354)
Installing NetworkManager-config-server (349/354)
Installing iwl100-firmware (350/354)
Installing iwl7260-firmware (351/354)
Installing iwl3160-firmware (352/354)
Installing iwl3945-firmware (353/354)
Installing iwl6050-firmware (354/354)
Performing post-installation setup tasks
Installing boot loader
Performing post-installation setup tasks
Configuring installed system
Writing network configuration
Creating users
Configuring addons
Generating initramfs
```



angie-zenker.tc.redhat.com:1 - Remote Viewer



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```
File View Sendkey Help
```

```
'/etc/resolv.conf' -> '/mnt/sysimage/etc/resolv.conf'
updating system time
```

```
Starting the subscription-manager registration process
```

```
Loaded plugins: product-id, search-disabled-repos, subscription-manager
```

This system is not registered with an entitlement server. You can use subscription-manager to register.

There are no enabled repos.

Run "yum repolist all" to see the repos you have.

To enable Red Hat Subscription Management repositories:

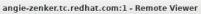
subscription-manager repos --enable <repo>
To enable custom repositories:

yum-config-manager --enable <repo>

Retrieving http://satellite.tc.redhat.com/pub/katello-ca-consumer-latest.noarch.rpm

Preparing...

Updating / installing...





```
File View Sendkev Help
krb5-libs
                         x86 64 1.15.1-37.e17 6
                                                     rhel-7-server-rpms 803 k
libblkid
                         x86 64 2.23.2-59.e17 6.1
                                                     rhel-7-server-rpms 181 k
libacc
                         x86 64 4.8.5-36.e17 6.2
                                                     rhel-7-server-rpms 102 k
libgomp
                         x86 64 4.8.5-36.e17 6.2
                                                     rhel-7-server-rpms 158 k
libgudev1
                         x86 64 219-62.el7 6.6
                                                     rhel-7-server-rpms 96 k
 libmount
                         x86 64 2.23.2-59.el7 6.1
                                                     rhel-7-server-rpms 182 k
libsmartcols
                         x86 64 2.23.2-59.el7 6.1
                                                     rhel-7-server-rpms 140 k
 libssh2
                         x86 64 1.4.3-12.e17 6.2
                                                     rhel-7-server-rpms 135 k
 libstdc++
                         x86 64 4.8.5-36.e17 6.2
                                                     rhel-7-server-rpms 305 k
libuuid
                         x86 64 2.23.2-59.el7 6.1
                                                     rhel-7-server-rpms 83 k
 nss
                         x86 64 3.36.0-7.1.el7 6
                                                     rhel-7-server-rpms 835 k
                                                     rhel-7-server-rpms 74 k
nss-pem
                         x86 64 1.0.3-5.el7 6.1
nss-sysinit
                         x86 64 3.36.0-7.1.el7 6
                                                     rhel-7-server-rpms 62 k
 nss-tools
                                                     rhel-7-server-roms 515 k
                         x86 64 3.36.0-7.1.el7 6
nss-util
                                                     rhel-7-server-rpms 78 k
                         x86 64 3.36.0-1.1.el7 6
                                                     rhel-7-server-rpms 356 k
openldap
                         x86_64 2.4.44-21.el7_6
openssl
                         x86 64 1:1.0.2k-16.el7 6.1
                                                     rhel-7-server-rums 493 k
openss1-libs
                         x86 64 1:1.0.2k-16.el7 6.1
                                                     rhel-7-server-rpms 1.2 M
 policucoreutils
                         x86 64 2.5-29.e17 6.1
                                                     rhel-7-server-rpms 916 k
polkit
                         x86 64 0.112-18.el7 6.1
                                                     rhel-7-server-rpms 168 k
python
                         x86 64 2.7.5-77.e17 6
                                                     rhel-7-server-rpms 94 k
python-libs
                         x86 64 2.7.5-77.e17 6
                                                     rhel-7-server-rpms 5.6 M
python-perf
                         x86_64 3.10.0-957.12.1.el7
                                                     rhel-7-server-rpms 7.1 M
selinux-policu
                         noarch 3.13.1-229.e17 6.12
                                                     rhel-7-server-rpms 484 k
selinux-policu-targeted noarch 3.13.1-229.e17 6.12
                                                     rhel-7-server-rpms 6.9 M
shadow-utils
                         x86 64 2:4.1.5.1-25.el7 6.1 rhel-7-server-rpms 1.1 M
 subscription-manager
                         x86 64 1.21.10-3.el7 6
                                                     rhel-7-server-rpms 1.0 M
subscription-manager-rhsm
                         x86 64 1.21.10-3.el7 6
                                                     rhel-7-server-rpms 297 k
 subscription-manager-rhsm-certificates
                         x86 64 1.21.10-3.el7 6
                                                     rhel-7-server-rpms 212 k
sustemd
                         x86 64 219-62.e17 6.6
                                                     rhel-7-server-rpms 5.1 M
 sustemd-libs
                         x86 64 219-62.e17 6.6
                                                     rhel-7-server-rpms 407 k
sustemd-susv
                         x86 64 219-62.e17 6.6
                                                     rhel-7-server-rpms 84 k
                                                     rhel-7-server-rpms 254 k
 tuned
                         noarch 2.10.0-6.el7 6.3
 tzdata
                         noarch 2019a-1.el7
                                                     rhel-7-server-rpms 494 k
util-linux
                         x86 64 2.23.2-59.el7 6.1
                                                     rhel-7-server-rpms 2.0 M
xfsprogs
                         x86_64 4.5.0-19.e17_6
                                                     rhel-7-server-rpms 897 k
Transaction Summaru
 ______
Install 1 Package
Upgrade 65 Packages
Total download size: 128 M
Downloading packages:
Delta RPMs disabled because /usr/bin/applydeltarpm not installed.
```

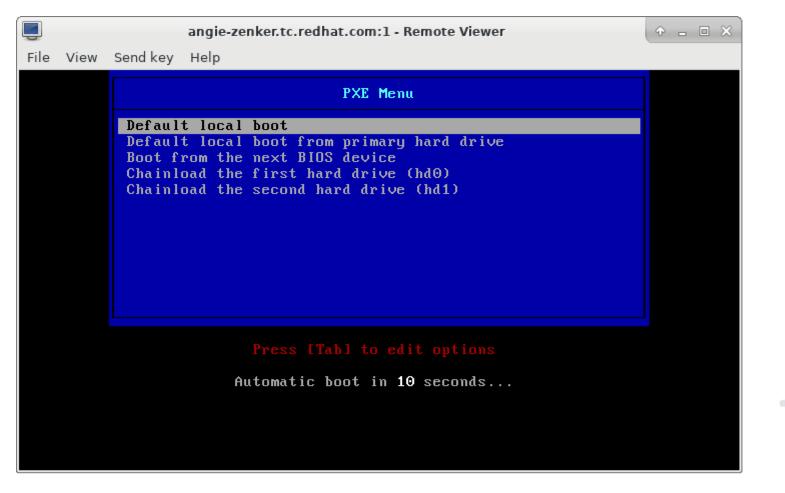




Running transaction



```
File View Sendkev Help
 python-libs.x86_64 0:2.7.5-77.e17_6
  python-perf.x86_64 0:3.10.0-957.12.1.el7
 selinux-policu.noarch 0:3.13.1-229.el7 6.12
 selinux-policy-targeted.noarch 0:3.13.1-229.el7_6.12
 shadow-utils.x86_64 2:4.1.5.1-25.e17_6.1
 subscription-manager.x86 64 0:1.21.10-3.el7 6
 subscription-manager-rhsm.x86 64 0:1.21.10-3.el7 6
 subscription-manager-rhsm-certificates.x86_64_0:1.21.10-3.el7_6
 systemd.x86_64 0:219-62.e17_6.6
 systemd-libs.x86_64 0:219-62.e17_6.6
  sustemd-susv.x86 64 0:219-62.e17 6.6
  tuned.noarch 0:2.10.0-6.el7 6.3
  tzdata.noarch 0:2019a-1.el7
  util-linux.x86 64 0:2.23.2-59.e17 6.1
  xfsprogs.x86 64 0:4.5.0-19.el7 6
 Complete!
Uploading Enabled Repositories Report
Loaded plugins: product-id, subscription-manager
/sbin/restorecon
Loaded plugins: enabled_repos_upload, package_upload, product-id, search-
              : disabled-repos, subscription-manager
Resolving Dependencies
 --> Running transaction check
 --> Package puppet-agent.x86_64 0:5.5.0-2.e17sat will be installed
 --> Finished Dependency Resolution
Dependencies Resolved
 Package
             Arch Version
                                   Repository
                                                                           Size
Installing:
 puppet-agent
            x86_64 5.5.0-2.el7sat rhel-7-server-satellite-tools-6.4-rpms 19 M
Transaction Summary
Install 1 Package
Total download size: 19 M
Installed size: 88 M
Downloading packages:
Running transaction check
Running transaction test
Transaction test succeeded
```





angie-zenker.tc.redhat.com:1 - Remote Viewer



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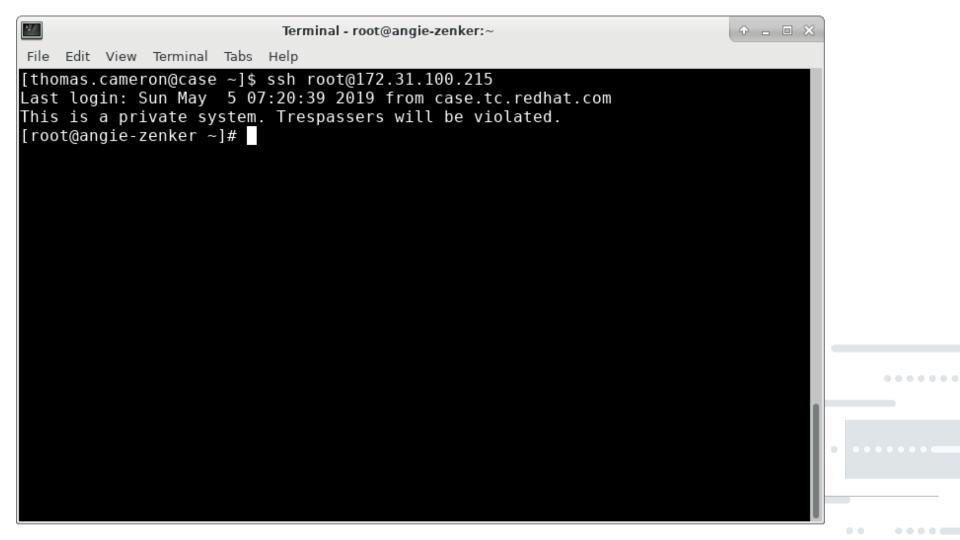
File View Sendkey Help

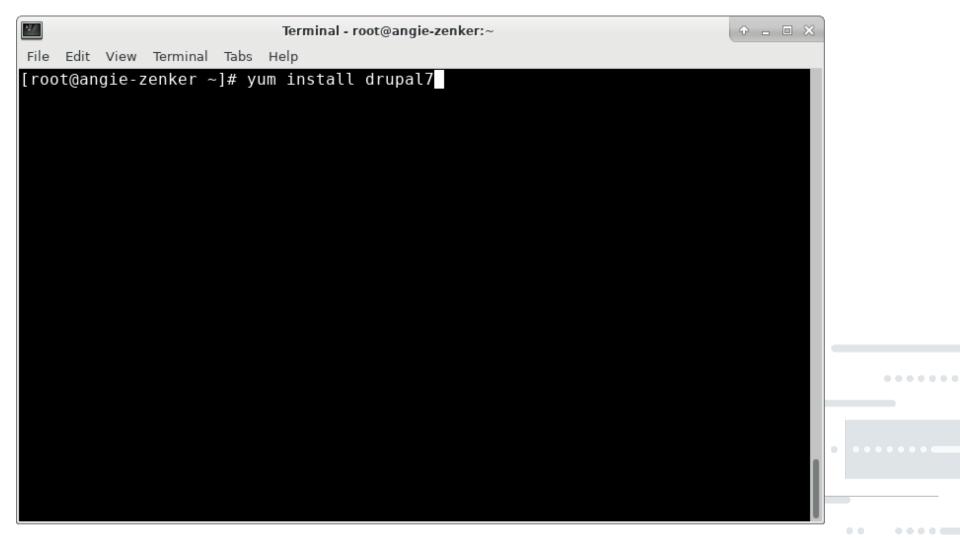
Red Hat Enterprise Linux Server (3.10.0-957.12.1.e17.x86_64) 7.6 (Maipo)
Red Hat Enterprise Linux Server (3.10.0-957.e17.x86_64) 7.6 (Maipo)
Red Hat Enterprise Linux Server (0-rescue-f184f426d1db428ba954b65ad8b535>

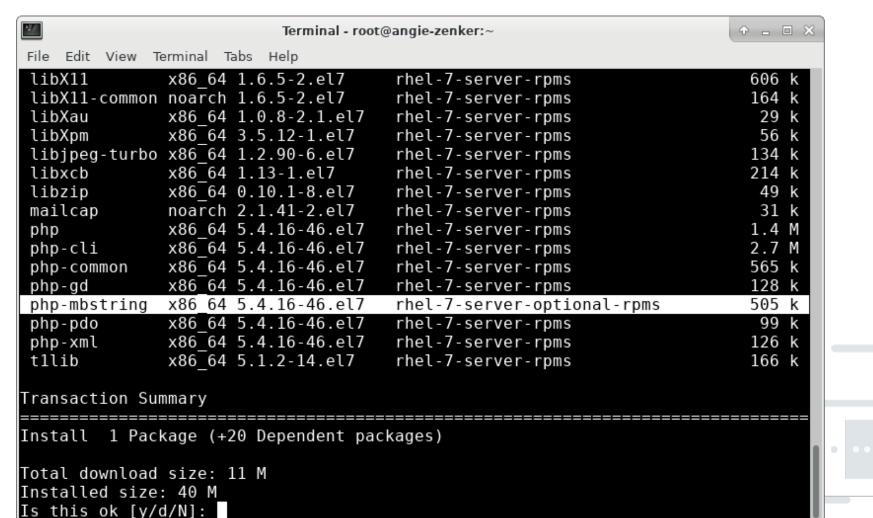
Use the ↑ and ↓ keys to change the selection.

