

Red Hat  
**Summit**

**Connect**

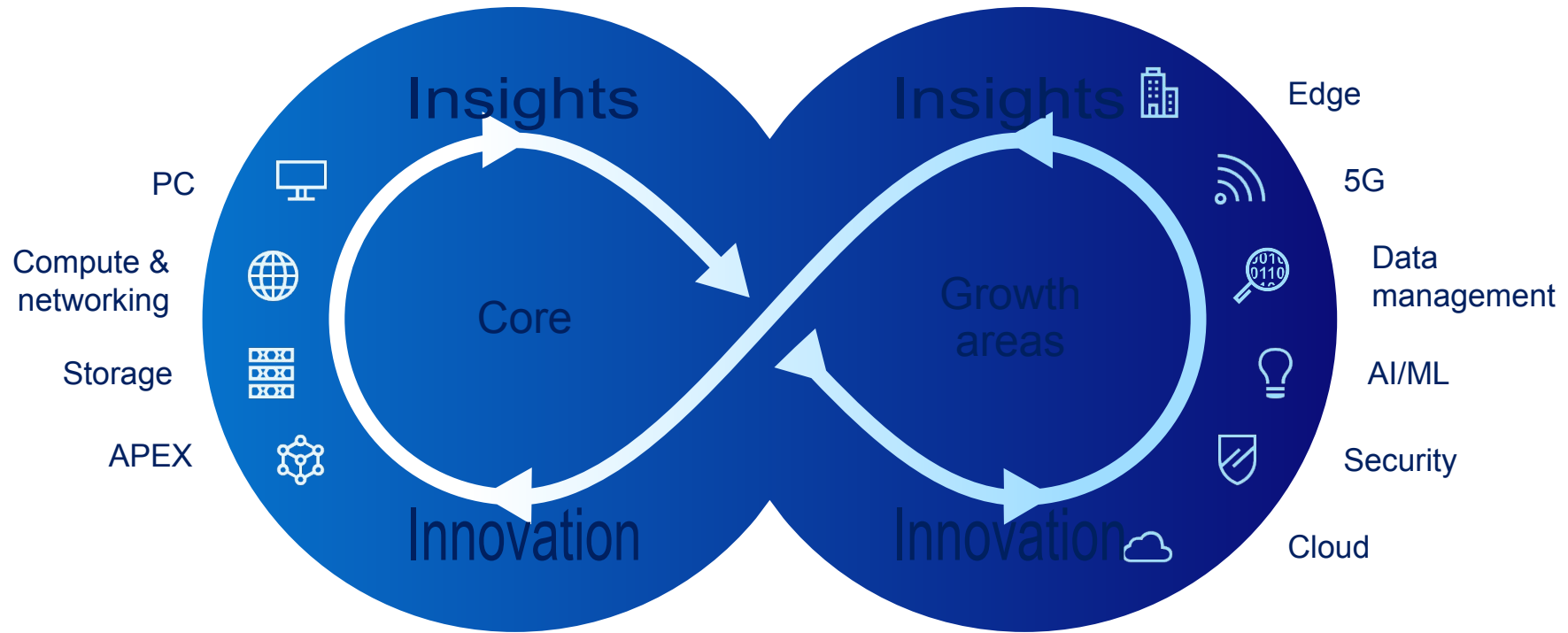
# Dell RedHat Better Together for a multcloud world

Frediano Lorenzin Country Field Chief Technology Officer  
Dell Technologies

Milano, 19 Novembre 2024

**DELL**Technologies





**\$8.2B**

invested in R&D from  
FY22 through FY24

**30,908**

Total patents & patent  
applications as of  
Feb. 2, 2024

**16<sup>th</sup>**

In the 2023 Top 300  
Patent Owners List

**87%**

of engineers are  
software engineers

**\$1.6B +**

Invested by Dell Technologies  
Capital in 145+ startups

# A partnership dedicated to your success

Dell Technologies and Red Hat partner to solve the challenges your organization faces

