Red Hat Summit

Connect

What's Next for OpenShift

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Red Hat OpenShift 5 Transforms Hybrid Cloud Operations with Real-Time Intelligence and Zero Trust Security

Red Hat OpenShift 5 delivers interactive, agentic troubleshooting, post-quantum control plane security and greater lifecycle predictability, helping eliminate operational overhead without complex migrations.

SALT LAKE CITY – KUBECON + CLOUDNATIVECON NA - November 9, 2026 – Red Hat, the world's leading provider of open source solutions, today announced the general availability of Red Hat OpenShift 5, bringing built-in operational intelligence, zero trust security and a longer, predictable lifecycle to the industry's leading hybrid cloud application platform powered by Kubernetes. Purpose-built to streamline complex operations across data centers, cloud environments and disconnected deployments, the evolved platform enables IT teams to deploy AI workloads, virtual machines (VMs) and containerized workloads side-by-side through a simple, in-place update from Red Hat OpenShift 4.

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Introducing OpenShift 5

Build apps at the scale of your ambitions

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What is OpenShift 5?

First, it's OpenShift!



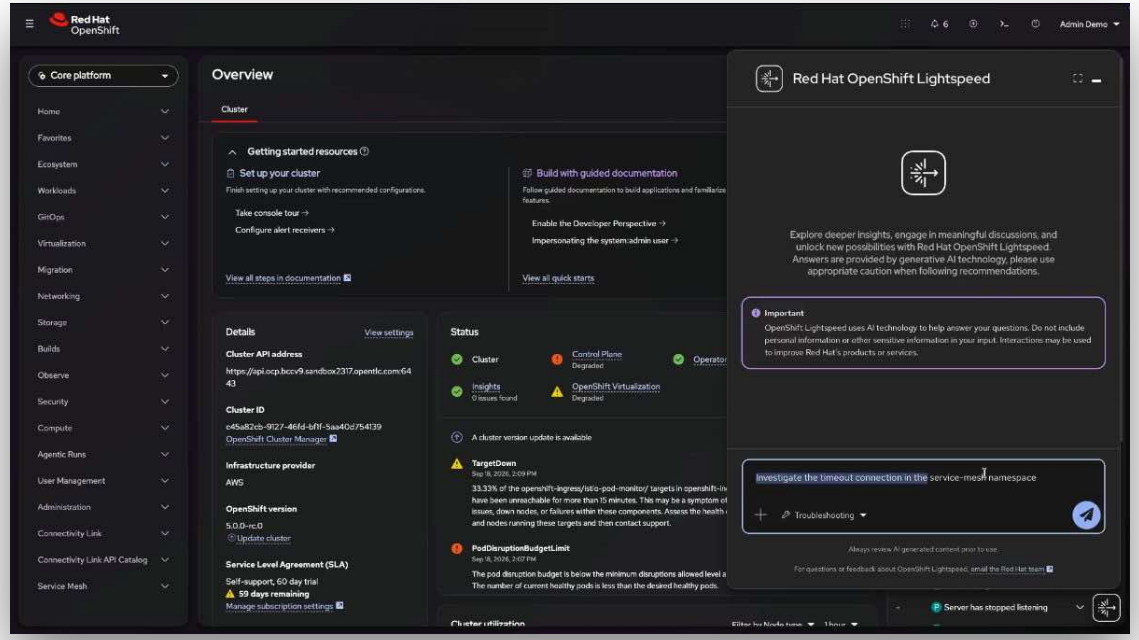
OpenShift 5 is **OpenShift evolved!**

- **Intelligent:** Benefit from context aware troubleshooting and drive better, safer integration with your AI tools with MCP server and MCP gateway
- **Secure:** Post-quantum cryptography, and enhanced multi-tenancy monitors and blocks abnormal behavior in real-time to stop threats before runtime
- **Predictable**: Major releases every three years, with designated extended lifecycle versions yearly, and a seamless update experience

