

Selling Red Hat Ceph Storage 4

Partner session

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About this presentation

Who is the target audience?

- Technical sales at storage partners

What is the overall objective?

- To give partners' sales teams the tools needed to sell Red Hat Ceph Storage 4 effectively.

How does it fit with other content?

- How to sell Ceph Storage (business level):
<https://training-lms.redhat.com/sso/saml/auth/rhopen?RelayState=deeplinkoffering%3D40716778>
- How to sell Red Hat Storage (business level):
<https://training-lms.redhat.com/sso/saml/auth/rhopen?RelayState=deeplinkoffering%3D41837305>

Selling v4

- Why storage is important for businesses today
- Red Hat Ceph Storage
- Use cases for Ceph
- What's new in Red Hat Ceph Storage 4?
- Q&A

Why storage is important for businesses today

Today's businesses are facing new challenges, and it's causing them to rethink their storage solutions.

The challenges facing today's businesses



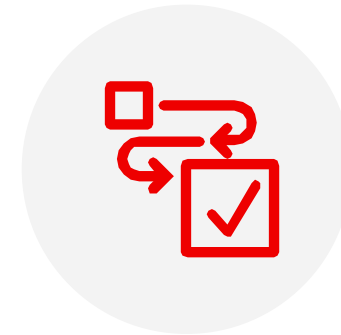
Infrastructure not keeping up

Slow to scale infrastructure and legacy systems are holding back transformation.



Talent shortage

Scarcity of key skills make it difficult to find and retain talent to maintain operations.



Operations siloed

Manual processes and siloed operations hamper development and impede DevOps, driving up costs.

The demands for storage are growing faster than ever

23%

Annual increase in unstructured data

Typical organizations report unstructured data growing 23% year-over-year, that means storage needs are doubling every 40 months.

25%

Year-over-year increase in AI adoption

Companies use of artificial intelligence in standard business processes has increased year-over-year by 25%, driving increased demand for storage.

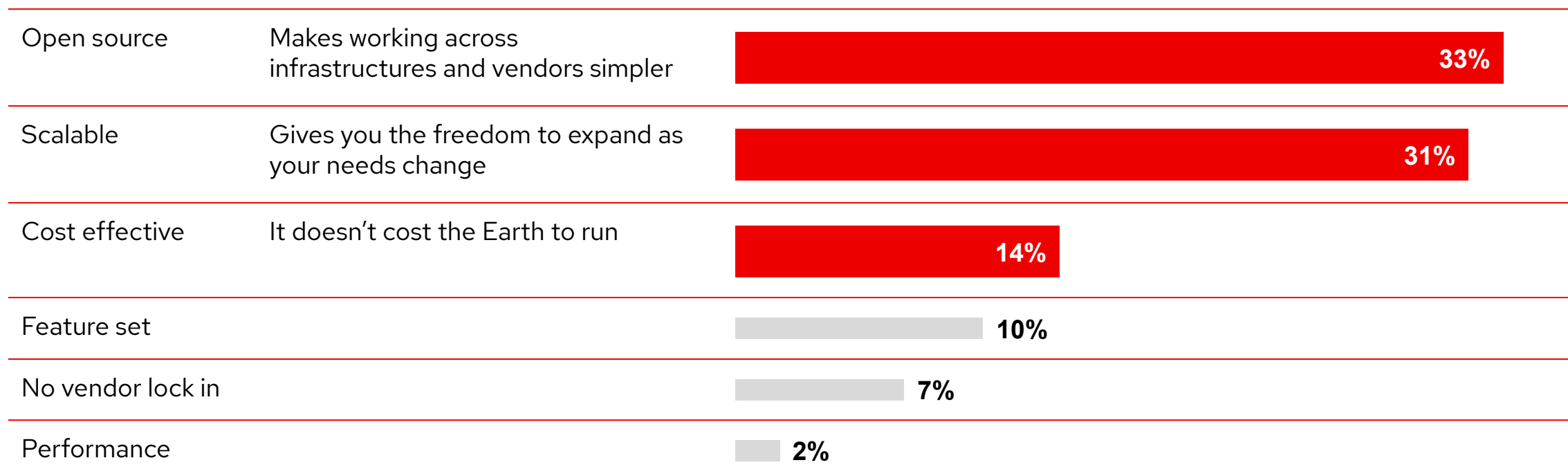
25 B

Connected IoT devices by 2025

IoT adoption is on the rise. There are now billions of devices generating data that needs to be stored, and the number is growing every day.

You can't support today's demands with yesterday's infrastructure

That's why people are moving to Ceph



Core features of Ceph



Efficiency

- Containerized deployment to reduce hardware requirements
- Erasure coding for reduced footprint
- Thin provisioning
- In-line compression
- Snapshots, cloning and CoW



Security

- At rest and end-to-end encryption
- Pool-level authentication
- Active directory, LDAP and Keystone v3
- At-rest encryption—keys held on separate hosts
- Security guide



Performance

- BlueStore backend
- First to be able to handle one billion objects
- Beast.ASIO front-end



Manageability

- Integrated monitoring and management dashboard
- Simplified UI install
- Ansible automation
- Full CLI interface
- Increasingly self-managed



APIs and protocols

- S3, Swift and Apache Hadoop S3A
- OpenStack Cinder, Glance and Manila
- NFS v3 and v4
- iSCSI
- Librados

Red Hat Ceph Storage

Red Hat Ceph Storage can answer these challenges and provide key benefits for businesses.

Why Ceph?



Scalable



Simple



Secure

Why Red Hat for your Ceph storage needs



Proven track record

Years of experience helping top brands revolutionize their storage, backed by an extensive portfolio of partners.



Comprehensive portfolio

With a Red Hat subscription you get access to automation, management and integration benefits from the entire Red Hat portfolio.



Ongoing support

Access to ongoing support and expertise including best-practice documentation and security information.



Open source advocate

Red Hat is a leader and trusted advisor in the open source space. We help advocate your needs and identify emerging technologies.

