Red Hat Device Edge 4

Overview

Red Hat Device Edge overview

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Abstract

An overview of Red Hat Device Edge.

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CHAPTER 1. RED HAT DEVICE EDGE OVERVIEW

Red Hat Device Edge delivers an enterprise-ready distribution of the Red Hat-led open source community project Red Hat build of MicroShift. MicroShift is a lightweight Kubernetes orchestration solution built from the edge capabilities of OpenShift Container Platform, along with an edge-optimized operating system built from Red Hat Enterprise Linux (RHEL).

1.1. ABOUT RED HAT DEVICE EDGE

Red Hat Device Edge is for organizations that need small-form-factor edge devices and support for bare metal, virtualized, or containerized applications. Red Hat Device Edge helps address many of the emerging questions around large-scale edge computing at the device edge by incorporating Kubernetes features in a new, smaller, lighter-weight footprint with an edge-optimized Linux operating system built from the world's leading enterprise Linux platform in RHEL. You can manage Red Hat Device Edge using Red Hat Ansible Automation Platform.

Figure 1.1. Red Hat Device Edge components

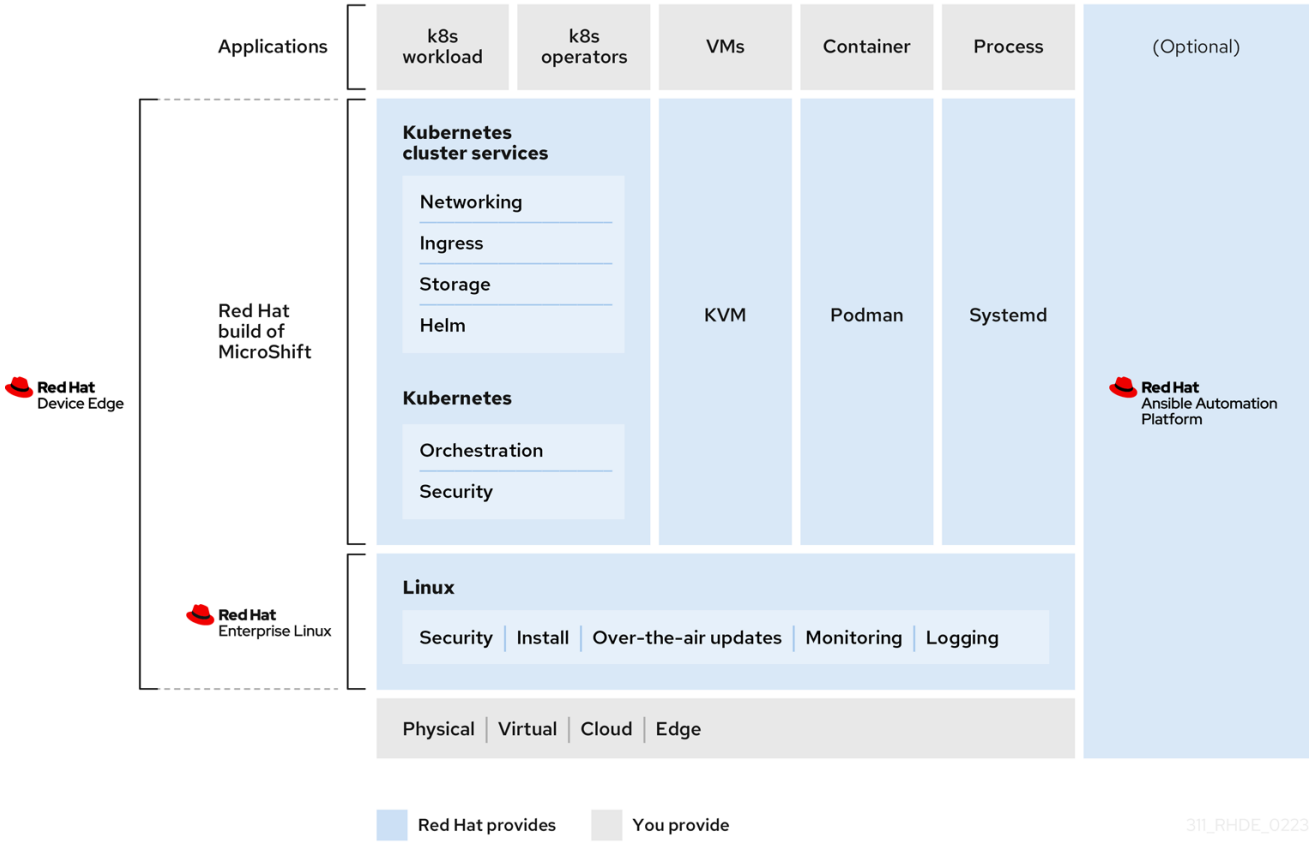
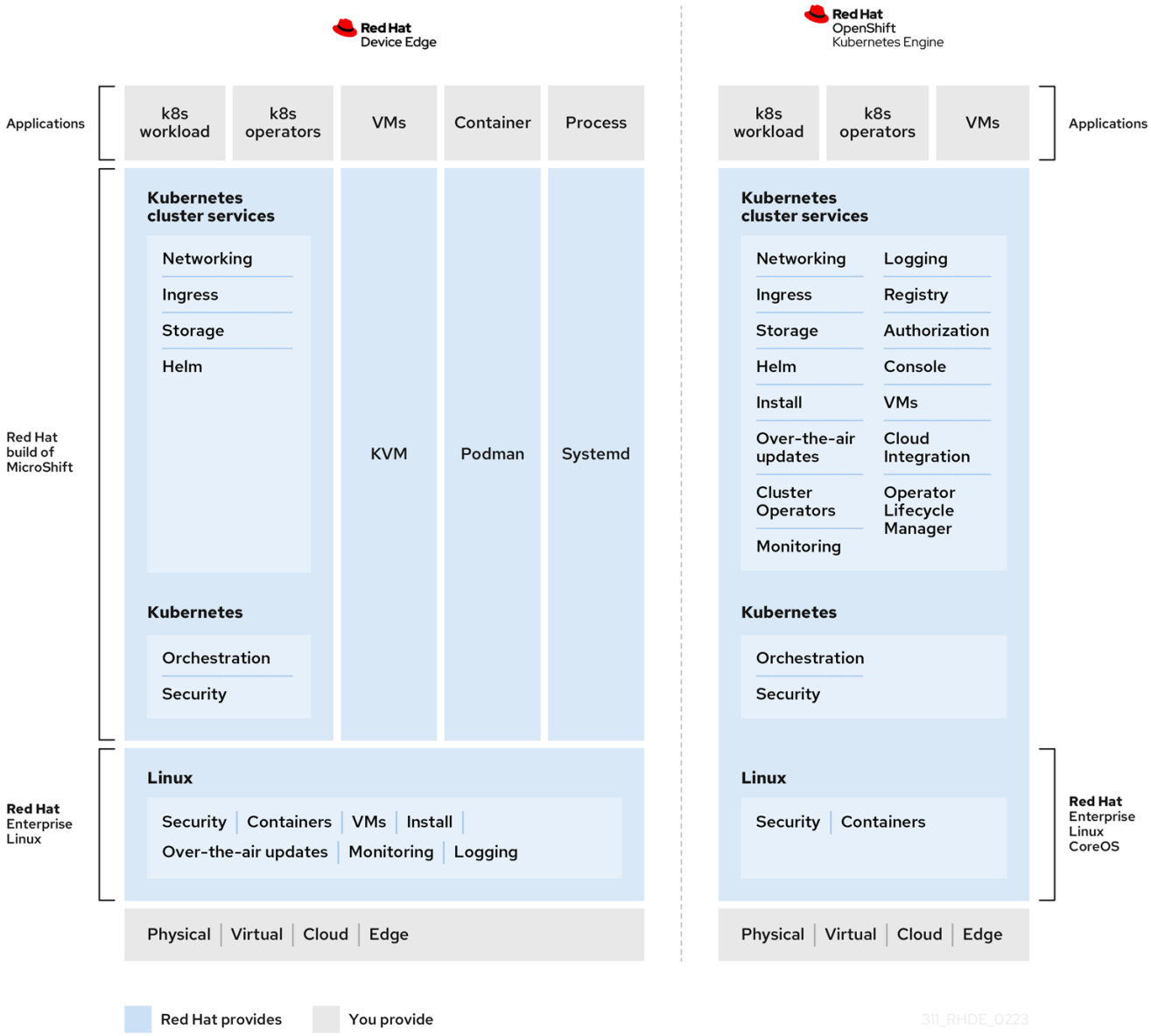