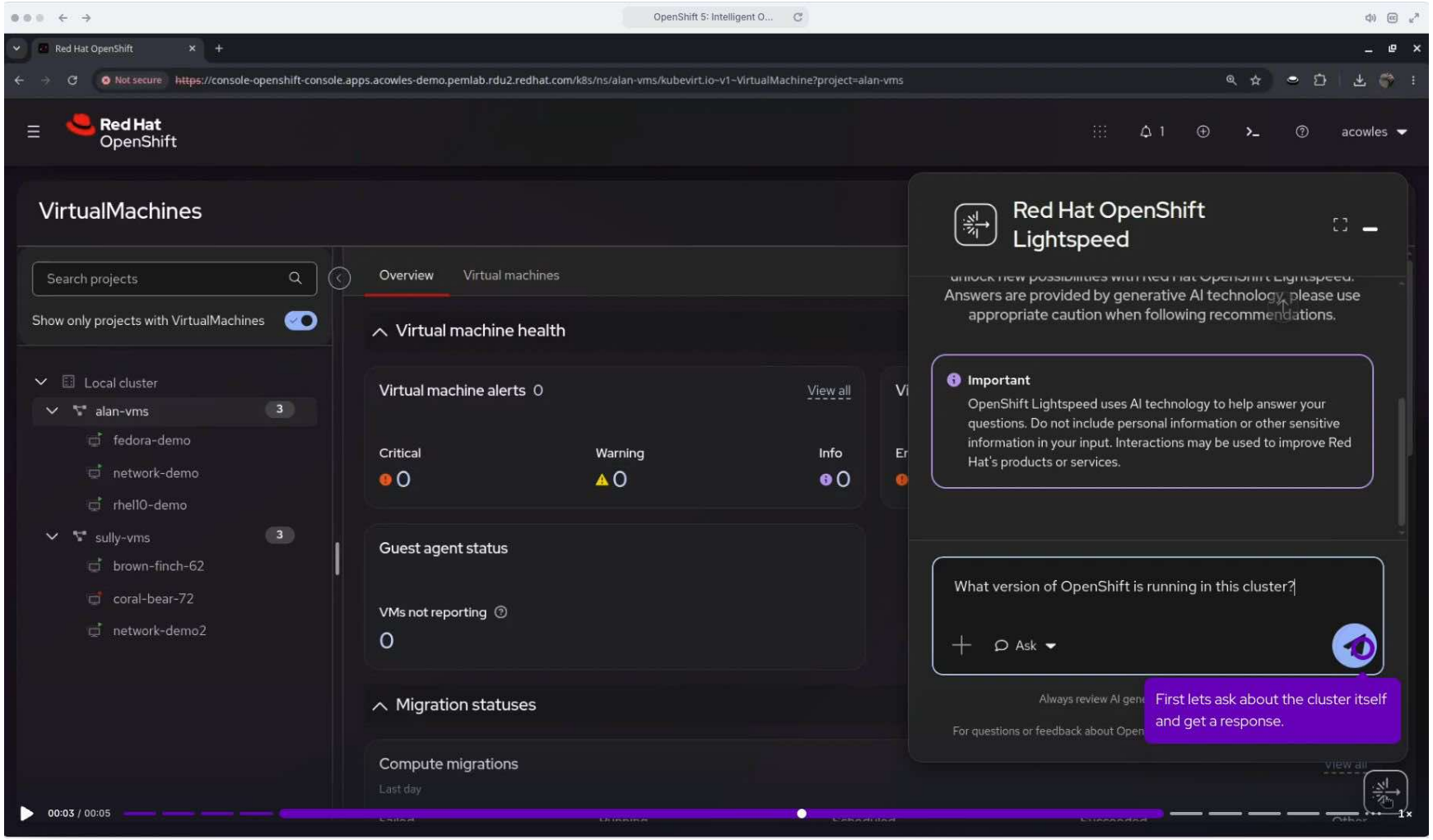
Intelligent insights with OpenShift 5

Get the insight. Skip the investigation.

