Part 1

Enabling Simple Content Access and registering to Red Hat Insights with Subscription Manager

Simple Content Access (SCA) allows you to access Red Hat software content without attaching a subscription to a particular system or environment. Separating subscriptions and content management makes it easier for admins to fully utilize their RHEL subscriptions efficiently.

In this three-part series, we will cover how to enable Simple Content Access and register your systems to Red Hat Insights and how to view your Red Hat Enterprise Linux (RHEL) systems in the Red Hat Customer Portal. We'll also cover how to create custom tags to use tag filtering in Red Hat Insights to support more refined views of your RHEL environments.

Enabling Simple Content Access in the Red Hat Customer Portal

A great use case example for SCA is when you want to manage the content of a public cloud marketplace instance of RHEL with Red Hat Smart Management. Recently changed, marketplace images from Red Hat now include Smart Management as part of the subscription.

If you are mixing pay as you go (PAYG) marketplace images with subscriptions that you purchased from Red Hat, and managing both with a Satellite, then the default behavior (without SCA) is that connecting the host to the Satellite will still consume a RHEL subscription.

However, when you enable SCA, you are no longer attaching subscriptions to hosts, and the PAYG host will no longer consume one of your paid RHEL subscriptions.

You also need to know that with SCA enabled, you no longer can view Red Hat software consumption in the Red Hat Customer Portal subscription section. Via the command line, you can see which repositories are enabled on a particular RHEL instance.

If you want to see the consumption of a particular add-on, such as the Extended Life Cycle subscription, you can attach that specific subscription to a RHEL instance.

Note: Even though you are not attaching a subscription to a Red Hat Software product with SCA, you are required to have an active subscription for every instance of that product even if the product is in Extended Phase Lifecycle. For example, if you are running RHEL 4 or 5 along with any other current versions of RHEL, you are required to have active subscriptions to cover all those instances of RHEL.

It is recommended that you use the Insights Subscription service (formerly known as Subscription Watch) to determine the number of RHEL instances that are being used versus the number of subscriptions you are entitled to use.

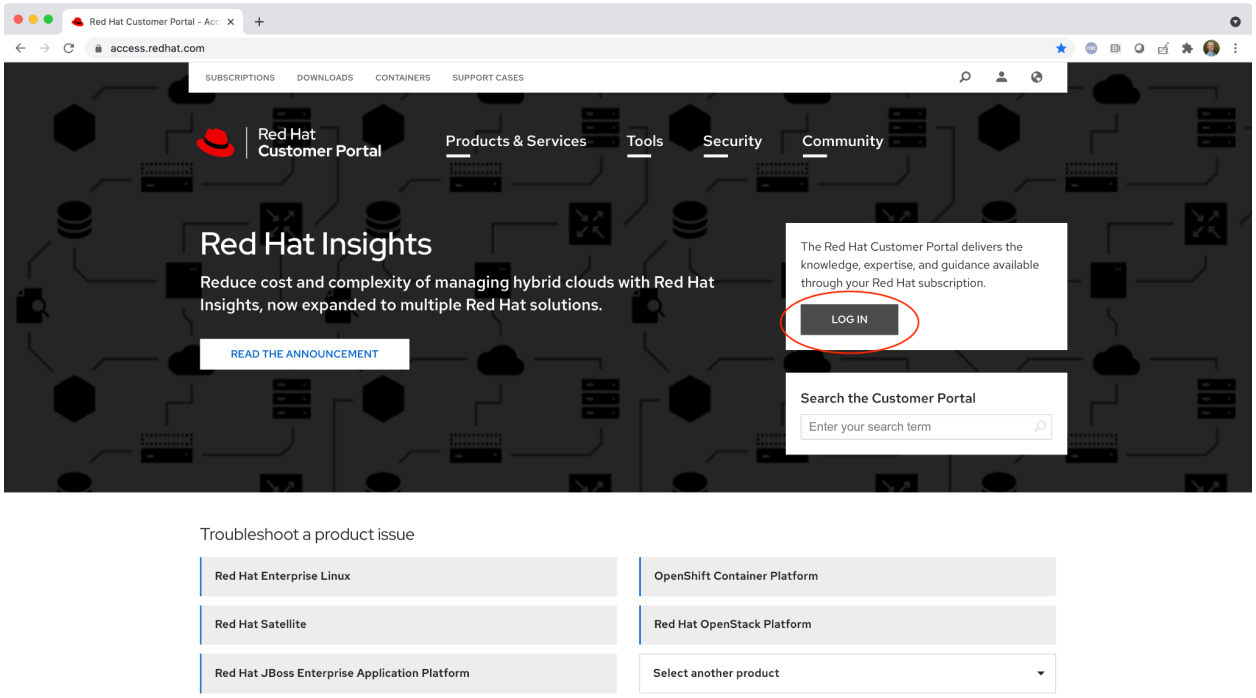
Insights is a great tool for seeing and managing RHEL content, as well as for automatically patching and remediating your RHEL instances. Insights works with RHEL 6.4+, 7.0+ and 8.0+. I would recommend enabling Insights regardless of your content subscription strategy.

Let’s walk through how to enable SCA for your account.

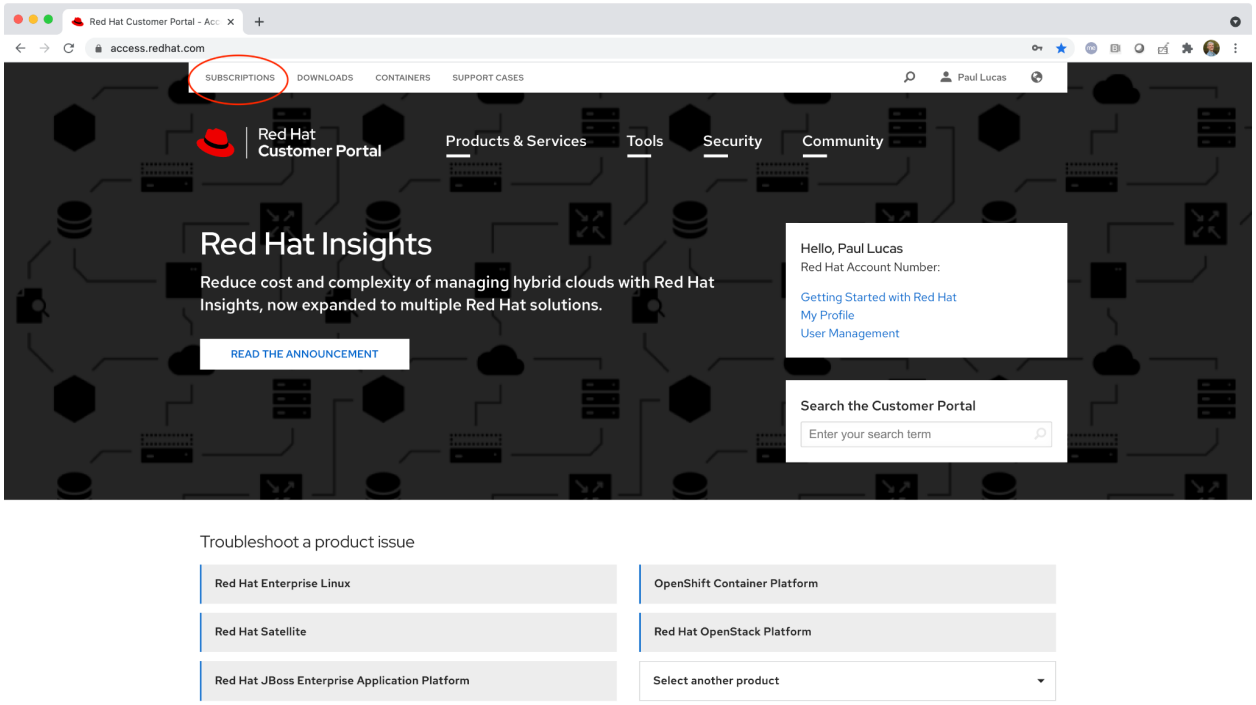
Enable SCA on your Red Hat Customer Portal account

First, be sure SCA is turned on for your account. **Only the account's organization administrator can enable SCA for the account.**

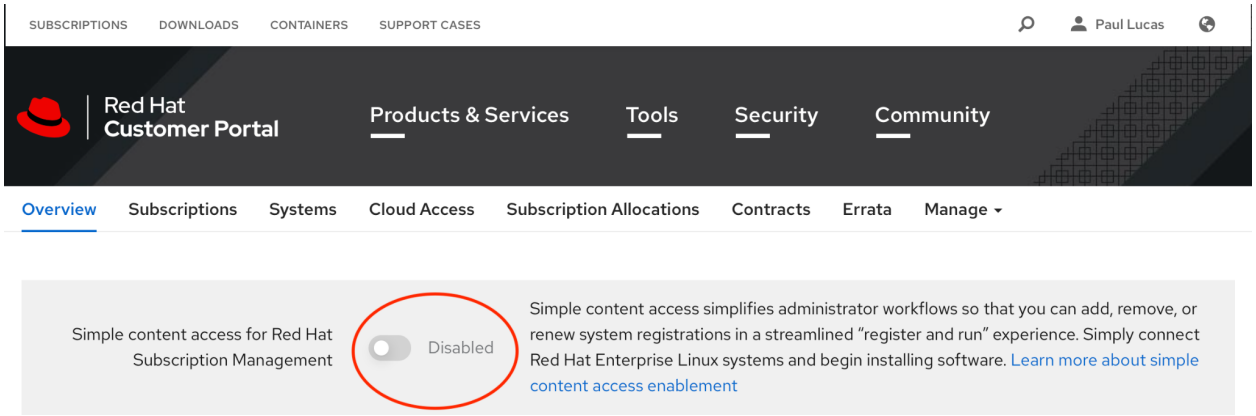
1. Log in in to the Red Hat Customer Portal.

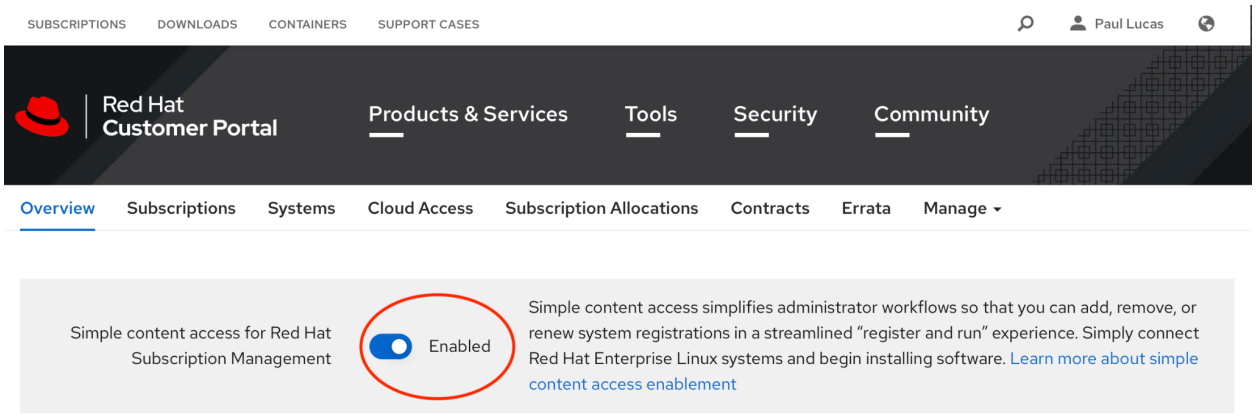


2. On the Red Hat Customer Portal page, click the Subscriptions link in the upper left corner.



3. On the Overview page, move the slider switch to the right to enable SCA. The background of the slider switch will turn blue and the text will change from Disabled to Enabled.



