

Red Hat Enterprise Linux System Roles

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Agenda

- ▶ What are RHEL system roles
- ▶ What system roles are available
- ▶ Getting started with RHEL system roles
- ▶ SOE system roles demo (timedate, kernel settings, session recording)
- ▶ Future of system roles discussion
- ▶ Upstream project: Linux System Roles

RHEL Documentation and processes have
historically been focused on manually
managing individual systems

11.2. Installing an encryption client - Clevis

Use this procedure to deploy and start using the Clevis pluggable framework on your system.

Procedure

1. To install Clevis and its pins on a system with an encrypted volume:

```
# yum install clevis
```

2. To decrypt data, use a `clevis decrypt` command and provide a cipher text in the JSON Web Encryption (JWE) format, for example:

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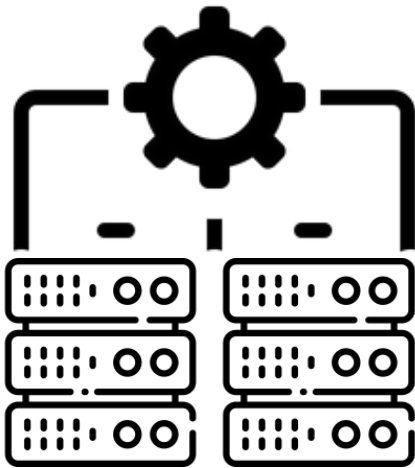
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But you're probably responsible for
hundreds or maybe even thousands of
RHEL systems

RHEL System Roles are focused on automating and managing multiple systems, and multiple releases of RHEL

