

How do I create Red Hat manifest file and deploy Red Hat Satellite Server 6.4

**IBM Cloud Pak System (or IBM PureApplication System)
2.0 and higher
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Steps to be followed:

Step 1 – Procure subscriptions

Step 2 – Activate subscriptions

Step 3 – Verify subscriptions in your account

Step 4a – Create new satellite server v6.4 manifest

Step 4b – Create satellite server v6.4 manifest from existing manifest

Step 5 – Deploy satellite server v6.4 pattern

Step 1 – Procure subscriptions

- 1a) Do you have a Satellite Server and want to add entitlements to existing Red Hat account?
 - If “yes” – skip this step and go to 1b directly.
 - If “no” – create a “Enterprise” Red Hat account at <https://access.redhat.com>
- 1b) Call IBM Support or open a PMR to request Satellite Server subscription codes
 - Entitlements depend on # of compute nodes in the rack. **For detailed requirements, please see next page.**

Satellite subscription codes	Entitlement	Explanation
MCT0370	Red Hat Enterprise Server	Satellite subscription
RH00032	Smart Management for unlimited guests	

RHEL subscription codes (one for 1 compute node, min 1)	Entitlement	Explanation
RH0105260	Re Red Hat Enterprise Server, Premium (8 sockets) (Unlimited guests)	Entitlements for RHEL guests
RH1500861	Smart Management (Unlimited guests) Embedded Partner Support	Smart management for RHEL guests
RH1767396	Extended Update Support for Red Hat Enterprise Linux Server (8 sockets)	L3 support for RHEL guests

Step 1 – Procure subscriptions (cont.)

- **Product: Red Hat Satellite (MCT0370)**
 - Number required: One subscription for one satellite server.
 - Note: Mandatory to have.
- **Product: Red Hat Enterprise Linux Server, Premium (8 sockets) (Unlimited guests) (RH0105260)**
 - Number required: The total number of compute nodes in the rack. For example if the rack has 6 compute nodes, meaning it has 6 hypervisors, then user needs to add 6 above subscriptions to the “Satellite Organization”
 - Note: Mandatory to have.
- **Product: Smart Management for (Unlimited guests) Embedded Partner Support (RH1500861)**
 - Number Required: Total number of compute nodes in the rack.
- **Product: Extended Update Support for Red Hat Enterprise Linux Server (8 sockets) (RH1767396)**
 - Number Required: Total number of compute nodes in the rack.
 - Note: Not mandatory to have. Only if customer needs extended support.
- **Product: Smart Management for unlimited guests (RH00032)**
 - Number required: One subscription for one satellite server.

Step 1 – Procure subscriptions (cont.)

Using the provided Red Hat subscription codes from IBM L2, each ending with a ".csv" extension, **within the ".csv" subscription files, the second parameter (column B) in each file contains the subscription numbers** (example only: "c0fb-4eeb-c0ff-4b4e") that you will use as part of the subscription activation process."

The subscription numbers you receive is based on the number of compute nodes on the Cloud Pak System within each of the .csv files. If you have one compute node then enter one subscription. Enter the number of subscription that you have based on the number of compute nodes.

This is an example of a Cloud Pak System with 10 compute nodes. So, 10 subscriptions are available.

RH1767396_20190421_0.csv

RH1767396	1298-		XI453214fc0e
RH1767396	a97a-		XIb46634fa6b
RH1767396	6350-		XI8ef2a21e3e
RH1767396	g3b1-		XI5478egd45
RH1767396	0c0b-		XI53df46128c
RH1767396	42d5-		XIkj76e74573
RH1767396	e64d-		XI56fedd33sc
RH1767396	0ccf-		XIa43tgrs859
RH1767396	4ef3-		XIb777tge495
RH1767396	54cb-		X259fg1a47fb

Step 2 – Activate subscriptions

- Activate all subscription codes here:

<https://access.redhat.com/subscriptions/activate/>



Subscription Activation

Activate your subscription to gain access to updates and support.