## 24-year partnership

Since 1999

## Red Hat reinvestment in Dell

Resources including solutions experts and joint engineering leads



**DELL**  
Technologies



**Red Hat**  
OpenShift

## Co-engineered solutions

Enterprise-ready solutions, ready stacks,  
white papers

## Red Hat premier global partner

Dell holds the highest level of partnership

# Proven technology you can trust



30

+ years providing trusted enterprise open source software

15

+ years of enterprise virtualization experience

13,000+

hours of testing before each release<sup>1</sup>

<sup>1</sup> Based on Dell internal testing, July 2024

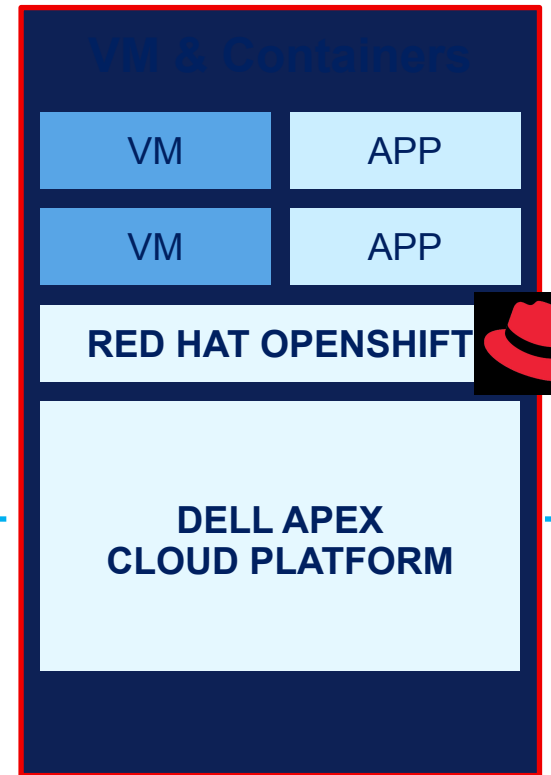
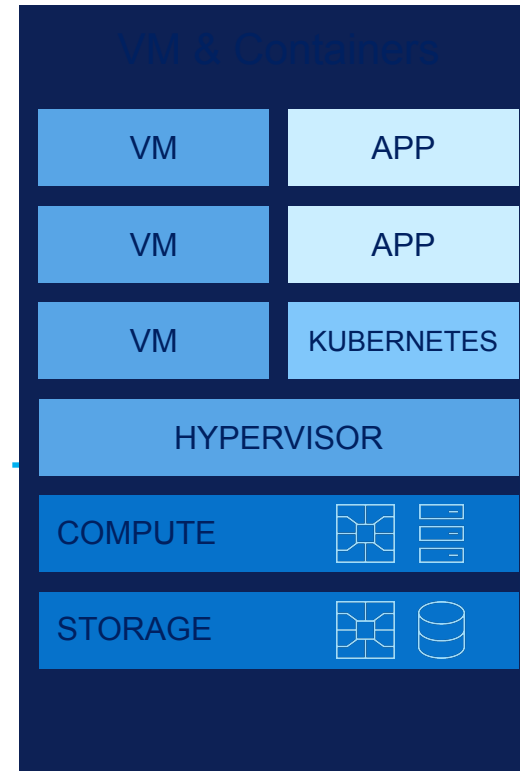
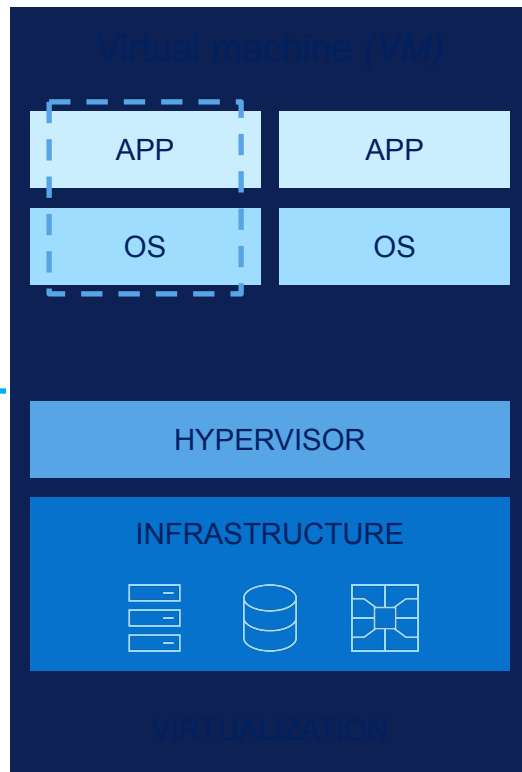
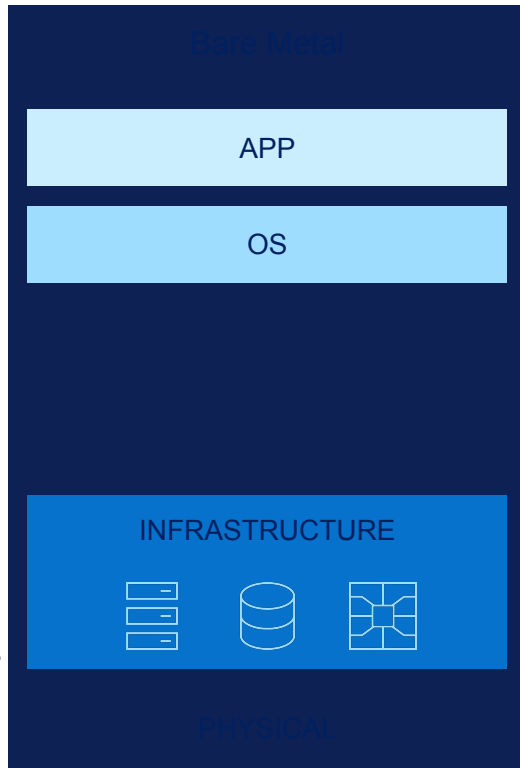
# IT is undergoing its next big transformation