For customer that just want it to work

Key selling points for Red Hat Ceph Storage 4



It's easier than ever to get started

Red Hat Ceph Storage 4 has a new installation wizard that makes it so easy to get started even your cat could do it.

No prior Ceph knowledge required

Backed by the same Ansible logic operators are already familiar with, Red Hat Ceph Storage 4 requires minimal Ceph knowledge to deploy clusters for the first time.

New management tools lower the barriers to entry

Red Hat Ceph Storage 4 doesn't require mastering the internal details of the RADOS storage system, significantly lowering the curve to SDS adoption.

For customers that want to look under the hood

Key selling points for Red Hat Ceph Storage 4



Improved monitoring tools for better insights

One of the most requested features, "RBD Top", is now available. Gain immediate insights on what clients are generating the most IO.

New dashboard gives you greater control

Do even more from the new dashboard, including manage storage volumes, create users, monitor performance and even initiate cluster upgrades.

Do more with less

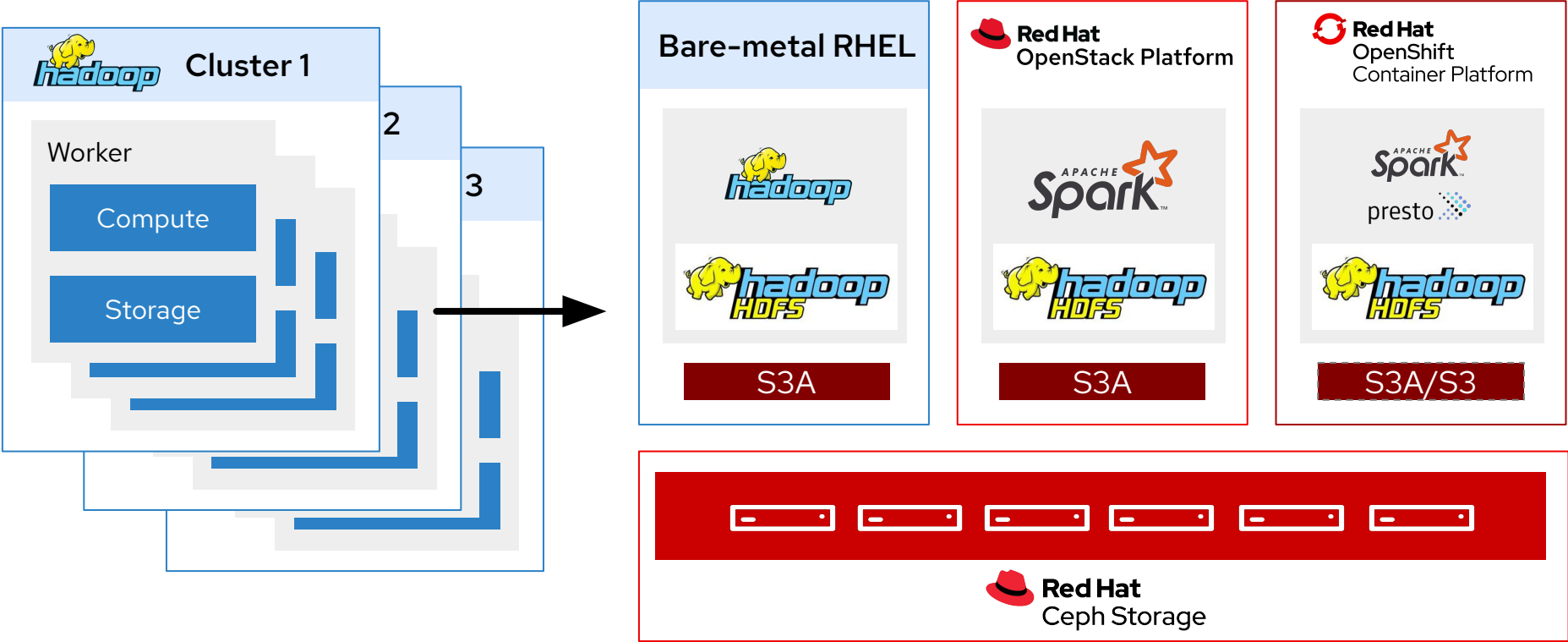
The total cost of ownership is lowered as Red Hat Ceph Storage 4 introduces minimum configurations for customers looking at smaller Object store deployments.

Use cases for Ceph

Typical use cases for
Ceph.