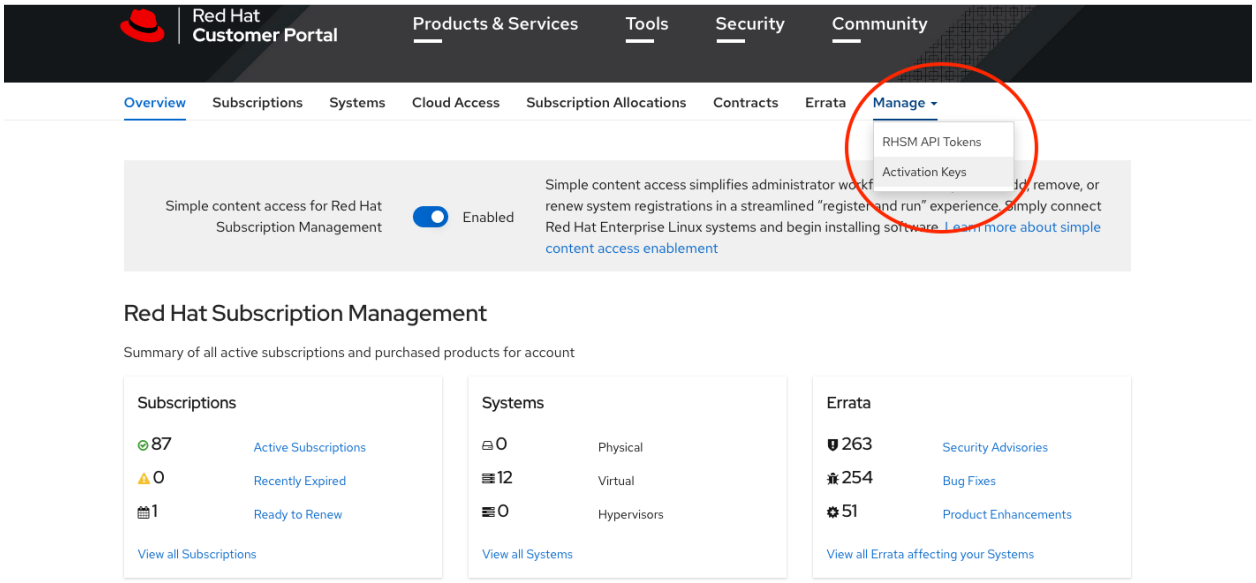


Create an activation key with no subscriptions attached.

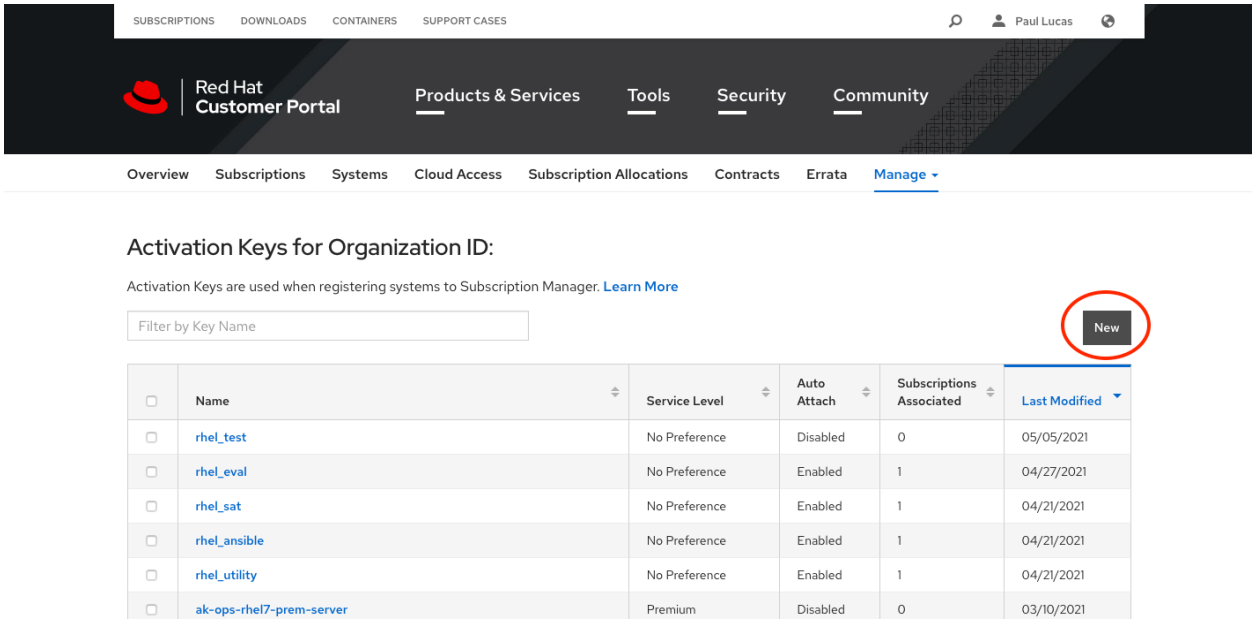
Note: Only the account's organization administrator can create or manage activation keys.

For registering RHEL with Red Hat Subscription Management, I recommend using an Activation Key instead of linking the registration to a user.

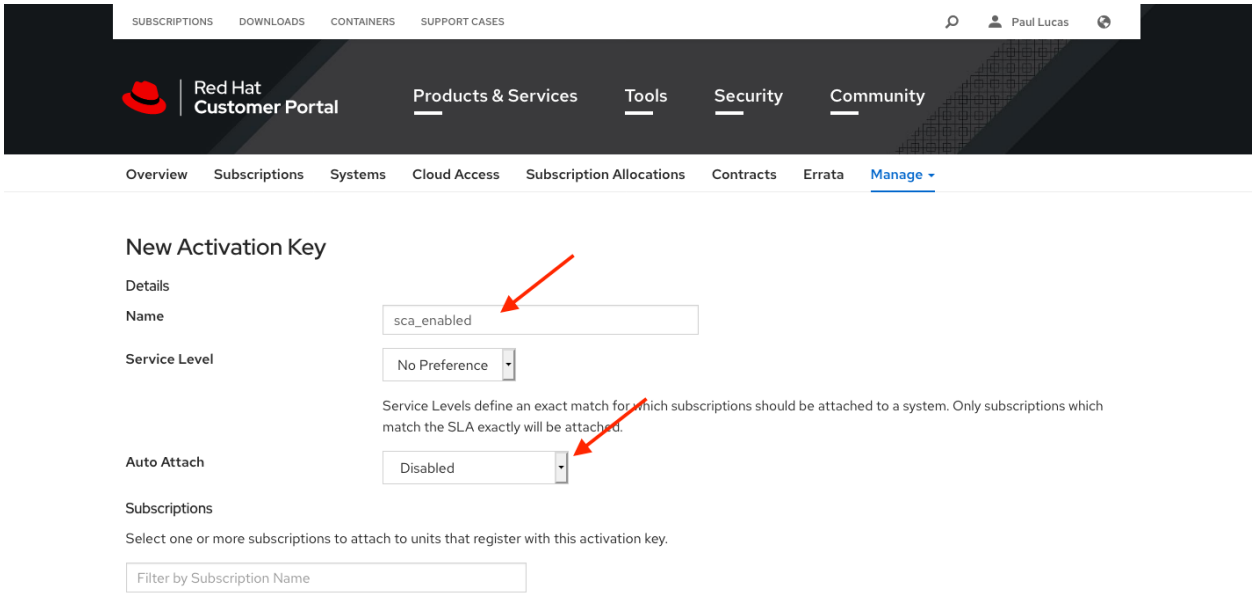
1. Click the Manage drop-down link near the upper right of the Red Hat Subscription Management page and choose Activation Keys.



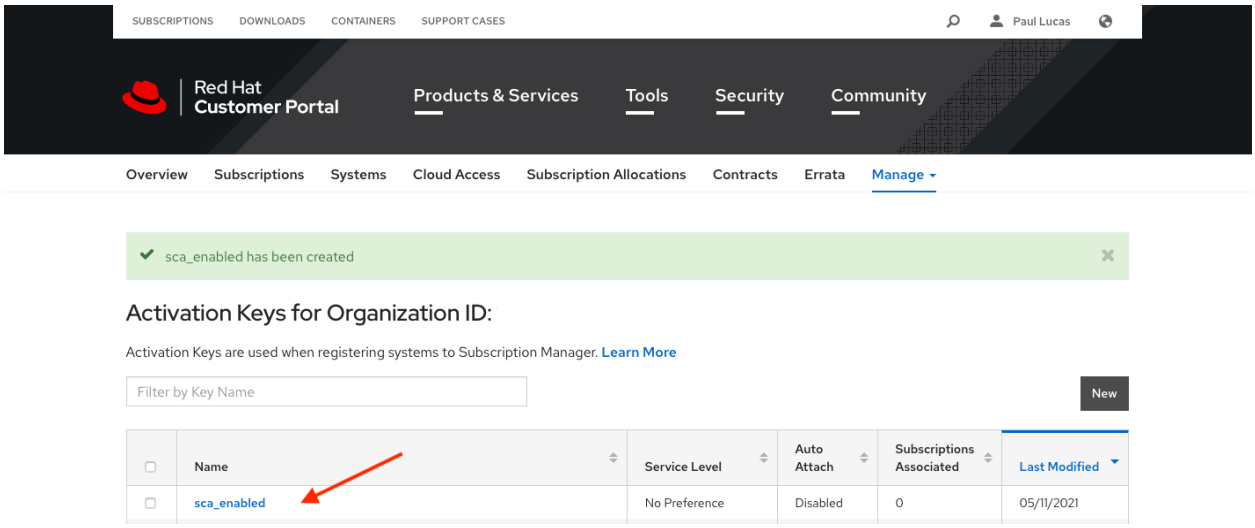
2. Click the New button on the right side of the Activation Keys, which will take you to the Organization ID:xxxxxxxxxx page to create a new Activation Key.



3. On the New Activation Key page, fill in the Name text field with the name of your activation key. Choose a name that makes sense for your organization. Choose Disabled from the Auto Attach drop-down menu. Scroll to the bottom of the page and click the Create button.



Your activation key is ready to use for registering systems with SCA.



Registering system, adding repos and enabling Red Hat Insights

1. Register a system via the subscription manager for RHEL 6.0+, 7.0+ and 8.0+. You will need to use sudo or be root to execute these commands.

```
# subscription-manager register --org=xxxxxxxxx --activationkey=your_key_here
```

Verify that the registered system content access mode is set to SCA. You will only see the SCA status on RHEL 7.0+ and 8.0+

```
# subscription-manager status
```

2. Check which repositories are enabled.

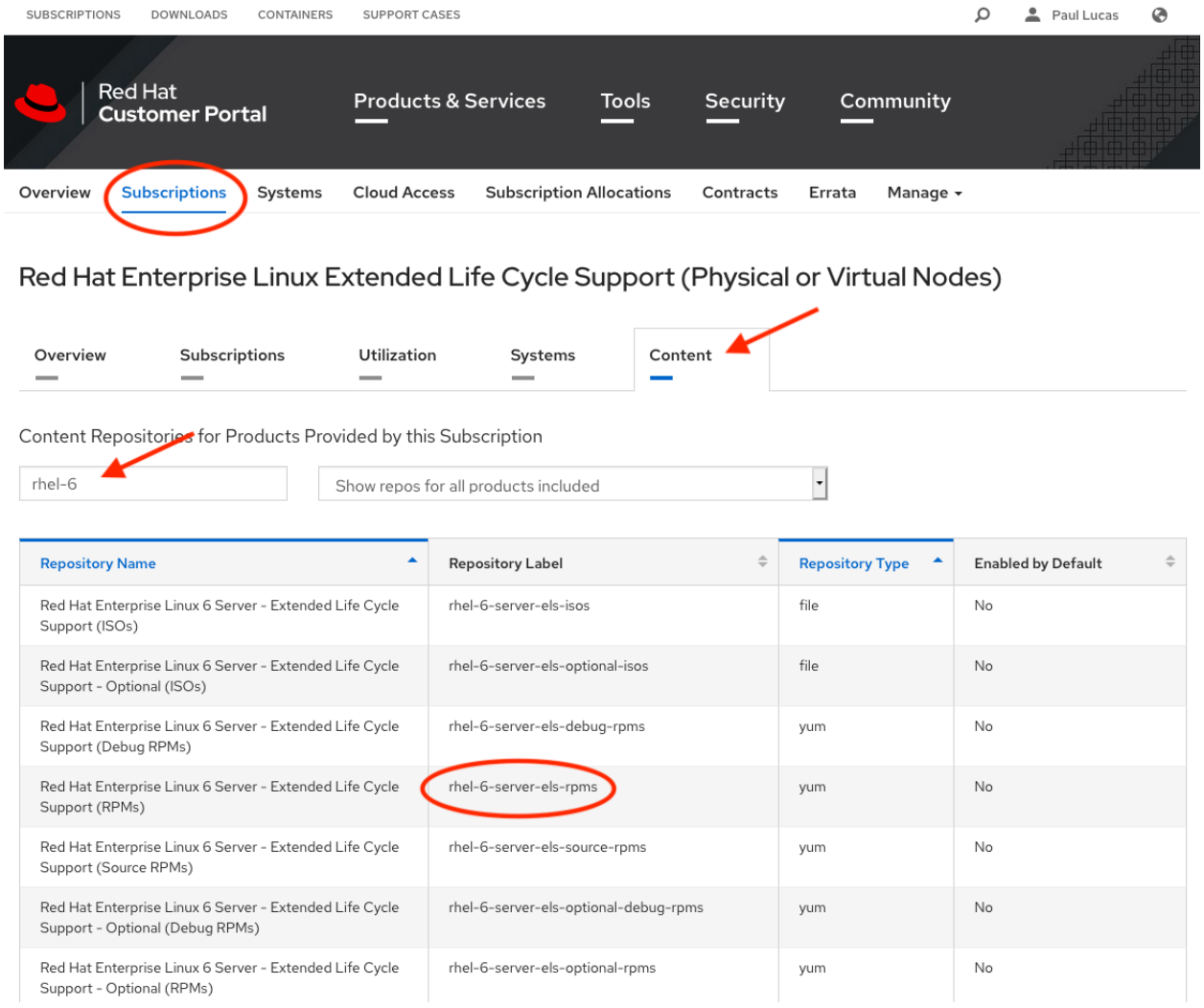
```
# subscription-manager repos --list-enabled
```

Here is a repository enablement example for RHEL 6 ELS.

```
# subscription-manager repos --enable
```

You can easily find a repository name via the Red Hat Customer Portal. After logging in to the Red Hat Customer Portal, click on the Subscription link near the upper left of the screen. On the Subscriptions page, click the Subscriptions tab and navigate to the subscription with the repository that you want to enable.