## MODERN

App dev (microservices) and deployments

## TRADITIONAL

App dev (monolithic) and deployments



# Build now and for the future



Dell APEX  
Cloud Platform  
Foundation Software

Run VMs, containers, and  
AI/ML workloads on a  
**single appliance**

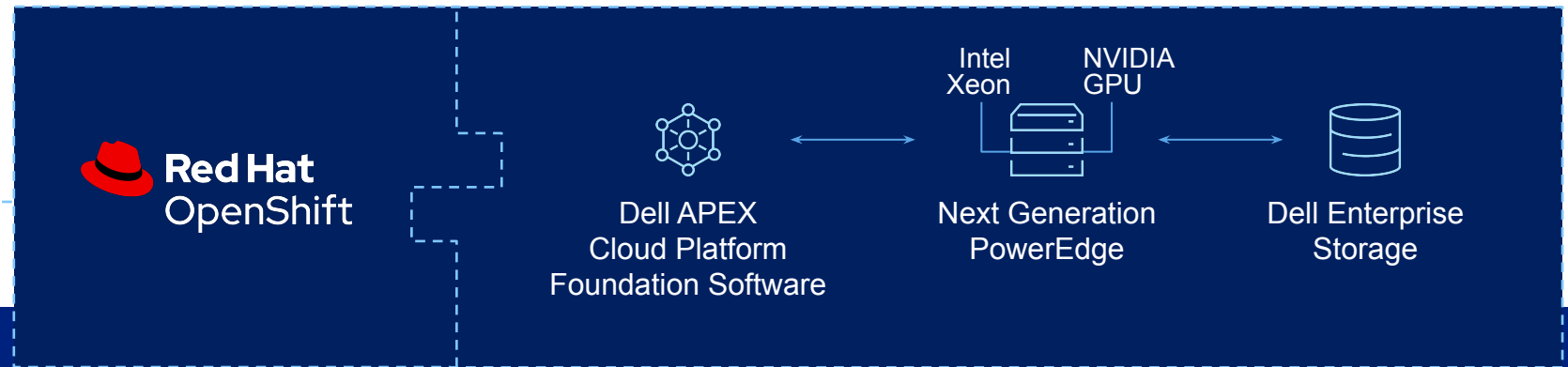
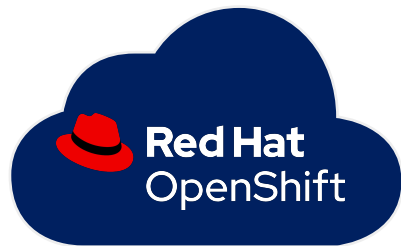
**Modernize existing  
infrastructure** and  
applications, and build  
new ones

