Red Hat
Training and
Certification

DO467

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Table of Contents

1. Installing Red Hat Ansible Automation Platform

1.1. Explaining the Red Hat Ansible Automation Platform Architecture

Section Info Here

1.1.1. Red Hat Ansible Automation Platform

1.1.2. Red Hat Ansible Automation Platform Components

1.1.2.1. Ansible Core

1.1.2.2. Ansible Content Collections

1.1.2.3. Automation Content Navigator

1.1.2.4. Automation Execution Environments

1.1.2.5. Automation Controller

1.1.2.6. Automation Hub and Private Automation Hub

1.1.2.7. Red Hat Insights for Red Hat Ansible Automation Platform

1.1.3. Why Use Ansible Automation Platform?

1.2. Installing Automation Controller and Private Automation Hub

Section Info Here

1.2.1. Planning the Installation

1.2.1.1. Standalone Automation Controller with a Database on the Same Node

1.2.1.2. Standalone Private Automation Hub with a Database on the Same Node

1.2.1.3. Automation Controller and Private Automation Hub with External Database Servers

1.2.1.4. Advanced Deployment Scenarios

1.2.2. Installation Requirements

1.2.2.1. Database Storage

1.2.3. Subscription and Support

1.2.4. Installing Red Hat Ansible Automation Platform

1.2.4.1. Installing Automation Controller

1.2.4.2. Installing Private Automation Hub

1.2.5. Replacing the CA Certificate

1.2.5.1. Gathering Certificates and Private Keys

1.2.5.2. Preparing the Systems

1.2.5.3. Trusting Custom CA Certificates

1.2.6. DEMO: Installing Automation Controller and Private Automation Hub

Automation Controller and Private Automation Hub can both be installed from the **same** machine provided that they are both specified in the inventory file and that the installation user and installation machine has access to all systems specified in the **inventory** file and that the user has the ability to SSH/SUDO without passwords.

Automation Hub and Controller Placement

Ansible Controller and Ansible Private Automation Hub must be installed on separate systems and cannot be installed on the same system.

Example 1. **DEMO: Installing Automation Hub and Controller**

1. Obtain the bundled installer and untar the file

```
[student@workstation ~]$ tar xvf ansible-automation-platform-setup-bundle-2.2.0-
6.1.tar.gz

[student@workstation ~]$ mv ansible-automation-platform-setup-bundle-2.2.0-6.1
AAP2

[student@workstation ~]$ cd AAP2/
```

2. Update the inventory file with the system FQDNs or IP Addresses

Listing 1. Update the Inventory File

```
[student@workstation AAP2]$ vim inventory
```

```
[automationcontroller] ①
controller.lab.example.com


[execution_nodes]

[automationhub] ②
hub.lab.example.com

[automationcatalog]

[database] ③
db.lab.example.com


[all:vars]
admin_password='redhat' ④

pg_host='db.lab.example.com' ⑤
pg_port=5432 ⑥

pg_database='awx'
pg_username='awx'
pg_password='redhat' ⑦


registry_url='hub.lab.example.com' ⑧
```

```
registry_username='admin' ⑨
registry_password='redhat' ⑩



# Automation Hub Configuration ⑪
#

automationhub_admin_password='redhat'

automationhub_pg_host='db.lab.example.com'
automationhub_pg_port=5432

automationhub_pg_database='automationhub'
automationhub_pg_username='automationhub'
automationhub_pg_password='redhat'
automationhub_pg_sslmode='prefer'

# SSL Settings ⑫

custom_ca_cert=/home/student/certs/classroom-ca.pem
web_server_ssl_cert=/home/student/certs/controller.lab.example.com.crt
web_server_ssl_key=/home/student/certs/controller.lab.example.com.key
automationhub_ssl_cert=/home/student/certs/hub.lab.example.com.crt
automationhub_ssl_key=/home/student/certs/hub.lab.example.com.key
postgres_use_ssl=True
postgres_ssl_cert=/home/student/certs/db.lab.example.com.crt
postgres_ssl_key=/home/student/certs/db.lab.example.com.key
```