Activate your subscription

Subscriptions purchased directly from Red Hat in North America or via [redhat.com](https://access.redhat.com) do not require activation.

View your active subscriptions in [Red Hat Subscription Management](#).

Subscription Activation Number

5d1b-b611-5fa6-f3b7

Your subscription activation number can be found in your email receipt from Red Hat Customer Support or on the Red Hat Installation Card accompanying your software. Contact your reseller if you have questions regarding your subscription purchase.

Step 2 – Activate subscriptions (cont.)

- Select **Start a new subscription** and click **Next**.

Subscription Activation

Activate your subscription to gain access to updates and support.



Review your subscription details

Product:	Red Hat Applications Smart Management
Service Level:	Layered
Subscription Activation Number :	5d1b-b611-5fa6-f3b7

Select how to use your subscription

Start a new subscription

Renew an existing subscription

This will extend your existing subscription automatically after your previous subscription ends.

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Step 2 – Activate subscriptions (cont.)

- Review the subscription details and click **Next**.

Subscription Activation

Activate your subscription to gain access to updates and support.



Review your subscription details

Product:	Red Hat Applications Smart Management
Service Level:	Layered
Start Date:	Monday, January 07, 2019
End Date:	Monday, January 06, 2020
Subscription Activation Number :	5d1b-b611-5fa6-f3b7

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Step 2 – Activate subscriptions (cont.)

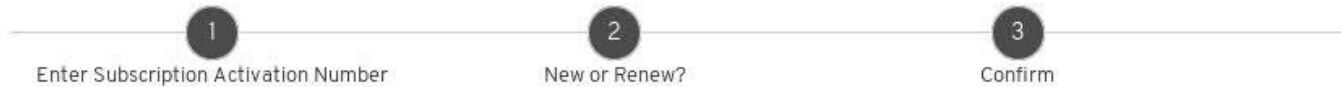
- Congratulations! Subscriptions are successfully added.

Note: Activation may take 30 minutes to 48 hours. Please contact support if subscriptions are not activated after 48 hours.



Subscription Activation

Activate your subscription to gain access to updates and support.



