



Subscribe your RHEL VMs with the power of Tekton

Using Openshift V4.10+

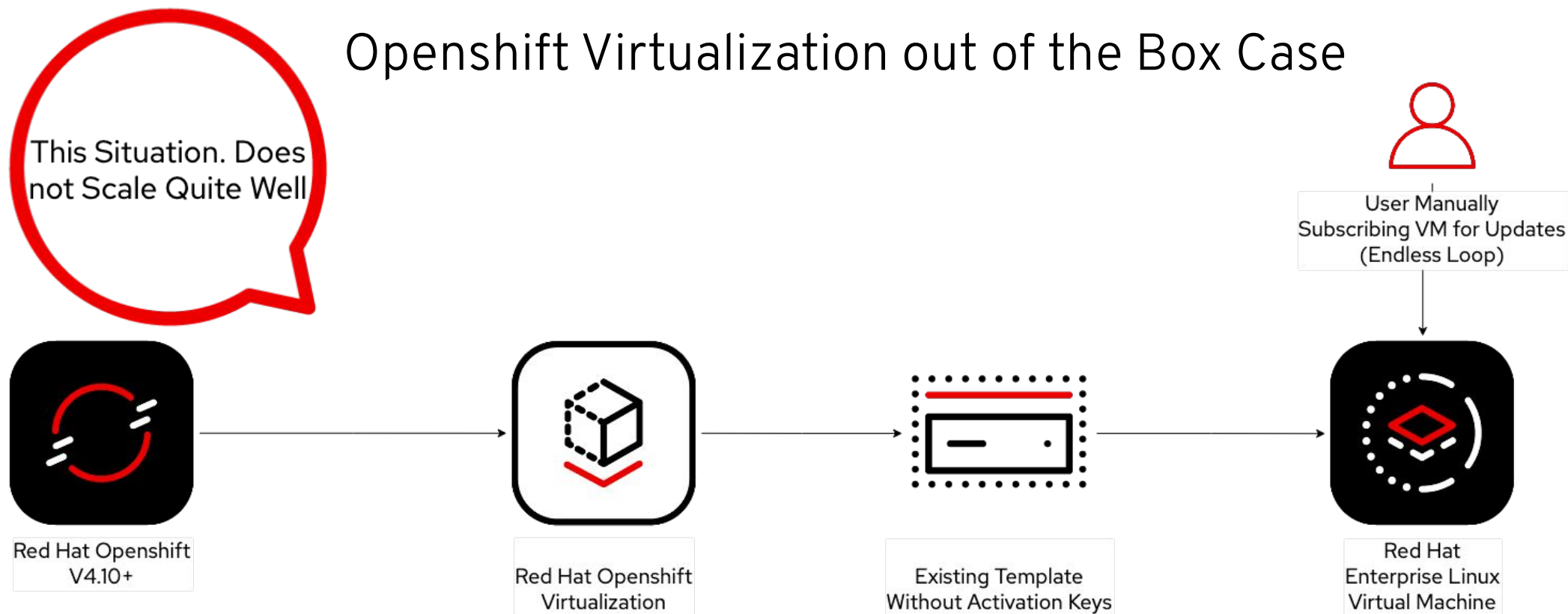
Sebastian Rodriguez Isaziga, RHCA, RHCI, RHCX
Cloud Architect EMEA
shebi@redhat.com

A vertical red bar on the left side of the slide contains a collage of white icons representing various IT and cloud concepts: a cloud with a keyhole, a database cylinder, a server rack, a computer monitor, a cloud with an upward arrow, and several 'X' and 'O' symbols connected by lines.

Agenda

- Status Quo
- Proposed Architecture
- Demo Time
- Conclusions

Openshift Virtualization out of the Box Case



Source:

<https://docs.openshift.com/container-platform/4.12/virt/about-virt.html>

<https://docs.openshift.com/container-platform/4.12/welcome/index.html>

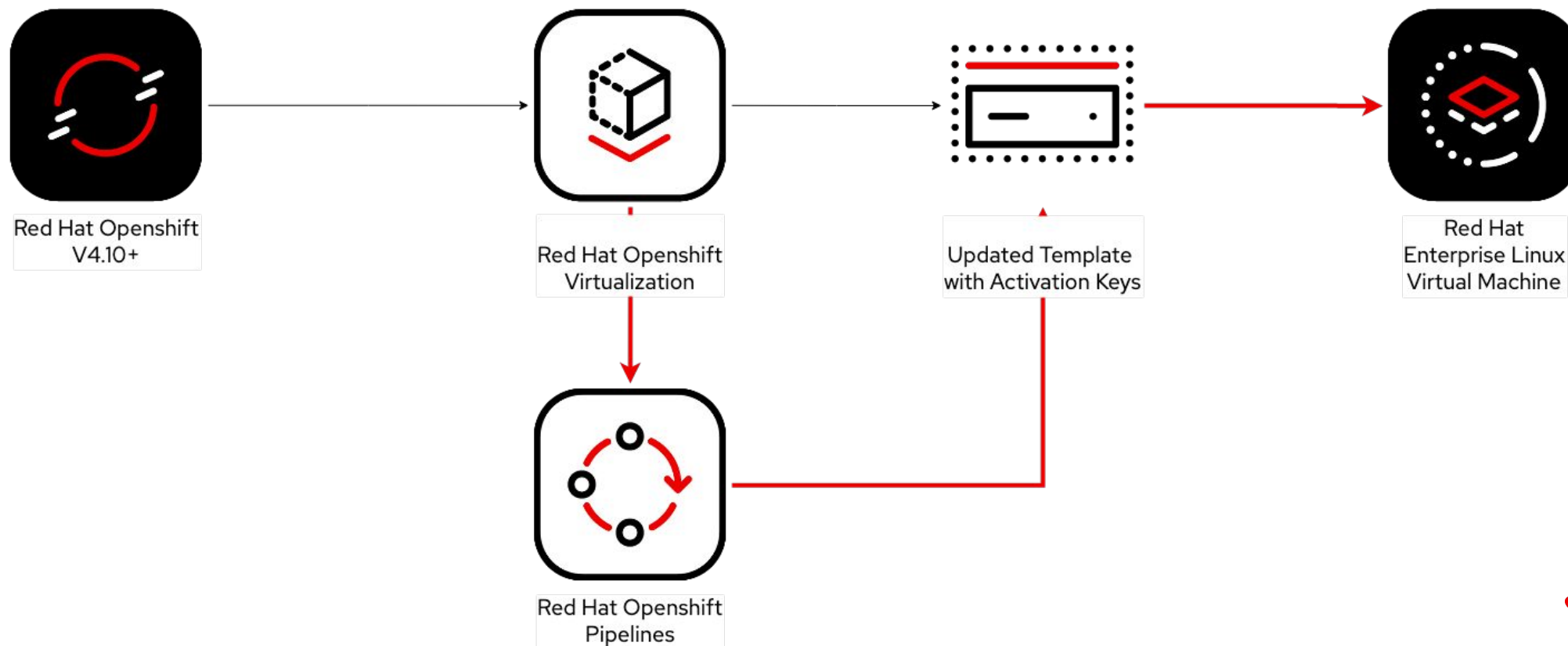
<https://access.redhat.com/solutions/25327>

<https://access.redhat.com/solutions/3341191>

Proposed Architecture for this Solution



User not Needed for
Subscribing each VM




The screenshot displays the OpenShift Virtualization Default Catalog interface. The left sidebar contains navigation links: local-cluster, Administrator, Home (Overview, Projects, Search, API Explorer, Events), Operators, Workloads, Virtualization (Overview, Catalog, VirtualMachines, Templates, DataSources, MigrationPolicies), Networking, and Storage. The main content area is titled 'Create VirtualMachine from catalog' and shows a list of templates under the 'Default Templates' tab. The templates are organized by operating system and workload type.

Operating System	Workload	Template Name	Project	Boot source	Workload Server	CPU	Memory
Red Hat Enterprise Linux	Server	Red Hat Enterprise Linux 9 VM	rhel9-server-small	Project openshift	Boot source PVC	Workload Server	CPU 1 Memory 2 GiB
		Red Hat Enterprise Linux 8 VM	rhel8-server-small	Project openshift	Boot source PVC	Workload Server	CPU 1 Memory 2 GiB
		Red Hat Enterprise Linux 7 VM	rhel7-server-small	Project openshift	Boot source PVC	Workload Server	CPU 1 Memory 2 GiB
		Red Hat Enterprise Linux 6.0+ VM	rhel6-server-small	Project openshift	Boot source PVC	Workload Server	CPU 1 Memory 2 GiB
CentOS	Server	CentOS 7 VM	centos7-server-small	Project openshift	Boot source PVC	Workload Server	CPU 1 Memory 2 GiB
CentOS Stream 8 VM		centos-stream8-server-small	Project openshift	Boot source PVC	Workload Server	CPU 1 Memory 2 GiB	
CentOS Stream	Server	CentOS Stream 9 VM	centos-stream9-server-small	Project openshift	Boot source PVC	Workload Server	CPU 1 Memory 2 GiB
Fedora		Fedora VM	fedora-server-small	Project openshift	Boot source PVC	Workload Server	CPU 1 Memory 2 GiB
Microsoft Windows	Desktop	Microsoft Windows 10 VM	windows10-desktop-medium	Project openshift	Boot source PVC	Workload Desktop	CPU 1 Memory 4 GiB
		Microsoft Windows 11 VM	windows11-desktop-medium	Project openshift	Boot source PVC	Workload Desktop	CPU 2 Memory 4 GiB