Press 'e' to edit the selected item, or 'c' for a command prompt.

The selected entry will be started automatically in 3s.

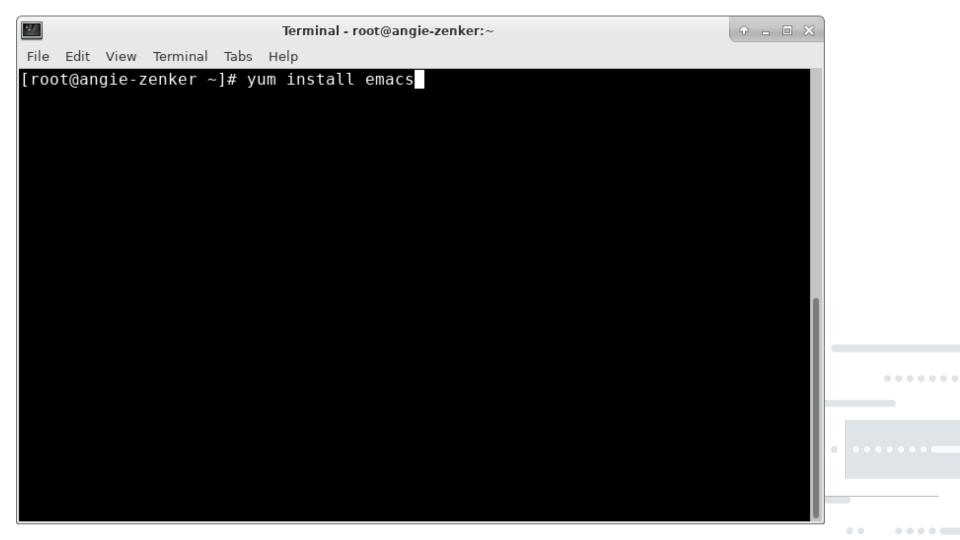






.

```
Terminal - root@angie-zenker:~
File Edit View Terminal Tabs Help
  Verifying : libX11-common-1.6.5-2.el7.noarch
                                                                              18/21
  Verifying : apr-1.4.8-3.el7 4.1.x86 64
                                                                              19/21
  Verifying: php-xml-5.4.16-\overline{46}.el7.x86 64
                                                                              20/21
  Verifying : libjpeg-turbo-1.2.90-6.e\overline{17}.x86 64
                                                                              21/21
Installed:
  drupal7.noarch 0:7.65-1.el7
Dependency Installed:
  apr.x86 64 0:1.4.8-3.el7 4.1
                                           apr-util.x86 64 0:1.5.2-6.el7
  httpd.x86 64 0:2.4.6-89.el7 6
                                           httpd-tools.x86 64 0:2.4.6-89.el7 6
  libX11.x86 64 0:1.6.5-2.el7
                                           libX11-common.noarch 0:1.6.5-2.el\overline{7}
  libXau.x86 64 0:1.0.8-2.1.el7
                                           libXpm.x86 64 0:3.5.12-1.el7
  libjpeg-turbo.x86 64 0:1.2.90-6.el7
                                           libxcb.x86 64 0:1.13-1.el7
  libzip.x86 64 0:0.10.1-8.el7
                                           mailcap.noarch 0:2.1.41-2.el7
                                           php-cli.x86 64 0:5.4.16-46.el7
  php.x86 64 0:5.4.16-46.el7
                                           php-qd.x86 \overline{64} 0:5.4.16-46.el7
  php-common.x86 64 0:5.4.16-46.el7
  php-mbstring.x86 64 0:5.4.16-46.el7
                                           php-pdo.x86 64 0:5.4.16-46.el7
  php-xml.x86 64 0:5.4.16-46.el7
                                           t1lib.x86 64 0:5.1.2-14.el7
Complete!
Uploading Enabled Repositories Report
Loaded plugins: product-id, subscription-manager
[root@angie-zenker ~]#
```





Terminal - root@angie-zenker:~



Edit View Terminal Tabs Help

```
[root@angie-zenker ~]# yum install emacs
```

Loaded plugins: enabled repos upload, package upload, product-id, search-

: disabled-repos, subscription-manager

Red Hat Extra Packages for Enterprise Linux 7 EPEL 7 Rep | 2.1 kB 00:00

rhel-7-server-optional-rpms 1.8 kB 00:00

rhel-7-server-rpms 2.0 kB 00:00

rhel-7-server-satellite-tools-6.4-rpms 2.1 kB 00:00

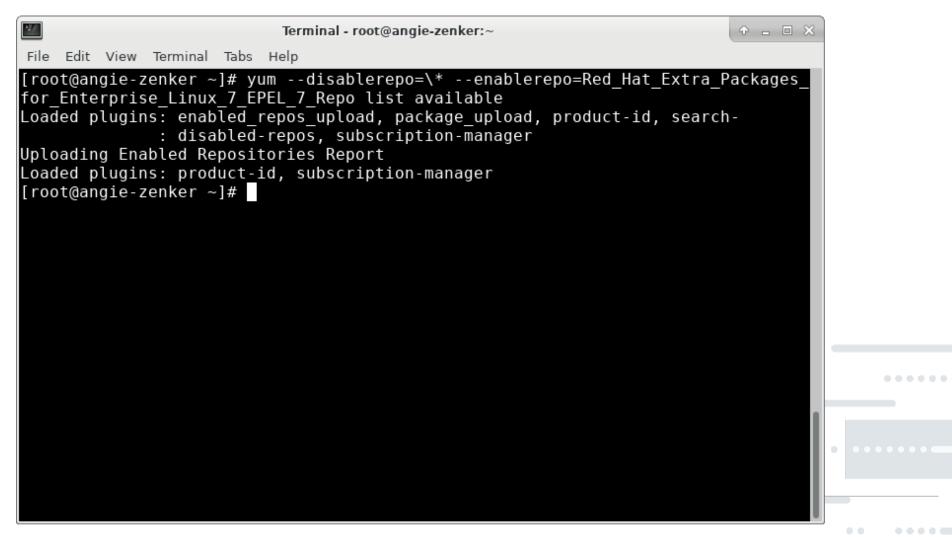
No package **emacs** available.

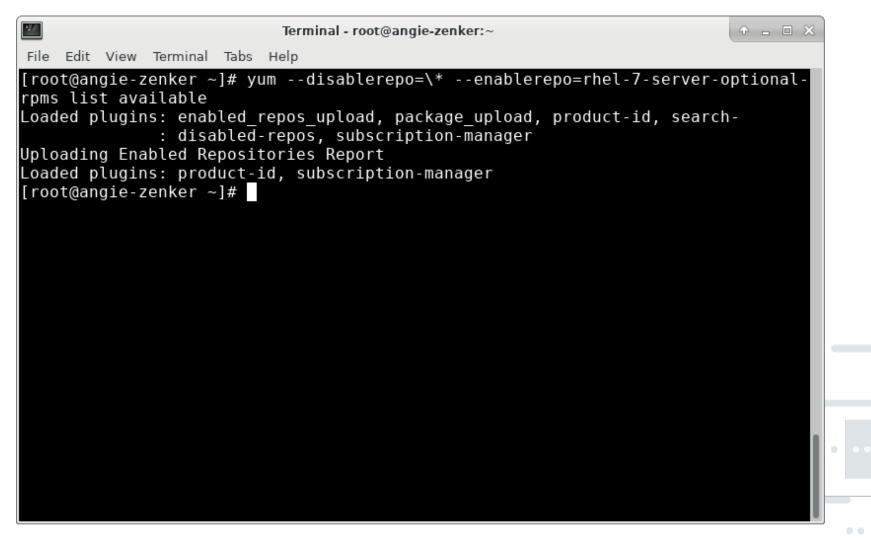
Error: Nothing to do

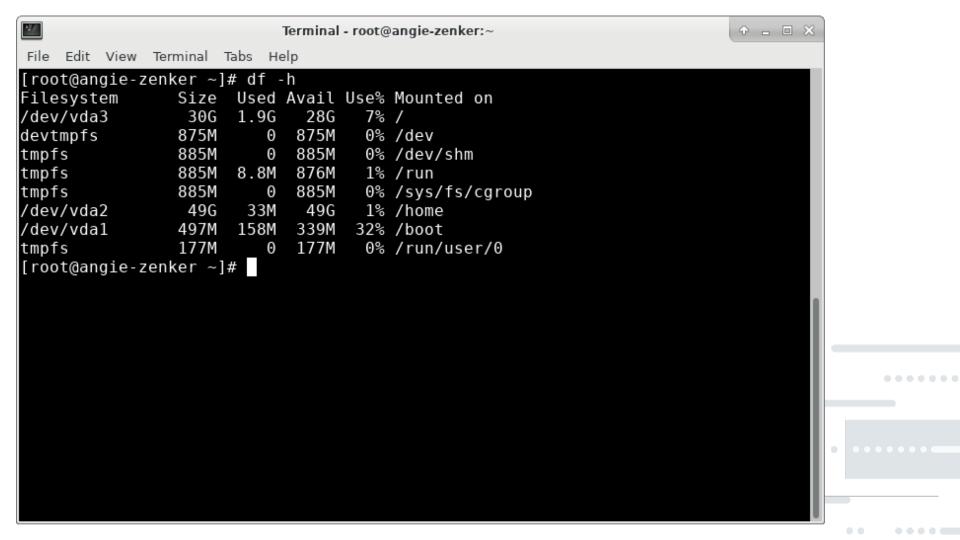
Uploading Enabled Repositories Report

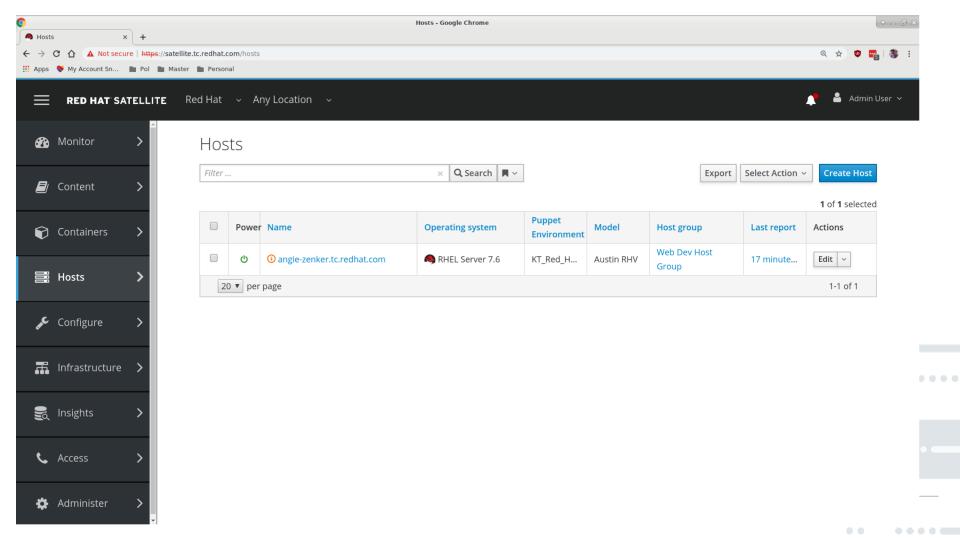
Loaded plugins: product-id, subscription-manager