Subscription Activating

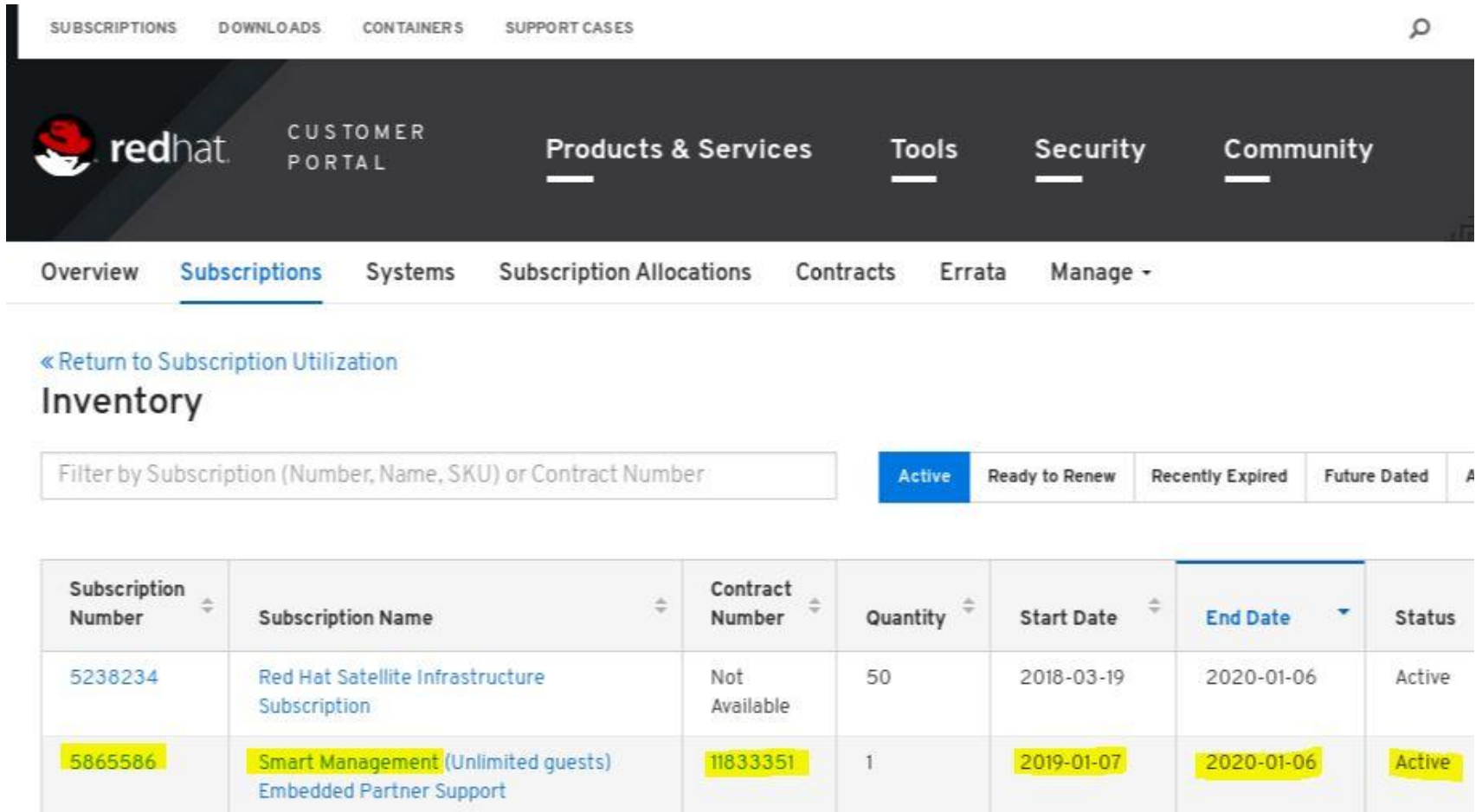
Your subscription is activating and should be ready in a few minutes. You will receive an email confirmation once your subscription is

Subscription details

Product:	Red Hat Applications Smart Management
Service Level:	Layered
Start Date:	Monday, January 07, 2019
End Date:	Monday, January 06, 2020

Step 3 – Verify subscriptions in your account

- Go to <https://access.redhat.com/management/> and click **Subscriptions**.
 - Click **Active** (under **Subscription Utilization**) and confirm that subscriptions are added to your account.

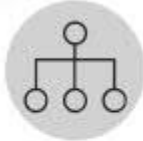


The screenshot shows the Red Hat Customer Portal interface. At the top, there are navigation links for SUBSCRIPTIONS, DOWNLOADS, CONTAINERS, and SUPPORT CASES. Below this is a dark navigation bar with the Red Hat logo and the text 'CUSTOMER PORTAL'. Underneath, there are links for Products & Services, Tools, Security, and Community. A secondary navigation bar contains links for Overview, Subscriptions (which is underlined), Systems, Subscription Allocations, Contracts, Errata, and Manage. Below the navigation is a link to '<< Return to Subscription Utilization'. The main heading is 'Inventory'. There is a search box labeled 'Filter by Subscription (Number, Name, SKU) or Contract Number'. To the right of the search box are filter buttons: Active (highlighted in blue), Ready to Renew, Recently Expired, and Future Dated. Below the filters is a table with the following data:

Subscription Number	Subscription Name	Contract Number	Quantity	Start Date	End Date	Status
5238234	Red Hat Satellite Infrastructure Subscription	Not Available	50	2018-03-19	2020-01-06	Active
5865586	Smart Management (Unlimited guests) Embedded Partner Support	11833351	1	2019-01-07	2020-01-06	Active

Step 4a – Create satellite server 6.4 manifest

- Go to <https://access.redhat.com/management/> and select the **Subscription Allocations** section.



