

Red Hat

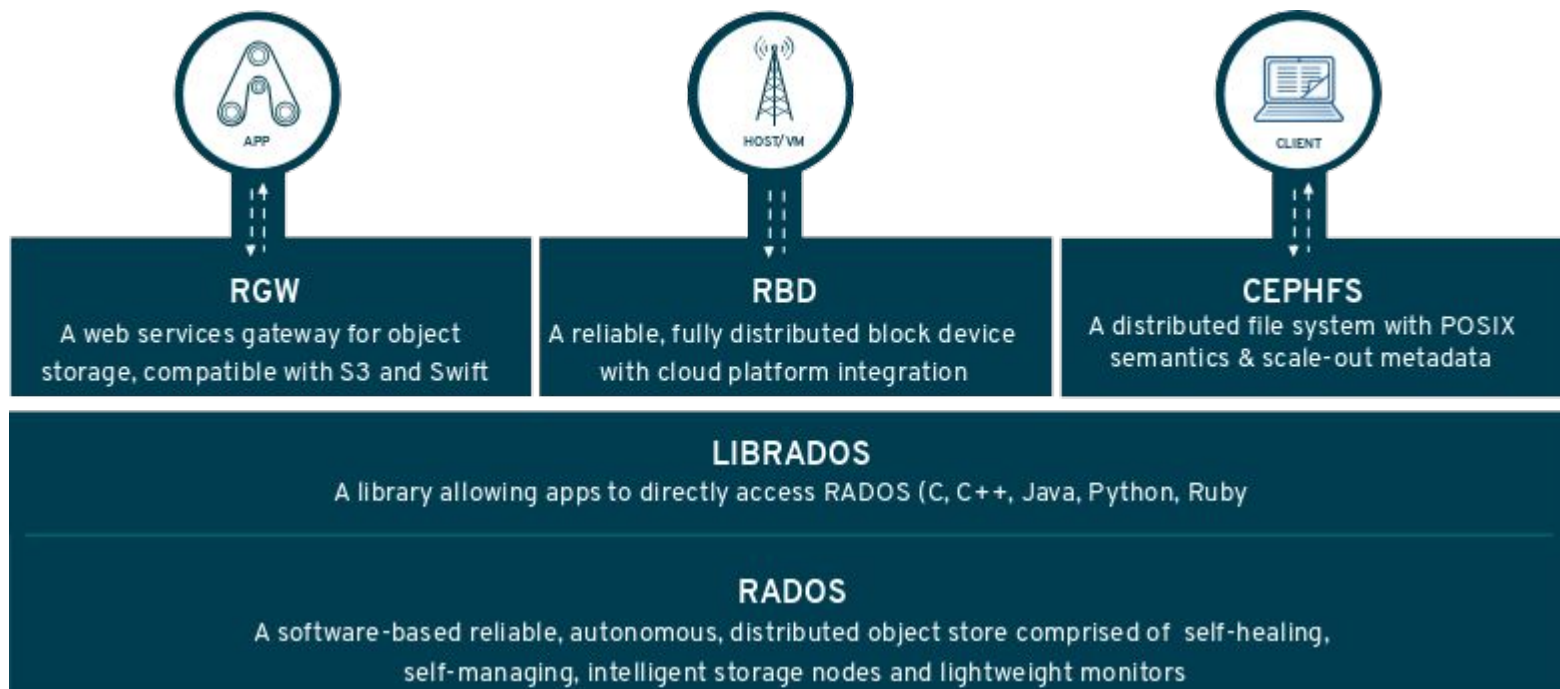
Red Hat Ceph Storage 4

The Story Continues

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Cloud Storage Solutions Architect

Red Hat Ceph Storage



Red Hat Ceph Storage

The Good Stuff Remains

Ceph Core Features



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 dashboard
- Ansible automation
- Full CLI interface



APIs and protocols

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

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.