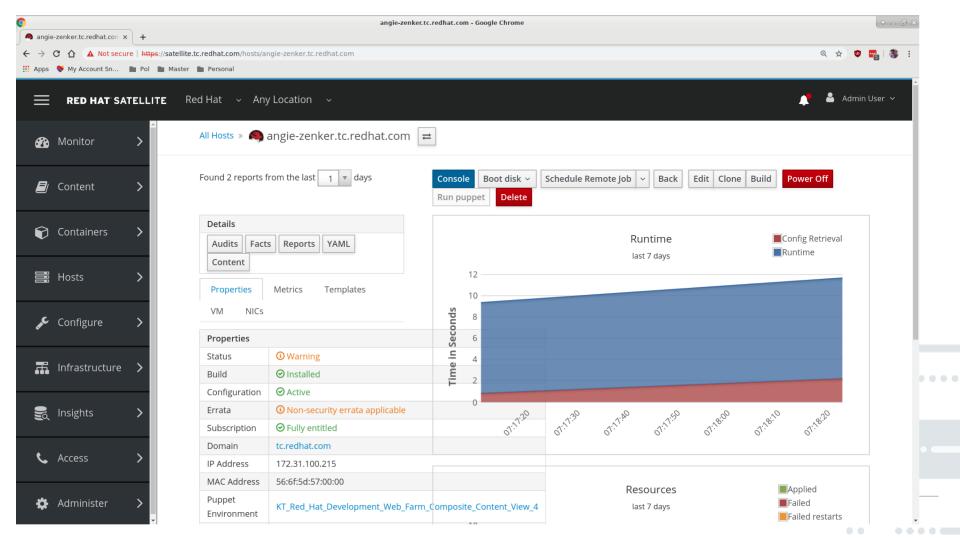
[root@angie-zenker ~]#

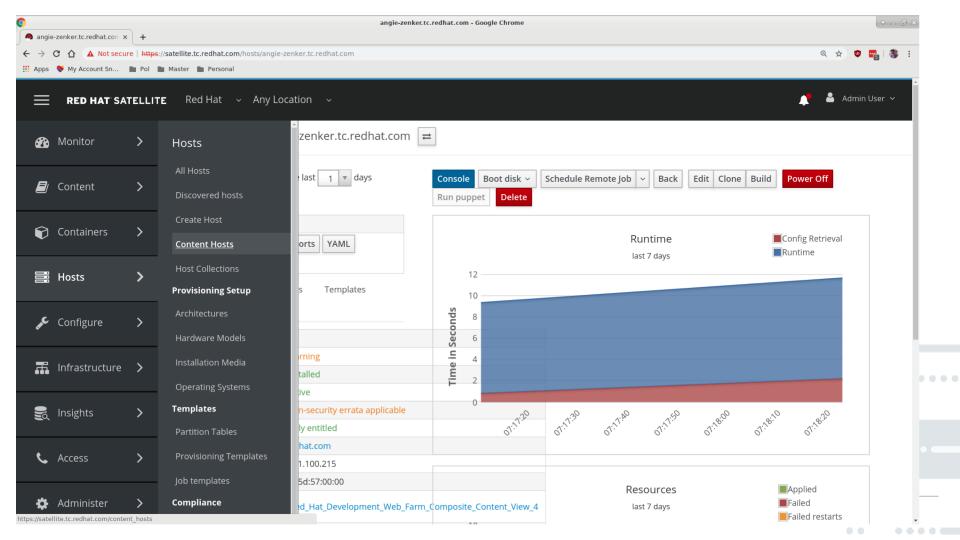


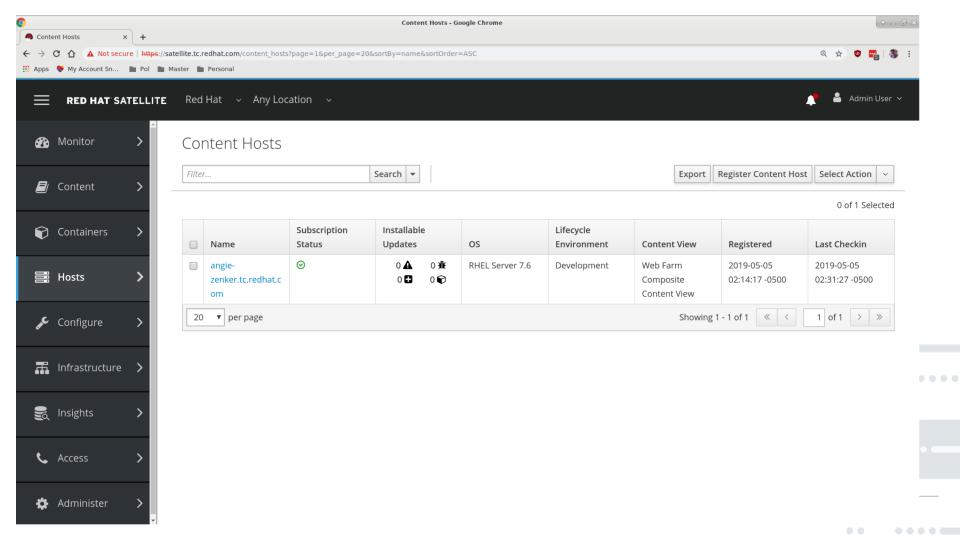


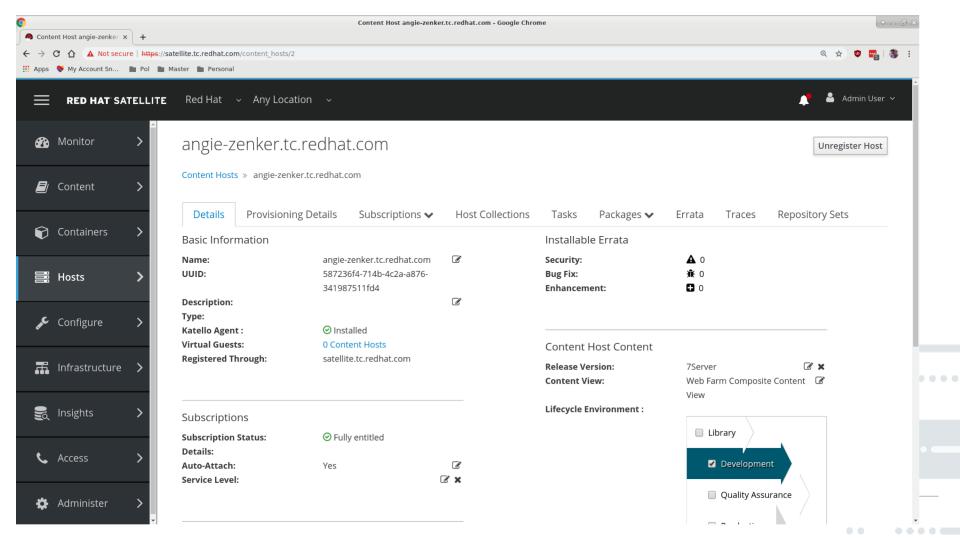


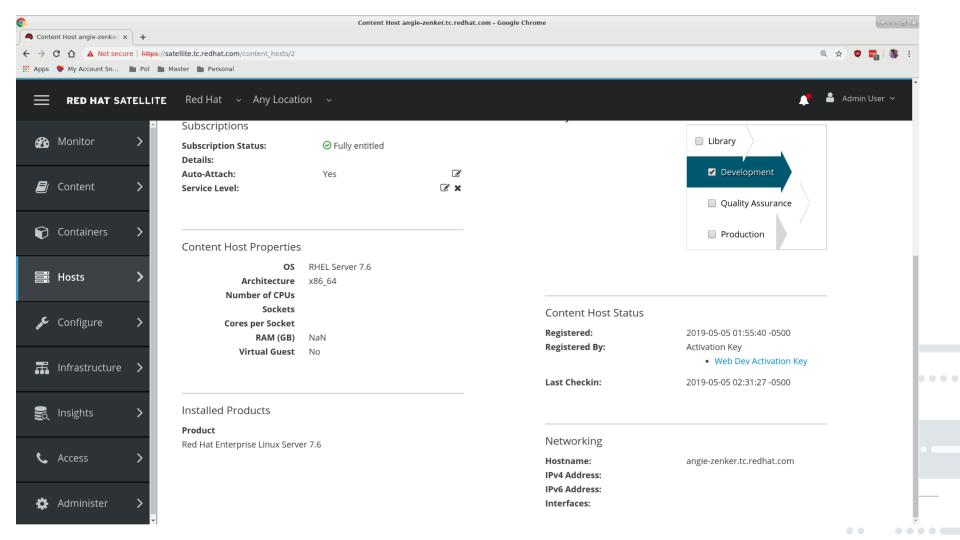


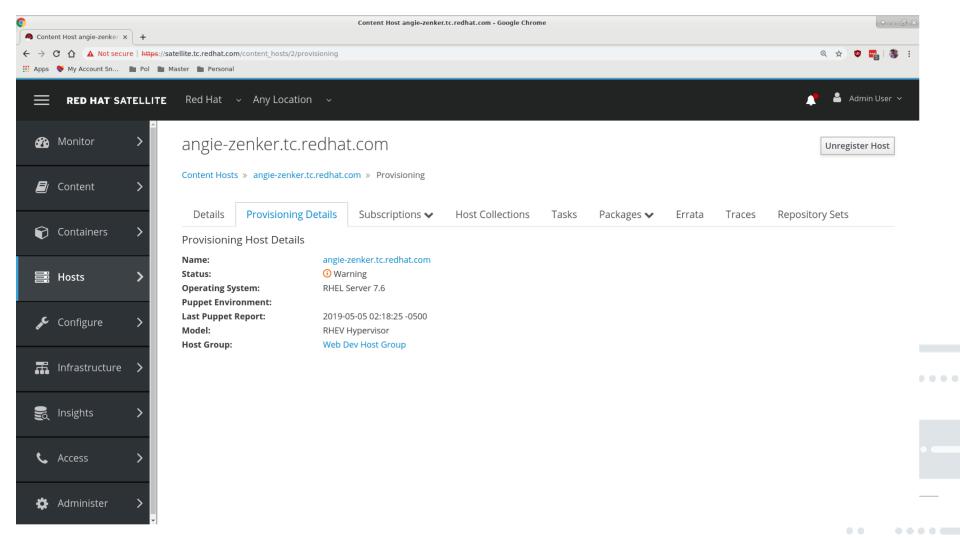


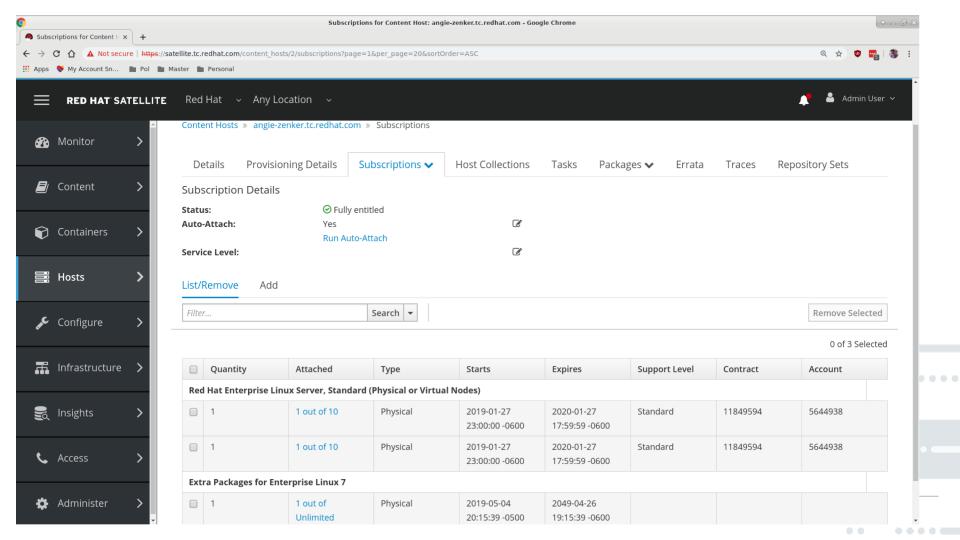


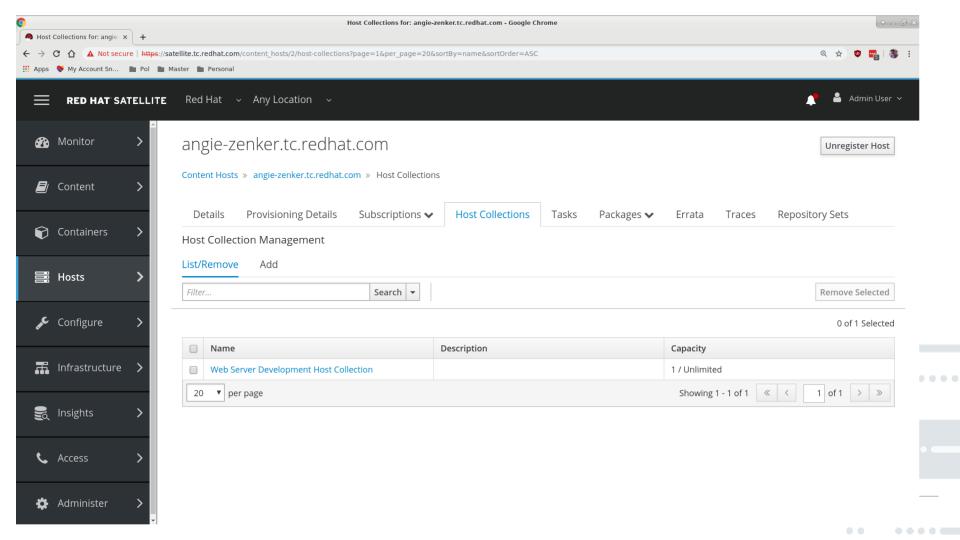


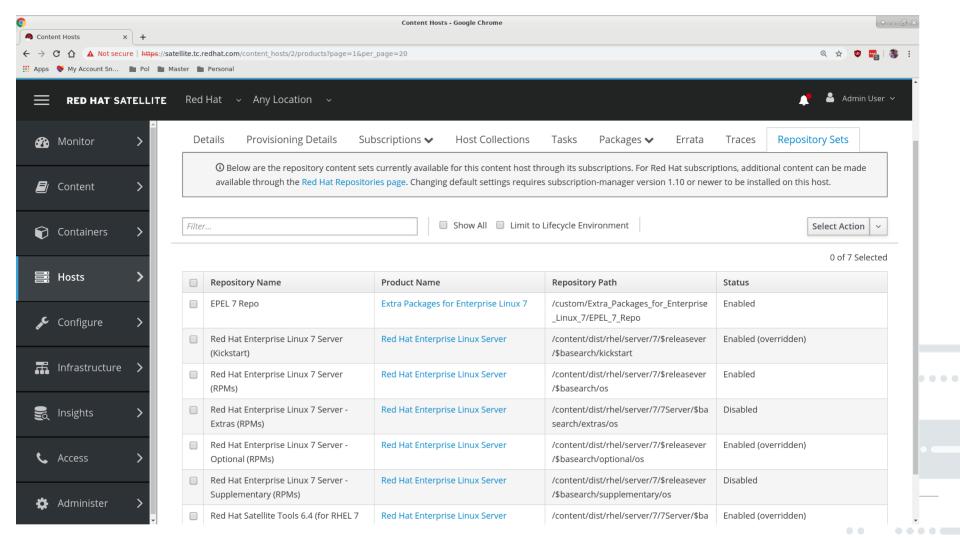












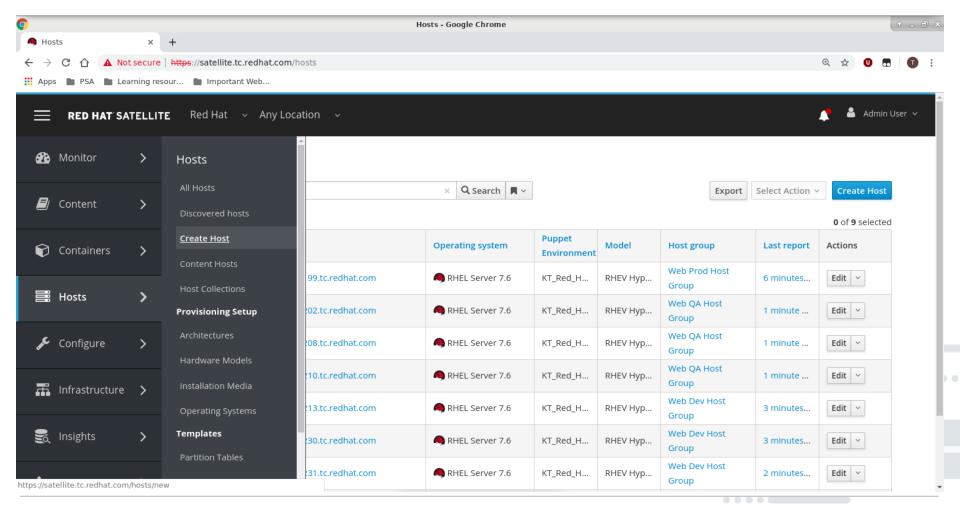
KICKSTART BARE METAL

KICKSTART BARE METAL

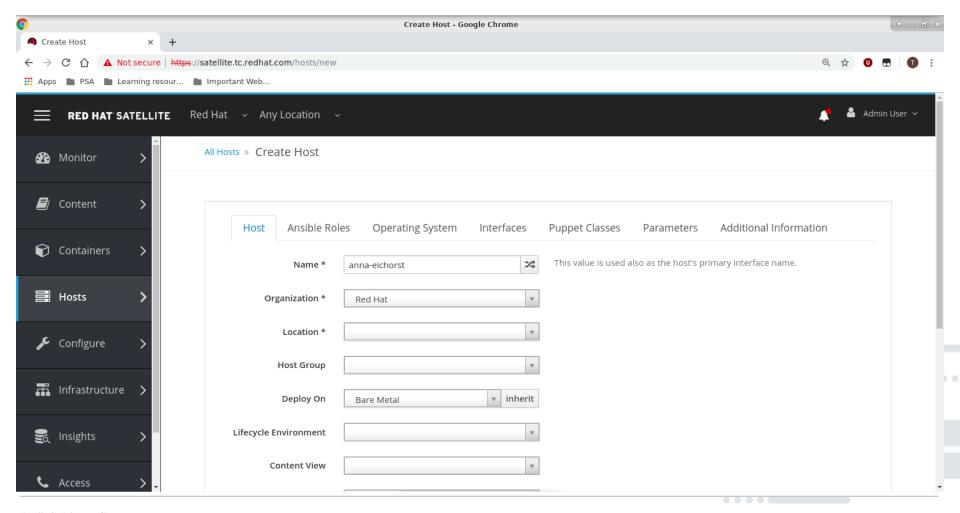
If you selected tftp during Satellite setup, you can also kickstart bare metal machines off the Satellite server

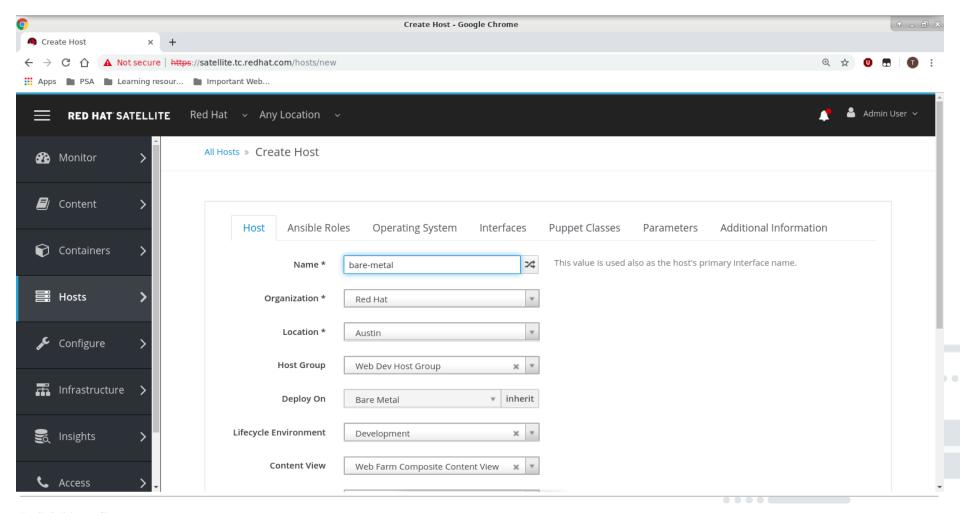
- You need the MAC address of the server to be kickstarted when you define the profile in Satellite
- You need to set the server up to PXE boot (or hit the key at boot time)

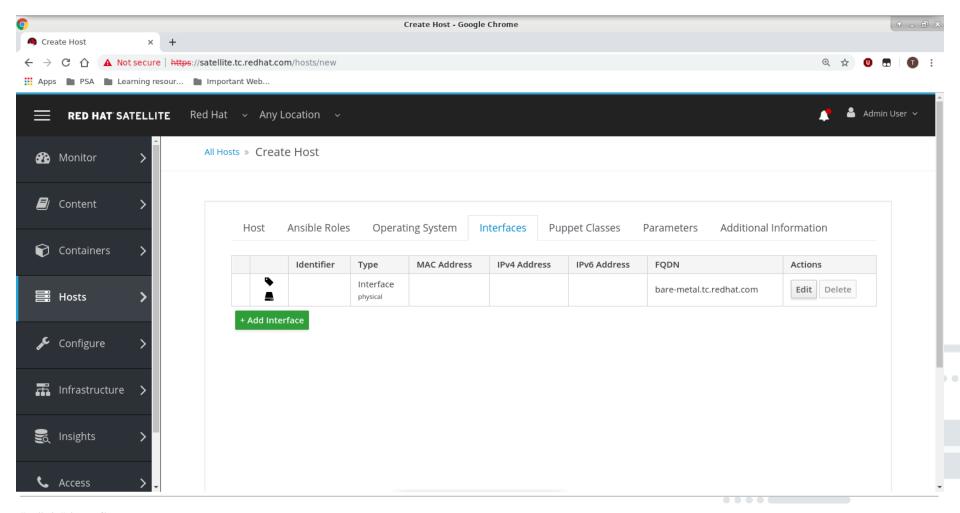


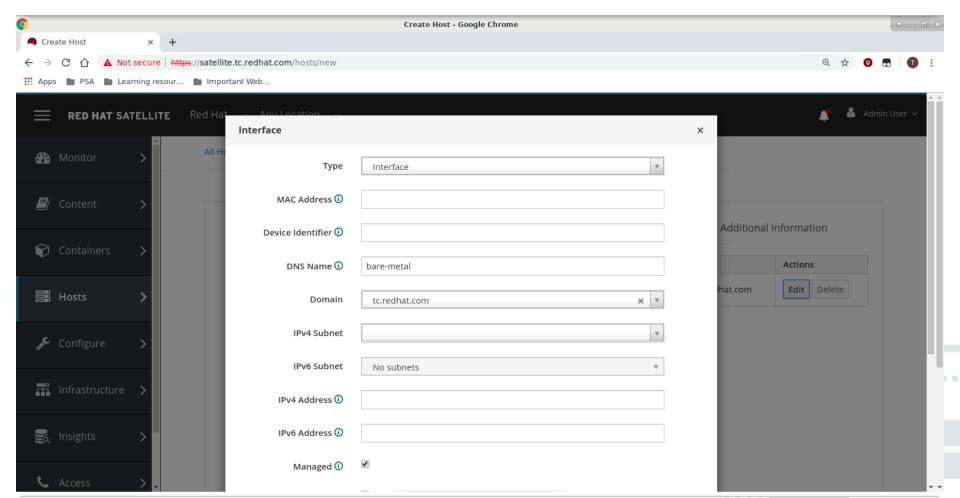


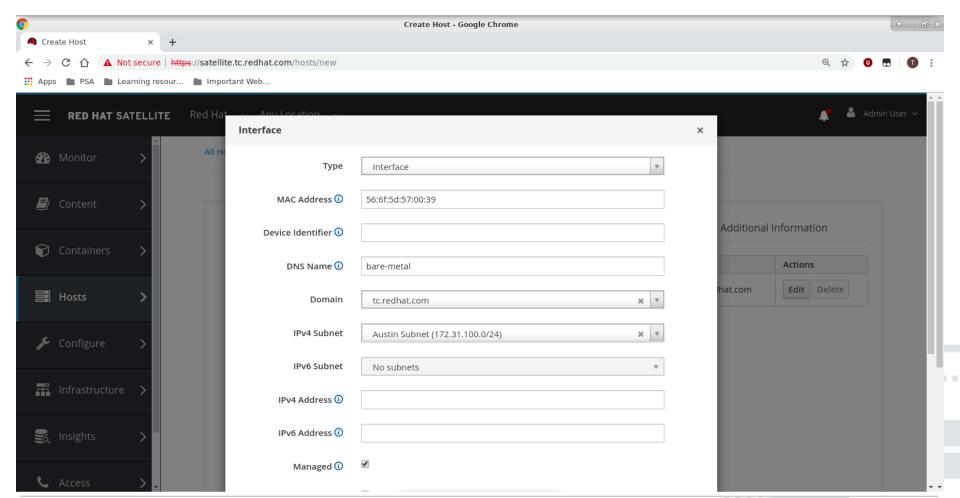
0.0

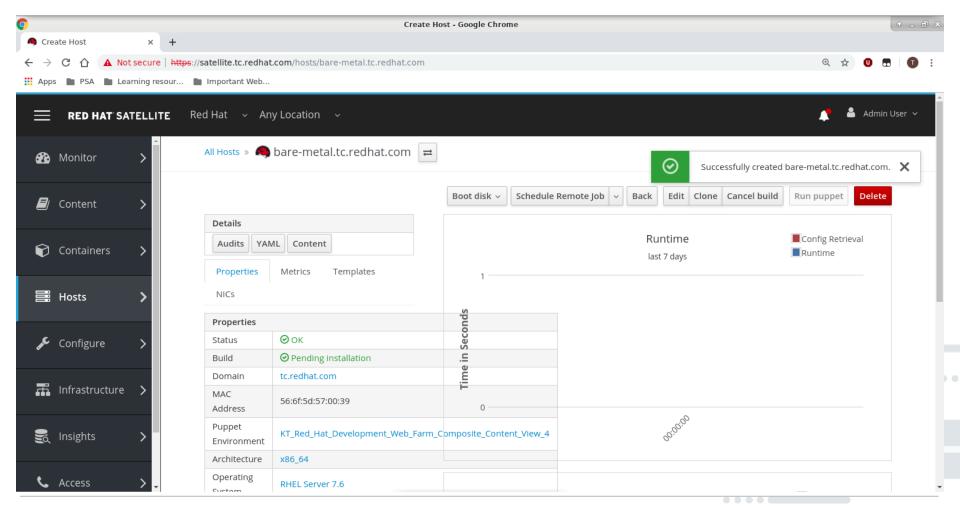












0.0



Bare Metal:1 - Remote Viewer



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File View Sendkey Help

SeaBIOS (version 1.11.0-2.el7)

Machine UUID 55c9dd14-42e9-43ef-aa38-760c92f064db

iPXE (http://ipxe.org) 00:03.0 C980 PCI2.10 PnP PMM+BFF944D0+BFEF44D0 C980

Booting from Hard Disk...

Boot failed: not a bootable disk

Booting from ROM...

