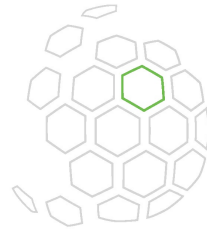


Lenovo Open Cloud Automation for Red Hat OpenShift



Lenovo
**Open Cloud
Automation**

Accelerate cloud deployment from Data Center to the Edge

Lenovo is well known for delivering servers to the industry with the #1 uptime and the highest customer satisfaction. Lenovo also provides software solutions for Enterprises and Cloud Providers that dramatically accelerate deployment of virtualized cloud infrastructure for both Information Technology (IT) and Operational Technology (OT).

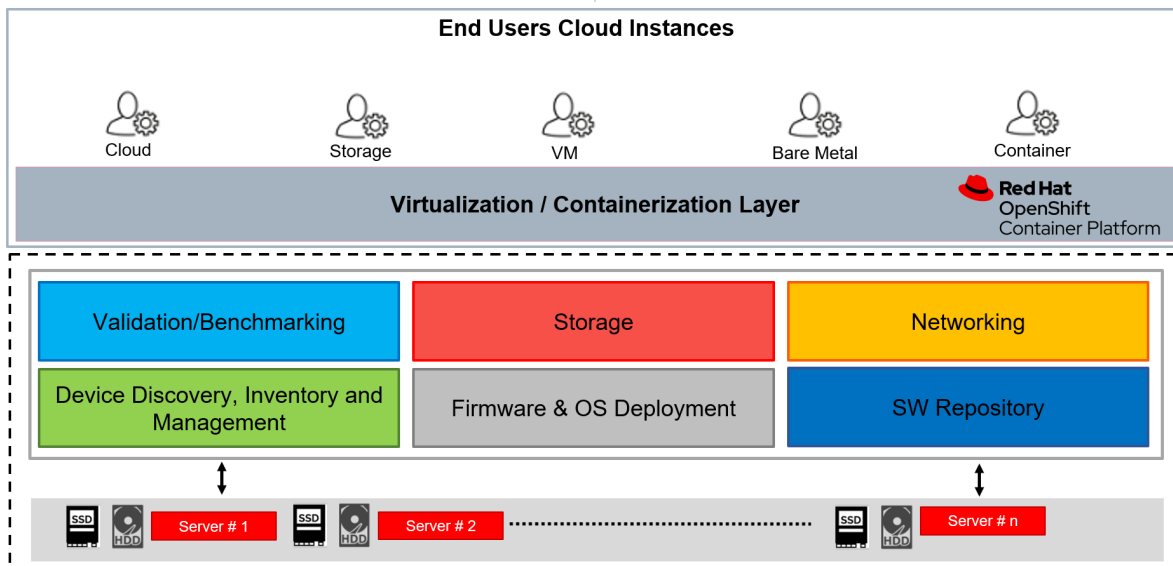
Lenovo Open Cloud Automation (LOC-A) software solution helps to rapidly deploy, optimize and manage cloud infrastructure for bare metal servers, containers and VMs.

The cloud deployment process often involves manual steps and processes that benefit from some level of automation tools that exist. However, this process is sequential, time-consuming and error prone.

LOC-A's end-to-end automation approach simplifies and streamlines the cloud deployment processes. LOC-A provides an automation platform that orchestrates the entire chain of events/tools from hardware configuration to Operating Systems installation to Cloud and networking layer deployment.

LOC-A is a solution for automating cloud deployment, enabling Enterprises and Cloud Providers to accelerate time to value, simplify operations and be cost effective.

Lenovo



High-level architecture of Lenovo Open Cloud Automation. The dotted line represents a framework for deployment and management of CoSP Cloud and NFVi/ Edge services via single pane of glass.