3. On the product page, click on the Content tab. I would suggest using the filter field to narrow down the repository list. Look for the Repository Label for the Repository that you want to enable on your RHEL instance.



Since you are not assigning a subscription to the RHEL instance, we cannot know if the RHEL instance should count against Premium, Standard or Self-Support subscription.

You can set the RHEL SLA level from the command line with Subscription Manager. Setting the SLA level for each RHEL instance will help you to better understand your subscription usage when viewing subscription consumption in Red Hat Insights.

To set the service Level for RHEL 6.0+ and 7.0+ (premium, standard, self-support), use:

```
-  # subscription-manager service-level --set=premium
   # subscription-manager service-level --show
```

To set the service Level for RHEL 8.0+ (Premium, Standard, or Self-Support), use:

```
-  # subscription-manager service-level --set=Premium
   # subscription-manager service-level --show
```

Don't forget to install the Insights client to take full advantage of all the capabilities that are part of your RHEL subscription. Insights offers capabilities that are hard to find with other Linux distributions.

To set up Insights setup for RHEL 8, use:

```
-  # insights-client --enable
```

To set up Insights setup for RHEL 6.4+ and 7.0+, use:

```
-  # yum -y install insights-client
   # insights-client --enable
```

Getting started

In this post, we provided an overview of how to enable Simple Content Access and Red Hat Insights to better monitor and manage your RHEL environments. If you have any questions about the information that Insights collects, be sure to refer to the Insights Data & Application Security page. Stay tuned for our planned posts that can show you even more capabilities of Subscription Manager and Simple Content Access.

Reference

- Simple Content Access: How do I enable Simple Content Access for Red Hat Subscription Management?
- Subscription Manager Command Cheat Sheet
- Client Configuration Guide for Red Hat Insights: Create custom tags for your RHEL systems to use a filter on inventory views

Part 2

Subscription Manager and Simple Content Access

Tagging and reviewing systems

We showed you how to enable Simple Content Access (SCA) and register your Red Hat Enterprise Linux (RHEL) with Insights. In this post, we will look at the use of groups in custom tags with Insights.

Reviewing your RHEL systems with groups and custom tags in Red Hat Insights

You can access Red Hat Insights at console.redhat.com and see all of the systems registered in a single place. Insights recognizes specific workloads, such as SAP, automatically, and it can group SAP nodes by SID. Insights also imports tags from Red Hat Satellite, so you can see specific locations, organizations, etc. from within Insights.

Did you know that you can create groups and custom tags for your Red Hat Enterprise Linux (RHEL) instance via the Insights client? You can use these tags in Insights to create more granular views of your systems. For a complete overview of tagging, see "System tags and groups Red Hat Insights 2020-10."

Tags are created from the command line or by creating tags.yaml file in the /etc/insights-client directory.

Let's go through how to do this.

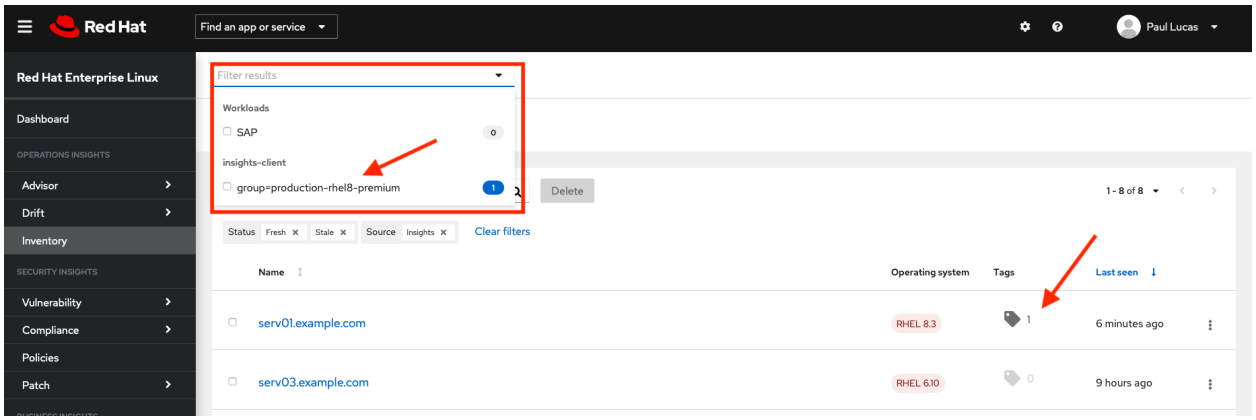
1. Create your first group with the insights-client:

```
# insights-client --group=production-rhel8-premium
```

2. The Insights client will create the group, collect data about your RHEL server and upload to Insights. The output the above insights-client command will look like this:

```
# insights-client --group=production-rhel8-premium
Starting to collect Insights data for serv01.example.com
Uploading Insights data.
Successfully uploaded report from serv01.example.com to account xxxxxxx.
View details about this system on cloud.redhat.com:
https://cloud.redhat.com/insights/inventory/9xxx063-xx02-4x9xe-xxxx-9x30x54x96
38
```

3. Now when you go to view your RHEL system in Insights under the Inventory tab, you can filter by any groups you have created:



You can now add custom tags to your server instance in the `tags.yaml` file. Custom tags provide you with many ways to create custom filtered views of your systems in the Inventory tab.

4. Navigate to `/etc/insights` and edit the `tags.yaml` file. You can create any number of tags that can be used to filter your systems in Insights.

Here's an example of a `tags.yaml` file:

```
# tags
group: rhel7
serviceLevel: Premium
Lifecycle: Production
Location:
      - Moline data center
Repos:
      - rhel7-server-satellite-6.9-rpms
      - rhel7-server-rpms
```

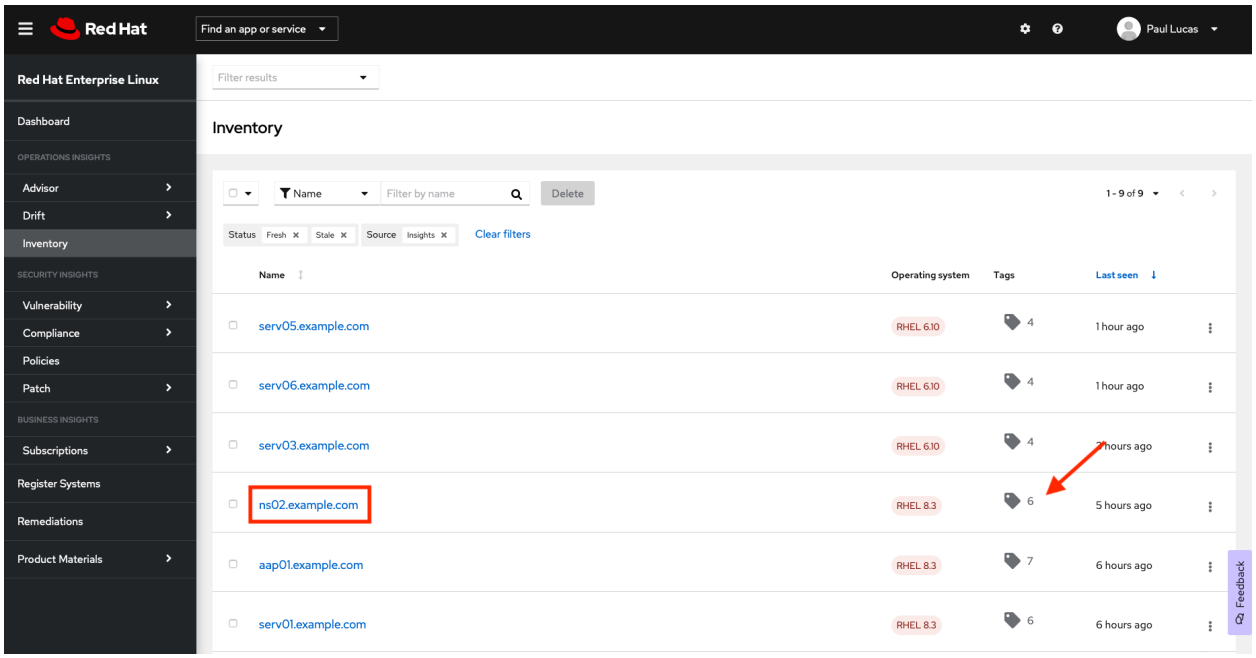
---

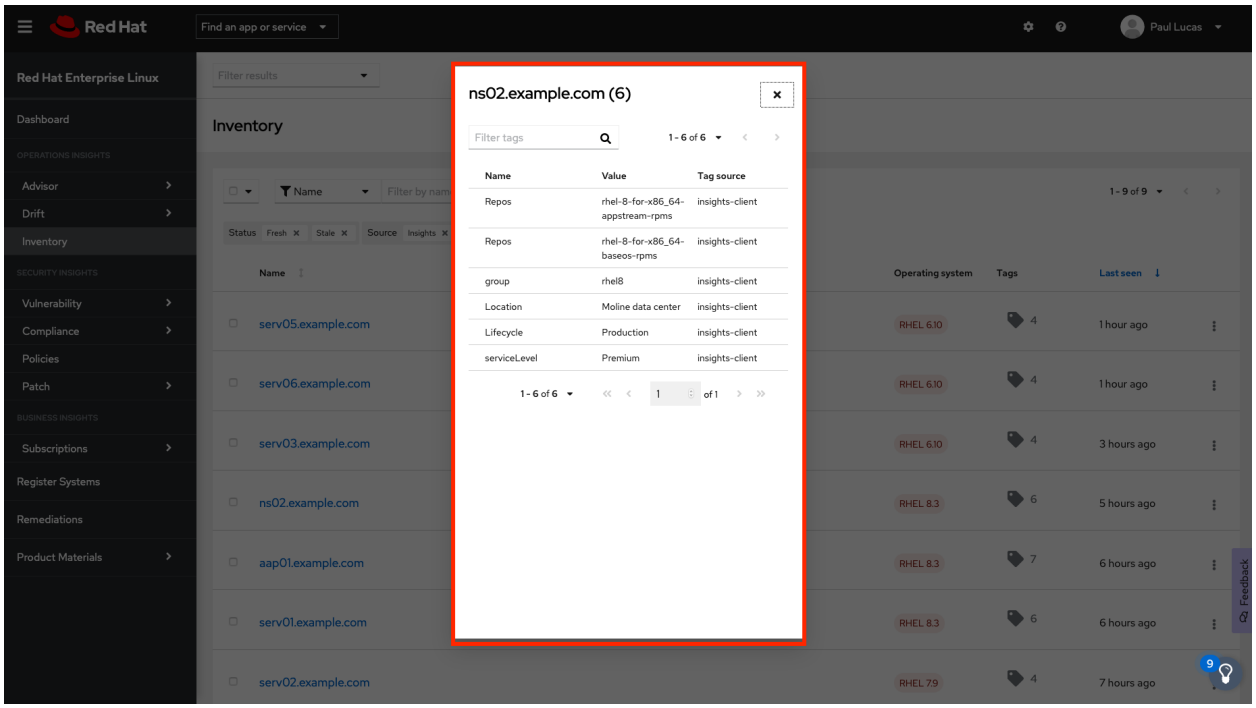
5. After updating the `/etc/insights-client/tags.yaml` file, run `insights-client` to upload the changes to insights. Note that running the insights-client command immediately refreshes your insights data.

```
# insights-client
```

6. When you look at your registered server list in the Inventory, you'll see in the Tags column. The Tag icon is now "highlighted" with a number next to the Tag icon. The number next to the Tag icon represents the number of tags associated with a particular RHEL instance.