iPXE (PCI 00:03.0) starting execution...ok

iPXE initialising devices...ok

iPXE 1.0.0+ (4e85b27) -- Open Source Network Boot Firmware -- http://ipxe.org

Features: DNS HTTP iSCSI TFTP AOE ELF MBOOT PXE bzImage Menu PXEXT

net0: 56:6f:5d:57:00:39 using virtio-net on 0000:00:03.0 (open)

[Link:up, TX:0 TXE:0 RX:0 RXE:0]

Configuring (net0 56:6f:5d:57:00:39)....._



File View Sendkey Help

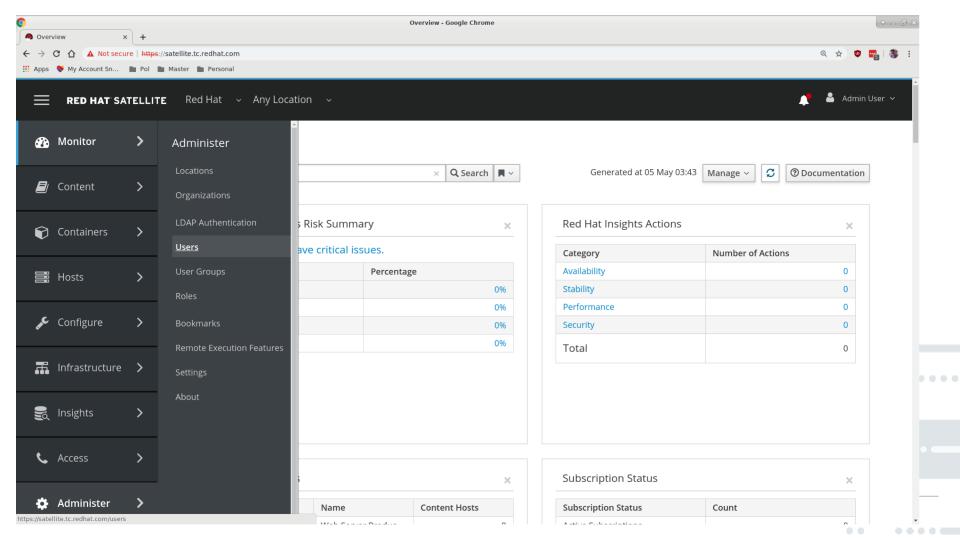
```
Features: DNS HTTP iSCSI TFTP AOE ELF MBOOT PXE bzImage Menu PXEXT
net0: 56:6f:5d:57:00:39 using virtio-net on 0000:00:03.0 (open)
 [Link:up, TX:0 TXE:0 RX:0 RXE:0]
Configuring (net0 56:6f:5d:57:00:39)...... ok
net0: 172.31.100.150/255.255.255.0 gw 172.31.100.29
Next server: 172.31.100.24
Filename: ∕pxelinux.0
tftp://172.31.100.24//pxelinux.0... ok
pxelinux.0 : 26743 bytes [PXE-NBP]
PXELINUX 4.05 0x5ba365f6  Copyright (C) 1994-2011 H. Peter Anvin et al
PXE entry point found (we hope) at 9C6C:0160 via plan A
UNDI code segment at 9060 len 0802
UNDI data segment at 9CFO len 2CEO
Getting cached packet 01 02 03
My IP address seems to be AC1F6496 172.31.100.150
ip=172.31.100.150:172.31.100.24:172.31.100.29:255.255.255.0
BOOTIF=01-56-6f-5d-57-00-39
SYSUU ID=14ddc955-e942-ef43-aa38-760c92f064db
TFTP prefix: /
Trying to load: pxelinux.cfg/01-56-6f-5d-57-00-39
                                                              \mathbf{ok}
Loading boot/RedHat-7.6-x86_64-vmlinuz......
```