2 | Lenovo Open Cloud Automation for Red Hat OpenShift

With support for Red Hat® OpenShift®, LOC-A automates both deployment and operations. It is comprised of a set of workload, services and runtime components to deliver end-to-end cloud solutions. LOC-A generates a toolkit to deliver private cloud for Red Hat OpenShift environments. LOC-A supports 3rd-party networking infrastructures, such as Cisco ACI.

LOC-A integrates with existing management platforms through various interfaces such as REST APIs. It covers many workloads that a cloud service provider may deploy including VMs, containers and bare metal platforms. New workloads and clusters can be automatically integrated into the existing network in real-time. Scaling to hundreds of servers and thousands of workloads is seamless.

Red Hat OpenShift Container Platform

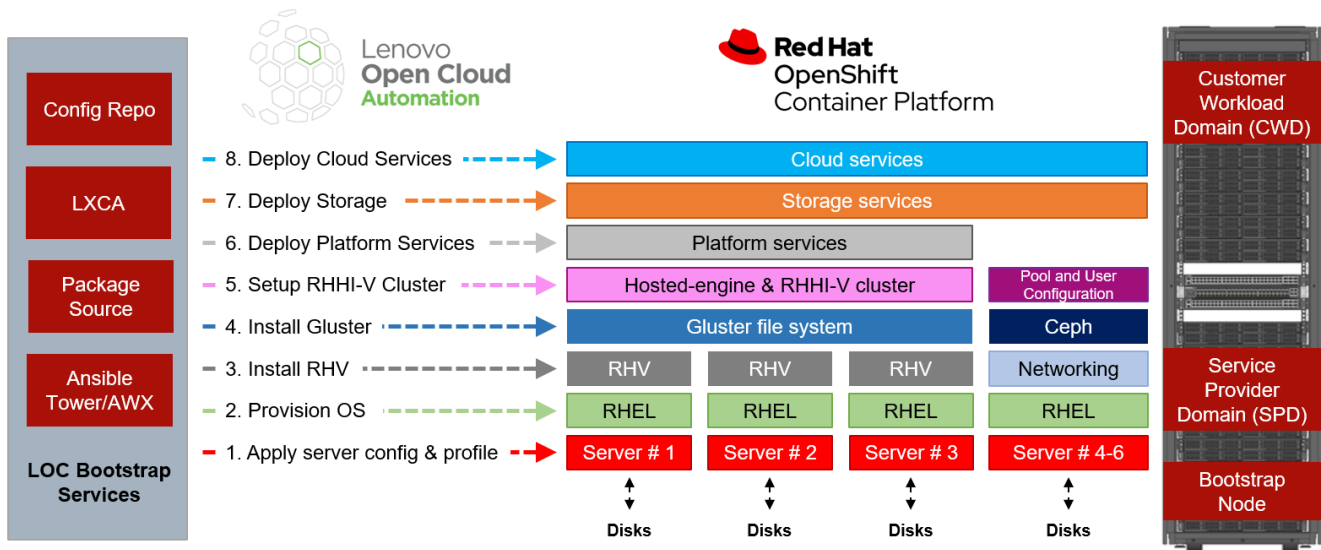
OpenShift is a family of containerization software developed by Red Hat. Red Hat OpenShift Container Platform (RHOCP) is an on-premises platform as a service built around Docker containers orchestrated and managed by Kubernetes on a foundation of Red Hat® Enterprise Linux®.

OpenShift top benefits include:

- Enables developers in delivering high quality applications in a faster way
- Improves business and efficiency results
- Reduces the application management time and development costs

Lenovo Open Cloud Automation for Red Hat OpenShift

LOC-A enables one-click RHOCP auto-deployment based on pre-defined HW configurations and deployment workflow. It supports deployment of RHOCP on bare-metal and RHV.



