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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Authors: Robert Boretti, Prasad Ganiga.
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.

<table>
<thead>
<tr>
<th>Satellite subscription codes</th>
<th>Entitlement</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT0370</td>
<td>Red Hat Enterprise Server</td>
<td>Satellite subscription</td>
</tr>
<tr>
<td>RH00032</td>
<td>Smart Management for unlimited guests</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RHEL subscription codes (one for 1 compute node, min 1)</th>
<th>Entitlement</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RH0105260</td>
<td>Re Red Hat Enterprise Server, Premium (8 sockets) (Unlimited guests)</td>
<td>Entitlements for RHEL guests</td>
</tr>
<tr>
<td>RH1500861</td>
<td>Smart Management (Unlimited guests) Embedded Partner Support</td>
<td>Smart management for RHEL guests</td>
</tr>
<tr>
<td>RH1767396</td>
<td>Extended Update Support for Red Hat Enterprise Linux Server (8 sockets)</td>
<td>L3 support for RHEL guests</td>
</tr>
</tbody>
</table>
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 | 1298- | XI453214fc0e |
| RH1767396 | a97a- | XIb46634fa6l |
| RH1767396 | 6350- | XI8ef2a21e3e |
| RH1767396 | g3b1- | XI5478egd45 |
| RH1767396 | 0c0b- | XI53df46128e |
| RH1767396 | 42d5- | XIkJ76e74573 |
| RH1767396 | e64d- | XI56fedd33sc |
| RH1767396 | 0ccf- | XIa43tgrs859 |
| RH1767396 | 4ef3- | XIb777tge49f |
| RH1767396 | 54cb- | X259fg1a47fl |
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 do not require activation. View your active subscriptions in Red Hat Subscription Management.

Subscription Activation Number

5db6-6b5c-65a6-6f3b7

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

<table>
<thead>
<tr>
<th>Product:</th>
<th>Red Hat Applications Smart Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Level:</td>
<td>Layered</td>
</tr>
<tr>
<td>Subscription Activation Number:</td>
<td>5dlb-b611-5fa6-f3b7</td>
</tr>
</tbody>
</table>

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.*
Step 2 – Activate subscriptions (cont.)

• Review the subscription details and click Next.

Subscription Activation
Activate your subscription to gain access to updates and support.

1. Enter Subscription Activation Number
2. New or Renew?
3. Confirm

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: 5dlb-b611-5fa6-f3b7
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.

1. Enter Subscription Activation Number
2. New or Renew?
3. Confirm

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

<table>
<thead>
<tr>
<th>Product:</th>
<th>Red Hat Applications Smart Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Level:</td>
<td>Layered</td>
</tr>
<tr>
<td>Start Date:</td>
<td>Monday, January 07, 2019</td>
</tr>
<tr>
<td>End Date:</td>
<td>Monday, January 06, 2020</td>
</tr>
</tbody>
</table>
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.
Step 4a – Create satellite server 6.4 manifest

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

• Subscription Allocations

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

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**

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

**Type**

Due to variation in supported features, it is important to match the type and version of the application you are using.
Step 4a – Create satellite server 6.4 manifest (cont.)

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

Example_satellite

<table>
<thead>
<tr>
<th>Basic Information</th>
<th>History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Created</td>
</tr>
<tr>
<td>Example_satellite</td>
<td></td>
</tr>
<tr>
<td>UUID</td>
<td>Created by</td>
</tr>
<tr>
<td>2bd33f6d-c619-4c21-9328-7c435883442b</td>
<td>Last Modified Date</td>
</tr>
<tr>
<td>Type</td>
<td></td>
</tr>
<tr>
<td>Satellite 6.4</td>
<td></td>
</tr>
</tbody>
</table>

Subscriptions

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

• Click **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
• Screenshot of adding subscriptions to the satellite organization.

<table>
<thead>
<tr>
<th>Subscription Name</th>
<th>Contract</th>
<th>Start Date</th>
<th>End Date</th>
<th>Available Entitlements</th>
<th>Entitlements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Update Support (1-2 sockets) - Embedded Partner Support</td>
<td>10538814</td>
<td>2014-08-24</td>
<td>2019-08-24</td>
<td>986</td>
<td></td>
</tr>
<tr>
<td>Extended Update Support for Red Hat Enterprise Linux Server (8 sockets) (L3-only)</td>
<td>10538814</td>
<td>2014-08-24</td>
<td>2019-08-24</td>
<td>917</td>
<td>4</td>
</tr>
<tr>
<td>Red Hat Enterprise Linux Developer Support, Enterprise</td>
<td>11610099</td>
<td>2014-08-24</td>
<td>2019-08-24</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Red Hat Enterprise Linux Server (1-2 sockets) (Up to 4 guests) - Embedded Partner Support</td>
<td>10538814</td>
<td>2014-08-24</td>
<td>2019-08-24</td>
<td>936</td>
<td></td>
</tr>
<tr>
<td>Red Hat Enterprise Linux Server, Premium (8 sockets) (Unlimited guests)</td>
<td>10538814</td>
<td>2014-08-24</td>
<td>2019-08-24</td>
<td>153</td>
<td>4</td>
</tr>
<tr>
<td>Red Hat Satellite</td>
<td>10538814</td>
<td>2014-08-24</td>
<td>2019-08-24</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>Red Hat Virtualization (2-sockets), Premium</td>
<td>11348419</td>
<td>2015-06-08</td>
<td>2019-08-24</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td>Red Hat Virtualization Manager</td>
<td>Not Available</td>
<td>2018-03-03</td>
<td>2019-08-23</td>
<td>4</td>
<td></td>
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<tr>
<td>Smart Management (Unlimited guests) Embedded Partner Support</td>
<td>10538814</td>
<td>2014-08-24</td>
<td>2019-08-24</td>
<td>Unlimited</td>
<td>4</td>
</tr>
<tr>
<td>Smart Management for Unlimited Guests</td>
<td>10538814</td>
<td>2014-08-24</td>
<td>2019-08-24</td>
<td>932</td>
<td></td>
</tr>
</tbody>
</table>
Step 4a – Create satellite server 6.4 manifest (cont.)

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