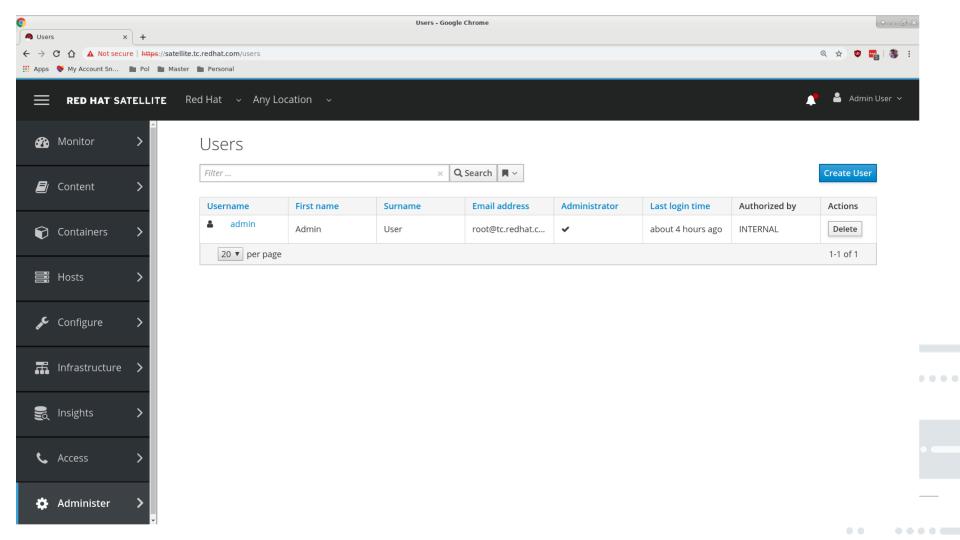
REGISTER EXISTING SYSTEMS

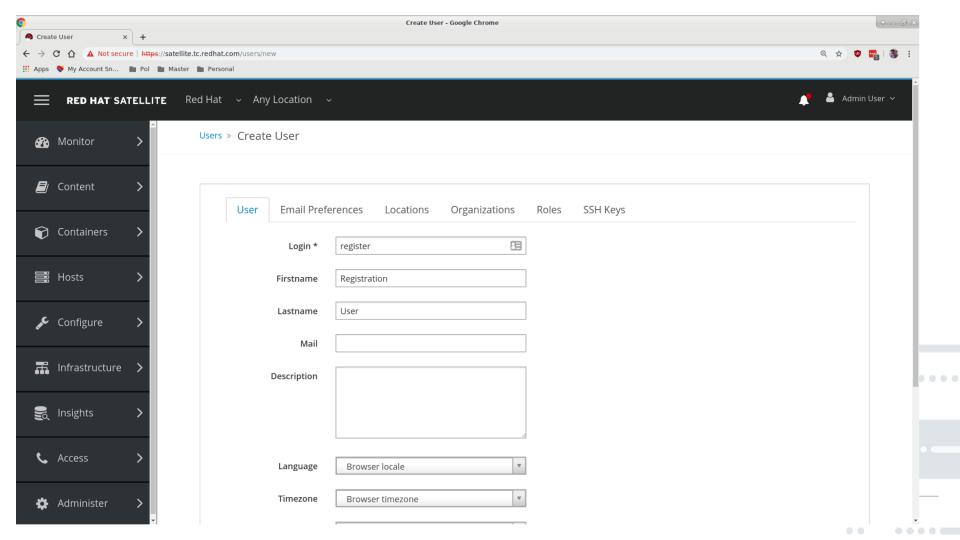
REGISTER EXISTING SYSTEMS

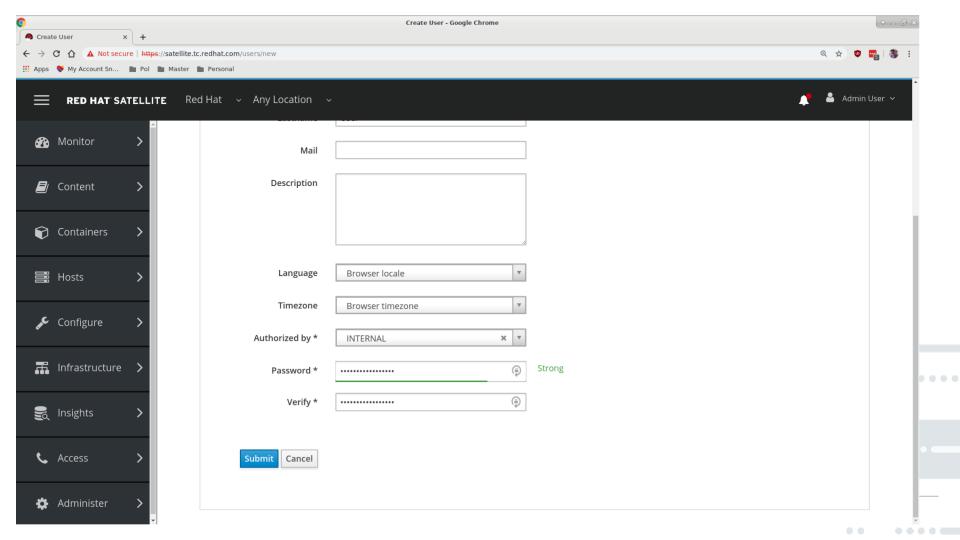
If you have brought Satellite into an existing environment, it's pretty easy to manage existing servers

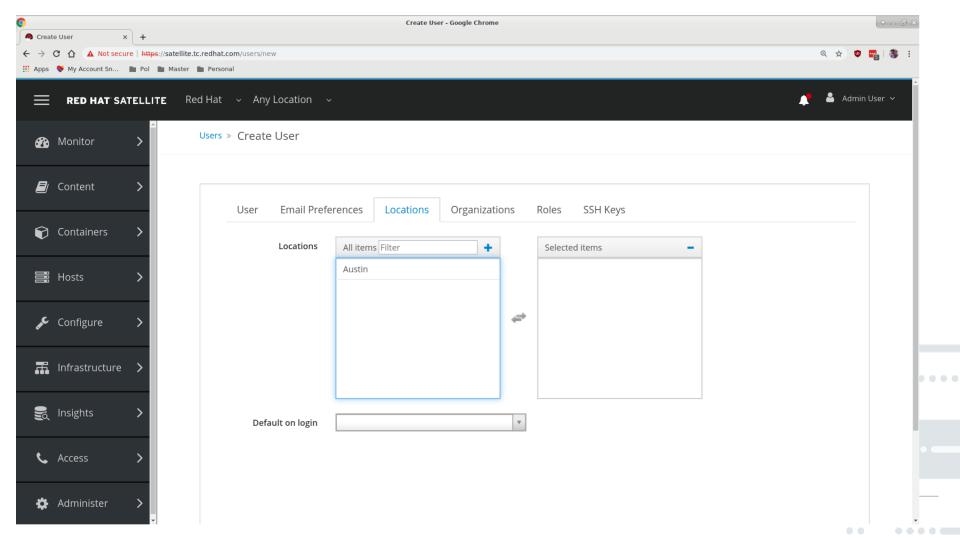
- You can allow each admin to register their own servers, or you can create an account with minimal privileges to register servers to the Satellite server. We'll demo what is required to register a system to the Satellite server.
- Normally, registering an existing system requires the Satellite admin to manually sign the puppet certificate to complete the registration. We'll show you how to auto-sign if it makes sense