Implement consistently  
across **on-premises,**  
**edge, and cloud**  
environments

# DELL APEX Cloud Platform for Red Hat OpenShift

**Integrated &  
automated**

**Common  
infrastructure**

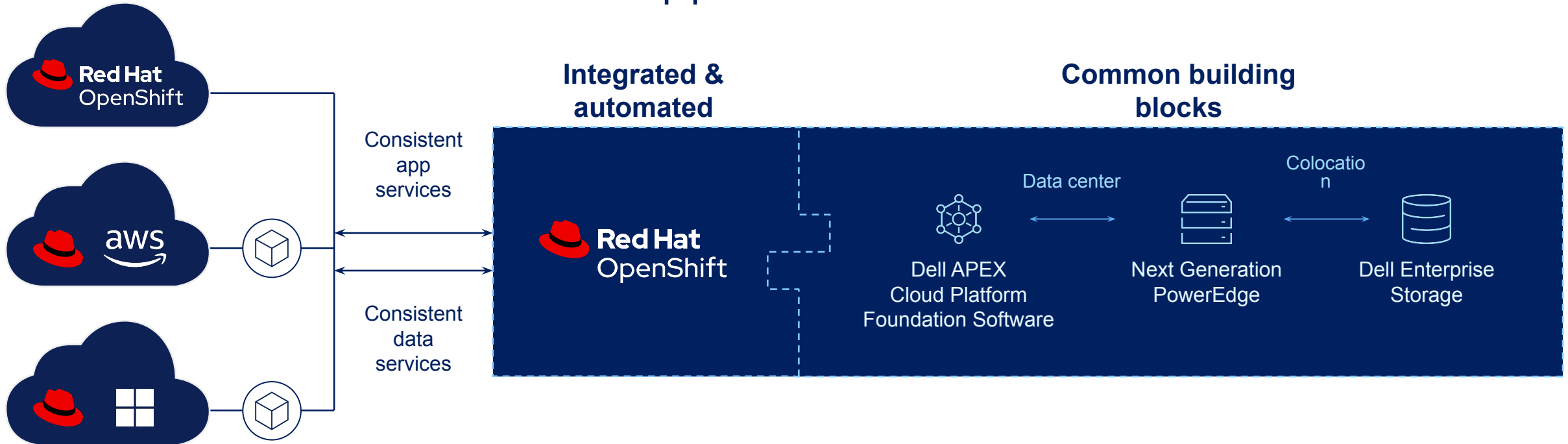


**Build**  
now and for  
the future

**Consistent**  
application  
environments

**Simplify**  
with flexible  
infrastructure

# Consistent application environments



Consistent application services regardless of location

Mission-critical storage outcomes on-premises and in public cloud

Data and application mobility on a universal storage layer\*



# DELL APEX Cloud Platform for Red Hat OpenShift

provides seamless operations for multiple workloads on a single platform



## Red Hat OpenShift

### Bare Metal deployment of OpenShift Platform Plus

Constant Management regardless of where the platform is installed: On Premises, In the Cloud, Or at the edge.

Simplify operations so your teams can refocus on innovation, not managing infrastructure.



## Red Hat OpenShift Serverless

### Deploy and manage modern serverless workloads

OpenShift Serverless leverages the power of Knative to deliver serverless, event-driven applications that scale on demand



## Red Hat OpenShift Virtualization

### Single platform for managing both VMs and containers

Migration Tooling to support streamlined migration of virtual machines at scale

Use existing VM roles and responsibilities maintain application components that are business critical and modernize skill sets over time