① Specify the Controller Node

② Specify the Private Automation Hub Node

③ Specify the Database Node

④ Specify the **admin** password for Controller

⑤ Specify the Database FQDN

⑥ Specify the Database Port

⑦ Specify the Database Password

⑧ URL and Registry for Container Images/Execution Environments

⑨ Username for Registry

⑩ Password for Registry

⑪ Ansible Automation Hub Configuration Settings

⑫ SSL Settings

Database

If you are running the database locally and not as a separate installation, you can leave the database section blank and the **pg_host** and **pg_port** blank. This will cause the installer to setup the database locally with the deployed AAP application.

Registry

Setting the registry for **hub.example.com** will allow the installer to link and configure Ansible Automation Hub to Ansible Controller. It will also ensure that the execution environments container in the bundled installer will be loaded properly into Ansible Automation Hub.

SSL

The classroom and lab environment has been configured to run with SSL enabled. In order for the certificates to work properly, the SSL certificates have been supplied in the **/home/student/certs** directory. These certificates must be specified in the **inventory** file. In the default inventory file, the certificates and SSL settings are generally commented out, so it is possible to just place the certificate information at the bottom of the inventory file to prevent searching for each line.

Listing 2. Default SSL Certificate

```
# SSL-related variables

# If set, this will install a custom CA certificate to the system
trust store.
# custom_ca_cert=/home/student/certs/classroom-ca.pem

# Certificate and key to install in nginx for the web UI and API
# web_server_ssl_cert=/path/to/tower.cert
# web_server_ssl_key=/path/to/tower.key
```

3. View final inventory file

```
[student@workstation AAP2]$ grep -Ev "^#|^$" inventory
[automationcontroller]
controller.lab.example.com
[automationcontroller:vars]
peers=execution_nodes
[execution_nodes]
[automationhub]
hub.lab.example.com
[automationcatalog]
[database]
db.lab.example.com
[sso]
[all:vars]
admin_password='redhat'
pg_host='db.lab.example.com'
pg_port=5432
pg_database='awx'
pg_username='awx'
pg_password='redhat'
pg_sslmode='prefer'  # set to 'verify-full' for client-side enforced SSL
registry_url='hub.lab.example.com'
registry_username='admin'
registry_password='redhat'
receptor_listener_port=27199
automationhub_admin_password='redhat'
automationhub_pg_host='db.lab.example.com'
automationhub_pg_port=5432
automationhub_pg_database='automationhub'
automationhub_pg_username='automationhub'
automationhub_pg_password='redhat'
automationhub_pg_sslmode='prefer'
automationcatalog_pg_host=''
automationcatalog_pg_port=5432
automationcatalog_pg_database='automationservicescatalog'
automationcatalog_pg_username='automationservicescatalog'
automationcatalog_pg_password=''
sso_keystore_password=''
sso_console_admin_password=''
custom_ca_cert=/home/student/certs/classroom-ca.pem
web_server_ssl_cert=/home/student/certs/controller.lab.example.com.crt
web_server_ssl_key=/home/student/certs/controller.lab.example.com.key
automationhub_ssl_cert=/home/student/certs/hub.lab.example.com.crt
automationhub_ssl_key=/home/student/certs/hub.lab.example.com.key
postgres_use_ssl=True
postgres_ssl_cert=/home/student/certs/db.lab.example.com.crt
postgres_ssl_key=/home/student/certs/db.lab.example.com.key
```

Using **grep** *to remove comments and blank lines*

Listing 3. Source Description

```
grep -Ev "^#|^$" <FILENAME>
```

4. Run the installation **setup.sh** script as the root user with **ignore_preflight_errors=true** as the systems in this course don't meet the minimum hardware requirements.

```
[student@workstation AAP2]$ sudo -i
[sudo] password for student:

[root@workstation ~]# cd ~student/AAP2/

[root@workstation AAP2]# ./setup.sh -e ignore_preflight_errors=true
```

Bundled Software Installer

It is important to at least save the bundled software installer archive **TGZ** file or to save the entire bundled installation directory. In addition, you will also want to save the **Inventory** file that was created so that adding additional components later, performing system backups/restores, and other administrative and maintenance tasks can be performed easily.