- OpenShift supports natural language chat to investigate, identify, and remediate issues - enhanced by OpenShift Lightspeed
- Create visual insights on demand to support analysis or proactively troubleshoot
- Secure your AI interactions with MCP server and MCP gateway



Intelligent

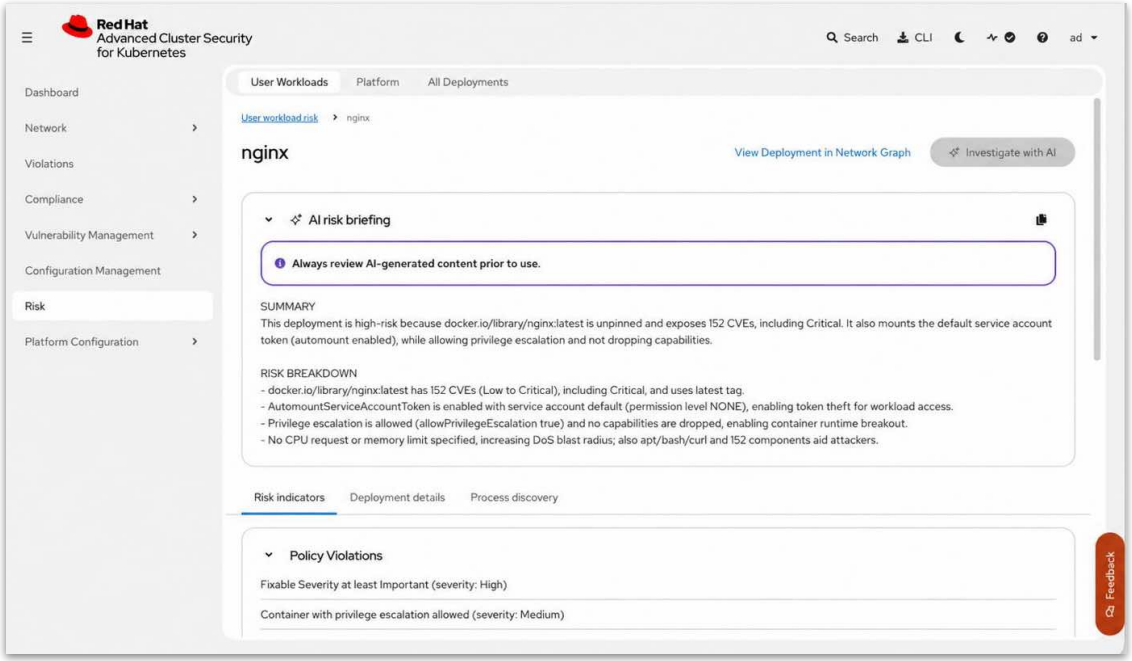


[OpenShift 5 intelligent operations with virtual machines]

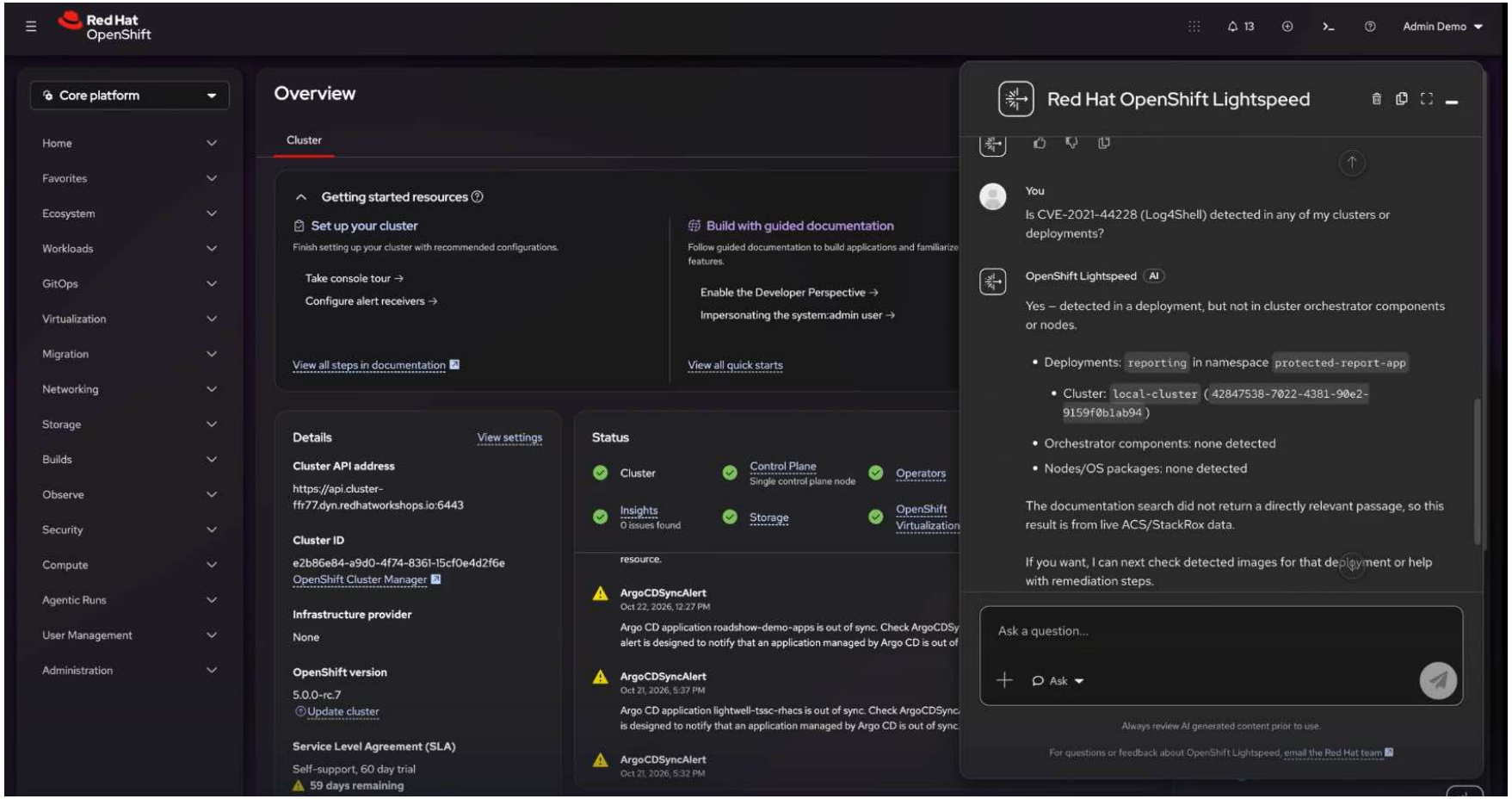
Security enhanced across the development lifecycle