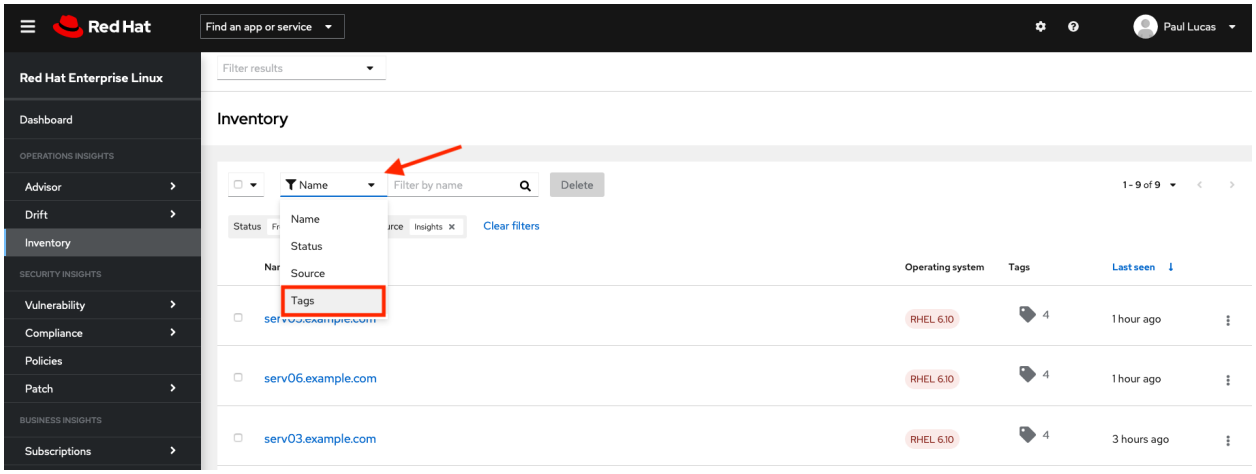
Clicking on a Tag icon for a particular server pops up a dialog box with tags available for a specific registered server.



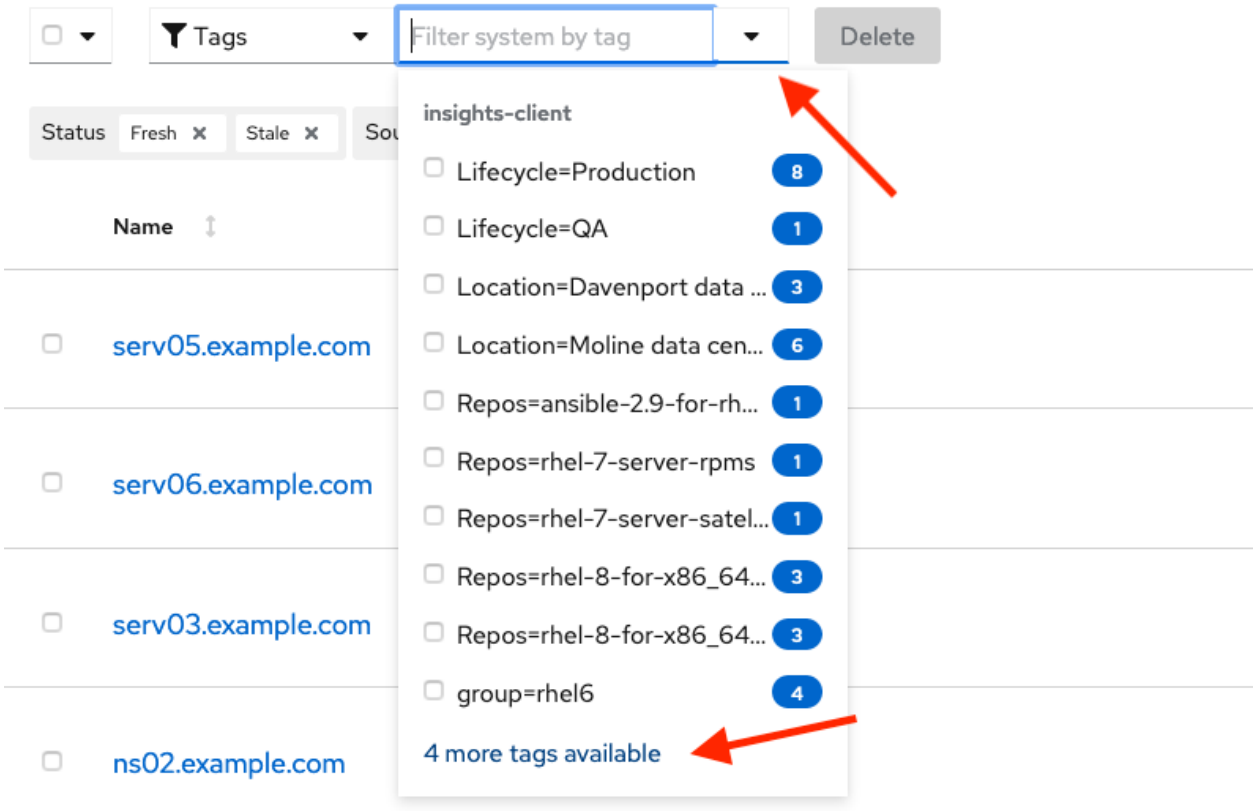


Let's look at an example at using some of the tags we created to filter our Inventory view.

In the Inventory tab under Inventory section, click the Funnel icon (filter) drop-down list and click on the Tags option.



Click the filter drop-down list to see all the tags available. I have created more tags than can fit on one dialog box, so I'm going to change the dialog view to show all of my tags. Click the “x more tags available” link.



In the “All tags in inventory” dialog box, click the “1 of x” drop-down and choose how many tags per page you would like to see in this dialog box.

All tags in inventory (14)

Filter tags

1 - 10 of 14

10 per page
20 per page
50 per page
100 per page

Name	Value	
Lifecycle	Production	
Lifecycle	QA	
Location	Davenport data center	
Location	Moline data center	insights-client
Repos	ansible-2.9-for-rhel-8-x86_64-rpms	insights-client
Repos	rhel-7-server-rpms	insights-client
Repos	rhel-7-server-satellite-6.9-rpms	insights-client
Repos	rhel-8-for-x86_64-appstream-rpms	insights-client
Repos	rhel-8-for-x86_64-baseos-rpms	insights-client
group	rhel6	insights-client

1 - 10 of 14

1 of 2

Apply tags

Cancel

Now in the “All tags in inventory” dialog box, choose the tag you want to use to create a system view and click the “Apply tags” button at the bottom of the dialog box.

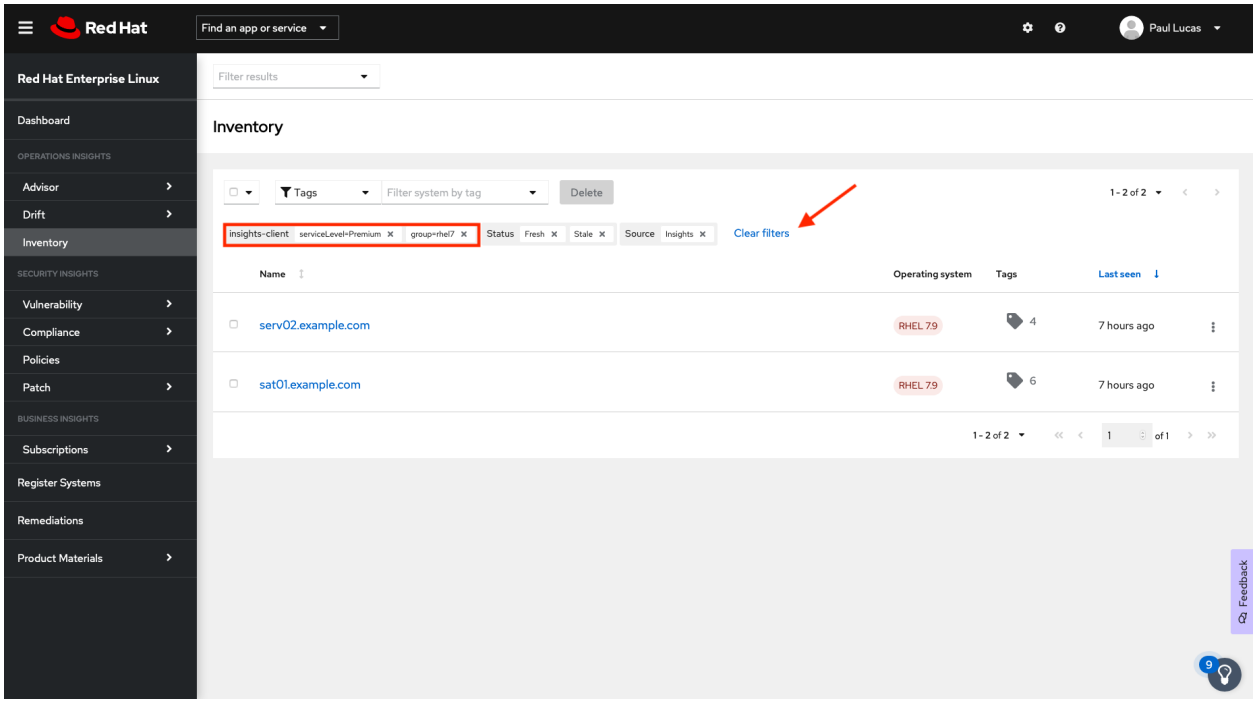
All tags in inventory (14)

☐	Lifecycle	Production	insights-client
☐	Lifecycle	QA	insights-client
☐	Location	Davenport data center	insights-client
☐	Location	Moline data center	insights-client
☐	Repos	ansible-2.9-for-rhel-8-x86_64-rpms	insights-client
☐	Repos	rhel-7-server-rpms	insights-client
☐	Repos	rhel-7-server-satellite-6.9-rpms	insights-client
☐	Repos	rhel-8-for-x86_64-appstream-rpms	insights-client
☐	Repos	rhel-8-for-x86_64-baseos-rpms	insights-client
☐	group	rhel6	insights-client
☑	group	rhel7	insights-client
☐	group	rhel8	insights-client
☑	serviceLevel	Premium	insights-client
☐	serviceLevel	Standard	insights-client

1 - 14 of 14 ▾ « ‹ 1 of 1 › »

Apply tags Cancel

Now we can see how many systems meet our view options. Click the “Clear filters” link to reset your Inventory view.



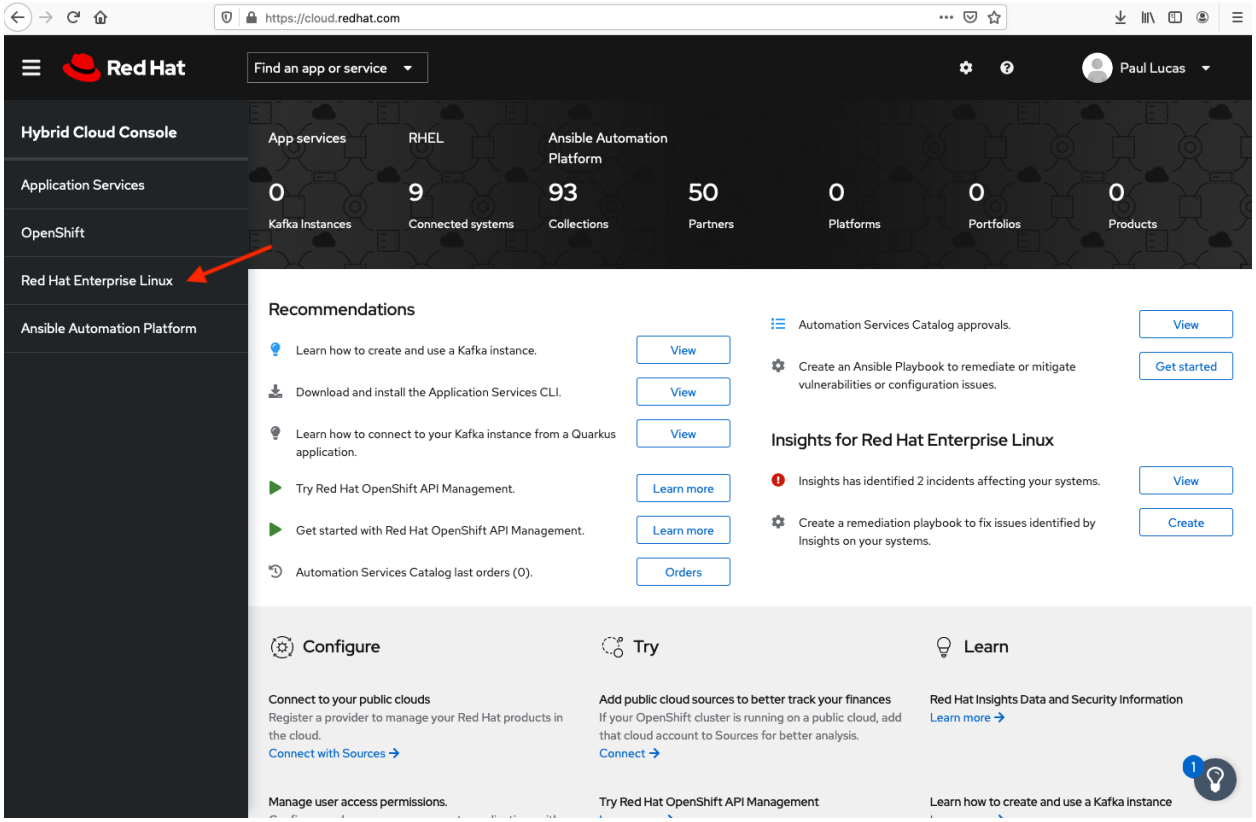
Reviewing your RHEL Systems in Insights for RHEL 6 Extended Lifecycle Updates.