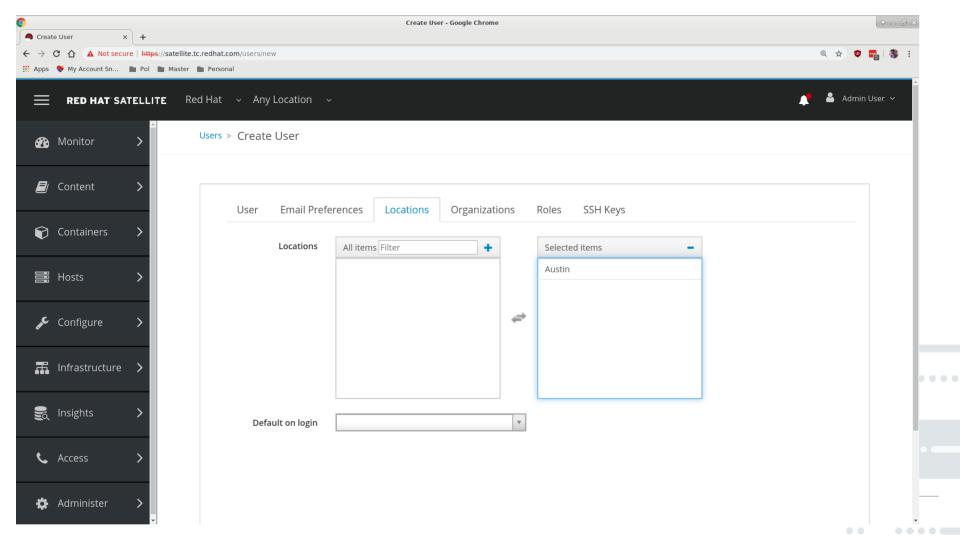


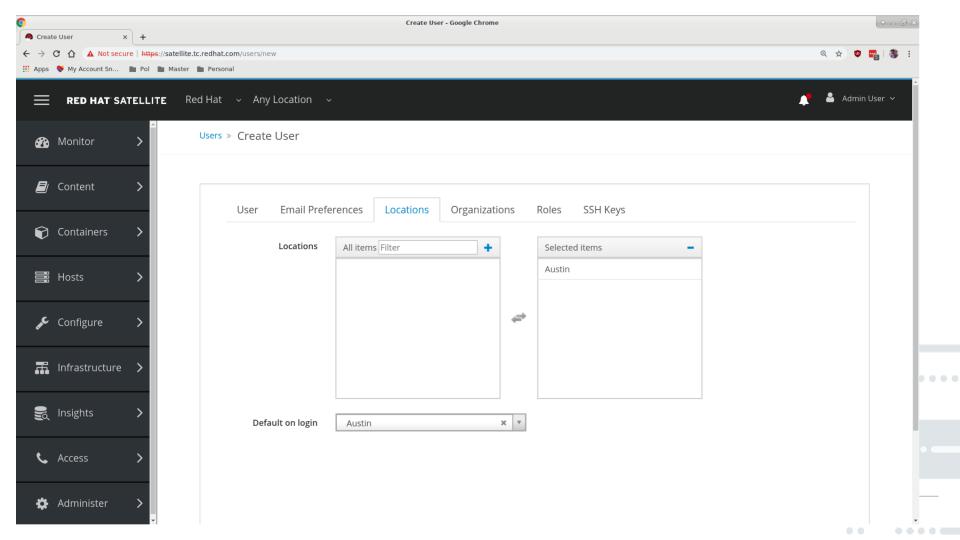


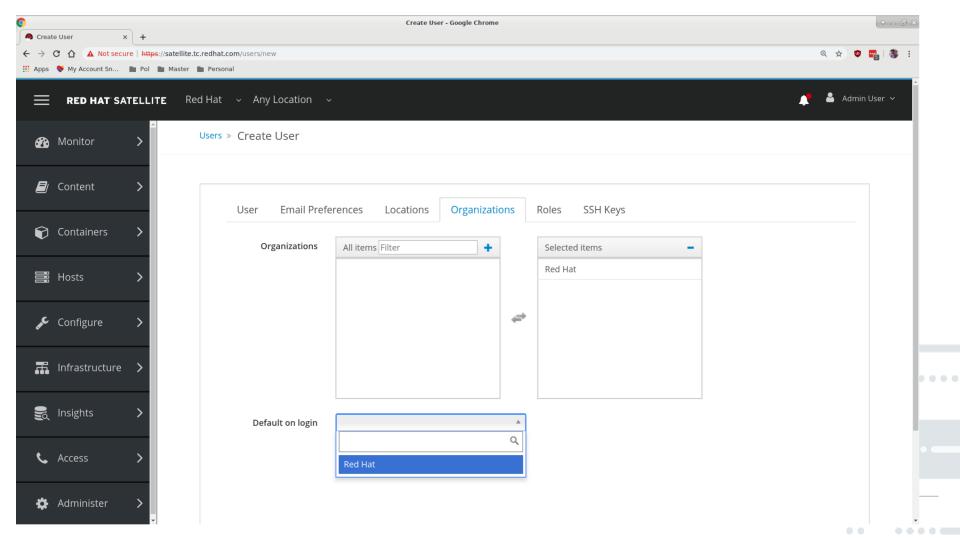


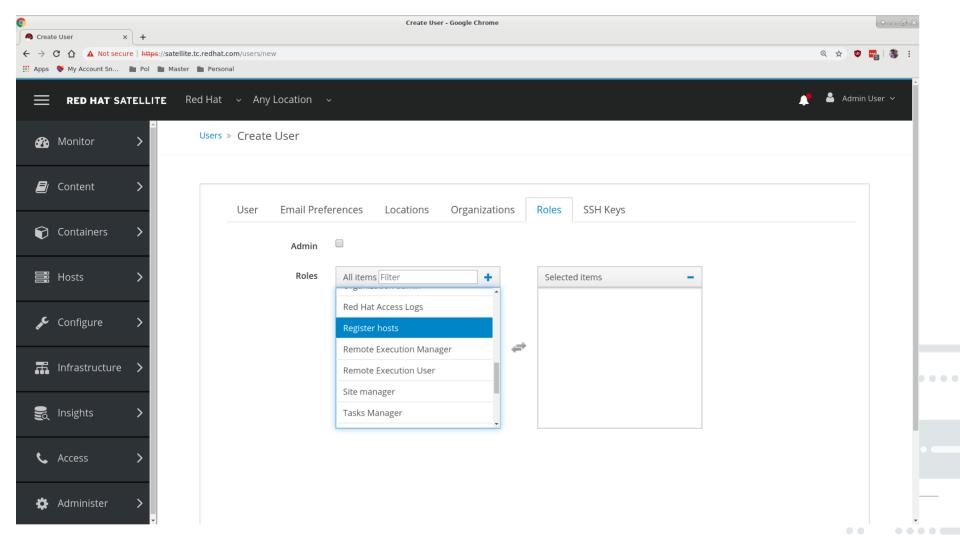


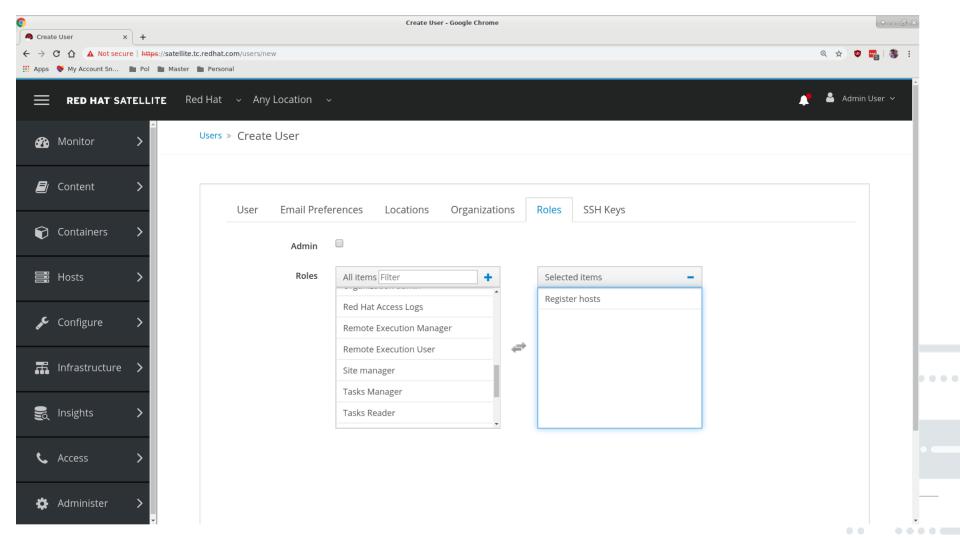


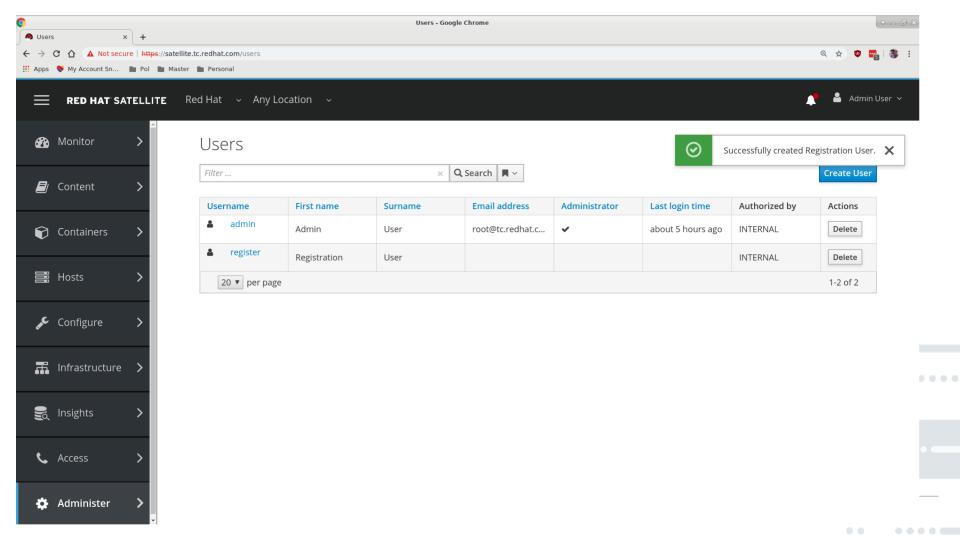


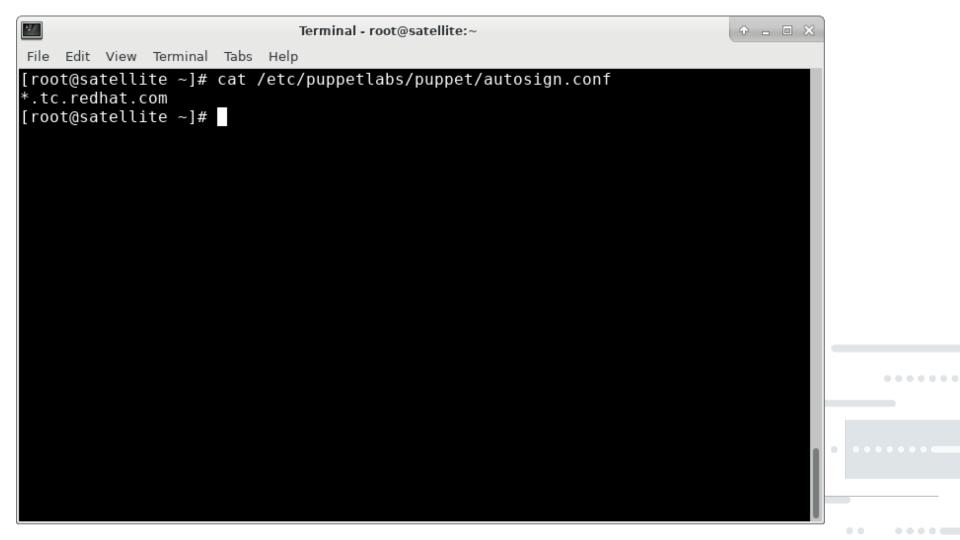


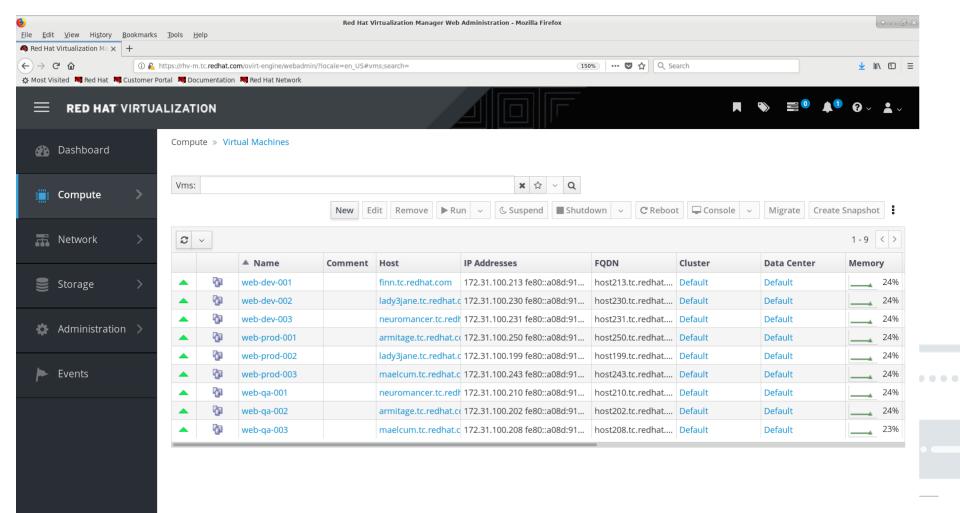


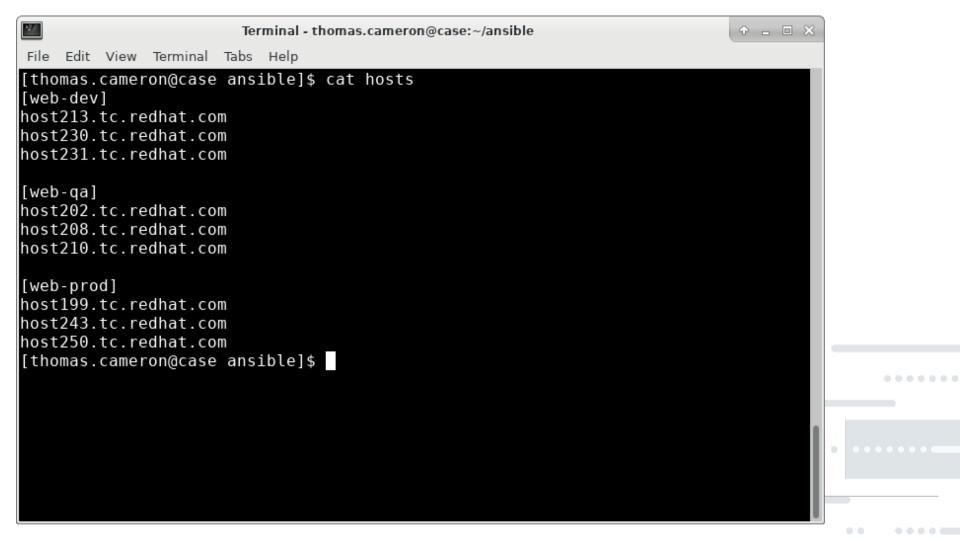














```
File Edit View Terminal Tabs Help
[thomas.cameron@case ansible]$ cat register.yaml
  name: Register dev systems to Satellite
  hosts: web-dev
  tasks:

    name: get bootstrap.py

    command: /usr/bin/curl -0 http://satellite.tc.redhat.com/pub/bootstrap.py
    args:
      chdir: /root

    name: run script

    command: /usr/bin/python /root/bootstrap.py --force -l register -p red22hat
-s satellite.tc.redhat.com -o "Red Hat" -L Austin -g "Web Dev Host Group" -a "We
b Dev Activation Key"
  name: Register QA system to Satellite
  hosts: web-qa
  tasks:

    name: get bootstrap.py

    command: /usr/bin/curl -0 http://satellite.tc.redhat.com/pub/bootstrap.py
    args:
      chdir: /root
  - name: run script
    command: /usr/bin/python /root/bootstrap.py --force -l register -p red22hat
s satellite.tc.redhat.com -o "Red Hat" -L Austin -g "Web QA Host Group" -a "Web-
```



File Edit View Terminal Tabs Help

- name: Register QA system to Satellite hosts: web-ga
 - tasks:
 - name: get bootstrap.py
 command: /usr/bin/curl -0 http://satellite.tc.redhat.com/pub/bootstrap.py
 - args:
 - chdir: /root
 - name: run script
 - command: /usr/bin/python /root/bootstrap.py --force -l register -p red22hat
- -s satellite.tc.redhat.com -o "Red Hat" -L Austin -g "Web QA Host Group" -a "Web QA Activation Key"
 - name: Register prod system to Satellite
 - hosts: web-prod
 - tasks:
 - name: get bootstrap.py
 - command: /usr/bin/curl -0 http://satellite.tc.redhat.com/pub/bootstrap.py
 args:
 - chdir: /root
 - name: run script
 - command: /usr/bin/python /root/bootstrap.py --force -l register -p red22hat
- -s satellite.tc.redhat.com -o "Red Hat" -L Austin -g "Web Prod Host Group" -a "W
- eb Prod Activation Key"
- [thomas.cameron@case ansible]\$



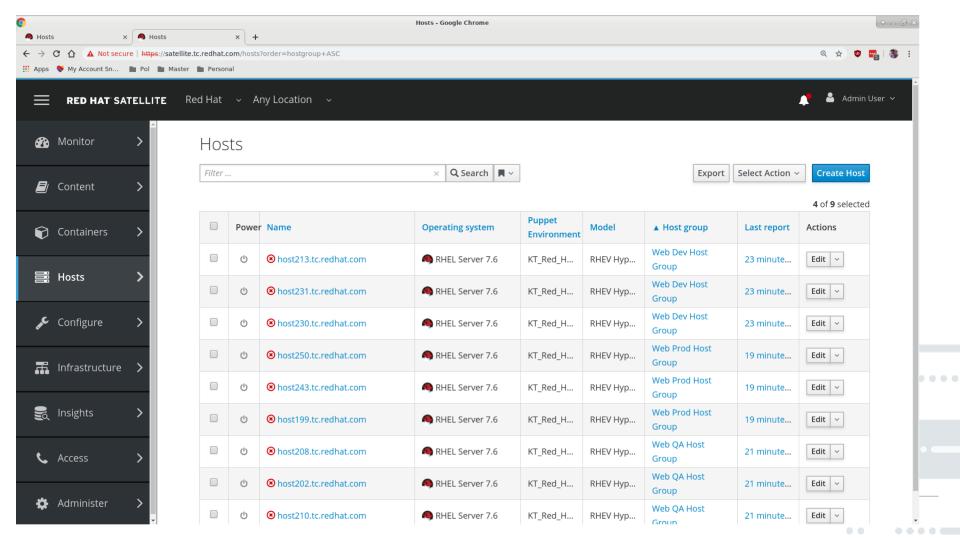
```
File Edit View Terminal Tabs Help
```

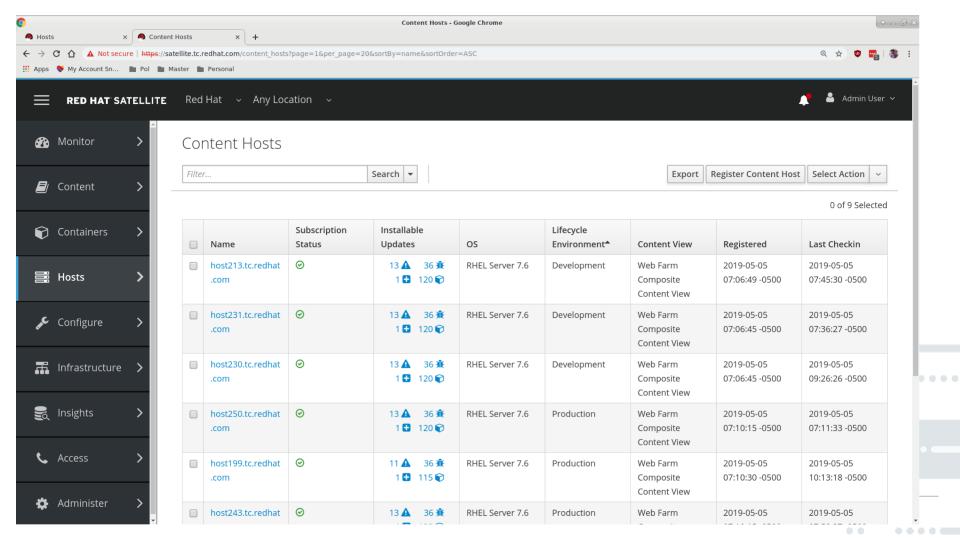
[thomas.cameron@case ansible]\$ ansible-playbook -u root -i hosts register.yaml

PLAY [Register dev systems to Satellite] ********************************

ok: [host230.tc.redhat.com] ok: [host231.tc.redhat.com] ok: [host213.tc.redhat.com]

```
changed: [host230.tc.redhat.com]
changed: [host213.tc.redhat.com]
changed: [host231.tc.redhat.com]
```





RUN REMOTE COMMANDS

RUN REMOTE COMMANDS

Satellite uses Ansible or plain old SSH to run remote commands. In any case, you need to make sure that the foreman-proxy account on Satellite can ssh into your hosts.