Security you can see. Sovereignty you can prove.

- **Post-quantum cryptography** safeguards valuable data
- **Enhanced multi-tenancy** enables sovereign cloud by ensuring separation between tenants with strong network, access, and process isolation
- Monitor and block abnormal behavior in real-time to stop threats before runtime



Secure



[Explore AI assisted search with MCP server for ACS]

Build predictable apps for the long run

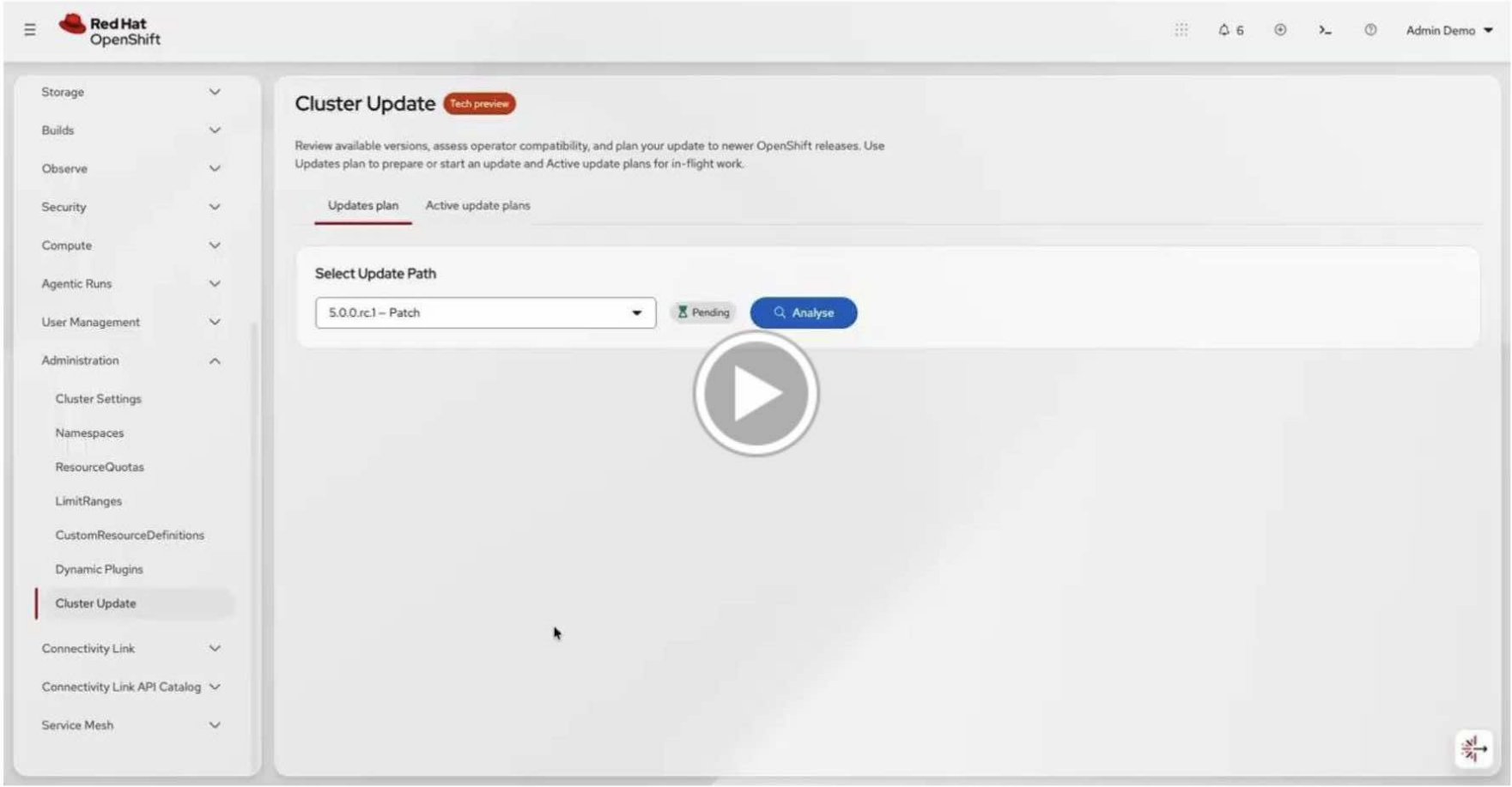
Release with consistency. Plan with transparency.

- Up to 5-year of total support on annual ELC* releases lowers the effort of maintaining applications
  - Minor releases with every Kubernetes release
- Ongoing 3 year major release cadence, ~1 year after Red Hat Enterprise Linux
- Integrated AI tools give suggestions to update efficiently and proactively looks for issues
- Seamless updates from OpenShift 4