We won't be reviewing all of Insights capabilities in this section, but we will review a couple of things in Insights so that you can check that your RHEL Extended Lifecycle Support (ELS) 6 content is available to your RHEL system with the ELS repository enabled.

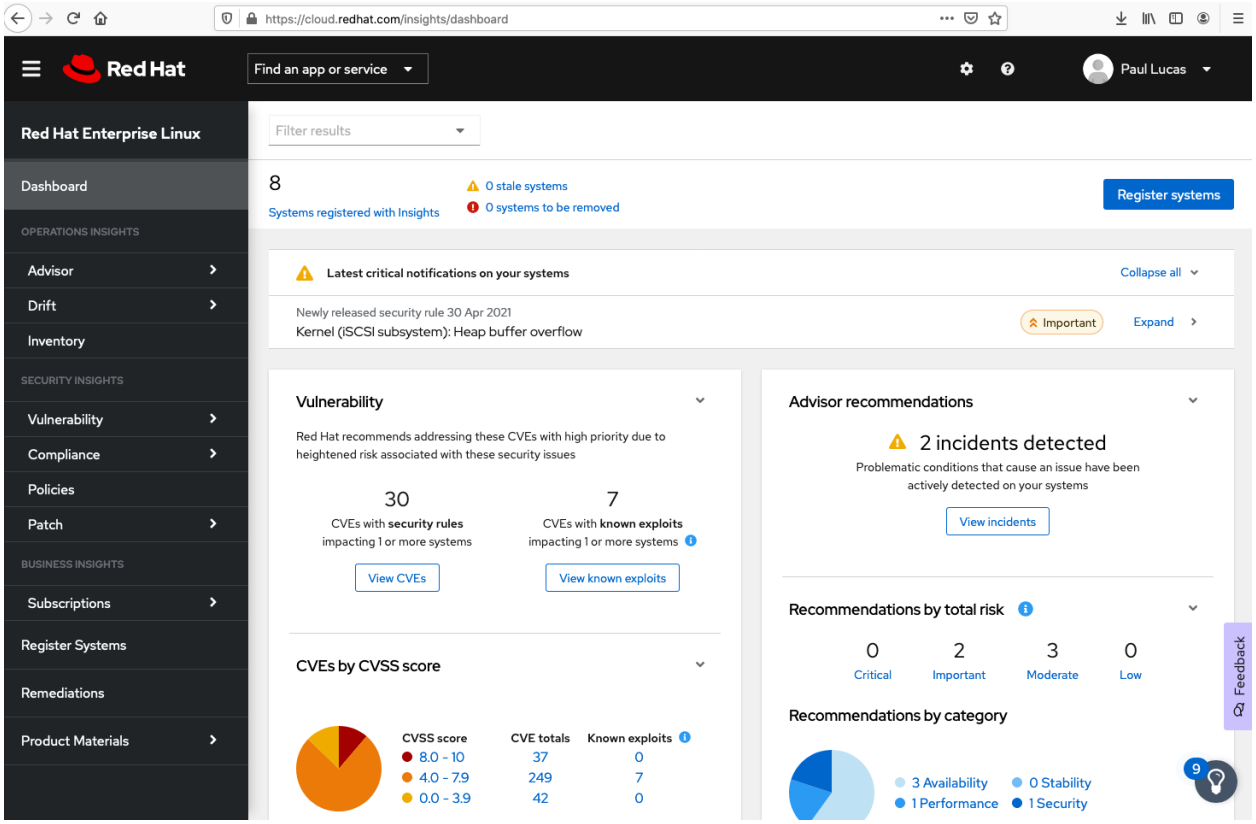
Note: There is a time lag between when you register a system to Insights and when the Insights client has updated your Insights view.

1. Log in to Insights.

2. On the Hybrid Cloud Console, choose the Red Hat Enterprise Linux link on the left side of the screen.

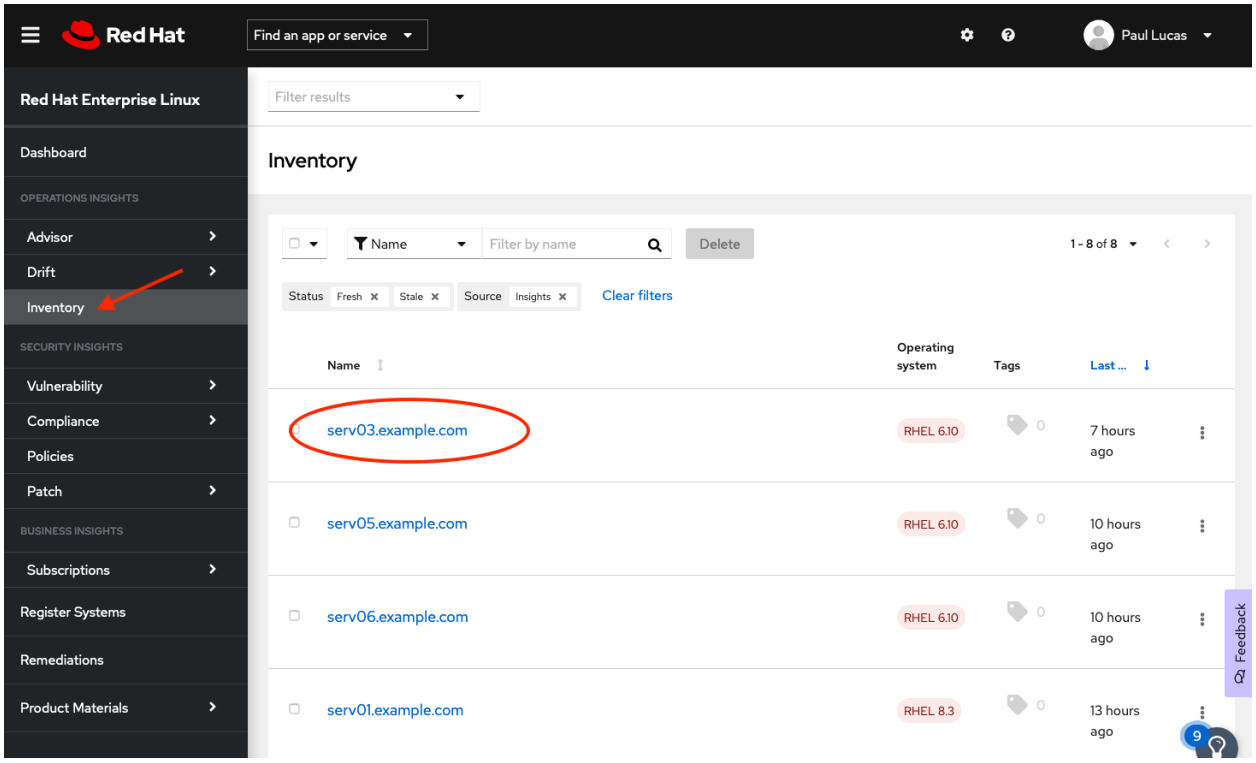


On the Insights "home page," you'll be presented with a dashboard view of your Insights-registered RHEL systems.

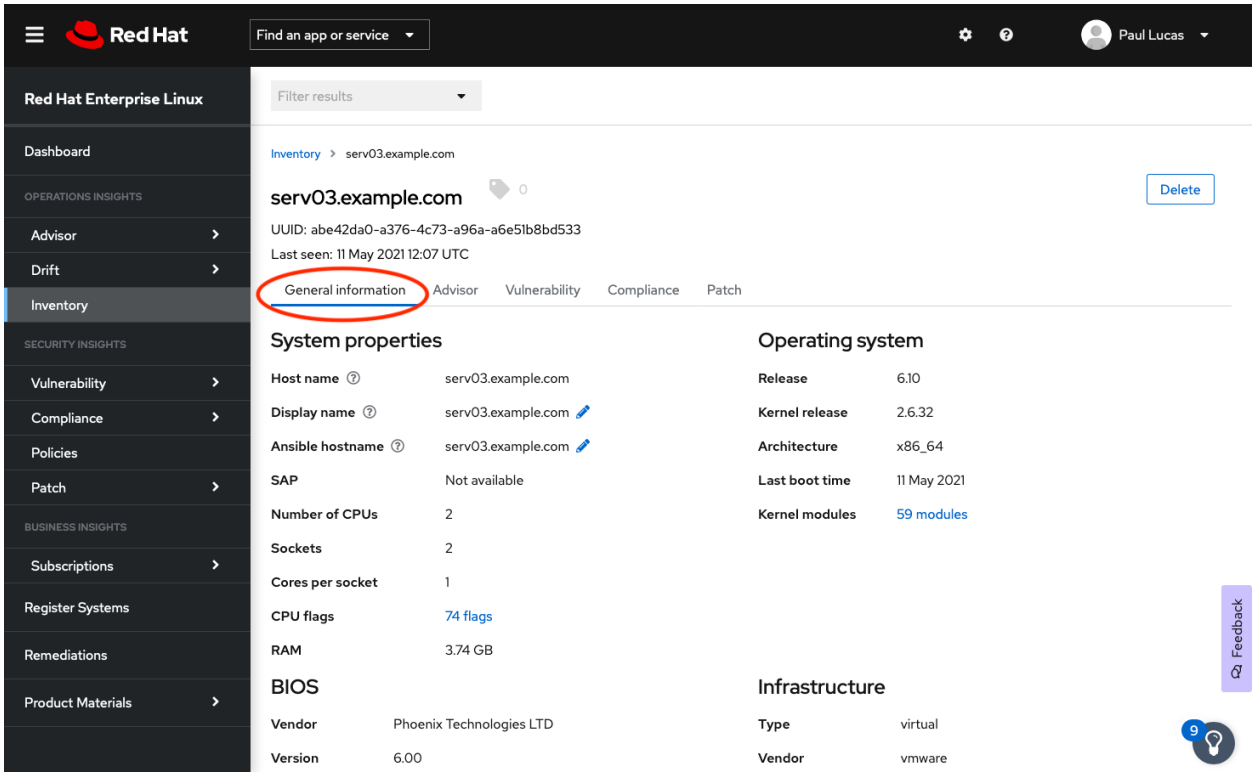


3. Click on the Inventory link on the left to get a list of RHEL systems registered with Insights.

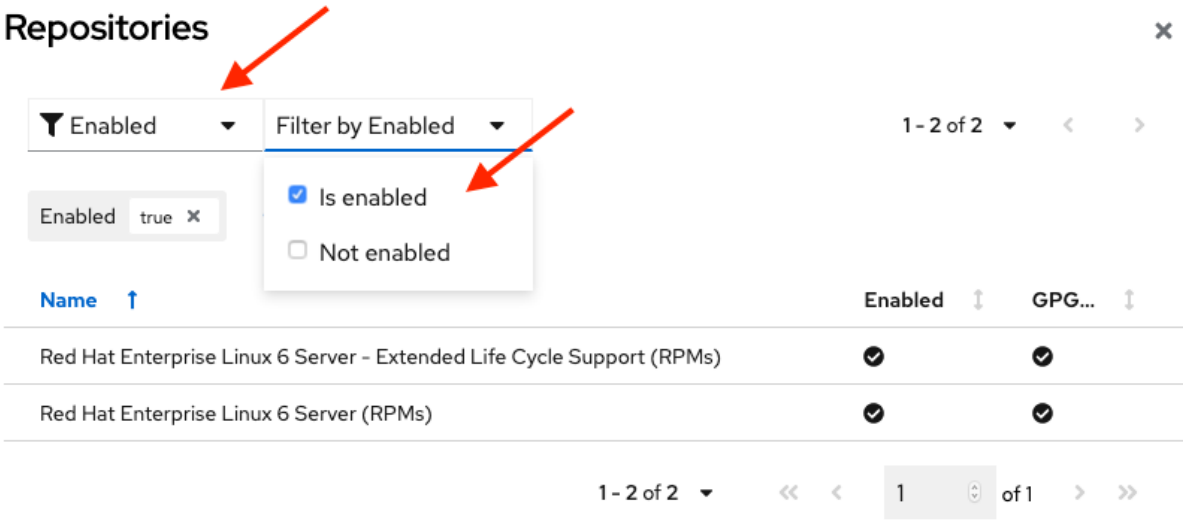
I'm going to choose serv03 as it is a RHEL 6.10 system with the RHEL 6 ELS repository enabled.