- Hosts kickstarted from the Satellite automatically have the correct authorized_keys file.
- Hosts registered via bootstrap.py may not.



ssh-rsa

AAAAB3NzaC1yc2EAAAADAQABAAABAQCkbawiL0OZxbsGb2hYREcSJm2AEEc5csCBhv4W/ww2Y5yJMX6n4gv/6p5uG34vc41b6aGNg7qz4nnSVlbMwnpopsC1/j1MRox9zdYGllZ3g2bd/foreman-proxy@satellite.tc.redhat.com



File Edit View Terminal Tabs Help

[thomas.cameron@case ansible]\$ ansible -i hosts -v all -m shell -a "curl https:/ /satellite.tc.redhat.com:9090/ssh/pubkey >> /root/.ssh/authorized_keys" -u root

/home/thomas.cameron/ansible/hosts did not meet host_list requirements, check pl ugin documentation if this is unexpected

/home/thomas.cameron/ansible/hosts did not meet script requirements, check plugi n documentation if this is unexpected

[WARNING]: Consider using the get_url or uri module rather than running 'curl'. If you need to use command because get_url or uri is insufficient you can add 'warn: false' to this command task or set 'command_warnings=False' in ansible.cfg to get rid of this message.

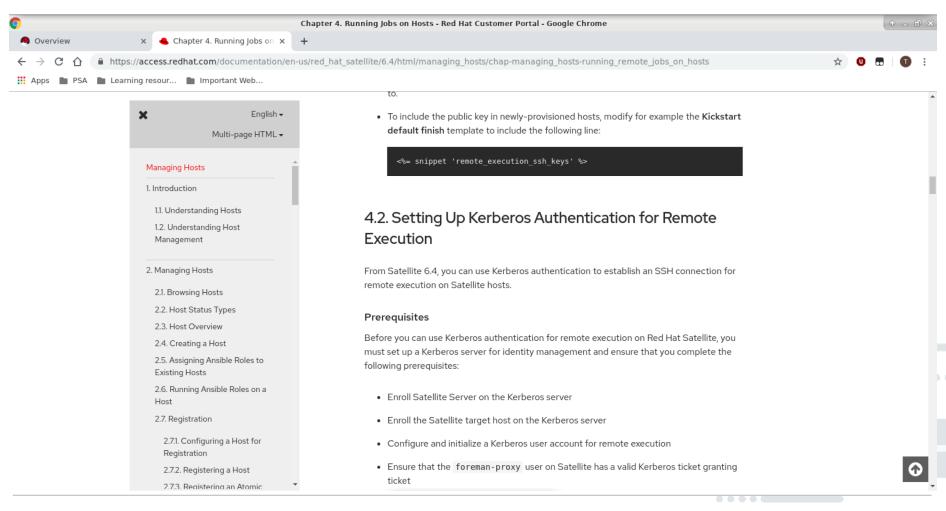
```
host199.tc.redhat.com | CHANGED | rc=0 >>
% Total % Received % Xferd Average Speed Time Time Time Current
Dload Upload Total Spent Left Speed
100 419 100 419 0 0 2662 0 --:--:-- --:-- 2668
```

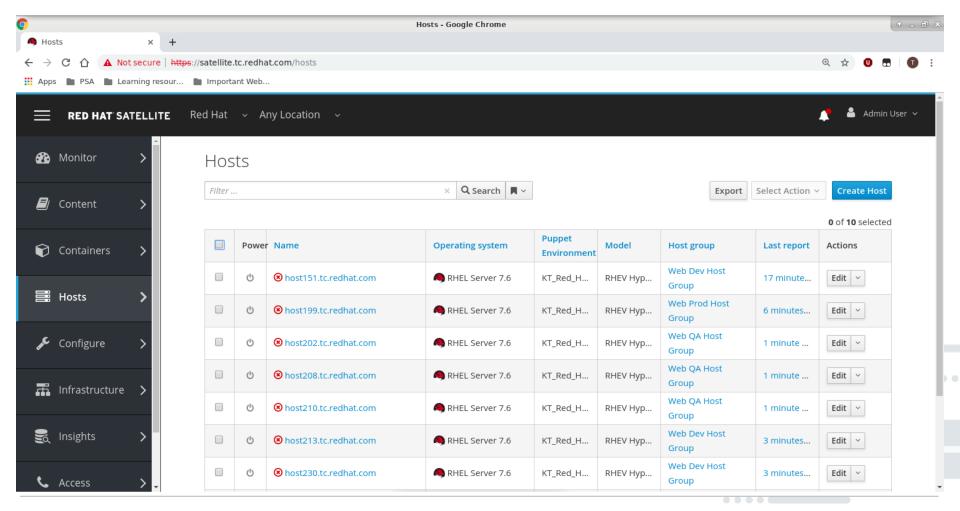
host210.tc.redhat.com | CHANGED | rc=0 >>
% Total % Received % Xferd Average Speed Time Time Current
Dload Upload Total Spent Left Speed
100 419 100 419 0 0 2674 0 --:--:-- 2685

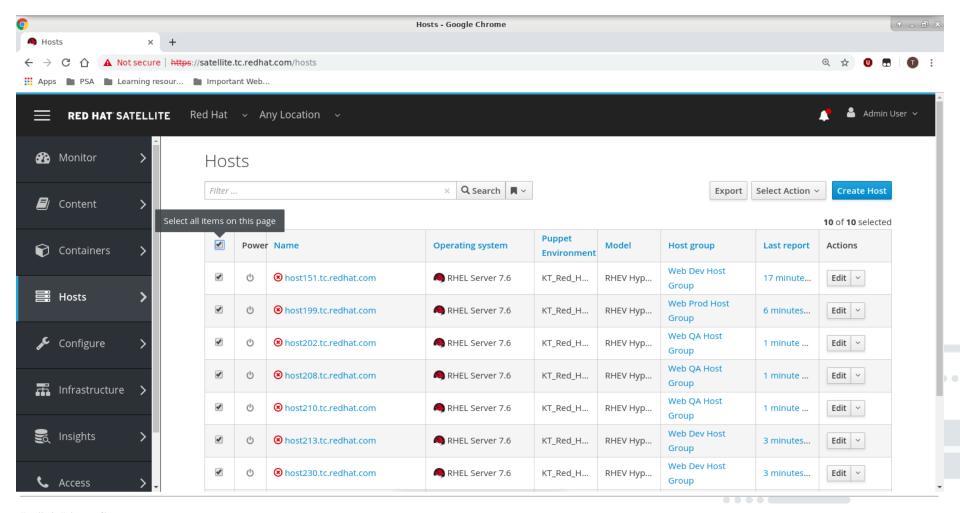


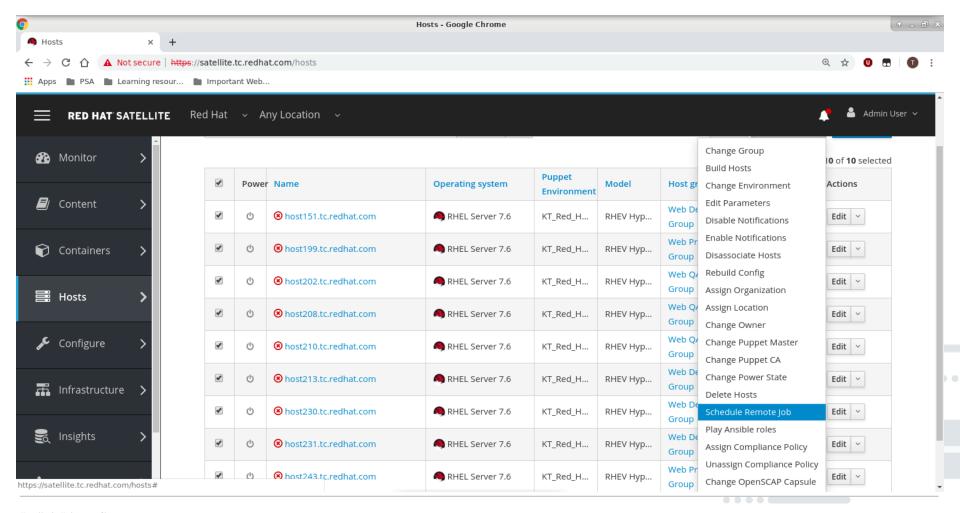
File Edit View Terminal Tabs Help

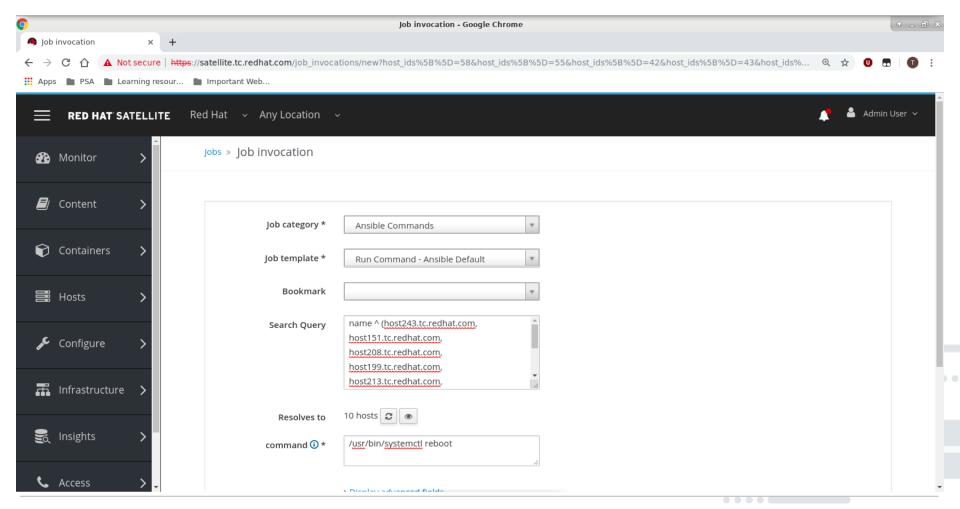
[thomas.cameron@case ~]\$ ssh root@satellite Last login: Mon May 6 14:16:43 2019 from case.tc.redhat.com [root@satellite ~]# for i in 151 199 202 208 210 213 230 231 243 250; do ssh -i ~foreman-proxy/.ssh/id rsa foreman proxy -o StrictHostKeyChecking=no 172.31.100. \$i "hostname"; done bare-metal.tc.redhat.com Warning: Permanently added '172.31.100.199' (ECDSA) to the list of known hosts. host199.tc.redhat.com Warning: Permanently added '172.31.100.202' (ECDSA) to the list of known hosts. host202.tc.redhat.com Warning: Permanently added '172.31.100.208' (ECDSA) to the list of known hosts. host208.tc.redhat.com Warning: Permanently added '172.31.100.210' (ECDSA) to the list of known hosts. host210.tc.redhat.com Warning: Permanently added '172.31.100.213' (ECDSA) to the list of known hosts. host213.tc.redhat.com Warning: Permanently added '172.31.100.230' (ECDSA) to the list of known hosts. host230.tc.redhat.com Warning: Permanently added '172.31.100.231' (ECDSA) to the list of known hosts. host231.tc.redhat.com Warning: Permanently added '172.31.100.243' (ECDSA) to the list of known hosts. host243.tc.redhat.com Warning: Permanently added '172.31.100.250' (ECDSA) to the list of known hosts. host250.tc.redhat.com