LOC-A Customer Workload Domain (CWD) Deployment

Benefits

Lenovo Open Cloud Automation creates an automated platform to deploy, optimize and manage high performance cloud infrastructure, accelerating cloud deployment. With support for stretched clusters, LOC-A offers HA and fast failover. The benefits of Lenovo Open Cloud Automation include:

Maximize time to value with low touch deployment:

- Create repeatable deployment templates and configurations that can be used to further accelerate cloud and workload expansions
- Rapidly onboard new customers with up to 3X faster deployment of Red Hat OpenShift through automation instead of manual processes
- A [study by AvidThink](#) shows an 81% reduction in deployment time, increasing the time to revenue by average of 25%

Simplify operations and reduce costs:

- Activate tenant workloads in minutes. Operational automation framework reduces human errors, while making it easy to keep up with latest software and updates
- Easily scale across multiple platforms and users while containing expenses

Efficiently extend CSPs network with an Edge friendly solution:

- Truck rolls are nearly eliminated for Edge deployments as automated cloud deployment becomes the new baseline for network expansion

LOC Automation accelerates cloud and workload expansions, accelerating time-to-value. Customers can leverage the automated deployment of Red Hat OpenShift to reduce the time to incremental revenue. As an option, Lenovo professional services are available to enable swift initial deployments on private clouds. Lenovo is your infrastructure deployment partner to ensure that your network deployment, expansions and maintenance perform reliably.

LOC-A Licensing

Lenovo Open Cloud Automation software subscription is available for both Red Hat environments for 3 and 5 years, and 1-year renewal options as shown in the table below.

LOC-A Software Subscription Licensing	SKU
LOC-A for Red Hat 2 socket / 4 vCPU server for 3 years with support	7S0Y0001WW
LOC-A for Red Hat 2 socket / 4 vCPU server for 5 years with support	7S0Y0004WW

Red Hat Licensing

Lenovo Open Cloud Automation software subscription is available for both Red Hat environments for 3 and 5 years, and 1-year renewal options as shown in the table below.

Red Hat Software Licensing requirements	SKU
Red Hat Enterprise Linux (RHEL) 8.1, 3 years support	00YH401
Red Hat Hyperconverged Infrastructure (RHHi) 1.7, 3 years support	02YD068
Red Hat OpenShift Container Platform (RHOCp) 4.2, 3 years support	01PG313

Hardware Support

Lenovo Open Cloud Automation is designed to support the Lenovo ThinkSystem series of high-performance servers. Recommended configuration is below.

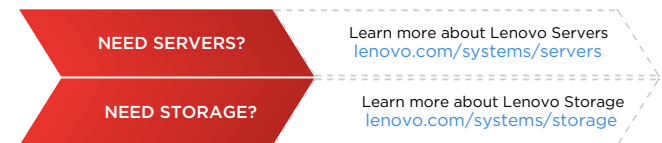
RHHI Node (SKU 7XG7A05578)	OCP Worker Node (SKU 7XG7A05595)
3x Lenovo ThinkSystem SR650	2x Lenovo ThinkSystem SR650
2x Intel® Xeon® Silver 4114 CPU @ 2.20GHz	2x Intel® Xeon® Gold 6152 CPU @ 2.10GHz
4x 960GB 6Gbps SATA 2.5" SSD	4x 480GB 6Gbps SATA 2.5" SSD
8x 2.40TB 10K 12Gbps SAS 2.5" HDD	8x 2.40TB 10K 12Gbps SAS 2.5" HDD
512GB DDR4 (16x32GB)	768GB DDR4 (24x32GB)
4-port Intel X722 LOM	4-port Intel X722 LOM
2-port Intel X710 2x10GbE SFP+ Adapter	2-port Intel X710 2x10GbE SFP+ Adapter

For More Information

To learn more about the Lenovo Open Cloud, contact your Lenovo representative or Business Partner, or visit lenovo.com/cosp

About Lenovo

Lenovo (HKSE: 992) (ADR: LNVGY) is a US\$50 billion Fortune Global 500 company, with 63,000 employees and operating in 180 markets around the world. Focused on a bold vision to deliver smarter technology for all, we are developing world-changing technologies that create a more inclusive, trustworthy and sustainable digital society.



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