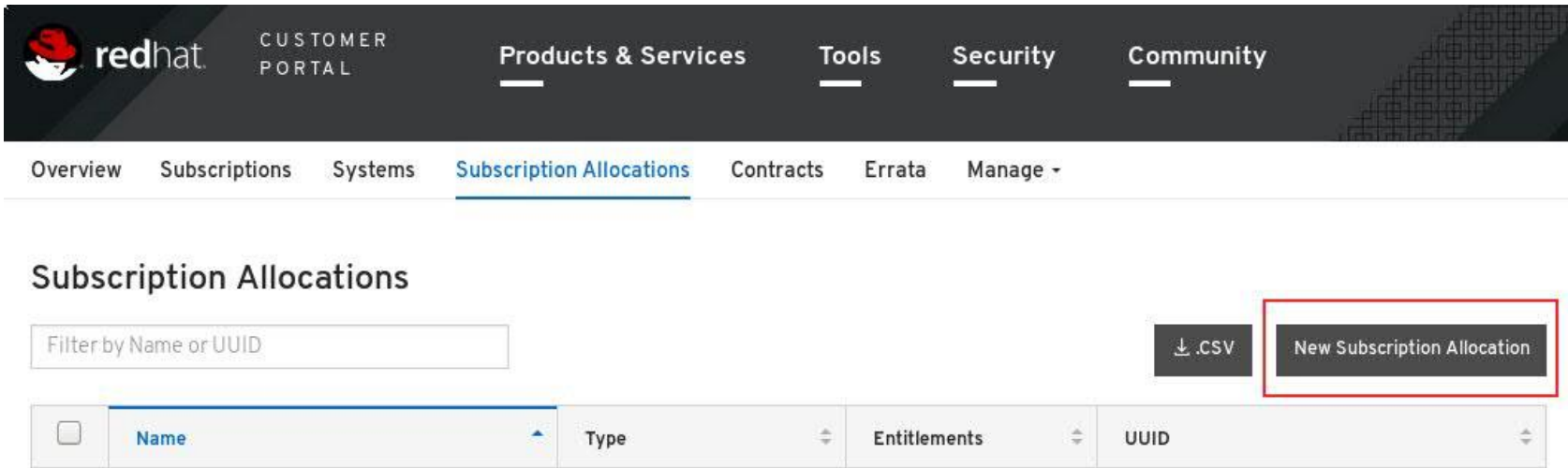
Subscription Allocations
Allocate subscriptions for export to an on-premise management application such as Red Hat Satellite

Red Hat Satellite

Subscription Asset Manager

- Subscription Allocations

-> Click **“New Subscription Allocation”**



The screenshot shows the Red Hat Customer Portal interface. The top navigation bar includes the Red Hat logo, 'CUSTOMER PORTAL', and menu items for 'Products & Services', 'Tools', 'Security', and 'Community'. Below this is a secondary navigation bar with 'Overview', 'Subscriptions', 'Systems', 'Subscription Allocations' (highlighted), 'Contracts', 'Errata', and 'Manage -'. The main content area is titled 'Subscription Allocations' and features a search box labeled 'Filter by Name or UUID'. To the right of the search box are two buttons: '↓ .CSV' and 'New Subscription Allocation' (highlighted with a red box). Below the buttons is a table with columns: 'Name', 'Type', 'Entitlements', and 'UUID'. Each column has a dropdown arrow.

Step 4a – Create satellite server 6.4 manifest (cont.)

- On the next screen,
 - Assign a name to the satellite server.
 - Set **Type** to **Satellite 6.4**.
 - Click **Create**.

Overview Subscriptions Systems **Subscription Allocations** Contracts Errata Manage ▾

[Subscription Allocations](#) » Create new subscription allocation

Create a New subscription allocation

Creating a new subscription allocation allows you to export subscriptions from the Red Hat Customer Portal to your application.