5. Install the licenses for Controller by providing the **manifest.zip** file to controller in the WebUI.
6. Verify **Automation Hub** is installed

1.3. Initial Configuration of Automation Controller and Private Automation Hub

Section Info Here

1.3.1. Configuration Overview

1.3.2. Making Automation Execution Environments Available from Private Automation Hub

1.3.2.1. Synchronizing Automation Execution Environments

1.3.2.2. Manually Adding Container Images

1.3.2.3. Managing Container Repositories, Images, and Tags

1.3.3. Synchronizing Ansible Content Collections

1.3.3.1. Synchronizing Red Hat Certified Ansible Content Collections

1.3.3.2. Synchronizing Ansible Content Collections from Ansible Galaxy

1.3.3.3. Manually Adding Ansible Content Collections

1.3.4. Testing Basic Automation Controller Functionality

1.3.4.1. The Demo Project

1.3.4.2. Default Execution Environment Registry Credential

1.3.4.3. The Demo Credential

1.3.4.4. The Demo Inventory

1.3.4.5. The Demo Job Template

2. Managing User Access

2.1. Creating and Managing Automation Controller Users

Section Info Here

2.1.1. Role-based Access Controls

2.1.2. Automation Controller Organizations

2.1.3. Types of Users

2.1.4. Creating Users

2.1.5. Editing Users

2.1.6. Organization Roles

2.1.7. Managing User Organization Roles

2.2. Managing Automation Controller Access with Teams

Section Info Here

2.2.1. Teams in Automation Controller

2.2.2. Creating Teams

2.2.3. Team Roles

2.2.4. Adding Users to a Team and Assigning Team Roles

2.2.5. Organization Roles

2.2.6. Managing Organization Roles

2.3. Creating and Managing Users and Groups for Private Automation Hub

Section Info Here

2.3.1. User Access

2.3.1.1. Creating Groups

2.3.1.2. Creating Users

2.3.1.3. Creating Groups to Manage Content

3. Managing Inventories and Machine Credentials

3.1. Creating a Static Inventory

Section Info Here

3.1.1. Red Hat Ansible Inventory

3.1.2. Creating an Inventory Using the Automation Controller Web UI

3.1.2.1. Creating a New Inventory

3.1.2.2. Creating a Host Group in an Inventory

3.1.2.3. Creating Hosts in an Inventory

3.1.3. Inventory Roles

3.1.3.1. Assigning Roles

3.1.4. Inventory Variables

3.2. Creating Machine Credentials for Access to Inventory Hosts

Section Info Here

3.2.1. Storing Secrets in Credentials

3.2.2. Credential Types

3.2.3. Creating Machine Credentials

3.2.4. Editing Machine Credentials

3.2.5. Credential Roles

3.2.6. Managing Credential Access

3.2.7. Common Credential Scenarios

3.2.7.1. Credentials Protected by Automation Controller, Not Known to Users

3.2.7.2. Credential Prompts for Sensitive Password, Not Stored in Automation Controller

4. Managing Projects and Launching Ansible Jobs

4.1. Creating a Project for Ansible Playbooks

Section Info Here

4.1.1. Automation Controller Projects

4.1.2. Creating a Project

4.1.3. Project Roles

4.1.4. Managing Project Access

4.1.5. Creating SCM Credentials

4.1.6. SCM Credential Roles

4.1.7. Managing Access to SCM Credentials

4.1.8. Updating Projects

4.1.8.1. Update Revision on Launch

4.1.8.2. Manual Updates

4.1.9. Support for Ansible Content Collections and Roles

4.2. Creating Job Templates and Launching Jobs

Section Info Here

4.2.1. Job Templates

4.2.2. Creating Job Templates

4.2.3. Modifying Job Execution