Login to Red Hat Hybrid Cloud Console to get the Activation Key:

The screenshot shows the Red Hat Hybrid Cloud Console interface. On the left is a dark sidebar with navigation links: Settings, My User Access, Sources, Integrations, Notifications, Remote Host Configuration (with a dropdown arrow), Applications, and Learning Resources. Under 'Remote Host Configuration', 'Activation Keys' is selected. The main content area has a header 'Activation Keys' with a help icon and 'Organization ID: [redacted]'. Below this is a large white box with a plus icon in a circle, the text 'No activation keys', and a paragraph: 'You currently have no activation keys to display. Activation keys allow you to register a system with system purpose, role and usage attached.' A blue button labeled 'Create activation key' is at the bottom of this box. The top of the console shows the user 'Juan Sebastian Rodriguez Isaziga' with a profile icon, a question mark, and a settings gear. A 'Feedback' button is in the bottom right corner.

 Your account does not have [Simple Content Access](#) enabled. SCA reduces the complexity of subscription management and enables you to use the software you paid for as simply as possible. Activation Keys are available at [Red Hat Hybrid Cloud Console](#) with additional features. The interface shown here is deprecated and will be removed in a future release.

Activation Keys for Organization ID:

Activation Keys are used when registering systems to Subscription Manager. [Learn More](#)

[New](#)

<input type="checkbox"/>	Name	Service Level	Auto Attach	Subscriptions Associated	Last Modified
<input type="checkbox"/>	openshift-virtualization-tekton-demo	Self Support	Enabled	0	03/21/2023

Show entries

Showing 1 to 1 of 1 entries

[First](#) [Previous](#) **1** [Next](#) [Last](#)

Red Hat Subscription Management - [Release Notes](#)

Have feedback? [Tell us what you think](#)

If you need assistance, contact [Customer Service](#)

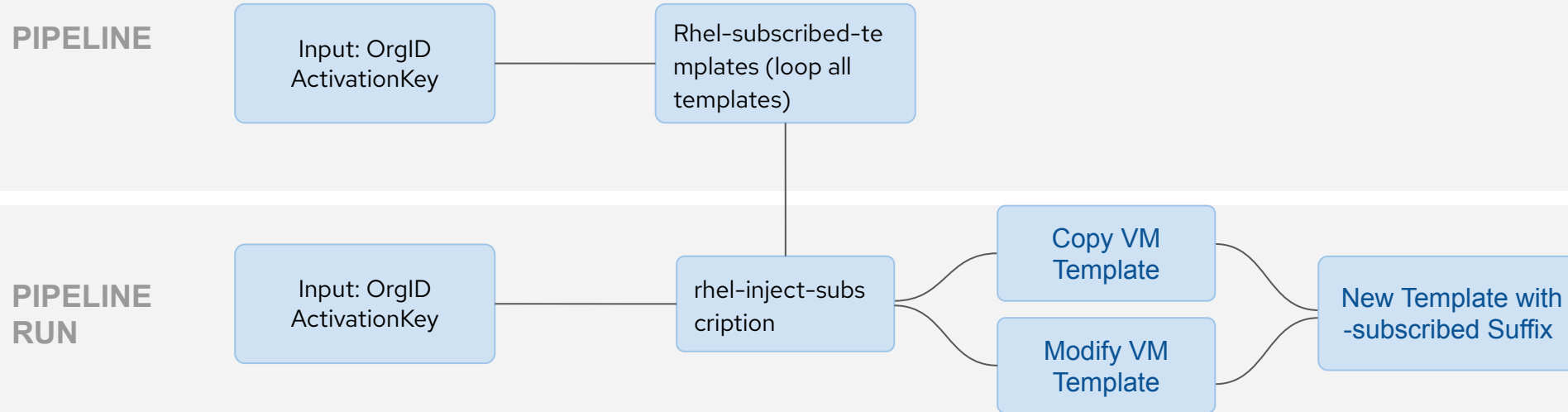
Prepare Tekton to Trigger Pipelines to Openshift Virtualization

```
(base) sebastianrodriguez@Sebastians-MacBook-Pro ~ % oc login -u admin
```

Prepare Tekton to Trigger Pipelines to Openshift Virtualization: Create new project and execute both scripts, script 1 is for creating a single template. Script 2 is for using all RHEL templates available in Openshift Virtualization

```
(base) sebastianrodriguez@Sebastians-MacBook-Pro openshift-tekton %
```

Pipelines details



In the Project Already Created. Let's Check both Pipelines (Using the gists below) and Execute the one to Generate Multiple Templates

Red Hat

OpenShift

Administrator

Home

Operators

Workloads

Virtualization

Networking

Storage

Builds

Pipelines

Observe

Compute

User Management

Administration

Project: ocp-virtualization-tekton-demo

Pipelines

PipelineRuns



PipelineResources

Repositories

Filter

Name

Search by name...