## Red Hat OpenShift AI

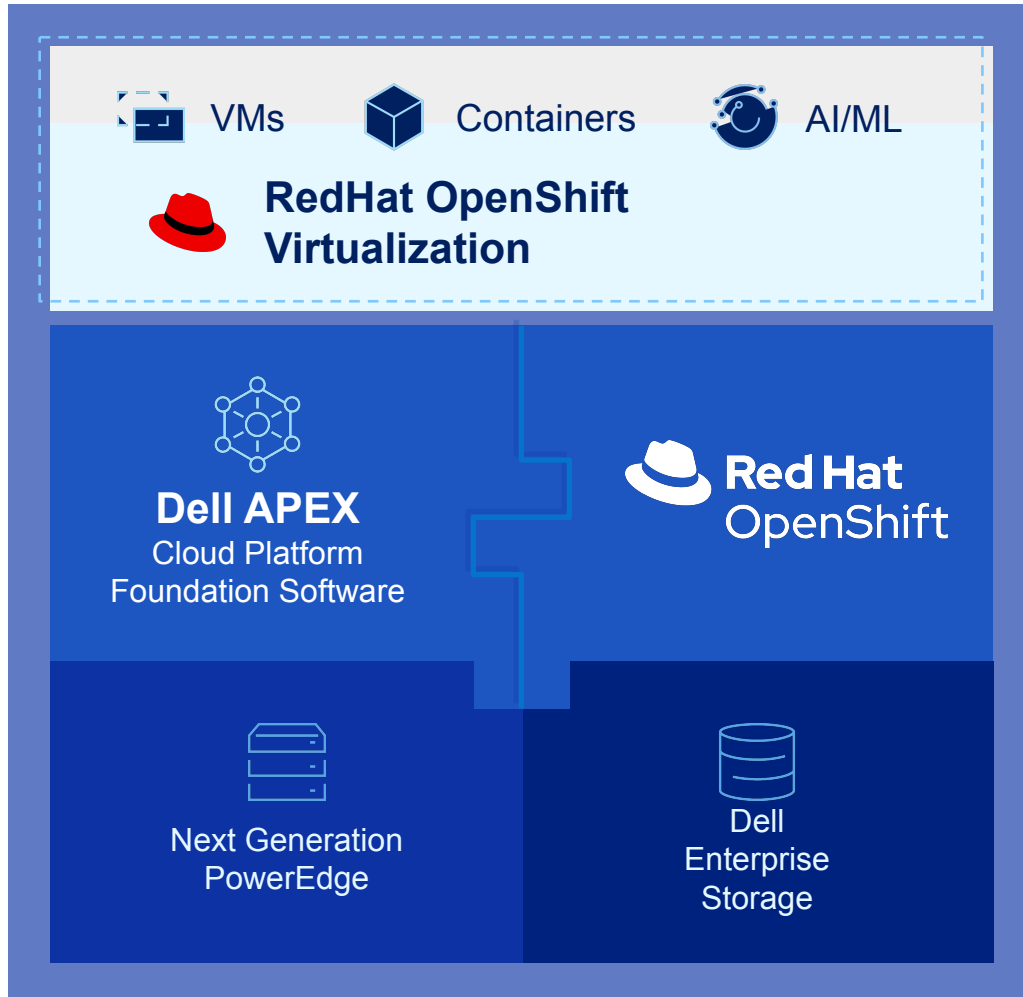
### Enterprise-Ready AI application platform


Develop, train, serve, monitor, and manage the life cycle of AI/ML models and applications, from experiments to production.


Red Hat tracks, integrates, tests, and supports common AI/ML tooling and model serving

# Red Hat OpenShift AI

The modern option for general purpose virtualization



 **Unified platform and consistent management**  
For new and existing virtual machines alongside containers and AI workloads