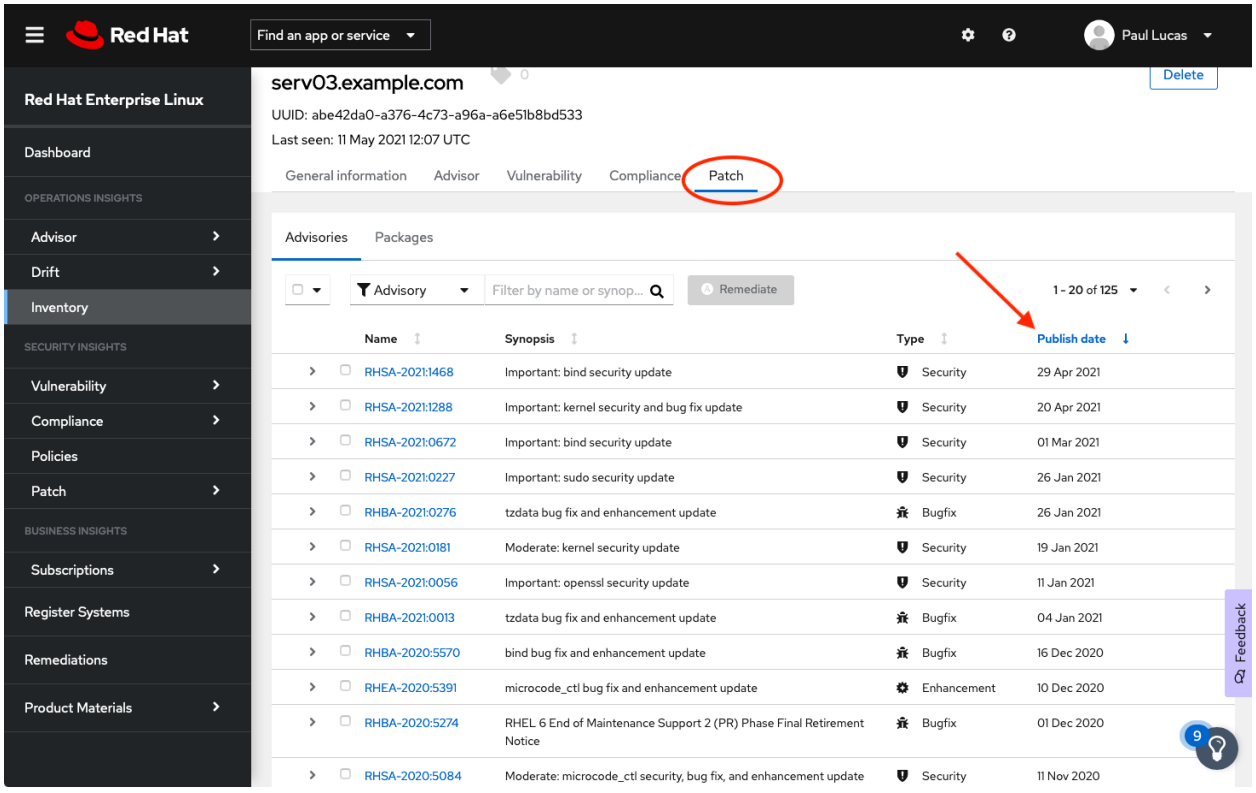
You can view the details of serv03 on the General Information tab. While on the General Information tab, scroll down to see the number of repositories enabled for serv03. You'll note in this example there are two repositories enabled: one for RHEL 6 RPMs and one for RHEL 6 ELS.



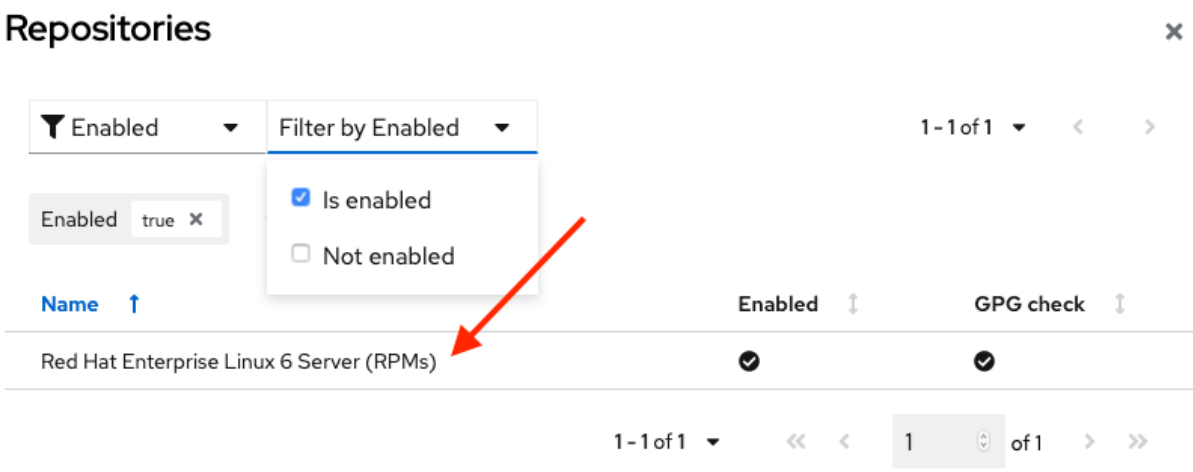
4. Click on the Repositories link to see the Repositories enabled for this system. You can set a filter on the dialog box to see just the Enabled repositories.



If we now click on the Patch tab, we see that because we enabled the RHEL 6 ELS repository with serv03, there is ELS-related content available (dated after 1 December 2020) for server03

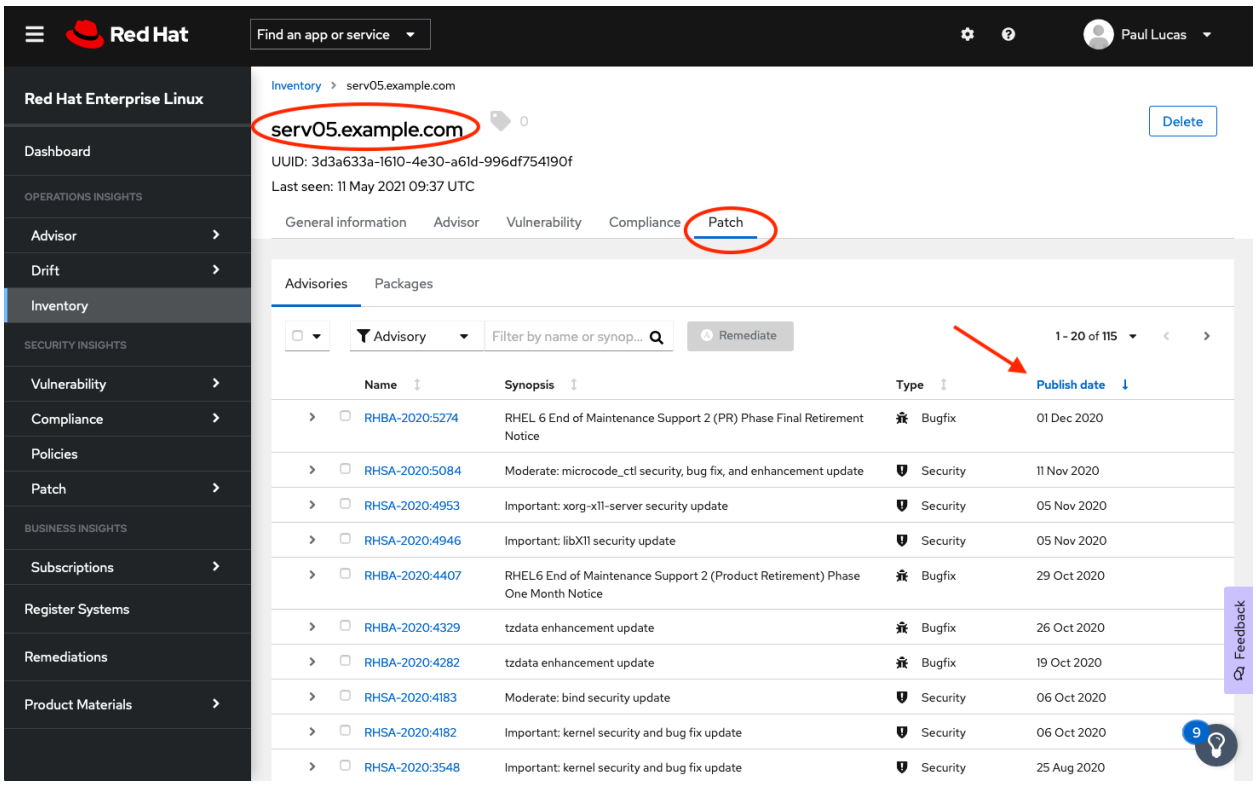


5. Now, we will compare the content available to a RHEL 6 instance (serv05) that does not have the RHEL 6 ELS repository enabled. We first review the repositories enabled on serv05 and see that only one repository, RHEL 6 RPMs, is enabled



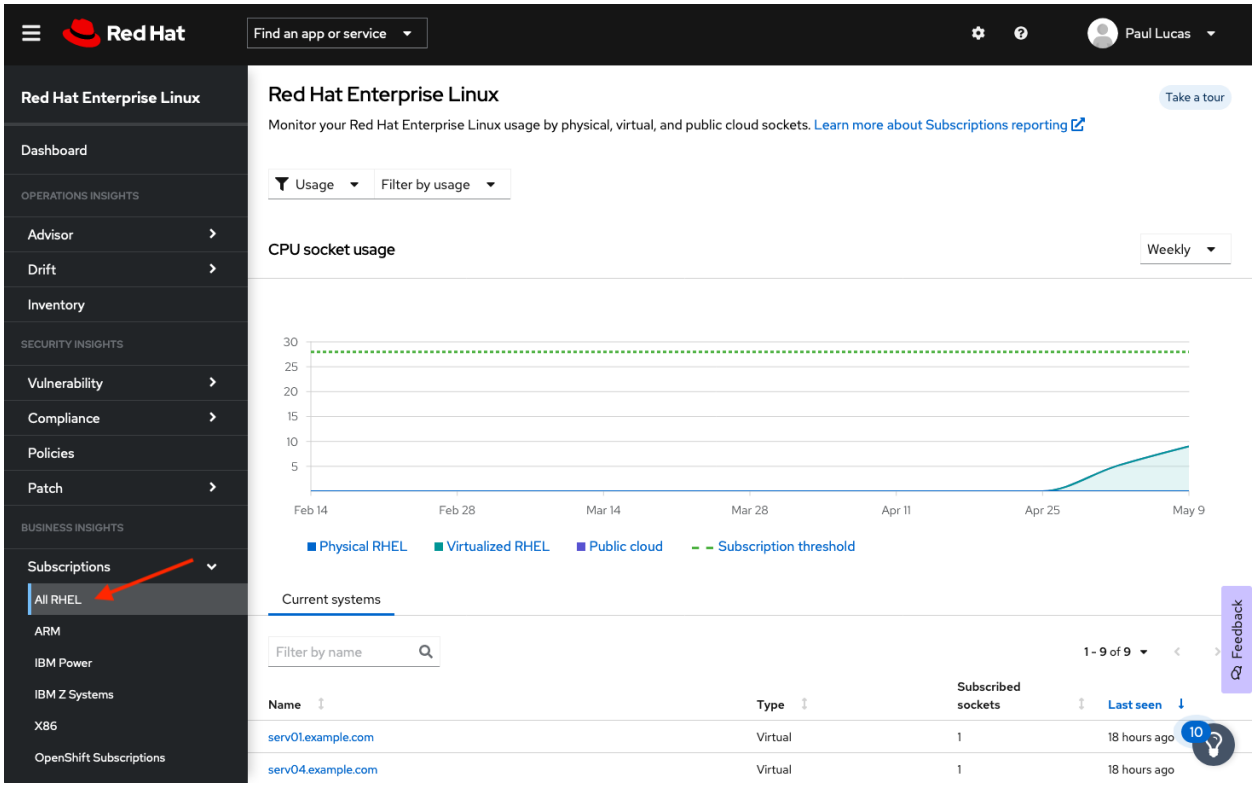
6. Next we go to the serv05 Patch tab page. We can see that there is no new content available to this server since 1 December 2020.