4.2.4. Prompting for Job Parameters

4.2.5. Job Template Roles

4.2.6. Managing Job Template Access

4.2.7. Launching Jobs

4.2.8. Evaluating the Results of a Job

5. Advanced Job Configuration

5.1. Improving Performance with Fact Caching

Section Info Here

5.1.1. Fact Caching

5.1.1.1. Enabling Fact Caching in Automation Controller

5.2. Creating Job Template Surveys to Set Variables for Jobs

Section Info Here

5.2.1. Managing Variables

5.2.2. Defining Extra Variables

5.2.3. Job Template Surveys

5.2.3.1. Managing Answers to Survey Questions

5.2.3.2. Creating a Job Template Survey

5.3. Scheduling Jobs and Configuring Notifications

Section Info Here

5.3.1. Scheduling Job Execution

5.3.1.1. Temporarily Disabling a Schedule

5.3.1.2. Scheduled Management Jobs

5.3.2. Reporting Job Execution Results

5.3.2.1. Notification Templates

5.3.2.2. Creating Notification Templates

5.3.2.3. Enabling Job Result Notification

6. Constructing Job Workflows

6.1. Creating Workflow Job Templates and Launching Workflow Jobs

Section Info Here

6.1.1. Workflow Job Templates

6.1.2. Creating Workflow Job Templates

6.1.2.1. Using the Workflow Visualizer

6.1.2.2. Adding Multiple Nodes with the Same Relationship

6.1.2.3. Creating Convergent Nodes

6.1.2.4. Workflow Job Template Surveys

6.1.3. Launching Workflow Jobs

6.1.3.1. Evaluating Workflow Job Execution

6.2. Requiring Approvals in Workflow Jobs

Section Info Here

6.2.1. Approval Nodes

6.2.2. Adding Approval Nodes to Workflows

6.2.3. Approving and Denying Workflow Approval Requests

6.2.4. Approval Time-outs

6.2.5. Approval Notifications

7. Managing Advanced Inventories

7.1. Importing External Static Inventories

Section Info Here

7.1.1. Importing Existing Static Inventories

7.1.2. Storing an Inventory in a Project

7.2. Configuring Dynamic Inventory Plug-ins

Section Info Here

7.2.1. Dynamic Inventories

7.2.2. OpenStack Dynamic Inventories

7.2.3. Red Hat Satellite 6 Dynamic Inventories

7.3. Filtering Hosts with Smart Inventories

Section Info Here

7.3.1. Defining Smart Inventories

7.3.2. Using Ansible Facts in Smart Inventory Filters

7.3.2.1. Creating a Smart Inventory Based on Ansible Facts

7.3.3. Other Smart Inventory Filters

8. Automating Configuration of Ansible Automation Platform

8.1. Configuring Red Hat Ansible Automation Platform with Collections

Section Info Here

8.1.1. Automating Red Hat Ansible Automation Platform Configuration

8.1.2. Getting the Supported Ansible Content Collection

8.1.3. Exploring the Supported Ansible Content Collection

8.1.3.1. Reading Documentation with Ansible Content Navigator

8.1.3.2. Reading Documentation on Automation Hub

8.1.4. Examples of Automation with ansible.controller

8.1.4.1. Creating Automation Controller Users

8.1.4.2. Creating Automation Controller Teams

8.1.4.3. Adding Users to Organizations and Teams

8.1.5. Community-supported Ansible Content Collections

8.2. Automating Configuration Updates with Git Webhooks

Section Info Here

8.2.1. Introducing Red Hat Ansible Automation Platform Webhooks

8.2.1.1. What Are the Benefits of Webhooks

8.2.2. Configuring Webhooks

8.2.2.1. Configuring a Webhook for a Job Template

8.2.2.2. Creating the Webhook for the Repository in GitLab

8.2.3. Use Cases for Using Webhooks

8.2.3.1. Triggering Different Job Templates Using Branches