Object storage—Red Hat data analytics infrastructure

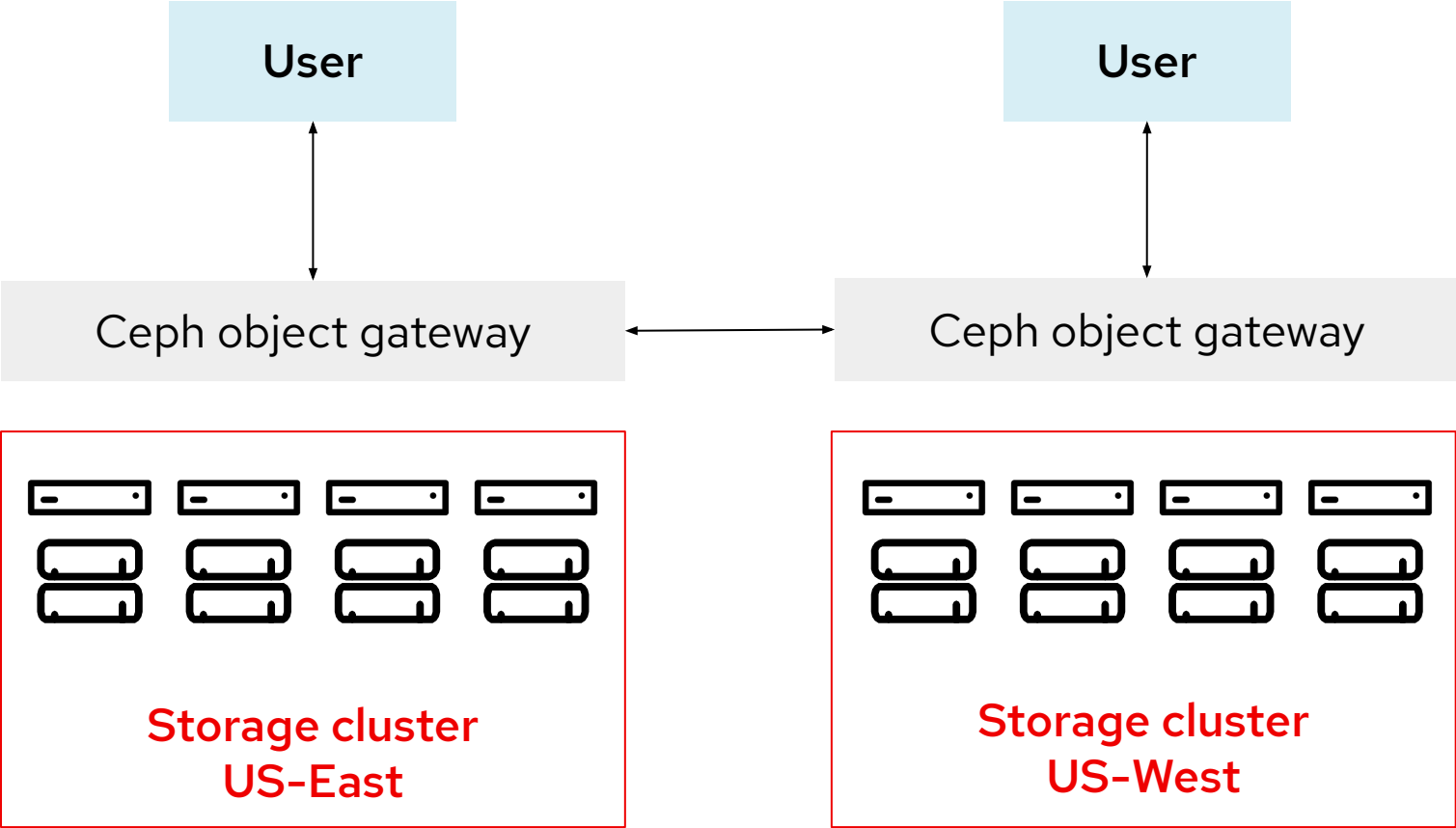
Multi-tenant workload isolation with shared data context



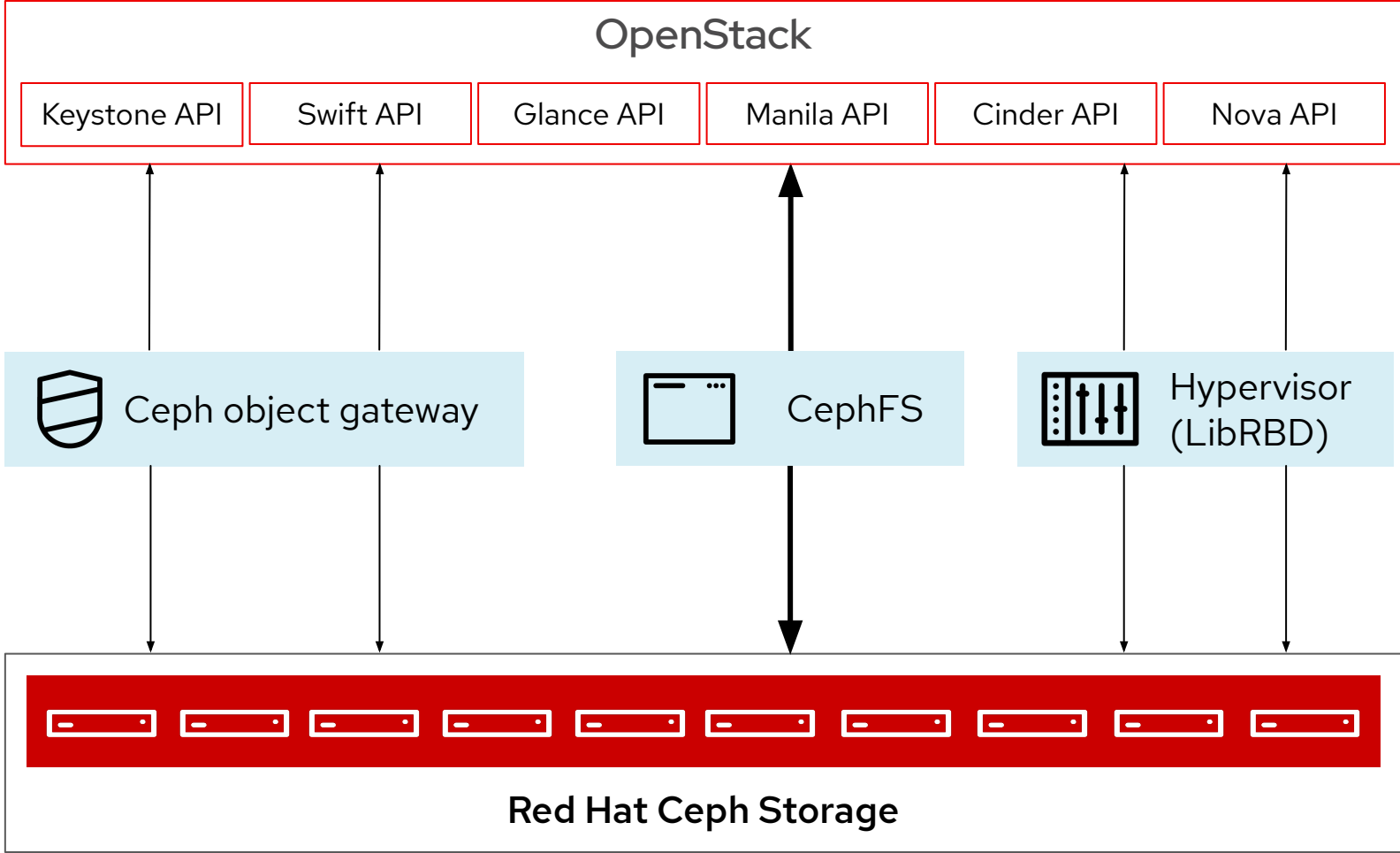
Object storage as a service

Capable of handling audio, visual and any other documentation

- RGW, Ceph's object storage interface
- NFS gateway for bulk import and export of object data
- Multi-site active-active clusters w/ single namespace