Name

Example_satellite

Provide a name that will help you associate this subscription allocation with a specific management application.

Type

Satellite 6.4

Due to variation in supported features, it is important to match the type and version of you are using.

Create

Cancel

Step 4a – Create satellite server 6.4 manifest (cont.)

- Satellite subscription is now created.
- Next, click the “**Subscriptions**” tab.

Overview Subscriptions Systems **Subscription Allocations** Contracts Errata Manage ▾


✓ Example_satellite has been successfully created

[Subscription Allocations](#) » Example_satellite

Example_satellite

Details Subscriptions

Basic Information

Name	Example_satellite	
UUID	2bd33f6d-c619-4c21-9328-7c435883442b	
Type	Satellite 6.4	<input type="button" value="Update"/>

History

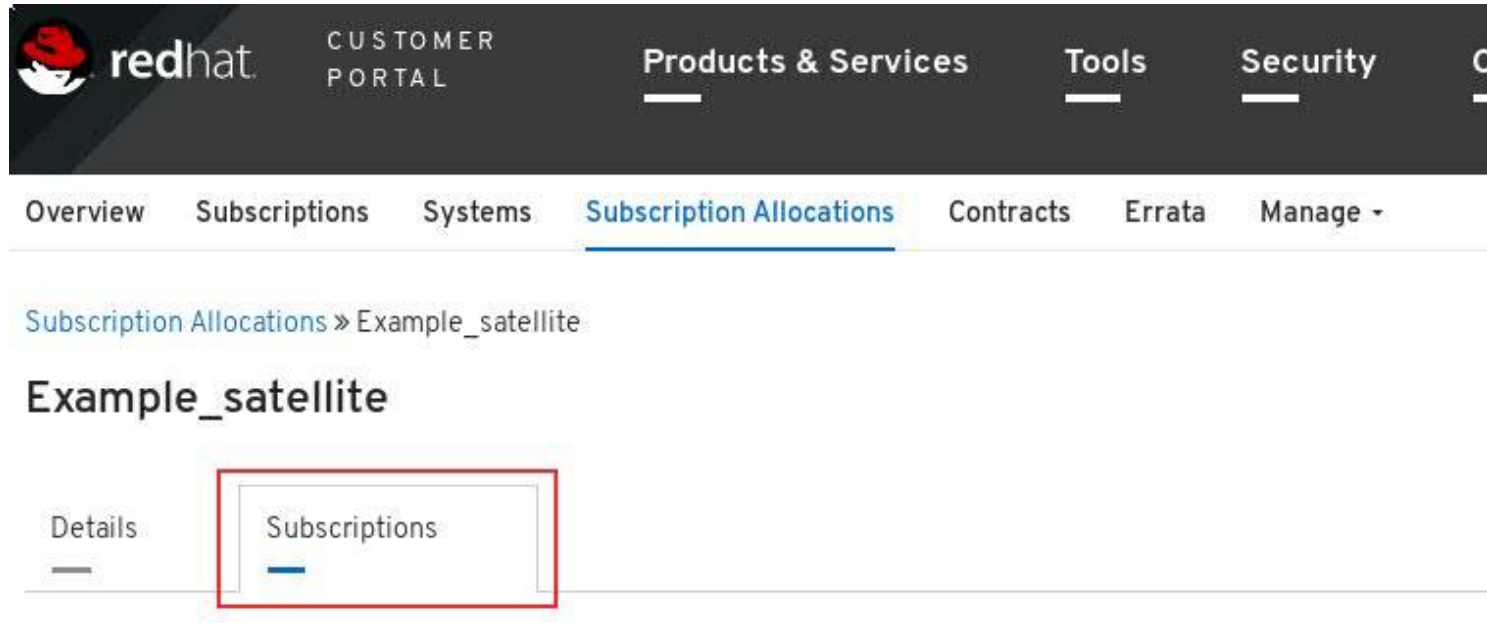
Created
Created by
Last Modified Date

Subscriptions

Entitlements	0
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Step 4a – Create satellite server 6.4 manifest (cont.)