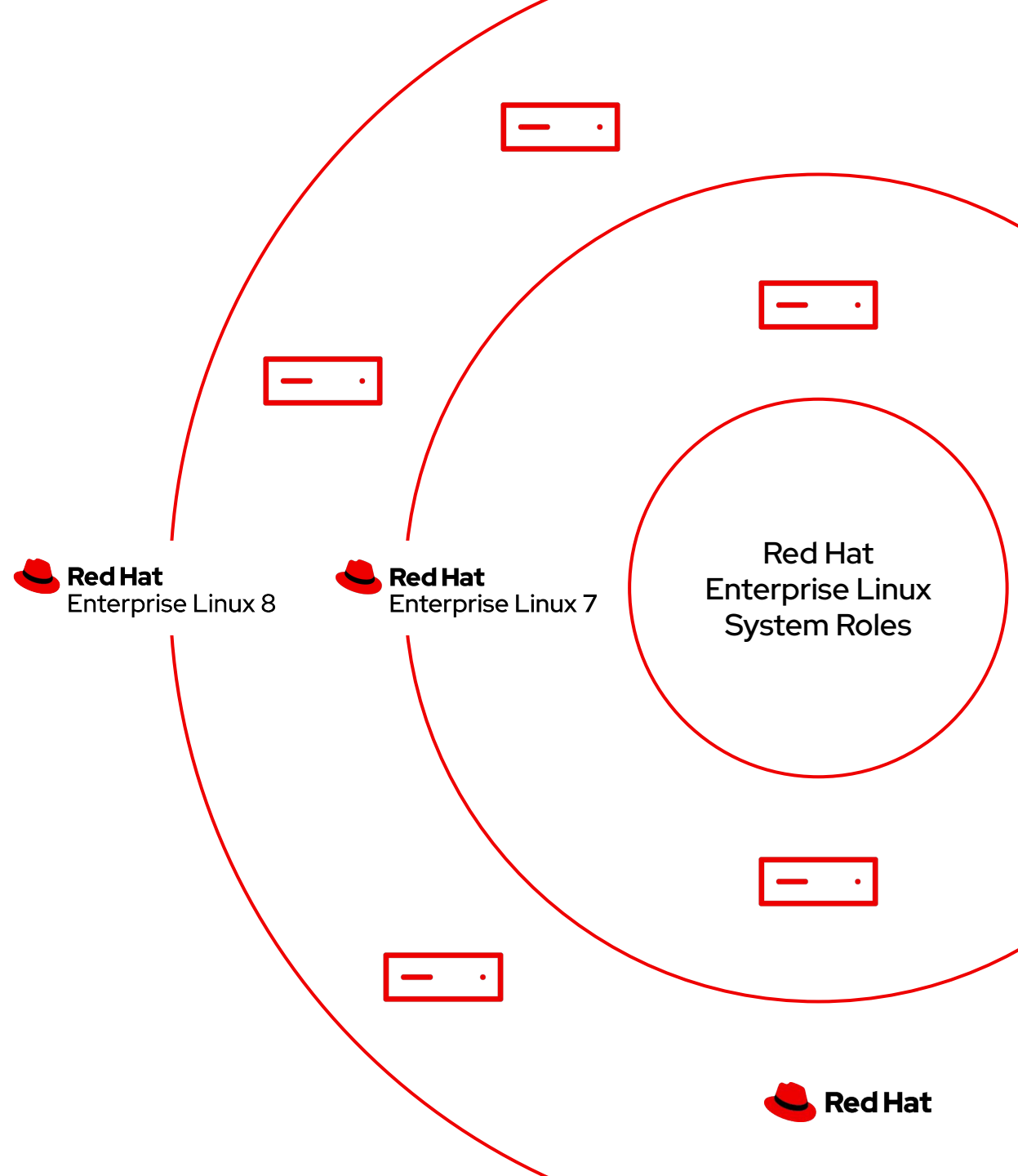


Gain efficiencies and save time!

System Roles

A collection of supported Ansible roles that ensure consistent workflows and streamline the execution of manual tasks.

- ▶ Ensure consistent and repeatable configuration
- ▶ Reduce technical burdens and streamline administration
- ▶ Execute tasks consistently across hybrid cloud footprints
- ▶ Scale with Red Hat Smart Management and Automation



RHEL System Roles available today

Streamline system deployment and management with System Roles



Security

Automate security workflows and maintain them over time, at scale and with minimal resources. Consistency helps streamline governance and compliance requirements.

- SELinux
- Certificate
- NBDE client & server
- Tlog (session recording)
- SSH Client (8.4)
- SSH Server (8.4)
- Crypto Policies (8.4)



Configuration

Save time and streamline deployments by automating manual tasks that ensure a consistent administrative experience and scales across systems.

- Kdump
- Network
- Storage
- Timesync
- Kernel settings
- Logging
- Metrics
- Postfix (tech preview)
- HA Cluster (tech preview) (8.4)



Workloads

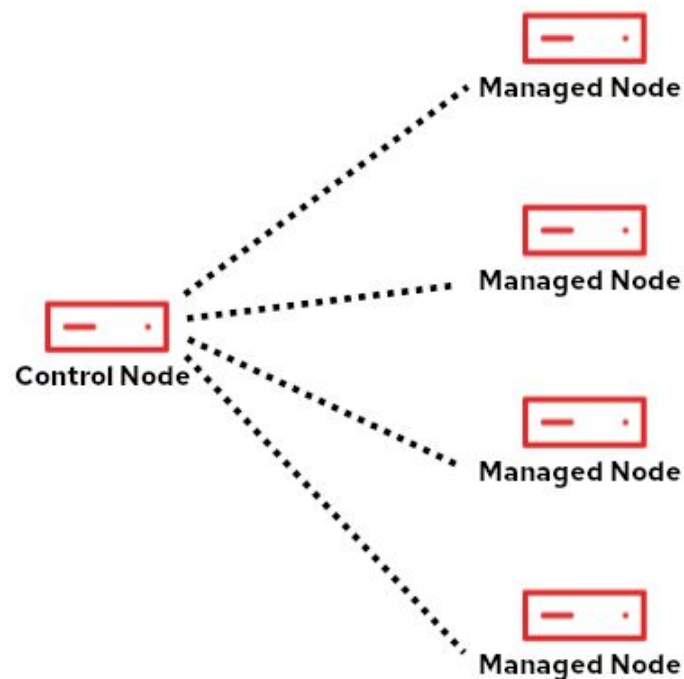
Easily optimize the most popular workloads at the time of deployment and simplify ongoing administration by automating workload-specific tasks.