Figure 1.2. Red Hat Device Edge layers



For a non-technical description of Red Hat Device Edge, see Red Hat Device Edge .

1.1.1. Red Hat Device Edge product release notes

The latest release notes for each product that is part of Red Hat Device Edge are available at the following links:

- Red Hat build of MicroShift
- Red Hat Enterprise Linux (RHEL) for Edge 9.2 release notes contain details about RHEL for Edge
- Red Hat Enterprise Linux (RHEL) for Edge 9.3 release notes contain details about RHEL for Edge
- Red Hat Enterprise Linux (RHEL) for Edge 9.4 release notes contain details about RHEL for Edge
- Red Hat Ansible Automation Platform Release Notes

1.1.2. Red Hat Device Edge product release compatibility matrix

Red Hat Enterprise Linux (RHEL) and MicroShift work together as a single solution for device-edge computing. You can update each component separately, but the product versions must be compatible. For example, an update of MicroShift from 4.14 to 4.16 requires a RHEL update. Supported configurations of Red Hat Device Edge use verified releases for each together as listed in the following table:

RHEL for Edge Version(s)	MicroShift Version	MicroShift Release Status	Supported MicroShift Version→MicroShift Version Updates
9.4	4.16	Generally Available	4.16.0→4.16.z, 4.14→4.16 and 4.15→4.16
9.2, 9.3	4.15	Generally Available	4.15.0→4.15.z, 4.14→4.15 and 4.15→4.16
9.2, 9.3	4.14	Generally Available	4.14.0→4.14.z, 4.14→4.15 and 4.14→4.16
9.2	4.13	Technology Preview	None
8.7	4.12	Developer Preview	None

1.1.3. Red Hat Ansible Automation Platform compatibility

- When Red Hat Ansible Automation Platform is used to manage Red Hat Device Edge deployments, you can use any supported version listed here: Red Hat Ansible Automation Platform Life Cycle.
- To manage an older version of Red Hat Enterprise Linux (RHEL) with Red Hat Ansible Automation Platform, see the **ansible-core** support matrix page.

1.1.4. Red Hat Device Edge documentation

For more information about the Red Hat Device Edge products, see the following documentation:

- Red Hat build of MicroShift
- Composing, installing, and managing RHEL for Edge images
- Product Documentation for Red Hat Ansible Automation Platform

1.1.5. Upgrade paths

For details about MicroShift upgrade paths, see the following documentation:

- MicroShift updates