With SCA, we simply enable the repositories we need associated with a particular RHEL instance to access that content without attaching a subscription.



7. Finally, you can track your subscription usage in the Subscriptions section of the Red Hat Enterprise Linux view of Red Hat Insights.

Note: This tracks your RHEL usage and subscriptions at a high level, i.e., the number of RHEL subscriptions of any type against the number of deployed RHEL systems. It doesn't include add-ons in the subscription usage view. If you have set the RHEL service-level with subscription-manager (see steps above), you can get a more granular view by filtering on SLA by Premium, Standard, Self-Support, or No SLA.



Conclusion

In this article we continue to explore the powerful features of Red Hat Insights that help us as administrators to more efficiently and effectively manage our RHEL environments.

We learned how custom Insights tags can be used via the Insights filtering capability to provide more granular views of our RHEL deployments. We also learned how we can review content information for attached repositories. In the article, we specifically reviewed RHEL 6 Extended Lifecycle Updates as an example. Finally, we briefly touched on how we can quickly review our RHEL subscription usage in a SCA-enabled world.

Don't forget to review our first post on how to enable Simple Content Access (SCA) and register your RHEL with Insights, and stay tuned for future tutorials in this series.

Reference

- How do I enable Simple Content Access for Red Hat Subscription Management? (in the Simple Content Access article)
- Subscription Manager Command Cheat Sheet

- Chapter 5. System Tags And Groups - Create custom tags for your RHEL systems to use a filter on inventory views

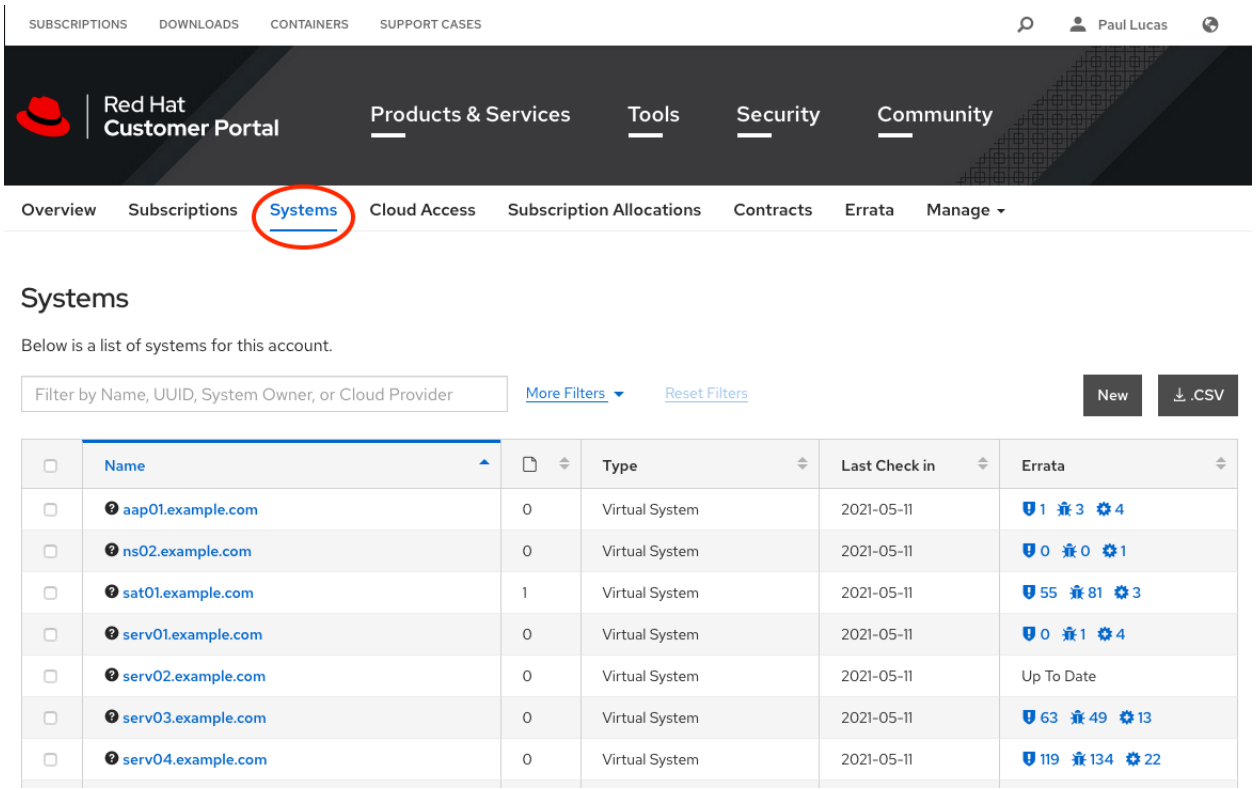
Part 3
Reviewing RHEL systems on the Red Hat Customer Portal

In previous posts, we showed you how to enable Simple Content Access (SCA), register your Red Hat Enterprise Linux (RHEL) with Insights, and tag and review systems. In this third part of our series on Subscription Manager and SCA, we will look at reviewing your RHEL instances in the Red Hat customer portal.

Review your Registered Systems on the Red Hat Customer Portal

1. Click on the Systems tab link in the Red Hat Customer Portal (Note: You need to be in the Subscriptions section on the Red Hat Customer Portal.)

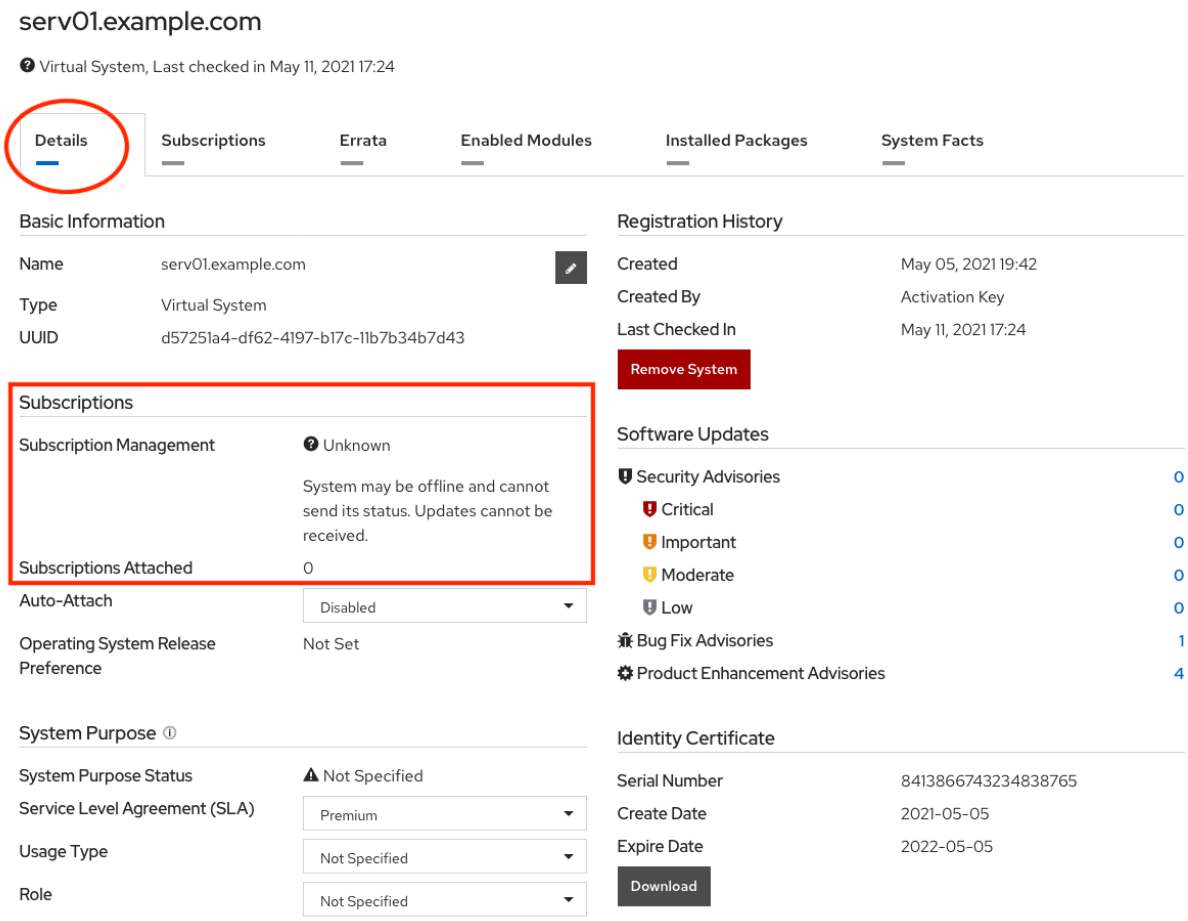
You'll note that there is a question mark (?) by each System Name. This happens when SCA is enabled as you no longer need to attach a subscription to a registered system. If any subscriptions are attached to a registered system, the number of subscriptions attached wil be registered in the third column.



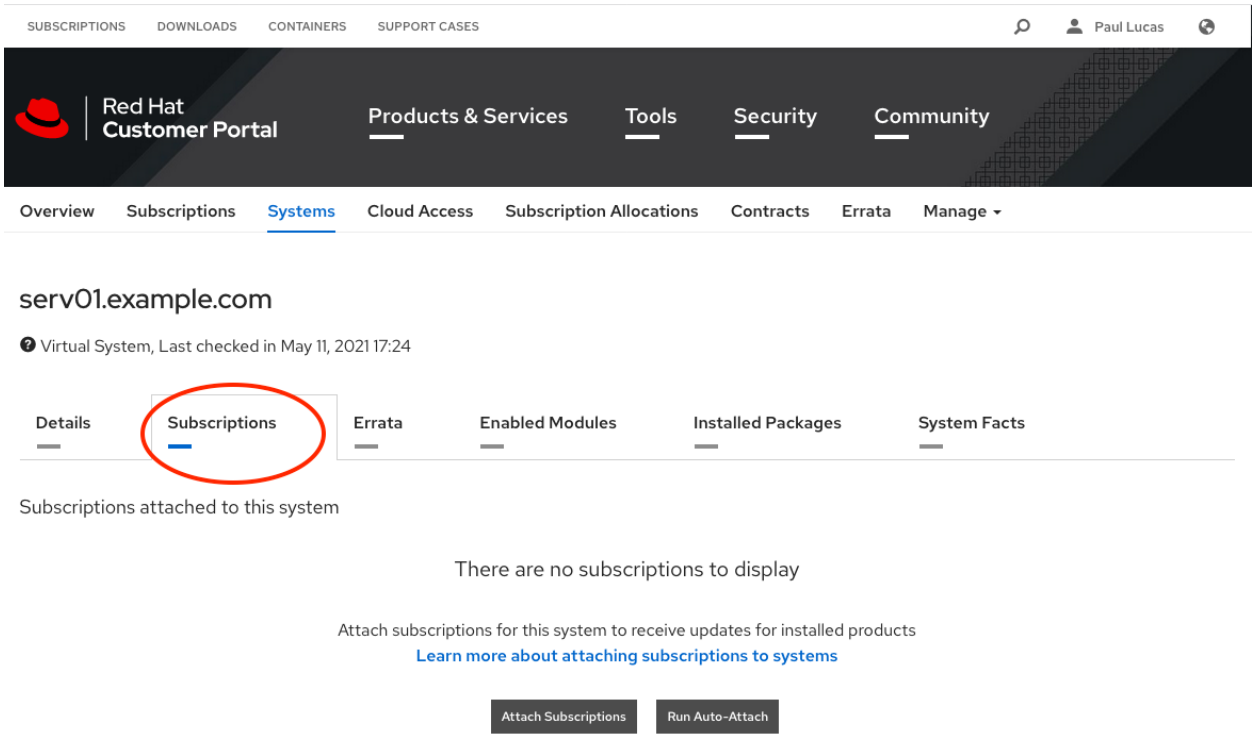
2. To see the details of a registered system, click on the system name and make sure you are on the Details tab page.

In this example we chose serv01 which does not have any subscriptions attached.