- Click **Add Subscriptions**.



The screenshot shows the Red Hat Customer Portal interface. The top navigation bar includes the Red Hat logo, 'CUSTOMER PORTAL', and menu items for 'Products & Services', 'Tools', and 'Security'. Below this is a secondary navigation bar with 'Overview', 'Subscriptions', 'Systems', 'Subscription Allocations' (highlighted), 'Contracts', 'Errata', and 'Manage'. The main content area shows the breadcrumb 'Subscription Allocations » Example_satellite' and the title 'Example_satellite'. A tabbed interface is visible with 'Details' and 'Subscriptions' tabs. The 'Subscriptions' tab is selected and highlighted with a red box.

There are no subscriptions to display
Add subscriptions to this allocation to manage your entitlements

Add Subscriptions

Step 4a – Create satellite server 6.4 manifest (cont.)

- On the next screen, select entitlements. Use the following table to set the “Quantity” column.

- **Add the following subscriptions:**

Important: DO NOT add “Red Hat Satellite (MCT0370)” subscription itself here. Otherwise the pattern will not work.

•**Product: Red Hat Enterprise Linux Server, Premium (8 sockets) (Unlimited guests)**
(RH0105260)

- Number required: The total number of compute nodes in the rack. For example, if the rack has 6 compute nodes, meaning it has 6 hypervisors, then user needs to add 6 above subscriptions to the “Satellite Organization”.
- Note: Mandatory to have.

•**Product: Smart Management for (Unlimited guests) Embedded Partner Support (RH1500861)**

- Number Required: Total number of compute nodes in the rack.

•**Product: Extended Update Support for Red Hat Enterprise Linux Server (8 sockets)**
(RH1767396)

- Number Required: Total number of compute nodes in the rack.
- Note: Not mandatory to have. Only if customer needs extended support.

Screenshot of this step at next page

Step 4a – Create satellite server 6.4 manifest (cont.)

- Screenshot of adding subscriptions to the satellite organization.

Subscription Name	Contract	Start Date	End Date	Available Entitlements	Entitlements
Extended Update Support (1-2 sockets) - Embedded Partner Support	10538814	2014-08-24	2019-08-24	986	<input type="text"/>
Extended Update Support for Red Hat Enterprise Linux Server (8 sockets) (L3-only)	10538814	2014-08-24	2019-08-24	917	<input type="text" value="4"/>
Red Hat Enterprise Linux Developer Support, Enterprise	11610099	2014-08-24	2019-08-24	25	<input type="text"/>
Red Hat Enterprise Linux Server (1-2 sockets) (Up to 4 guests) - Embedded Partner Support	10538814	2014-08-24	2019-08-24	936	<input type="text"/>
Red Hat Enterprise Linux Server, Premium (8 sockets) (Unlimited guests)	10538814	2014-08-24	2019-08-24	153	<input type="text" value="4"/>
Red Hat Satellite	10538814	2014-08-24	2019-08-24	15	<input type="text"/>
Red Hat Virtualization (2-sockets), Premium	11348419	2015-06-08	2019-08-24	1000	<input type="text"/>
Red Hat Virtualization Manager	Not Available	2018-05-03	2019-08-23	4	<input type="text"/>
Smart Management (Unlimited guests) Embedded Partner Support	10538814	2014-08-24	2019-08-24	Unlimited	<input type="text" value="4"/>
Smart Management for Unlimited Guests	10538814	2014-08-24	2019-08-24	932	<input type="text"/>

Step 4a – Create satellite server 6.4 manifest (cont.)

- When entitlements successfully added, click **Export Manifest** and save it for your records.