* ELC = Extended LifeCycle

Predictable



Explore agentic updates in OpenShift 5

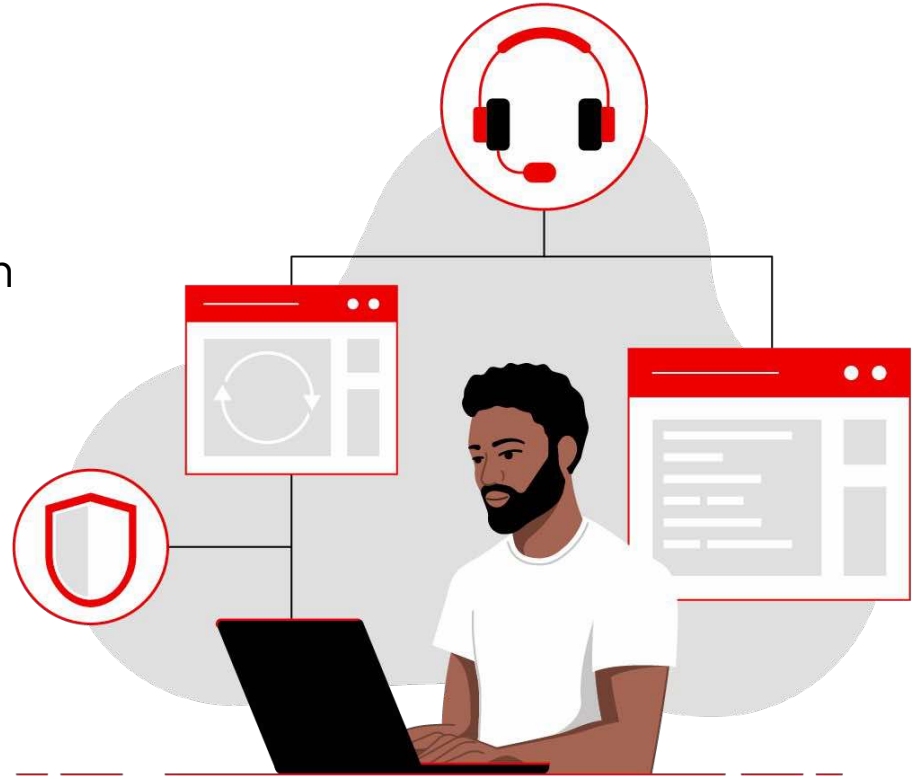
Demo



Agentic Troubleshooting

02:31 am

- Application is reported unresponsive
- SRE on duty is assigned to remediate the problem
- Root cause analysis report is required after all incidents



Agent instructions

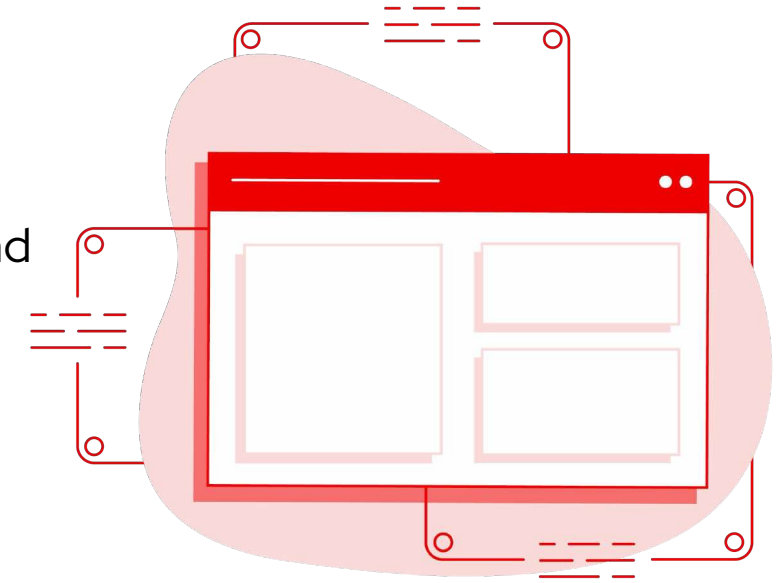
- “In the project X one of the pods fails.

  Analyse the cause of this and work on a fix for the problem.

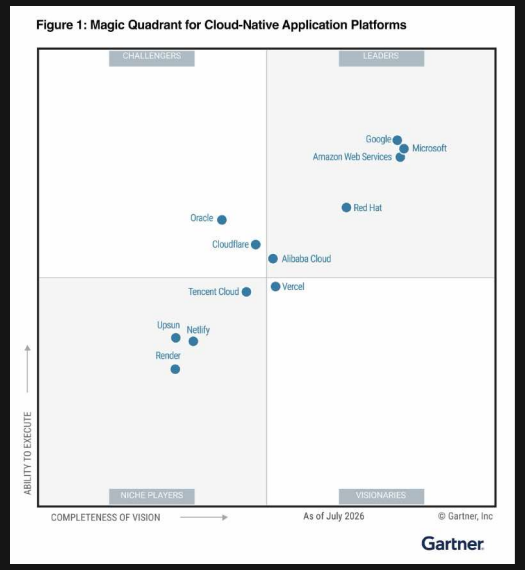
  Start with reporting back, don't apply the fix until I have reviewed and approved it.”

- “Go ahead and apply the fix”

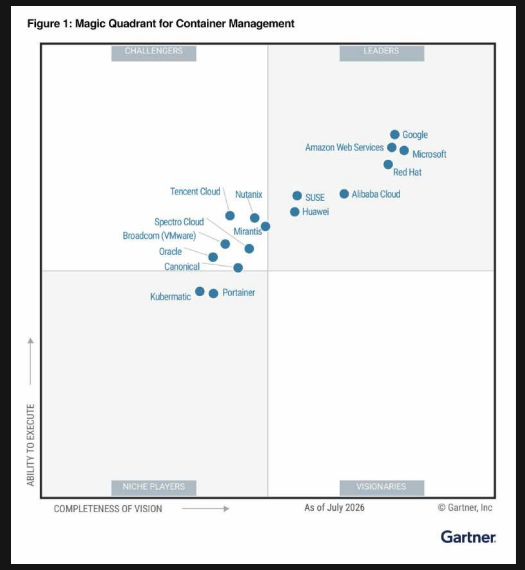
- “Create an incident report with a root cause analysis and how the problem was resolved”