- SAP
- SQL Server (on roadmap)

Control Node and Managed Nodes

Control Node: the system with Ansible and the RHEL System Roles installed

Managed Nodes: the systems being managed by RHEL System Roles



Control Node Options



Red Hat
Enterprise Linux

RHEL as control node



Red Hat
Satellite

Satellite as RHEL System Roles Control Node



RED HAT®
ANSIBLE®
Tower

Provides advanced automation capabilities

Accessing RHEL System Roles Content

- RHEL System Roles RPM
 - RHEL 8 application streams repository
 - RHEL 7 Extras repository
- Ansible repositories to support RHEL System Roles
 - ansible-2-for-rhel-8-x86_64-rpms
 - rhel-7-server-ansible-2-rpms
- RHEL System Roles available on Ansible Automation Hub with Ansible Subscription
 - https://cloud.redhat.com/ansible/automation-hub/repo/published/redhat/rhel_system_roles

RHEL System Roles Quick Start with RHEL Control Node

1. Install RHEL System Roles and Ansible RPM's on a RHEL system acting as the control node
2. Setup account for Ansible to use, SSH keys, sudo access, etc. on control node and managed nodes
3. Define Ansible inventory file, for example:

```
all:
  hosts:
    rhel8-server1.example.com:
    rhel8-server2.example.com:
    rhel7-server1.example.com:
    rhel7-server2.example.com:
```

RHEL System Roles Quick Start

4. Create playbook to call the role, for example:

```
- hosts: all
  become: true

  roles:
    - role: redhat.rhel_system_roles.sshd
      vars:
        sshd_config_owner: root
        sshd_config_group: root
        sshd_config_mode: 0600
      sshd:
        X11Forwarding: false
        MaxAuthTries: 4
        ClientAliveInterval: 300
        LoginGraceTime: 60
        AllowTcpForwarding: no
        PermitRootLogin: no
        MaxStartups: 10:30:60
```

5. Run playbook: `ansible-playbook sshd.yml -i inventory/inventory.yml`

SOE with RHEL

System Roles demo

[System Roles Lab](#)

Linux system roles upstream project

Linux System Roles is the upstream, open source project

- ▶ On GitHub Linux System Roles repository most development takes place
- ▶ Distributed as an RPM in Fedora
- ▶ Available via Ansible Galaxy (as an Ansible Collection)
- ▶ Linux System Roles has Execution Environment container available
- ▶ Not supported by Red Hat

RHEL System Roles is the downstream, supported Red Hat component

- ▶ Distributed as an RPM in RHEL 7 and 8
- ▶ Available via Ansible Automation Hub (with Ansible Platform subscription as an Ansible Collection)
- ▶ In the future, planned to be available as a Execution Environment container
- ▶ Supported by Red Hat

System Roles conversation

Do you find value in RHEL System Roles today?

What additional System Roles would you like to see on the RHEL roadmap?

Additional resources

RHEL System Roles (downstream)

- ▶ RHEL System Roles [blog series](#)
- ▶ RHEL System Roles on [Automation Hub](#)
- ▶ General RHEL System Roles [info and compatibility matrix](#)
- ▶ Try RHEL System Roles [in a interactive demo](#)

Linux System Roles (upstream)

- ▶ Linux System Roles [upstream page](#)
- ▶ Linux System Roles [execution environment](#)
- ▶ Linux System Roles [upstream Galaxy page](#)

Thank you

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