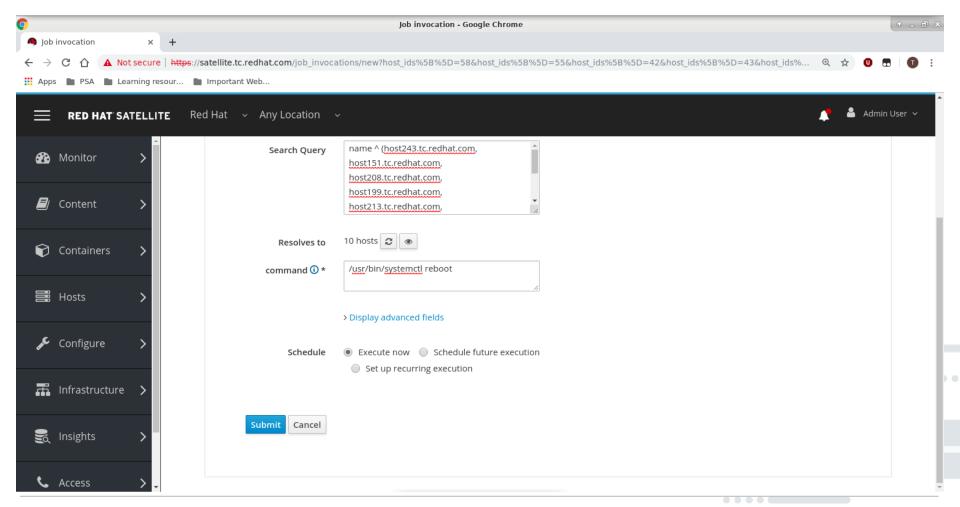


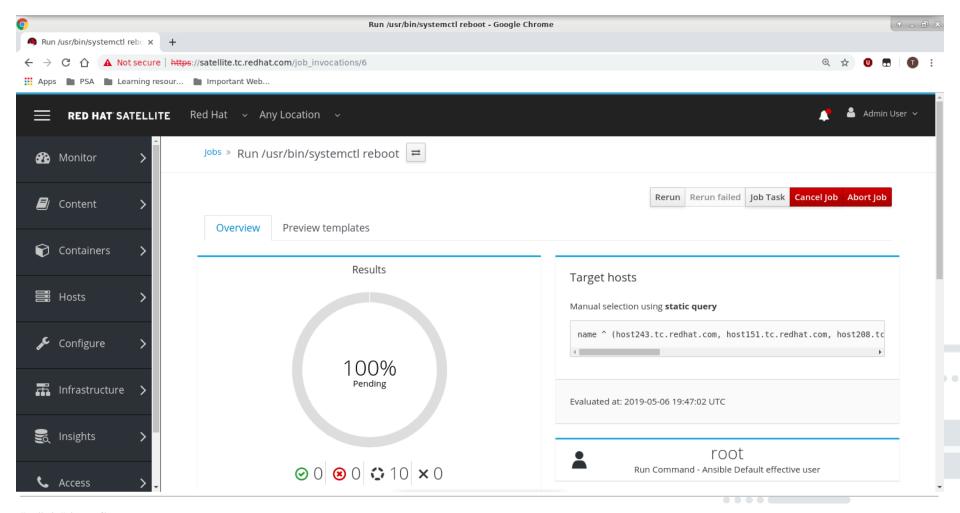


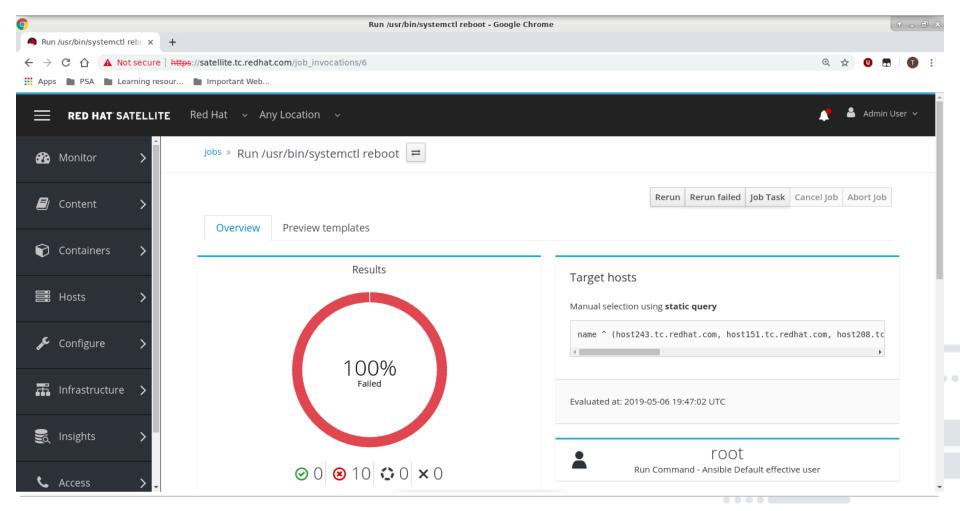


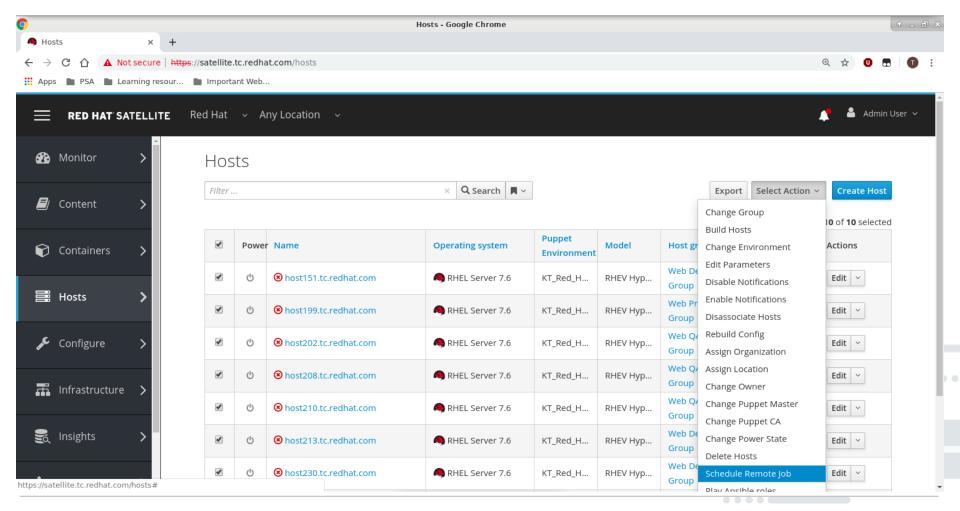


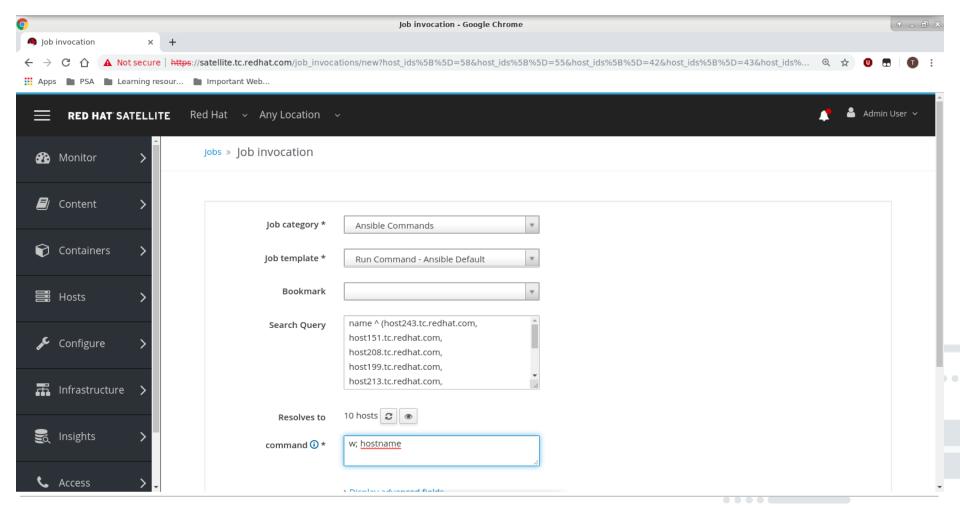
0 0



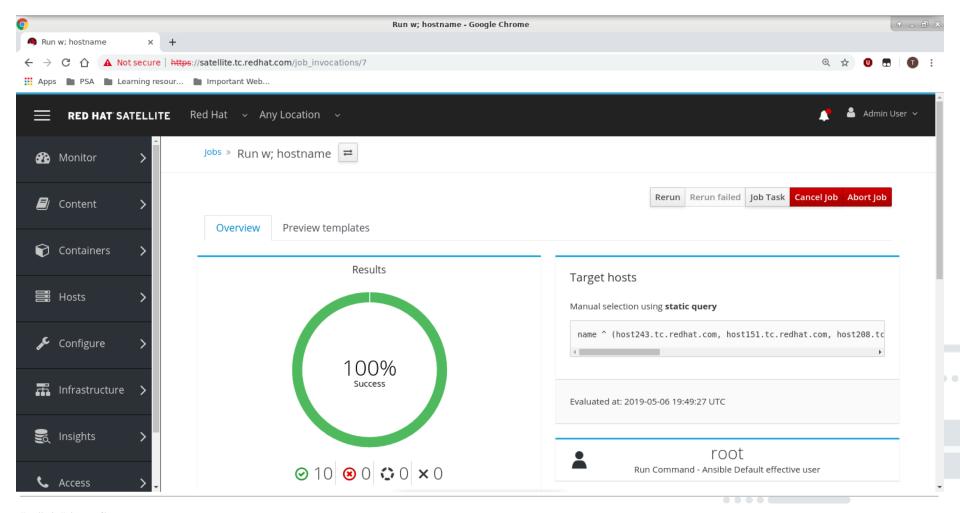




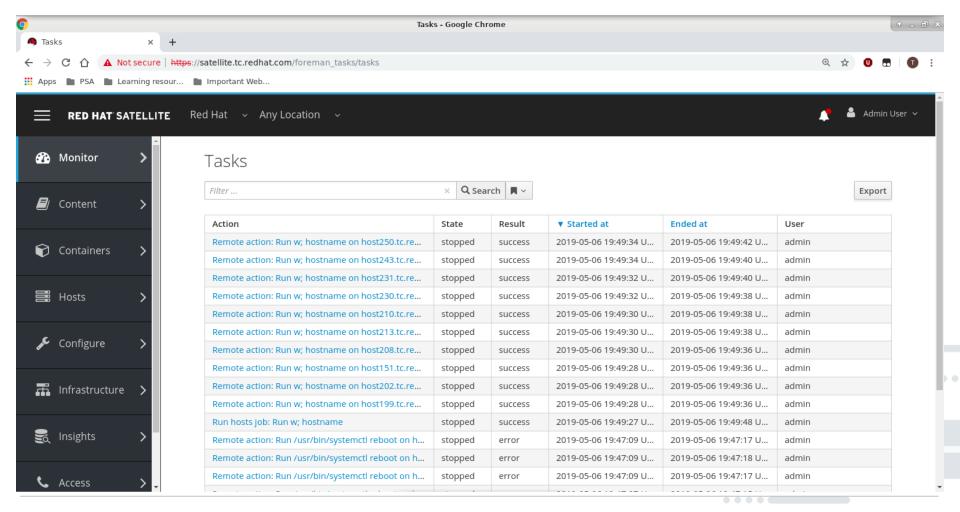


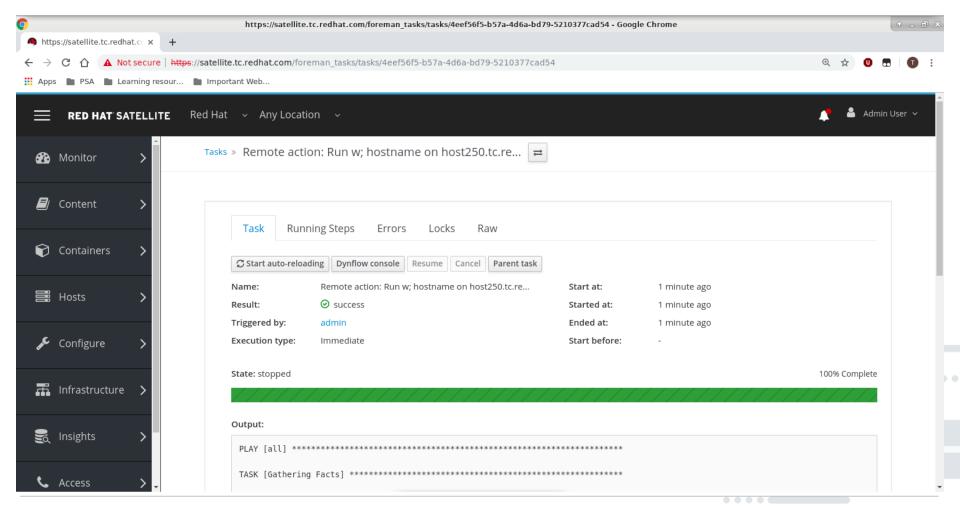


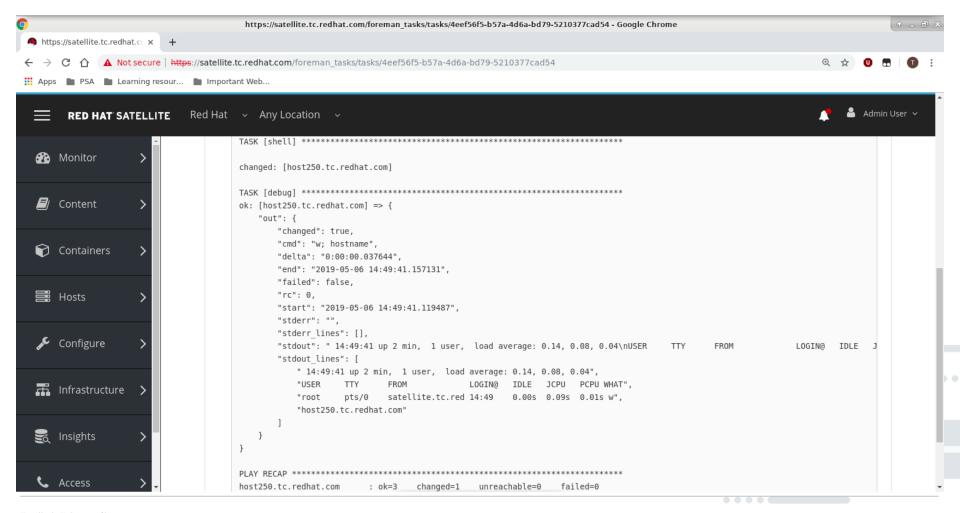
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AND THERE YOU HAVE IT!

FINAL THOUGHTS

We've tried to pack about a week's worth of training and decades of experience into 45 minutes.

We know we didn't cover everything - there's simply not enough time in these short sessions. But this should make your lives a bit easier if you're starting out with Satellite.

If you have any questions or suggestions, we're rwj@redhat.com and tdcam@amazon.com - we're happy to help out however we can!

If you liked today's session, please rate us accordingly!





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SECTION BREAK

CONTENT

.

Stuff and things

- Bullets
 - More bullets
 - Ugh

CONTENT SLIDE

SECTION BREAK

SECTION BREAK

CONTENT SLIDE