Complete and unified storage for OpenStack



 **Red Hat**
OpenStack Platform

 **Red Hat**
Ceph Storage

Object storage: Data backup infrastructure

Partner certifications for S3/cloud backup

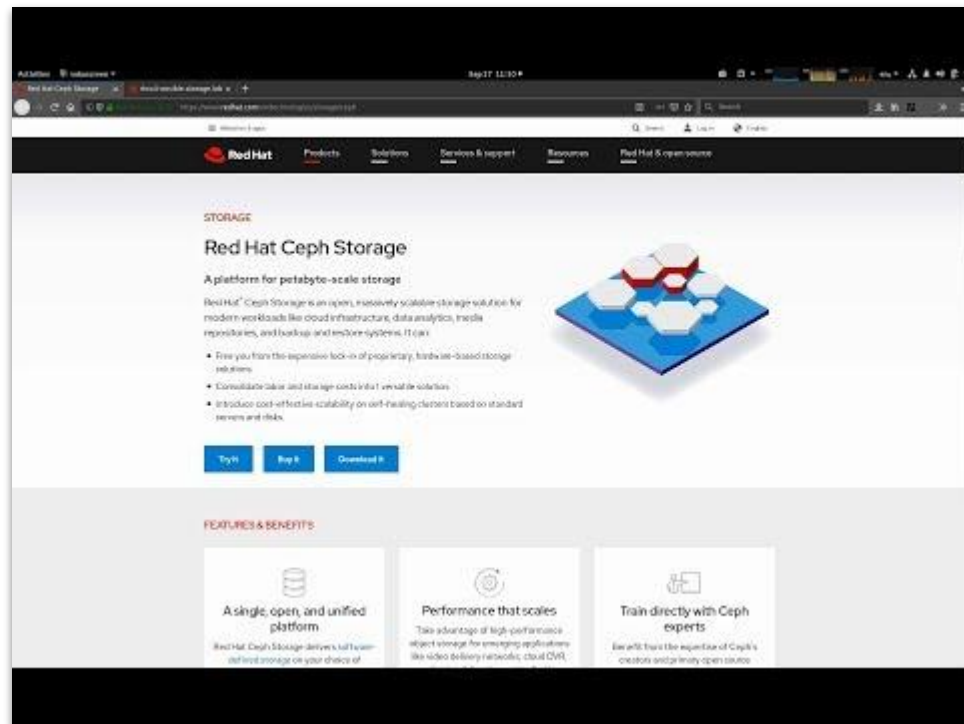


What's new in Red Hat Ceph Storage 4?

Some of the key features
in the latest version.

Installation is easier than ever

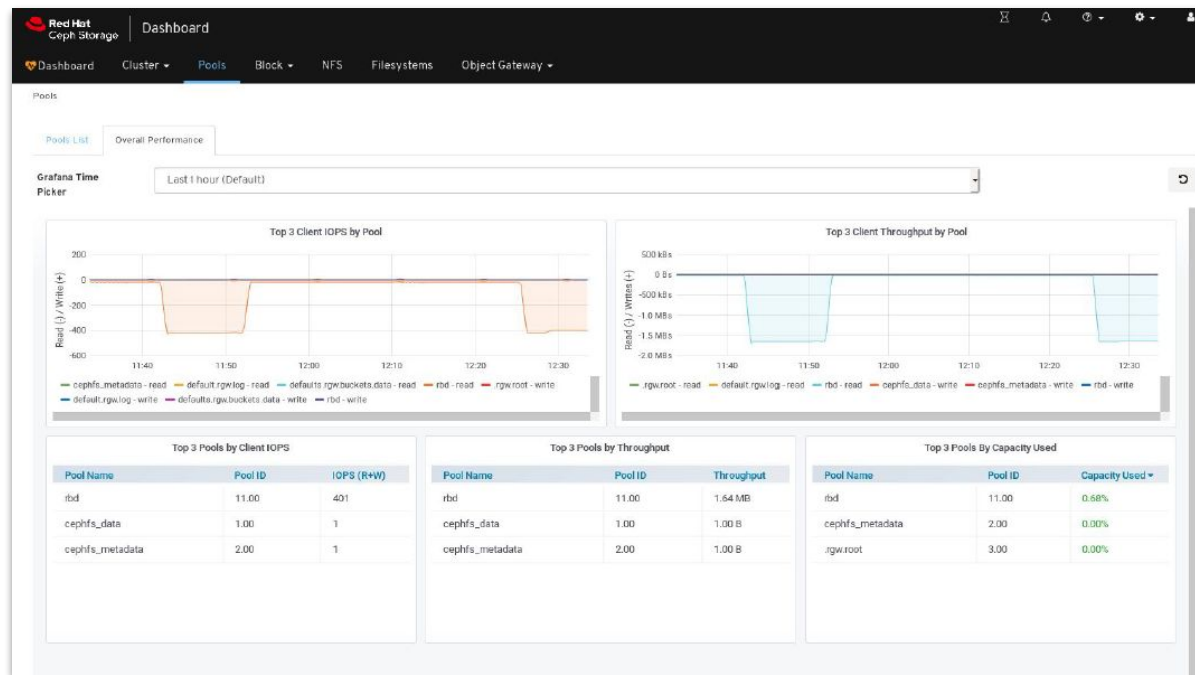
Even your cat could do it



- New wizard to guide you through the process
- Minimal Ceph experience required
- Can be started in less than 5 minutes