The screenshot shows the Red Hat Customer Portal interface. At the top, there is a navigation bar with the Red Hat logo and the text 'CUSTOMER PORTAL'. Below this, there are several menu items: 'Products & Services', 'Tools', 'Security', and 'Community'. A secondary navigation bar contains 'Overview', 'Subscriptions', 'Systems', 'Subscription Allocations' (which is highlighted), 'Contracts', 'Errata', and 'Manage'. A green success message states: 'The allocation was successfully updated. Apply these changes to the on-premise application using its refresh or import feature.' Below this, the breadcrumb 'Subscription Allocations » Example_satellite' is visible. The main heading is 'Example_satellite'. There are two tabs: 'Details' and 'Subscriptions', with 'Subscriptions' being the active tab. A search filter box contains the text 'Filter by Subscription Name, SKU, or Contract Number'. On the right side, there are three buttons: '↓ .CSV', 'Export Manifest' (which is highlighted with a red box), and 'Add Subscrip'. Below the buttons is a table with the following columns: 'Subscription Name', 'SKU', 'Contract', 'Start Date', 'End Date', and 'Entitlements'. The 'Subscription Name' column is currently selected.

Step 4b – Create satellite server 6.4 manifest from existing 6.2

- Go to https://access.redhat.com/management/subscription_allocations.
- Search for the existing satellite manifest name and click to select it.

Red Hat CUSTOMER PORTAL

Products & Services Tools Security Community

Overview Subscriptions Systems **Subscription Allocations** Contracts Errata Manage ▾

Subscription Allocations

Existing_satellite ↓ .CSV New Subscription Allocation

<input type="checkbox"/>	Name ▲	Type ▾	Entitlements ▾	UUID ▾
<input type="checkbox"/>	Existing_satellite	Satellite	10	5b3d7674-b075-4dad-8098-50c56fdc4ffc

Show 100 entries Showing 1 to 1 of 1 entries (filtered from 61 total entries) First Previous 1 Next Last

Step 4b - Create satellite server 6.4 manifest from existing 6.2 (cont.)

- In the **Details** tab under “Basic Information”, you see that **Type** is set to **Satellite 6.2**.
- Expand the **Type** list to select **Satellite 6.4** and click **Update**.

Red Hat CUSTOMER PORTAL

Products & Services Tools Security Community

Overview Subscriptions Systems **Subscription Allocations** Contracts Errata Manage ▾

Subscription Allocations » Existing_satellite

Existing_satellite

Details Subscriptions

Basic Information		History	
Name	Existing_satellite	Created	September 15, 2017
UUID	5b3d7674-b075-4dad-8098-50c56fdc4ffc	Created by	xudaniel
Type	Satellite 6.2 <input type="button" value="Update"/>	Last Modified Date	June 18, 2019

Subscriptions

Entitlements 10

This allocation contains subscriptions that require the use of virt-who. [Learn how to configure and use this tool.](#)

Step 4b - Create satellite server 6.4 manifest from existing 6.2(cont.)

- When **Type** is set to **Satellite 6.4** successfully, click **Export manifest** to download.

The screenshot shows the Red Hat Customer Portal interface. At the top, there is a navigation bar with the Red Hat logo and 'CUSTOMER PORTAL' text. Below this, there are tabs for 'Products & Services', 'Tools', 'Security', and 'Community'. A secondary navigation bar contains 'Overview', 'Subscriptions', 'Systems', 'Subscription Allocations' (which is selected), 'Contracts', 'Errata', and 'Manage'. A green notification banner at the top states: 'The allocation was successfully updated. Apply these changes to the on-premise application using its refresh or import feature.' Below the notification, the breadcrumb 'Subscription Allocations » Existing_satellite' is visible. The main heading is 'Existing_satellite'. There are two tabs: 'Details' (selected) and 'Subscriptions'. Under 'Details', there are two sections: 'Basic Information' and 'History'. The 'Basic Information' section contains a table with the following data:

Basic Information	
Name	Existing_satellite
UUID	5b3d7674-b075-4dad-8098-50c56fdc4ffc
Type	Satellite 6.4

The 'Type' dropdown menu is highlighted with a red box. To its right is an 'Update' button. The 'History' section contains a table with the following data:

History	
Created	September 15, 2017
Created by	xudaniel
Last Modified Date	June 18, 2019

Below the 'Basic Information' section is the 'Subscriptions' section, which shows 'Entitlements' as '10'. A blue notification banner below this section states: 'This allocation contains subscriptions that require the use of virt-who. Learn how to configure and use this tool.' At the bottom left, the 'Export Manifest' button is highlighted with a red box.