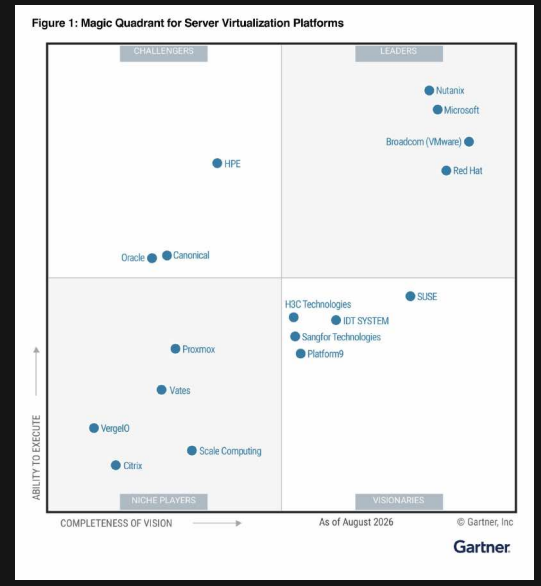
A Leader in three categories



Red Hat is a Leader in the 2026 Gartner® Magic Quadrant™: Cloud-Native Application Platforms for the third year in a row



Red Hat is a Leader in the 2026 Gartner® Magic Quadrant™: Container Management for the fourth year in a row



Red Hat is a Leader in the 2026 Gartner® Magic Quadrant™: Server Virtualization Platforms

Source: Gartner, Magic Quadrant for Cloud-Native Application Platforms, Saha Mukul, Coqueiro Alex, Prasanna Lakshmi Narasimha, Watson Richard, 3 August 2026.
Source: Gartner, Magic Quadrant for Container Management, Dennis Smith, Tony Iams, Wataru Katsurashima, Lucas Albuquerque, Carolin Zhou, Bhuvie Chhabra, 2 September 2026.
Source: Gartner, Magic Quadrant for Server Virtualization Platforms, Tony Harvey, Daniel Bowers, Paul Delory, Tony Iams, Owen Marino, 14 September 2026.

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Key takeaways & OpenShift 5 Highlights





Red Hat OpenShift 5.0 Highlights

INTELLIGENT

Lightspeed Augmented (GA) and Autonomous Troubleshooting (TP) transforms reactive firefighting to proactive diagnosis, root cause analysis, and remediation

Agentic OpenShift Update (TP) provides intelligent lifecycle automation for OpenShift from planning to execution

AI-powered Perses Dashboarding (GA) accelerates custom Perses dashboards creation via chat

MCP server for Red Hat OpenShift (GA) and MCP gateway via Red Hat Connectivity Link (GA) connects AI tools to platform ops while safely governing access and policy enforcement

PREDICTABLE

5-Year Support Lifecycle offers longer planning windows for upgrades and workload certifications

Supported Update Paths from OpenShift 4 to OpenShift 5 with no disruptive cluster migrations

Operator Update Planner provides admins with a centralized view of operator updates for visibility

RHCOS9 and RHCOS10 support provides flexible choice of OS to best meet your application needs

SECURE

Centralized and Enforced TLS Configuration GA eliminates inconsistent cryptographic configurations

Post-Quantum Cryptography, OCP defaults to Quantum-Safe ML-KEM key encapsulation to protect against "harvest now decrypt later"

Tailored Operand Network Policies prevent unauthorized lateral traffic and protect against data leaks

Protect AI Workload by encrypting model weights with Confidential Containers while isolating agent execution inside sandboxed VMs.

VIRTUALIZE

Memory-Aware Load Balancing with Descheduler redistributes virtual machine workloads to prevent node memory contention

Autopilot Configuration Tuning tunes default settings for core cluster components and operators

VolumeGroup Snapshots (GA) improves backup and recovery workflows

Storage-Agnostic Incremental Backup (QEMU CBT) reduces backup times and storage overhead

GA: Generally Available (and unless otherwise noted) | TP: Technology Preview | MCP: Model Context Protocol

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