New dashboard

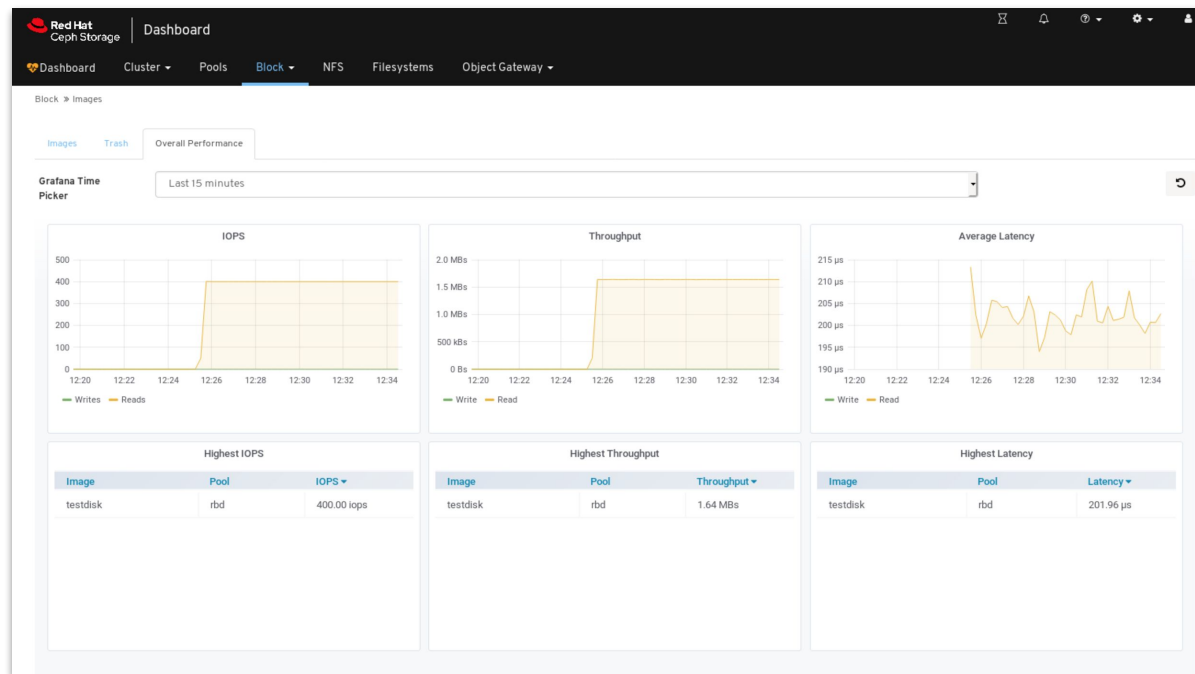
For better monitoring and management



- New monitoring functionality
- Helps improve usability
- Operators can delegate junior administrators with replacement of failed drives, users, and quota management through RBAC system

More granular permissions

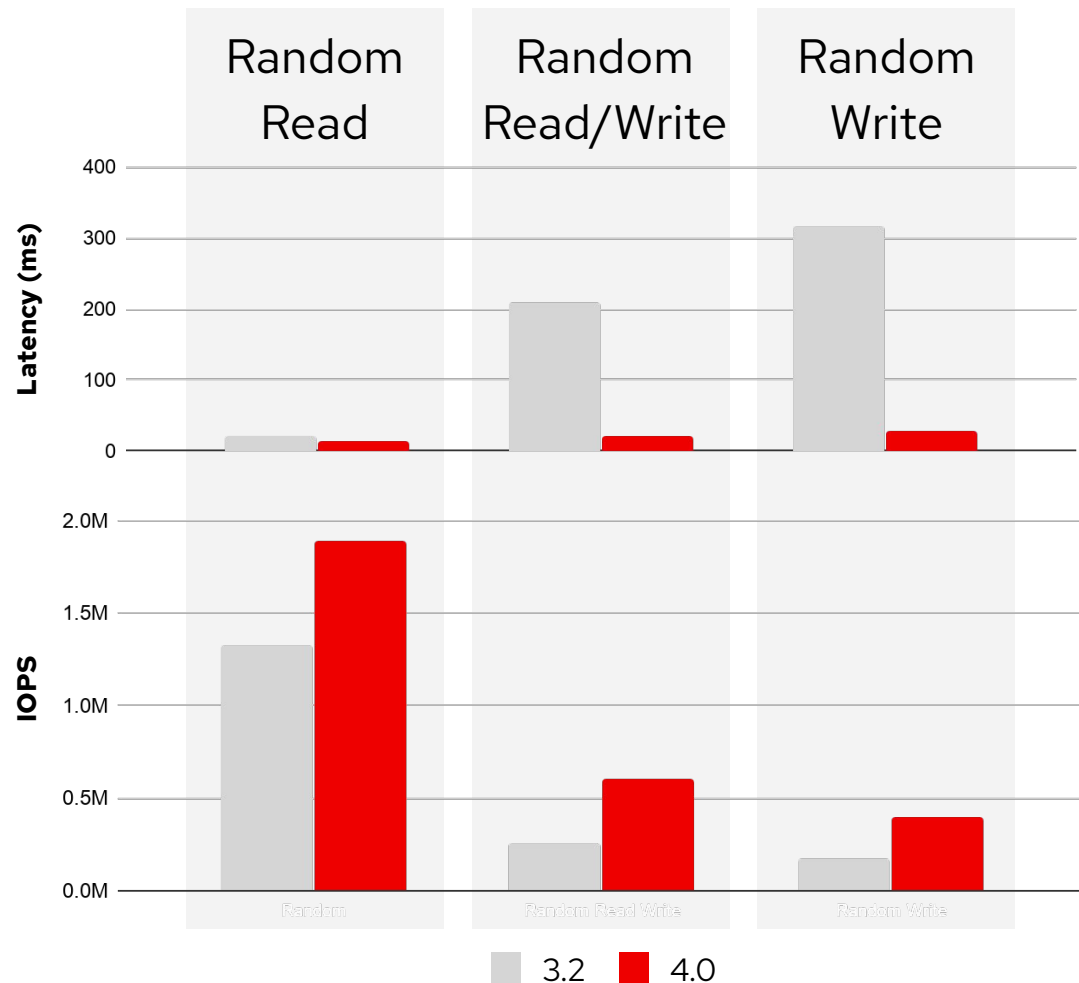
For greater efficiency while maintaining control



- Power users can delegate tasks to junior administrators or developers
- This will give them the confidence to do what they need to do and you the reassurance that they won't do things they shouldn't be doing
- Monitoring interface pinpoints IOPS, throughput and latency outliers to preemptively identify issues

Increased performance

Lower latency and more IOPS



- Twice the object store performance we were delivering just a year ago:
 - New Object store front-end
 - Bluestore backend
- Improved RADOS Block Device:
 - RBD Top
 - RBD namespace
 - RBD live pool migration
- Reduced latency variance benefits RDBMs workloads
- Lower base configurations:
 - 3 nodes minimum
 - 4 nodes recommended

Better automation

Manage more data with the same number of people



PG autoscaling

Automatically monitor the amount of data stored and adjust PGs accordingly.