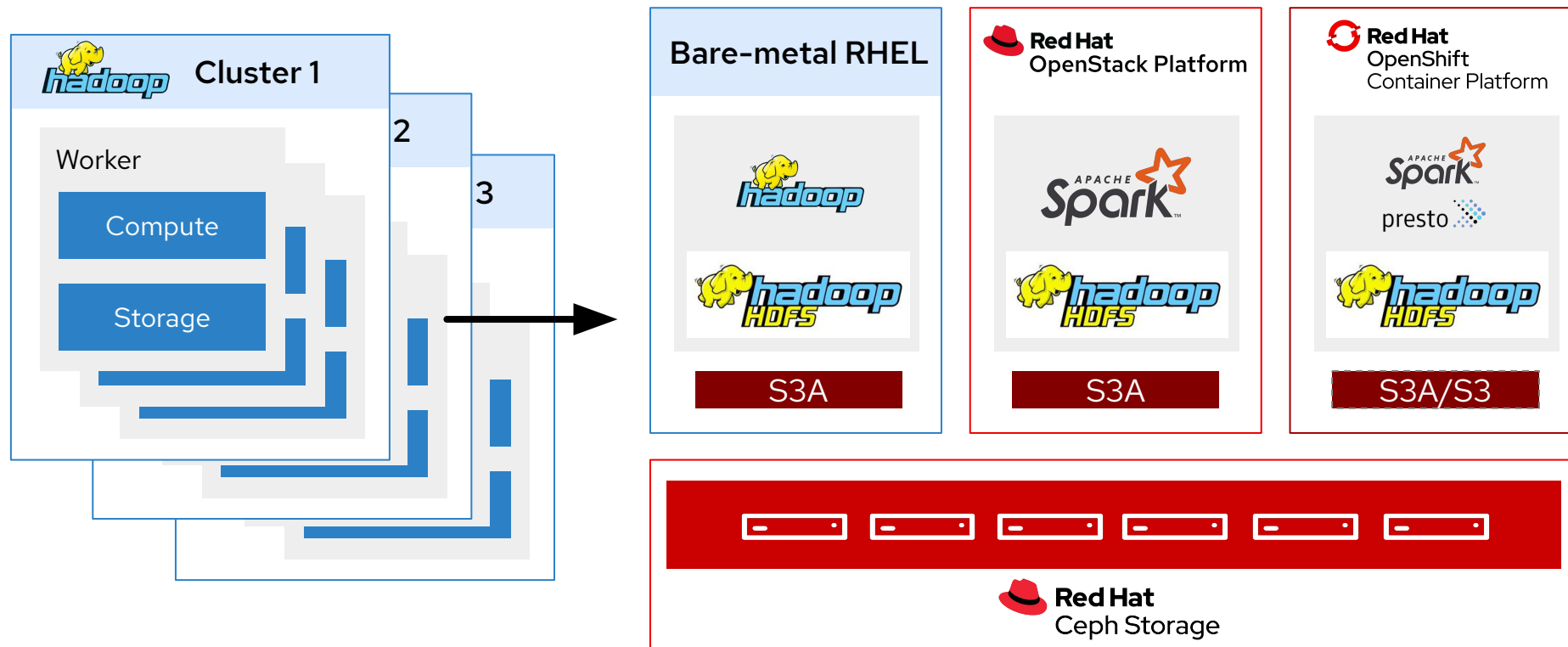


Open source advocate

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

Object storage—Red Hat data analytics infrastructure

Multi-tenant workload isolation with shared data context



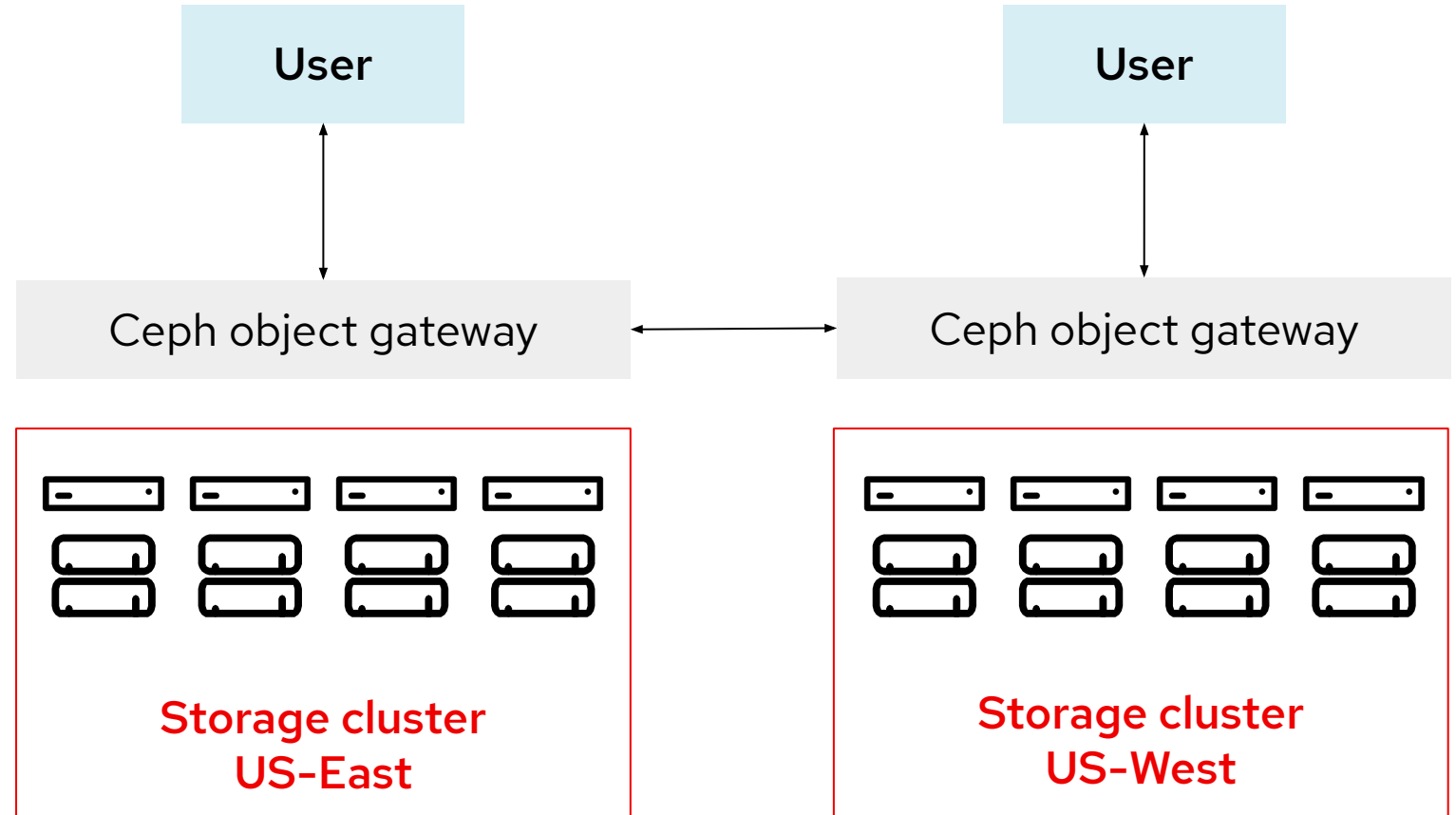
Object storage as a service