8.2.3.2. Configuration as Code for Automation Controller

8.3. Launching Jobs with the Automation Controller API

Section Info Here

8.3.1. The Automation Controller REST API

8.3.1.1. Using the REST API

8.3.1.2. JSON Pagination

8.3.1.3. Accessing the REST API From a Graphical Web Browser

8.3.2. Launching a Job Template Using the API

8.3.3. Launching a Job Using the API from an Ansible Playbook

8.3.3.1. Vault Credentials

8.3.4. Token-based Authentication

9. Maintaining Red Hat Ansible Automation Platform

9.1. Performing Basic Troubleshooting of Automation Controller

Section Info Here

9.1.1. Automation Controller Components

9.1.1.1. Starting, Stopping, and Restarting Automation Controller

9.1.1.2. Supervisord Components

9.1.2. Automation Controller Configuration and Log Files

9.1.2.1. Configuration Files

9.1.2.2. Log Files

9.1.2.3. Other Automation Controller Files

9.1.3. Common Troubleshooting Scenarios

9.1.3.1. Problems Running Playbooks

9.1.3.2. Problems Connecting to Your Host

9.1.3.3. Playbooks Do Not Appear in the List of Job Templates

9.1.3.4. Playbook Stays in Pending State

9.1.3.5. Error: Provided Hosts List Is Empty

9.1.4. Performing Command-Line Management

9.1.4.1. Changing the Automation Controller Admin Password

9.2. Backing Up and Restoring Red Hat Ansible Automation Platform

Section Info Here

9.2.1. Backing Up Red Hat Ansible Automation Platform

9.2.1.1. Backup Procedure

9.2.2. Restoring Ansible Automation Platform From Backup

9.2.2.1. Restoration Procedure

10. Getting Insights into Automation Performance

10.1. Gathering Data for Cloud-based Analysis

Section Info Here

10.1.1. Introducing Red Hat Hybrid Cloud Console Services

10.1.2. Collecting Data for Cloud Services

10.1.3. Registering Managed Hosts with Insights for Ansible Automation Platform

10.1.4. Accessing the Red Hat Hybrid Cloud Console

10.2. Getting Insights into Automation Performance

Section Info Here

10.2.1. Insights for Ansible Automation Platform

10.2.2. Generating Remediation Playbooks with Advisor

10.2.2.1. Automating Remediation of an Issue for Multiple Systems

10.2.2.2. Automating Remediation of Multiple Issues for One System

10.2.3. Comparing Systems with Drift

10.2.3.1. Finding Differences Between Systems

10.2.3.2. Comparing the State of One System at Different Times

10.2.3.3. Comparing Systems to a Standard Baseline

10.2.4. Sending Alerts Based on Ansible Facts with Policies

10.3. Evaluating Performance with Automation Analytics

Section Info Here

10.3.1. Automation Analytics

10.3.2. Reporting Playbook Execution Status

10.3.3. Examining Job History

10.3.4. Monitoring Notifications

10.4. Producing Reports from Automation Analytics

Section Info Here

10.4.1. Producing Reports from Automation Analytics

10.4.1.1. Choosing an Appropriate Report

10.4.1.2. Using Automation Calculator to Compute Savings

10.4.1.3. Exporting a Report

10.4.2. Predicting the Cost Savings of Automation

10.4.2.1. Creating a Savings Plan

10.4.2.2. Reviewing the Cost Savings Calculations

11. Building a Large Scale Red Hat Ansible Automation Platform Deployment

11.1. Designing a Clustered Ansible Automation Platform Implementation

11.1.1. Running Red Hat Ansible Automation Platform at Scale

11.1.2. Automation Mesh

11.1.2.1. Benefits of Automation Mesh