On the Details tab page, you will notice that the Subscription Management status is unknown and that no subscriptions are attached to the RHEL instance.



3. Click on the Subscriptions tab. You'll notice that there is no subscription information on the Subscriptions Tab page.



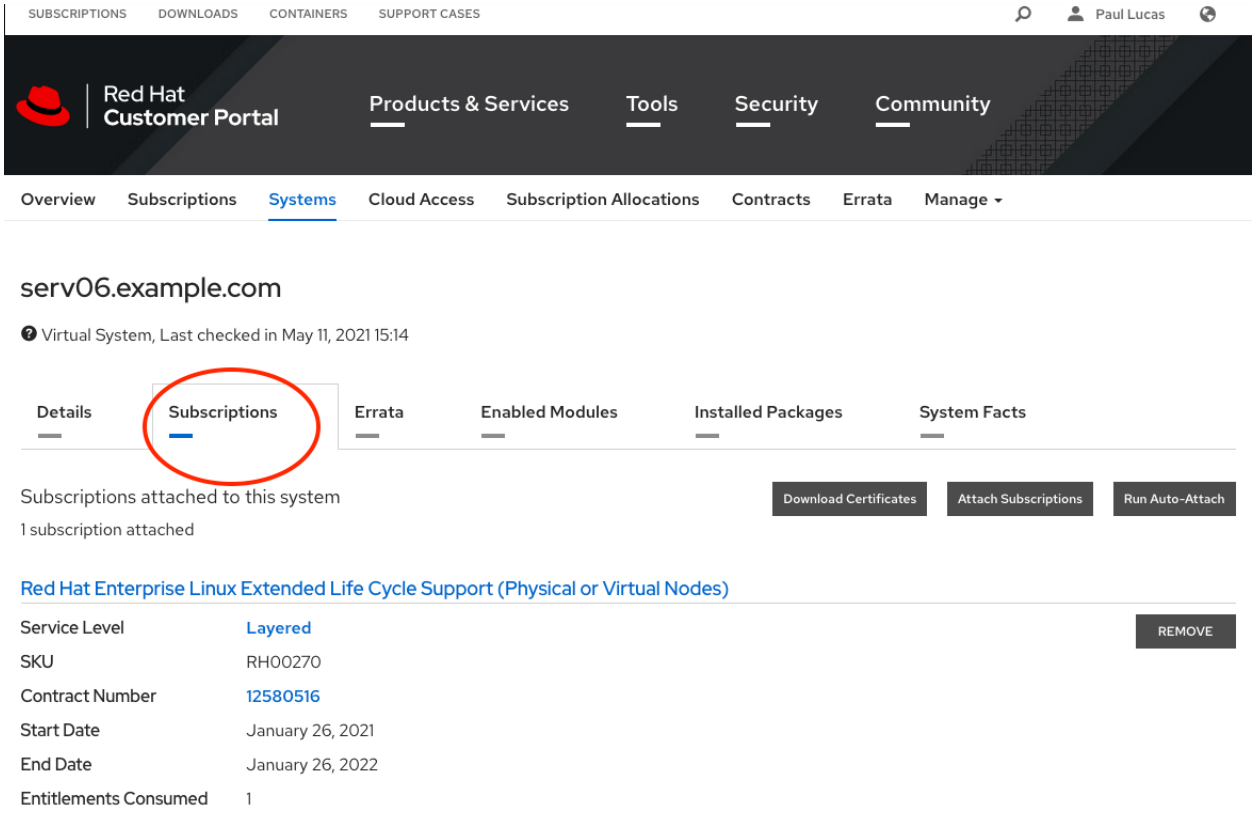
Note: Even with SCA enabled, you can attach subscriptions to systems if for some reason you want to track and control the subscription usage of a specific add-on like an Extended Life Cycle Support (ELS) subscription.

4. To attach a specific subscription — a RHEL 6 ELS subscription, for example — first, find the Pool ID of the subscription you want to attach, and then subscribe to that pool.

Use subscription-manager list to see that the correct subscription is attached to your RHEL instance. You can also validate that the subscription is attached to your RHEL instance on your Red Hat Customer Portal page under Subscriptions.

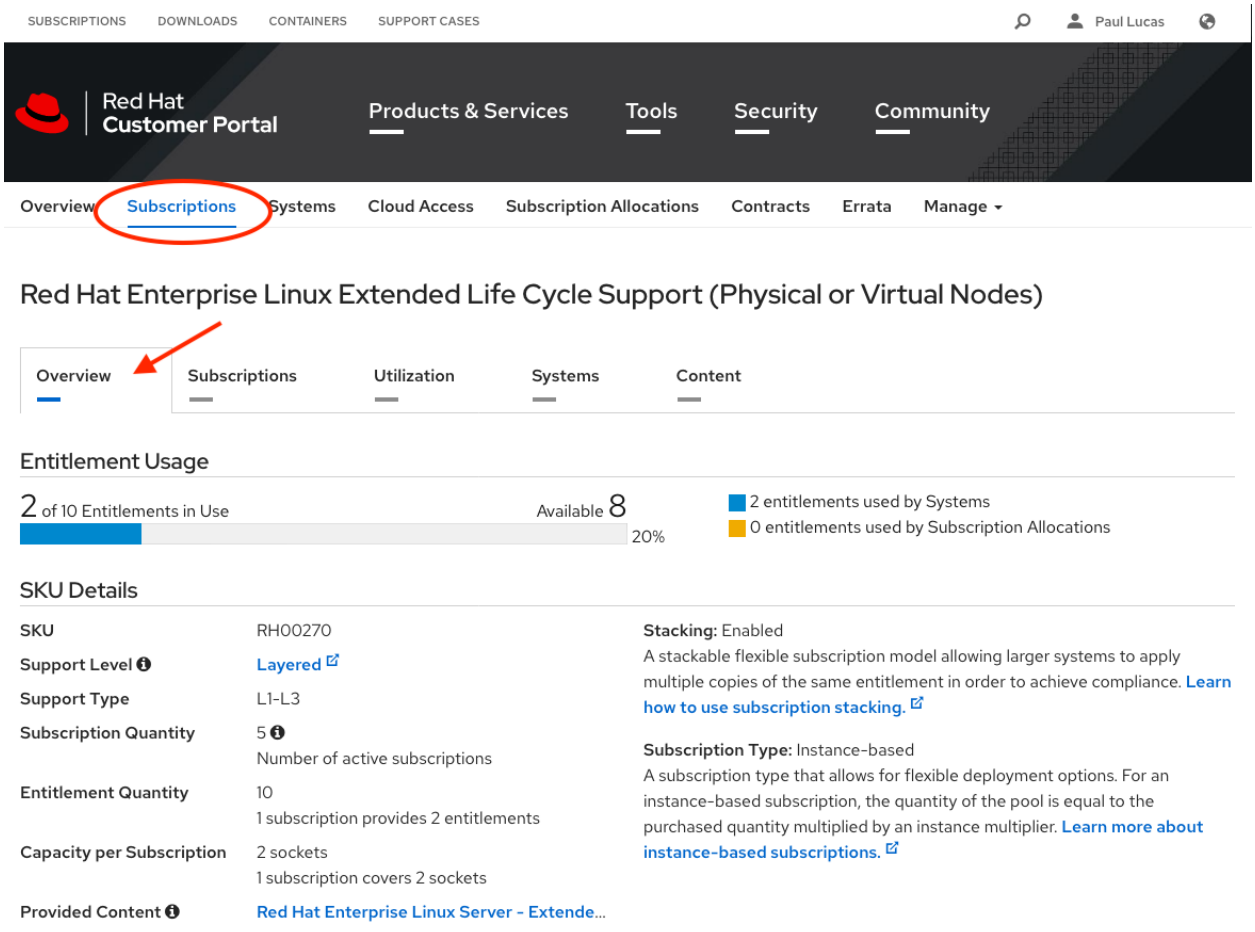
```
-  # subscription-manager list --available
   # subscription-manager subscribe --pool=xxxxxxxxxxxxxxxxxxxxxxxx
   # subscription-manager list
```

5. Choose a RHEL system from the Systems page that has a subscription attached to that system. You will now see the attached subscription and subscription details for that system.

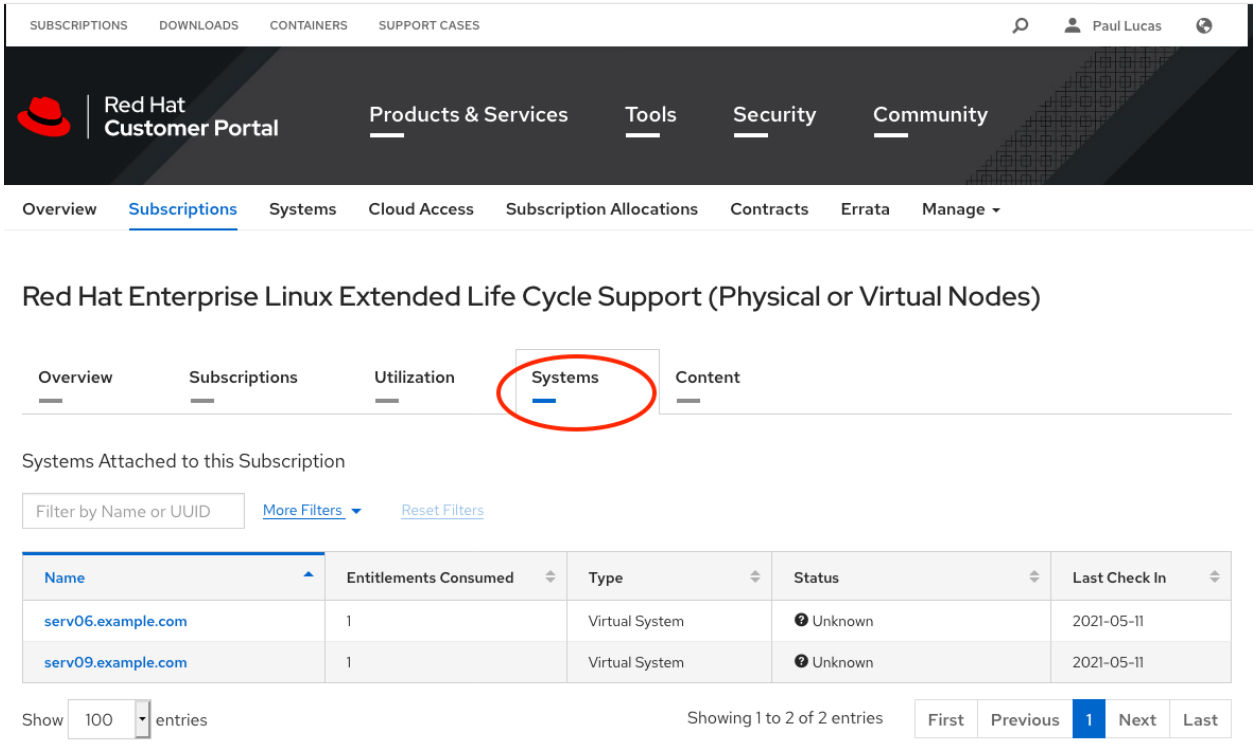


6. Back on the Red Hat Customer Portal page, choose the Subscriptions link.

In the Subscriptions page, scroll through the list and choose a subscription to review. Make sure you are on the Overview tab of the Subscription page. Here, you can see the subscription quantity available and the number of subscriptions consumed.



7. In the same subscription page, click the Systems tab to see which RHEL instances have the subscription attached to them.



Conclusion

As you adapt to changing development and workload requirements, you need the flexibility to quickly provision and decommission RHEL machines. Simple Content Access and Red Hat Insights provide you with the flexibility you need to separately manage your RHEL content and subscriptions.

Simple Content Access separates RHEL content consumption from subscription management. You no longer have to worry about whether or not a decommissioned RHEL machine is consuming a subscription that is needed elsewhere in your environment.

Customers are still responsible for subscription compliance and Insights provides you with tools to manage your subscription consumption. Insights lets you share your RHEL consumption information across your IT organization, from procurement to IT management to admins responsible for your RHEL systems.

Custom tagging of your RHEL systems, via Insights, provides you with the ability to create more granular views of your RHEL usage to easily show how and where your RHEL systems are used and deployed.

Simple Content Access with Insights allows you to respond more quickly and efficiently to the constantly changing landscape that makes up your hybrid cloud world. Learn more about Red Hat Insights and how it can help you manage your IT environment.

Reference

How do I enable Simple Content Access for Red Hat Subscription Management? - in the Simple Content Access article

Subscription Manager Command Cheat Sheet

System Tags and Groups documentation - Create custom tags for your RHEL systems to use a filter on inventory views