Step 5 – Deploy satellite server 6.4 pattern

Log in to the Cloud Pak console.

- Click **Patterns** > **Virtual System Patterns**.
- Select **Red Hat Satellite Server 6.4 Pattern** (Choose the latest version, e.g.: 1.0.10.0).
- Click **Deploy**.

The screenshot shows the IBM PureApplication System console interface. The top navigation bar includes 'IBM PureApplication System', 'Patterns' (highlighted with a red box), 'Catalog', 'Cloud', 'System', 'Hardware', and user information. Below the navigation bar, the 'Virtual System Patterns' section is active, with a search filter 'atellite Server 6.4 Pattern'. A table lists the patterns, with 'Red Hat Satellite Server 6.4 Pattern' and version '1.0.10.0' highlighted by a red box. To the right, the details for this pattern are shown, including a 'Deploy' button (highlighted with a red box), 'Open', 'Export', 'Delete', 'Clone', and 'Lock' options. The details section includes fields for Description, Version (1.0.10.0), Status (Draft), Created by (admin), Updated by (admin), Created on (May 30, 2019, 11:16:00 AM), Updated on (May 31, 2019, 2:22:01 PM), License status in this pattern (IBM OS Image for Red Hat Linux Systems 3.0.10.0 [Accepted], Default add disk 1.0.0 [Accepted], Red Hat Satellite Server 6.4 [Accepted]), In the cloud now (No deployment is found), and Preview.

Step 5 – Deploy satellite server 6.4 pattern (cont.)

Manifest:

Use the one generated in step 4.

Organization and Location:

Arbitrary but mandatory fields.

Example values:

Organization Name: IBM

Location: Toronto

Red Hat Customer Portal Username and Passwords:

The credentials used to log in
your Red Hat Account.

Click **Quick Deploy** and the
pattern should complete
deploying in 3-4 hours
depending on network speed.

The screenshot shows the IBM PureApplication System interface for deploying the Red Hat Satellite Server 6.4 Pattern. The interface is divided into several sections:

- Navigation:** Top bar with tabs for Patterns, Catalog, Cloud, System, and Hardware.
- Deploy Pattern:** Header for the Red Hat Satellite Server 6.4 Pattern, with buttons for Configure, Quick Deploy, and Prepare to Deploy.
- Configuration:** Fields for Name (Red Hat Satellite Server 6.4 Pattern), Environment Profile (Shared), Cloud Group (Shared), IP Group (Data112), and Priority (Medium). It also includes an SSH key field with a Generate button and instructions to generate a key pair.
- Nodes:** A section titled "Nodes" with a sub-section for "Red Hat Satellite Server".
- Component Configuration:** A section for "Red Hat Satellite Server 6_4" with a dropdown menu and a "Fill in the required values" instruction. It includes fields for:
 - Satellite Server Organization Name
 - Satellite Server Location
 - Manifest to be uploaded to Satellite Server (with a Browse button, highlighted in a red box)
 - Satellite Server admin user name
 - Satellite Server admin password (with Password and Verify password fields)
 - Satellite Server admin email ID
 - HTTP proxy host
 - HTTP proxy port
 - HTTP proxy user
 - HTTP proxy user password (with Password and Verify password fields)
 - Red Hat Customer Portal Username (highlighted in a red box)
 - Red Hat Customer Portal Password (with Password and Verify password fields)
- Actions:** Buttons for Schedule Deployment and Chargeback.