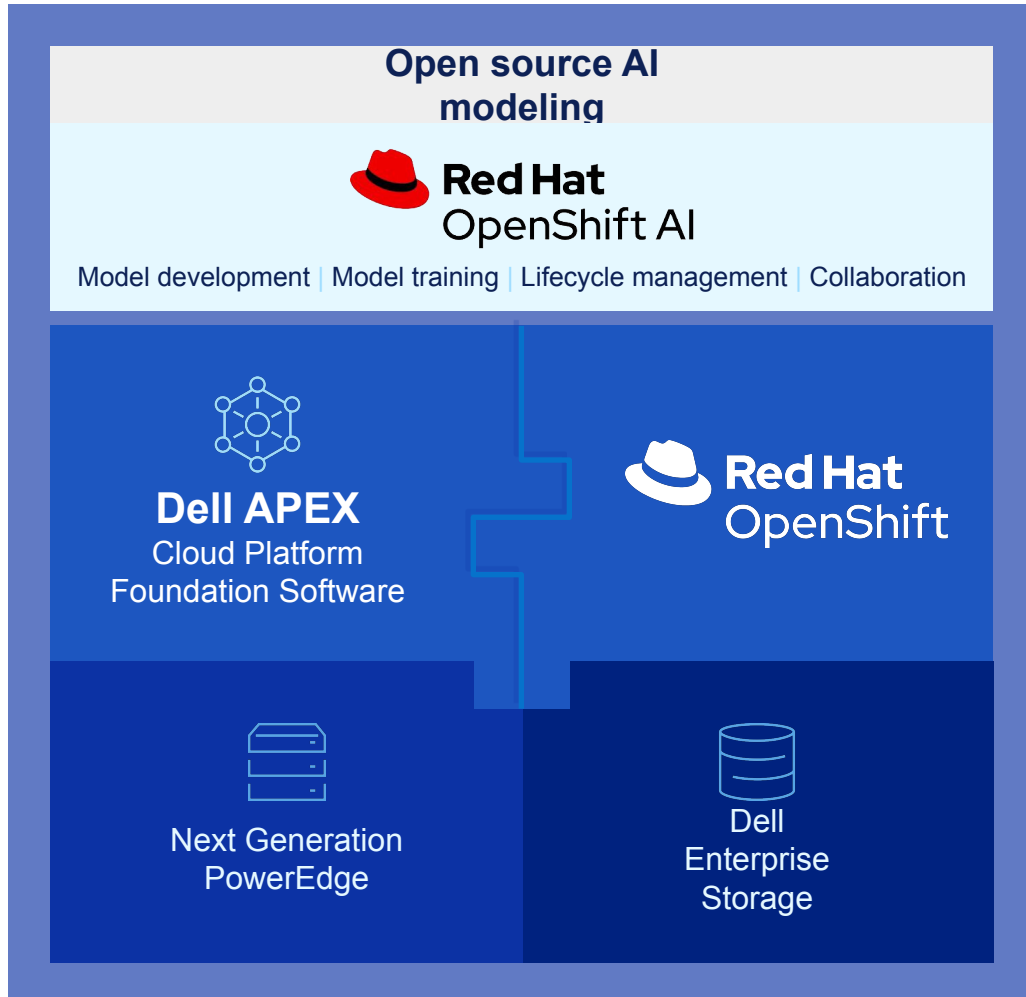
 **Healthy open source community**  
The KubeVirt project is a top 10 CNCF active project, with 200+ contributing companies

 **Guest support**  
Includes unlimited Red Hat Enterprise Linux guest entitlements and supports Microsoft Windows guests through Microsoft SVVP

 **Migration support**  
Ansible Automation Platform + Migration Toolkit for Virtualization, Training and Consulting

# Red Hat OpenShift AI

Deliver AI outcomes at scale across hybrid cloud environments



## Model development

Bring your own models or customize Granite models to your use case with your data. Supports integration of multiple AI/ML libraries, frameworks, and runtimes.



## Model serving and monitoring

Deploy models across any OpenShift footprint and centrally monitor their performance



## Lifecycle management

Expand DevOps practices to MLOps to manage the entire AI/ML lifecycle



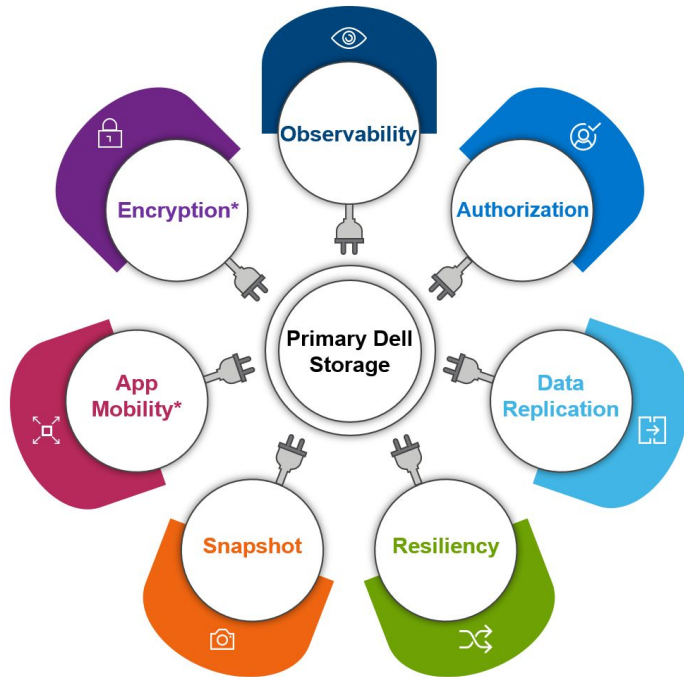
## Resource optimization and management

Scale to meet workload demand and share resources, projects, and models across environments