Disk failure prediction

Monitor the health of devices, predict failures and take steps to mitigate them.



RGW bucket notification

The tech preview shows the path to serverless in a private hybrid cloud.

Improved security features

For you and your customers



FIPS-140 certification



Encryption on the wire for
backend protocol



Front-end quality of service
for Block users



RGW MFA delete

Red Hat Ceph Storage 4



Lifecycle - up to 5 years

- Standard support for three years:
 - New point releases
 - Repository updates
 - Bug fixes
 - Security errata
 - Feature enhancements.
- An additional two years ELS lifecycle is available



Version compatibility

- All previous releases still under support can import an external cluster through director automation
- Red Hat OpenShift versions 3+
- GA support in Red Hat OpenStack Platform for external and hyperconverged clusters alike
- Red Hat OpenShift Container Storage 4.2 recommended for use in OpenShift

Red Hat Ceph Storage 4



Scalable:

You need to store more and improve performance while getting value for money



Simple:

You want to keep the admin burden down, be able to delegate tasks and enable self-service



Secure:

You need to not just secure your data from cyberattacks, but also manage data protection and resiliency

Red Hat Ceph Storage 4 delivers:

- Smaller starting point—from just 3 nodes
- Scalable to exabytes plus billions of objects
- Increased performance
- Easier installation
- Better monitoring and management
- Improved automation
- More granular permissions and delegation
- Protection against hardware failure
- Improved encryption

Further resources

Business training

- [How to sell Ceph Storage](#)
- [How to sell Red Hat Storage](#)

Technical training

- [Red Hat Ceph Storage 2 foundations](#)
- [Red Hat Ceph Storage 2 foundations \(Japanese\)](#)
- [Red Hat Ceph Storage 3 integration with RHOSP 13 director](#)
- [Red Hat Ceph Storage 3 implementation](#)
- [Red Hat Sales Engineer Specialist–Red Hat Ceph Storage](#)
- [Red Hat Delivery Specialist–Red Hat Ceph Storage](#)

Further resources

Business training

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Technical training

Red Hat Ceph Storage 2 foundations:

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Red Hat Ceph Storage 2 foundations (Japanese):

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Red Hat Ceph Storage 3 integration with RHOSP 13 director:

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Red Hat Ceph Storage 3 implementation:

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Red Hat Sales Engineer Specialist–Red Hat Ceph Storage:

<https://training-lms.redhat.com/sso/saml/auth/rhopen?RelayState=de&eplinkLP%3D40333322>

Red Hat Delivery Specialist–Red Hat Ceph Storage:

<https://training-lms.redhat.com/sso/saml/auth/rhopen?RelayState=de&eplinkLP%3D40333322>

Q&A



Thank you

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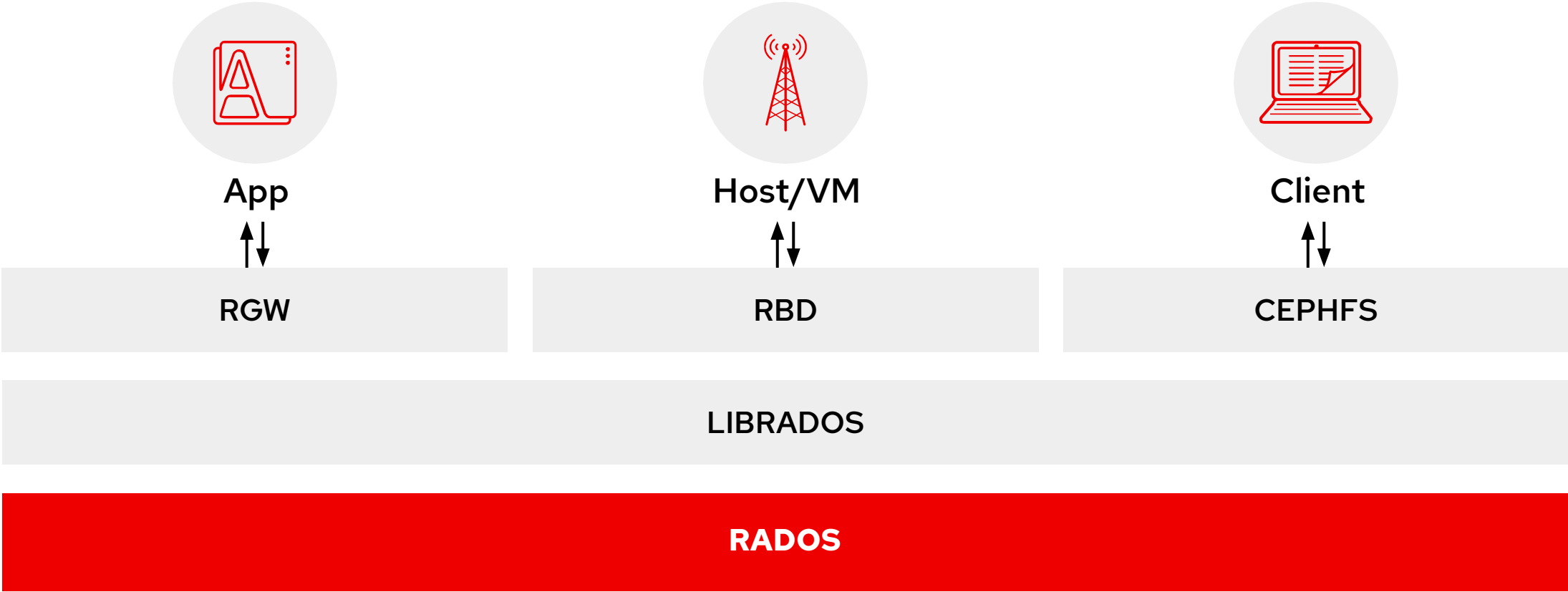
 twitter.com/RedHat