11.1.2.2. Types of Nodes on Automation Mesh

11.1.2.3. What Are Instance Groups?

11.1.3. Planning Network Communication and Firewalls

11.1.3.1. Requirements for Control Nodes and Hybrid Nodes

11.1.3.2. Requirements for Hop Nodes

11.1.3.3. Requirements for Execution Nodes

11.1.4. Planning for Automation Mesh

11.1.4.1. Providing Resilient Services

11.2. Deploying Distributed Execution with Automation Mesh

11.2.1. Configuring Automation Mesh

11.2.1.1. Creating Instance Groups

11.2.1.2. Adding Nodes to the Automation Mesh

11.2.1.3. Removing Nodes from the Automation Mesh

11.2.2. Visualizing Automation Mesh Topology

11.2.3. Automation Mesh Design Patterns

11.2.4. Validation Checks

11.3. Managing Distributed Execution with Automation Mesh

11.3.1. Managing Instance Groups in Automation Controller

11.3.1.1. Creating Instance Groups

11.3.1.2. Assigning Execution Nodes to an Instance Group

11.3.1.3. Running a Health Check on the Nodes

11.3.1.4. Disassociating a Node from an Instance Group

11.3.2. Assigning Default Instance Groups to Inventories and Job Templates

11.3.2.1. Configuring an Inventory to Use Instance Groups

11.3.2.2. Configure a Job Template to Use Instance Groups

11.3.2.3. Running a Job Template with Instance Groups

11.3.3. Testing the Resilience of Automation Mesh

11.3.3.1. Testing Control Plane Resilience

11.3.3.2. Testing Execution Plane Resilience

11.3.4. Monitoring Automation Mesh from the Web UI

11.3.5. Monitoring Automation Mesh from the Command Line

11.3.5.1. Listing Nodes and Instance Groups

11.3.5.2. Monitoring Automation Mesh Using the receptorctl Command

Appendix A: References and Additional Information

Ansible Docs/Tips and Tricks

- **Installing Software and other Packages**: https://ansible-tips-and-tricks.readthedocs.io/en/latest/os-dependent-tasks/installing_packages/
- **Ansible Tips and Tricks (Examples)**: https://github.com/nfaction/ansible-tips-and-tricks/wiki
- **Ansible Product Demos**: https://github.com/ansible/product-demos
- **Ansible Workshops**: https://github.com/ansible/workshops/tree/devel/provisioner
- **Red Hat CoP - Automation Good Practices**:
  - https://redhat-cop.github.io/automation-good-practices/
  - https://github.com/redhat-cop/automation-good-practices/
- **Ansible Controller Collection**: https://console.redhat.com/ansible/automation-hub/repo/published/ansible/controller/docs?keywords=

Ansible KB Articles and Solutions

- **How Do I Perform Security Patching / OS Package Upgrades On Ansible Tower/Automation Controller Nodes Without Breaking Any Ansible Tower/Automation Controller Functionality ?**: https://access.redhat.com/solutions/4566711

Ansible Filters and Collections

- **Using filters to manipulate data (Jinja2 Templating)**: https://docs.ansible.com/ansible/latest/user_guide/playbooks_filters.html
- **Community General**: https://docs.ansible.com/ansible/latest/collections/community/general/index.html

Ansible Blogs and Articles

- **When localhost isn't what it seems in Red Hat Ansible Automation Platform 2**: https://www.ansible.com/blog/when-localhost-isnt-what-it-seems-in-red-hat-ansible-automation-platform-2

Ansible Execution Environments

- **Execution Environments**: https://docs.ansible.com/automation-controller/4.2.0/html/userguide/execution_environments.html#ee-mount-options