# LCM Upgrade process

The screenshot displays the Red Hat OpenShift Dell APEX Cloud Platform interface. The left sidebar contains navigation options: Administrator, Home, Dell APEX Cloud Platform, Operators, Workloads, Networking, Storage, Builds, Observe, Compute, User Management, and Administration. The main content area is titled "Dell APEX Cloud Platform" and includes tabs for Overview, Inventory, Updates, Security, Settings, and Support. The Overview tab is active, showing details for the Compute Cluster ID c88d45e7-c09c-4921-9feb-8be0eeb734e7. A red box highlights the "Dell APEX Cloud Platform Foundation software version" (03.01.00.00) and the "Red Hat OpenShift Container Platform version" (4.14.27). The Status section shows a green checkmark for the Cluster, a yellow warning for the Certificate (Nearly Expired), and a blue information icon for Updates (Available 0). The Alerts section displays 40 Alerts, including 1 Critical, 7 Warning, and 32 Informational. The CPU Usage section shows 1.25% of 512.00 c used (6.39 c) and 505.61 c available. The Memory Usage section shows 7.64% of 1005.57 GiB used (76.84 GiB) and 928.73 GiB available. The bottom of the interface features "Next", "Back", and "Cancel" buttons.

# Dell Container Storage Modules | Ansible Modules



\* Currently in tech preview, available on request

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<p><b>Info</b></p> <ul style="list-style-type: none"> <li>• Volumes</li> <li>• SDS &amp; SDC</li> <li>• Storage pools</li> <li>• Protection domains</li> <li>• Devices</li> <li>• Snapshot policies</li> <li>• Volume and Storage Pool statistics</li> <li>• Replication pairs</li> </ul>	<p><b>Volume</b></p> <ul style="list-style-type: none"> <li>• Create/delete</li> <li>• Modify</li> <li>• Map/unmap</li> <li>• Get details</li> <li>• Expand</li> <li>• Add/remove snapshot policy</li> <li>• Get statistics</li> </ul>	<p><b>Snapshots</b></p> <ul style="list-style-type: none"> <li>• Create/delete</li> <li>• Map/unmap</li> <li>• Get details</li> <li>• Modify attributes</li> </ul>	<p><b>Storage Pools</b></p> <ul style="list-style-type: none"> <li>• Create</li> <li>• Get details</li> <li>• Modify attributes</li> <li>• Get statistics</li> </ul>	<p><b>SDC</b></p> <ul style="list-style-type: none"> <li>• Get details</li> <li>• Rename</li> </ul>
<p><b>Device</b></p> <ul style="list-style-type: none"> <li>• Get details</li> <li>• Add/remove</li> </ul>	<p><b>SDS</b></p> <ul style="list-style-type: none"> <li>• Create/delete</li> <li>• Get details</li> <li>• Add/remove IPs</li> <li>• Modify attributes</li> </ul>	<p><b>Replication</b></p> <ul style="list-style-type: none"> <li>• Manage replication pairs</li> <li>• Create / modify RCG</li> <li>• Set RPO</li> <li>• Set active / inactive</li> <li>• Pause / resume</li> <li>• Freeze / unfreeze</li> <li>• Create snapshot</li> </ul>	<p><b>MDM</b></p> <ul style="list-style-type: none"> <li>• Get details</li> <li>• Add/remove standby MDM</li> <li>• Change primary</li> <li>• Cluster mode</li> <li>• Performance profile</li> <li>• Modify virtual interfaces</li> <li>• Modify name</li> </ul>	<p><b>Protection Domain</b></p> <ul style="list-style-type: none"> <li>• Create/delete</li> <li>• Get details</li> <li>• Modify attributes</li> </ul>

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Q&A

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Thank you

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