Appendix

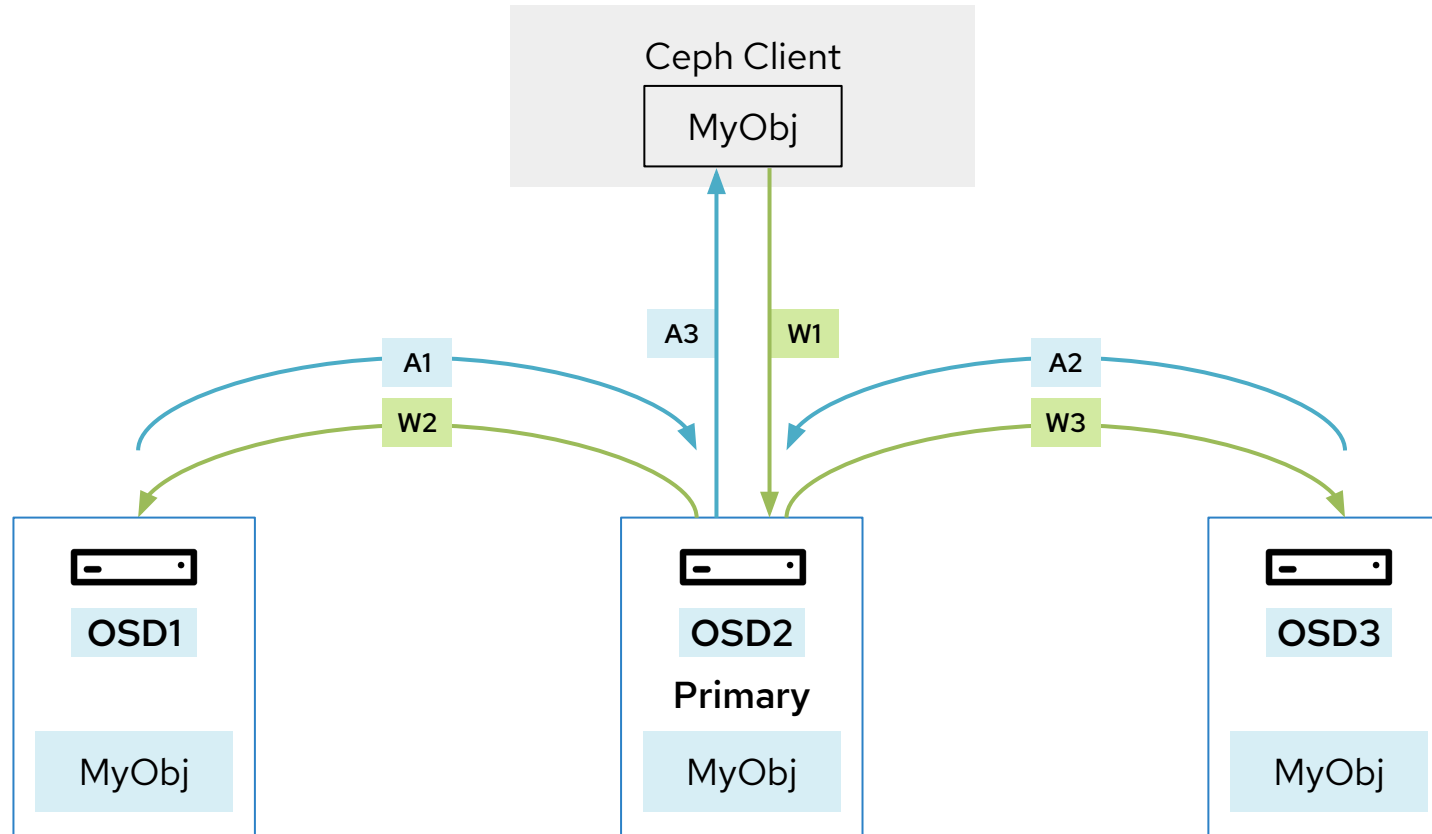


Ceph: Technical intro

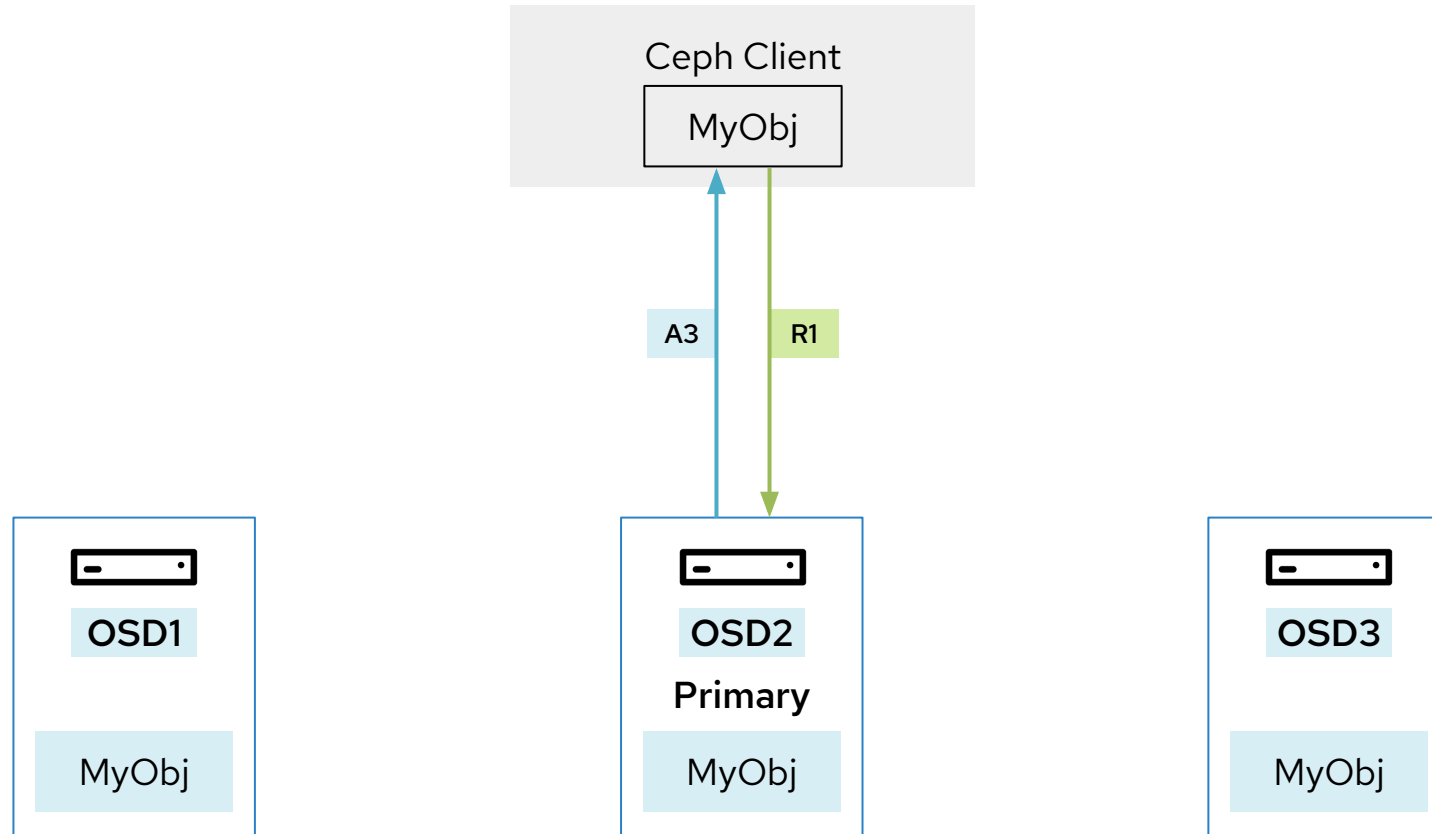
Architectural components



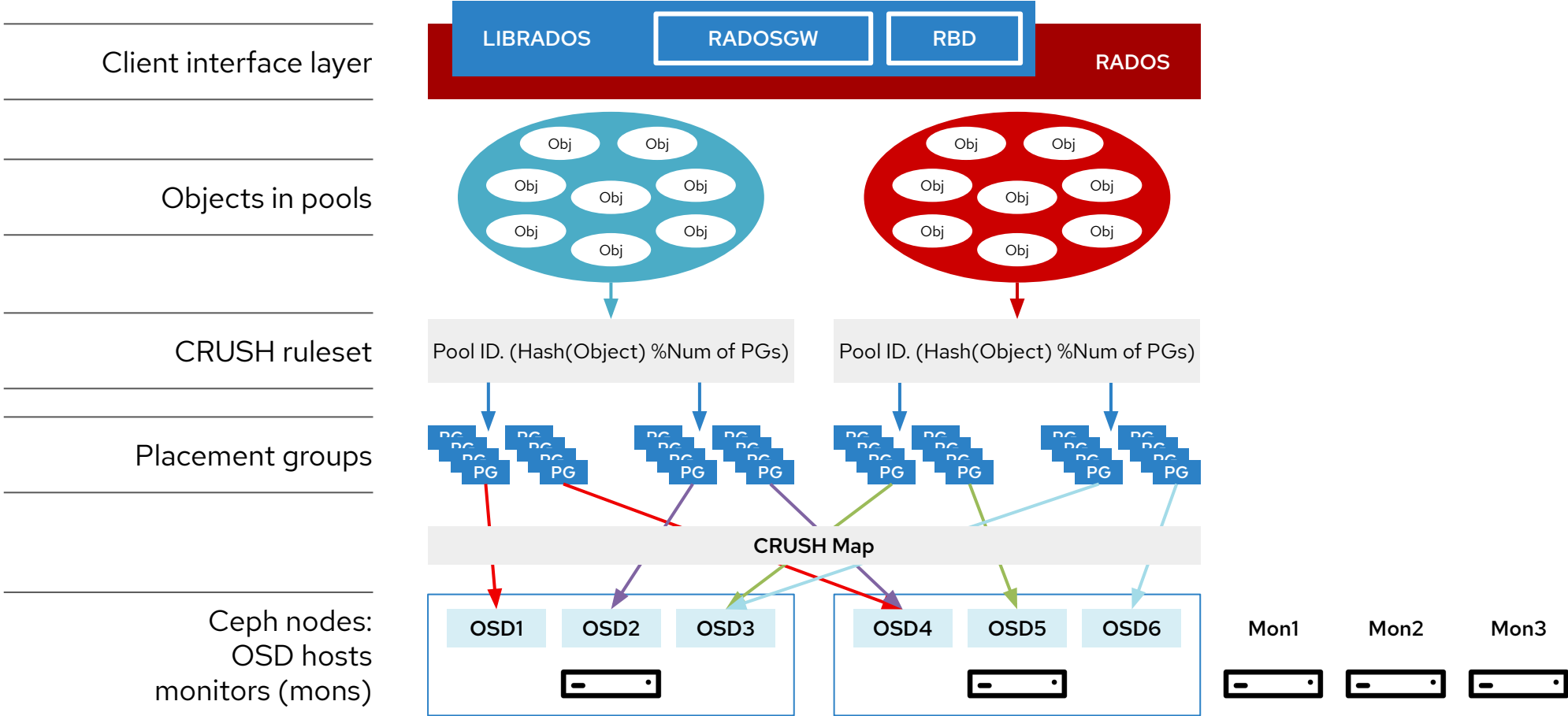
How it works? With a replica 3 pool, how client does WRITE



How it works? With a replica 3 pool, how client does READ



Technical detailed architecture



Rook Architecture