Capable of handling audio, visual and any other documentation

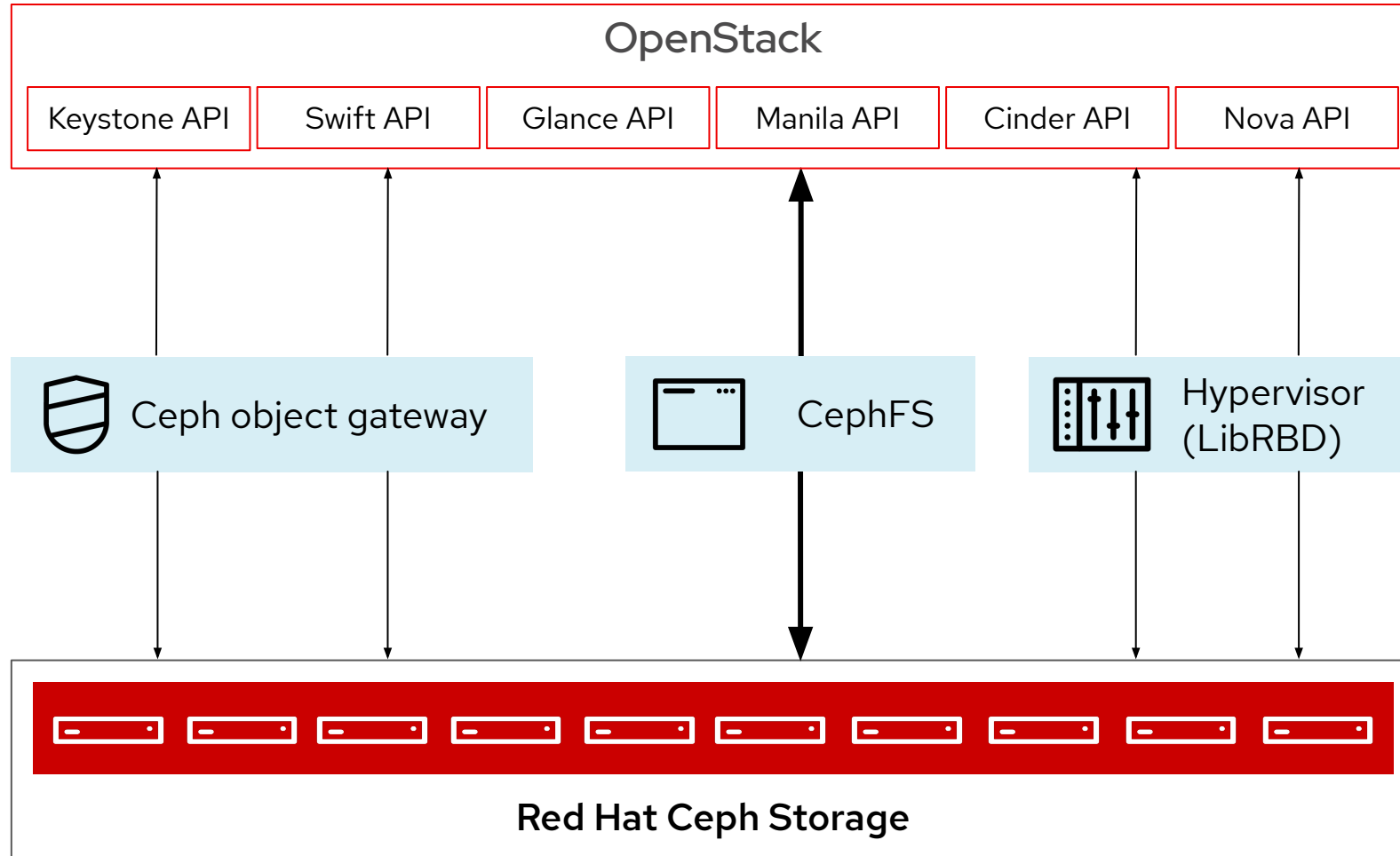
RGW, Ceph's object storage interface

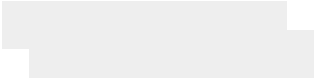
NFS gateway for bulk import and export of object data

Multi-site active-active clusters w/ single namespace



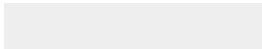
Complete and unified storage for OpenStack





Object storage: Data backup infrastructure

Partner certifications for S3/cloud backup



Red Hat Ceph Storage

The New Feature Laundry List



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:

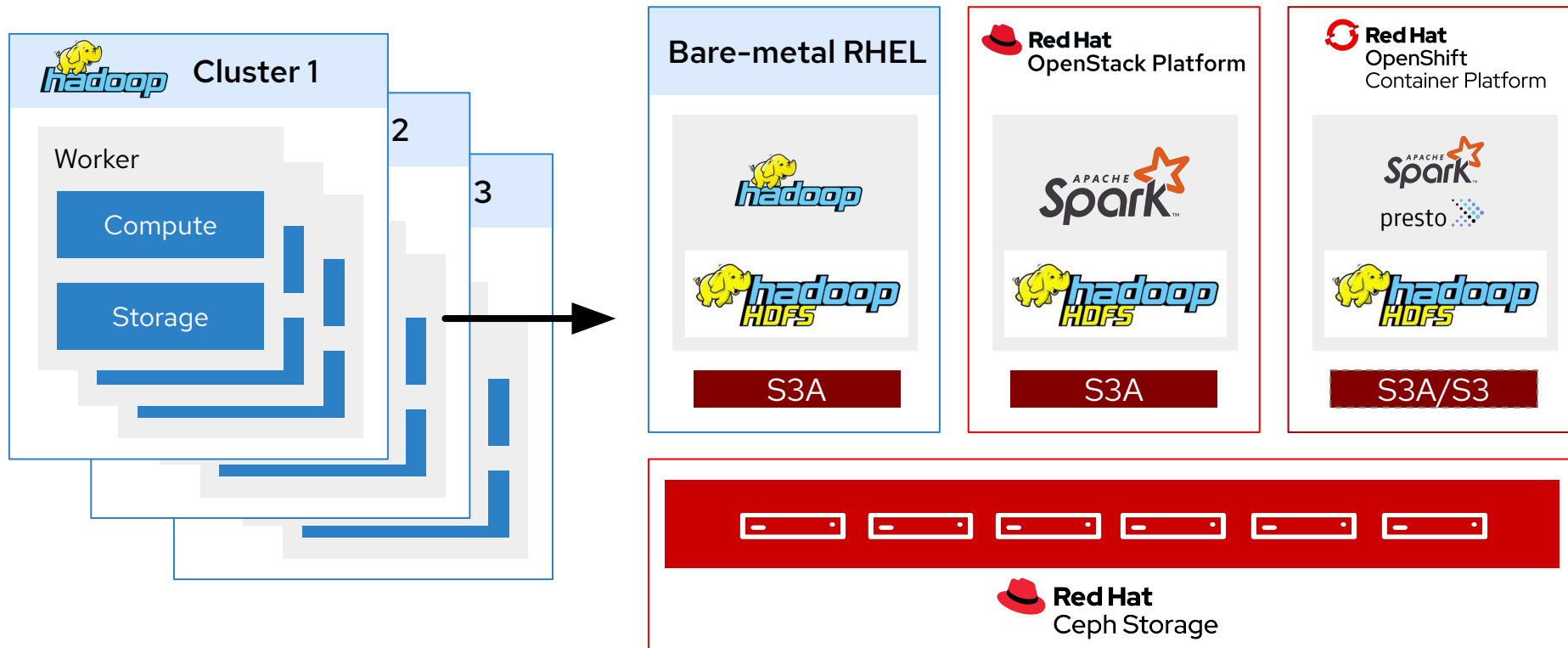
You need to not just secure your data from cyberattacks, but also manage data protection and resiliency