Name	Last run	Task status	Last run status	Last run time
 rhel-inject-subscription	-	-	-	-
 rhel-subscribed-templates	-	-	-	-

Source:
<https://gist.github.com/shebistar/6e3545f109df46c70dd968d896fab64/raw/723dcd3f016f5f081be4aafdce1e86678a6e2e48/rhel-inject-subscription.yaml>
<https://gist.github.com/shebistar/911e1ae878cf77a7977f72d67fabd76c/raw/41046381e49ae0b6a0fea003510ded6ad1f6983a/rhel-subscribed-templates.yaml>



In the Project Already Created. Let's Check both Pipelines and Execute the one to Generate Multiple Templates

The screenshot displays the Red Hat OpenShift console interface. On the left is a sidebar with navigation links: Administrator, Home, Operators, Workloads, Virtualization, Networking, Storage, Builds, Pipelines (selected), Observe, and Compute. The main content area shows the 'Pipeline details' for 'rhel-inject-subscription' in the 'ocp-virtualization-tekton-demo' project. The pipeline is visualized as a sequence of two tasks: 'copy-template' followed by 'modify-vm-template'. Below the visualization, the pipeline's metadata is shown: Name (rhel-inject-subscription), Namespace (ocp-virtualization-tekton-demo), Labels (No labels), and Annotations (0 annotations). A list of tasks on the right shows 'copy-template' and 'modify-vm-template' both with a green 'CT' status icon. The top right of the console shows the user 'admin' and notification icons.

The screenshot displays the Red Hat OpenShift console interface. The top navigation bar includes the Red Hat OpenShift logo, a user menu for 'admin', and notification icons. The left sidebar lists various system components: Administrator, Home, Operators, Workloads, Virtualization (selected), Networking, Storage, Builds, Pipelines, Observe, and Compute. The main content area is titled 'Virtualization' and includes a 'Download virtctl' link. Below the title are tabs for 'Overview', 'Top consumers', 'Migrations', and 'Settings'. The 'Overview' tab is active, showing 'Getting started resources'. This section is divided into three columns: 'Quick Starts' with a link to 'Install the Red Hat OpenShift Pipelines', 'Feature highlights' with links to 'Automatic Windows VirtualMachine installation' and 'OpenShift Virtualization 4.10 Highlights', and 'Related operators' with links to 'Kubernetes NMState Operator', 'OpenShift Data Foundation', and 'Migration Toolkit for Virtualization'. At the bottom of the console, there are four large, dark rectangular blocks, each containing a white number: 1, 1, 0, and 0.

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

 Activation Keys are now available at Red Hat Hybrid Cloud Console [↗](#). The interface shown here is deprecated and will be removed in a future release [↗](#).
New activation keys created on Customer Portal RHSM will have limited functionality.

Activation Keys for Organization ID:

Activation Keys are used when registering systems to Subscription Manager. [Learn More](#)

Filter by Key Name

New

<input type="checkbox"/>	Name ▾	Service Level ▾	Auto Attach ▾	Subscriptions Associated ▾	Last Modified ▾
<input type="checkbox"/>	openshift-virtualization-tekton-demo	Self Support	Enabled	1	03/21/2023

Show entries

Showing 1 to 1 of 1 entries

First Previous **1** Next Last

Red Hat Subscription Management - [Release Notes](#)

Have feedback? Tell us what you think

If you need assistance, contact [Customer Service](#)

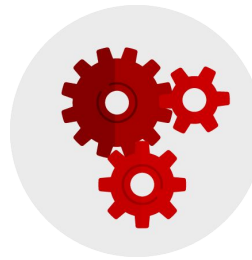
Benefits of Integrating Tekton with Openshift:

integrating Tekton with Openshift Virtualization simplify the VM lifecycle with limitless automation possibilities.



Automated Activation and Security

By removing the need for manual activation and registration, we can streamline operations and ensure that our systems stay up to date and secure.



Faster Development and Administration Reduction with Openshift

With Openshift, organizations can enable faster development and reduce management overhead, accelerating their cloud transformation journey



Customizable Automation with Tekton and Openshift

Tekton and Openshift offer a flexible and customizable automation framework that can be tailored to meet the specific needs of our organization.

Questions?

Email: shebi@redhat.com



Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.



linkedin.com/company/red-hat



youtube.com/user/RedHatVideos



facebook.com/redhatinc



twitter.com/RedHat