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

Object storage—Red Hat data analytics infrastructure

Better out-of-the-box Multi-tenant workload isolation with shared data context



Red Hat Ceph Storage

What I came here to talk about

Red Hat Ceph Storage Management

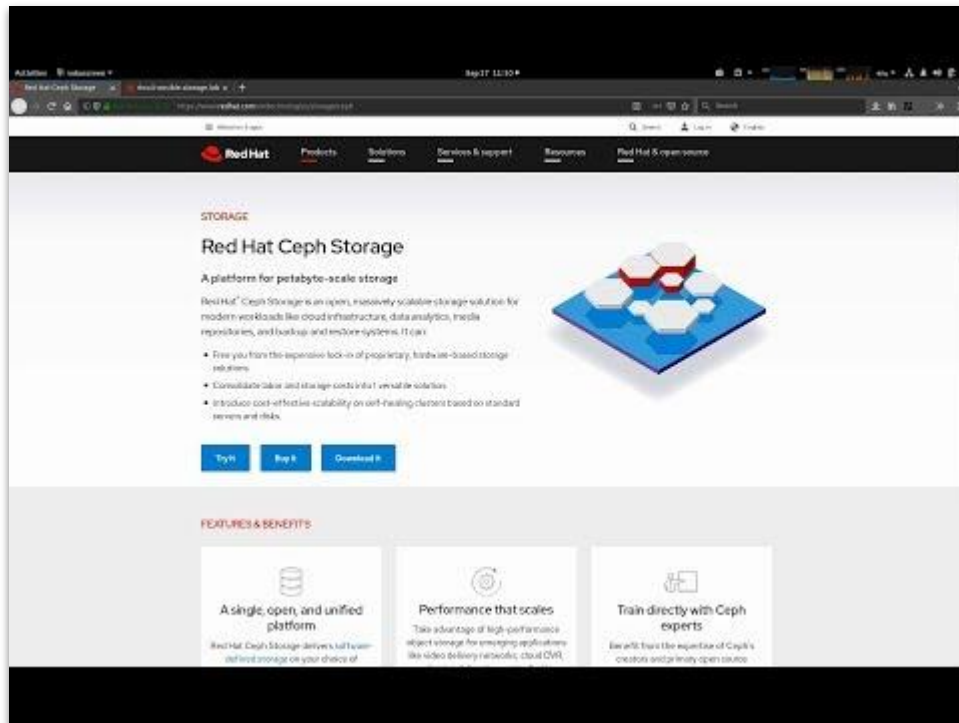
Management

1. Installation
2. Configuration
3. Monitoring
4. Expansion*
5. Delegation

* Expansion is still CLI driven

Installation is easier than ever

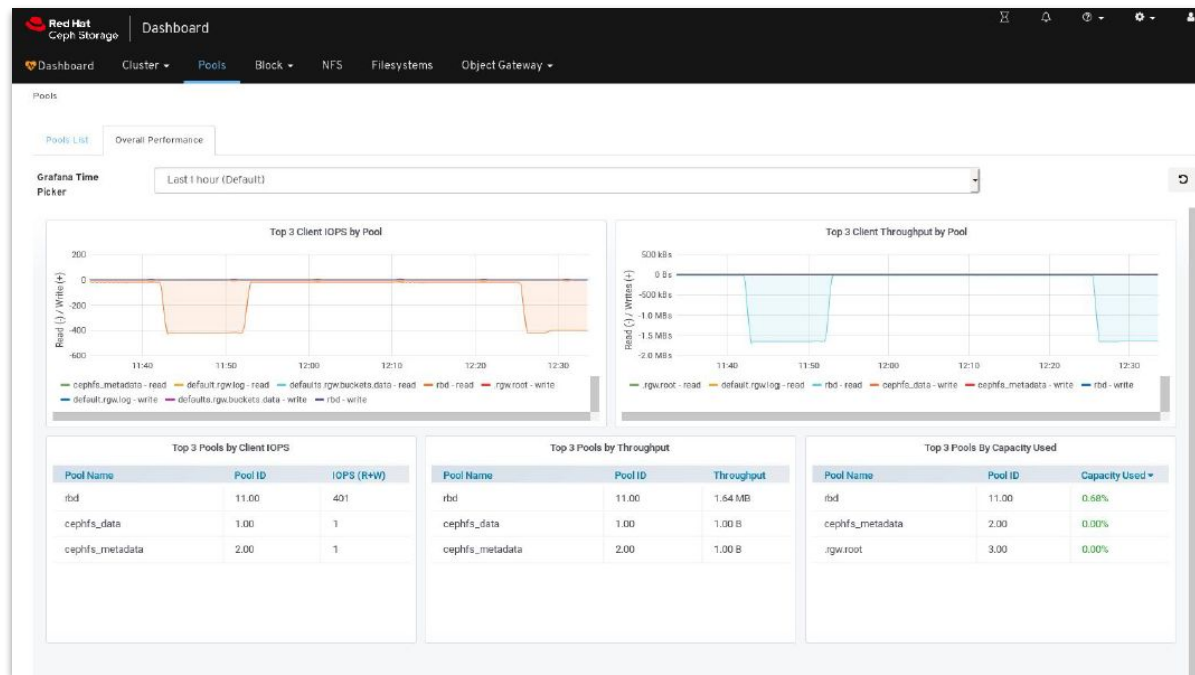
Even I can do it



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

New dashboard

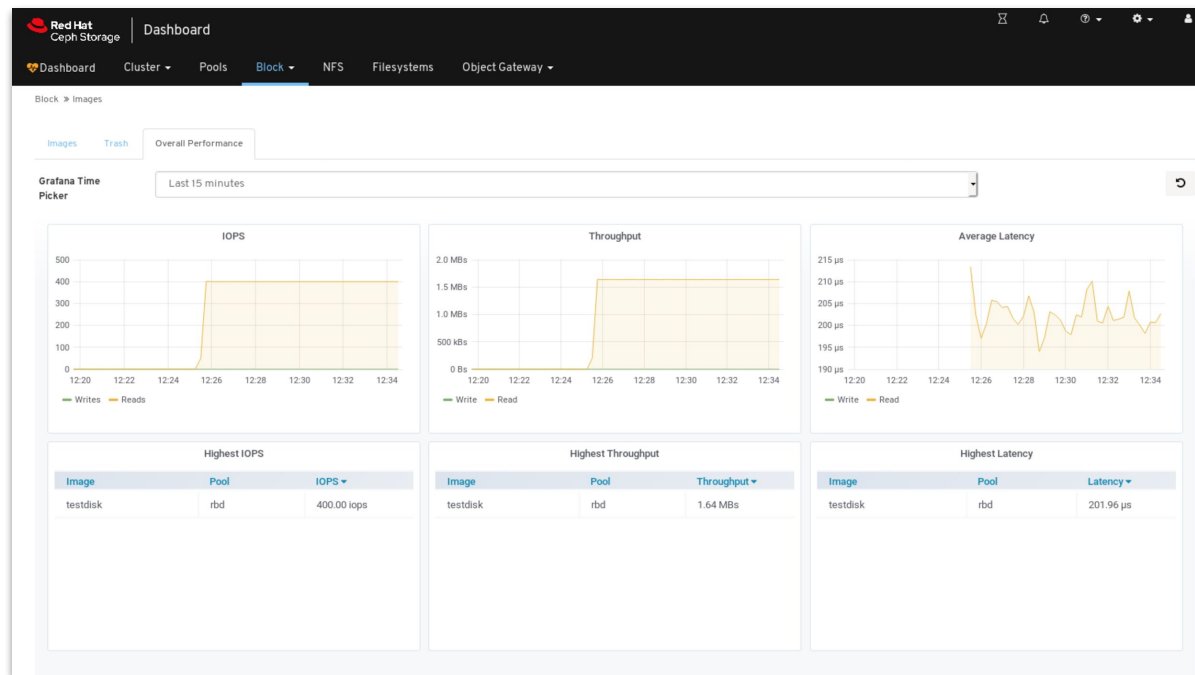
For better monitoring and management



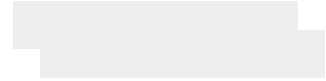
- New monitoring functionality
- Helps improve usability
- Operators can delegate junior administrators with replacement of failed drives, users, and quota management through RBAC system

More granular permissions

For greater efficiency while maintaining control



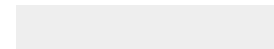
- Power users can delegate tasks to junior administrators or developers
- This will give them the confidence to do what they need to do and you the reassurance that they won't do things they shouldn't be doing
- Monitoring interface pinpoints IOPS, throughput and latency outliers to preemptively identify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

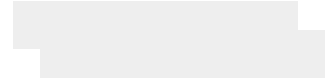


New Dashboard

Feature Overview

- **Multi-User and Role Management:** The dashboard supports multiple user accounts with different permissions (roles). The user accounts and roles can be modified on both the command line and via the WebUI.
- **Single Sign-On (SSO):** the dashboard supports authentication via an external identity provider using the SAML 2.0 protocol.
- **SSL/TLS support:** All HTTP communication between the web browser and the dashboard is secured via SSL. A self-signed certificate can be created with a built-in command, but it's also possible to import custom certificates signed and issued by a CA.
- **Auditing:** the dashboard backend can be configured to log all PUT, POST and DELETE API requests in the Ceph audit log.
- **Internationalization (I18N):** the dashboard can be used in different languages that can be selected at run-time.

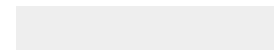




New Dashboard

Management Features

- Embedded Grafana Dashboards
- Cluster logs
- Performance counters
- Monitors
- Configuration Editor
- Pools
- OSDs
- iSCSI
- RBD
- RBD mirroring
- CephFS
- Object Gateway
- NFS
- Ceph Manager Modules



Thank you

Red Hat is the world's leading provider of enterprise open source software solutions. Award-winning support, training, and consulting services make Red Hat a trusted adviser to the Fortune 500.

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