Red Hat OpenShift Data Foundation

Data needs to be stored somewhere
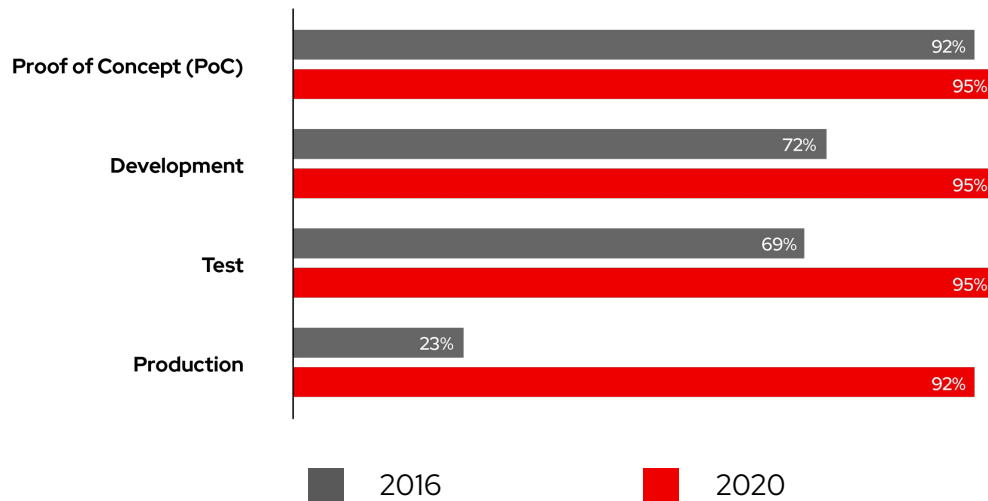
That's driving the adoption of containers

91%

ARE USING KUBERNETES

Businesses are using Kubernetes to

- Drive automation
- Improve efficiencies
- Increase application agility

Container adoption is accelerating

Category	2016	2020
Proof of Concept (PoC)	92%	95%
Development	72%	95%
Test	69%	95%
Production	23%	92%

■ 2016 ■ 2020

Source: CNCF Survey 2020

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The trouble with cloud-native environments
Key questions users need to address

SECURITY

How is that data…

🔒	…secured?

🛡	…protected from loss?

ACCESS

How is that data…

🔍	…found?

📄	…audited?

📊	…controlled?

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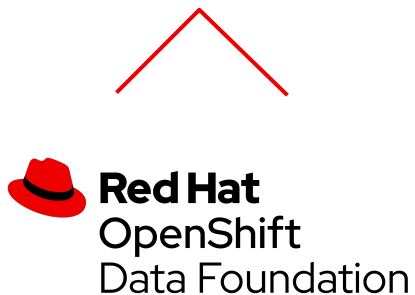
Introducing Red Hat Data Services

Unlock the value of data

DATA AT REST

DATA IN MOTION

DATA IN ACTION

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How Red Hat Data Services fits

Multi-cluster management
Discovery • policy • compliance • configuration • workloads

Platform services	Application services	Developer services	Data services
Manage workloads more effectively	Simplify building cloud-native apps	Increase developer productivity	**Realize the full value of data**

Red Hat OpenShift platform and cluster services
Automated ops • over-the-air updates • persistent storage • monitoring • telemetry • logging • registry • networking • router

Physical

Virtual machines

Private cloud

Public cloud
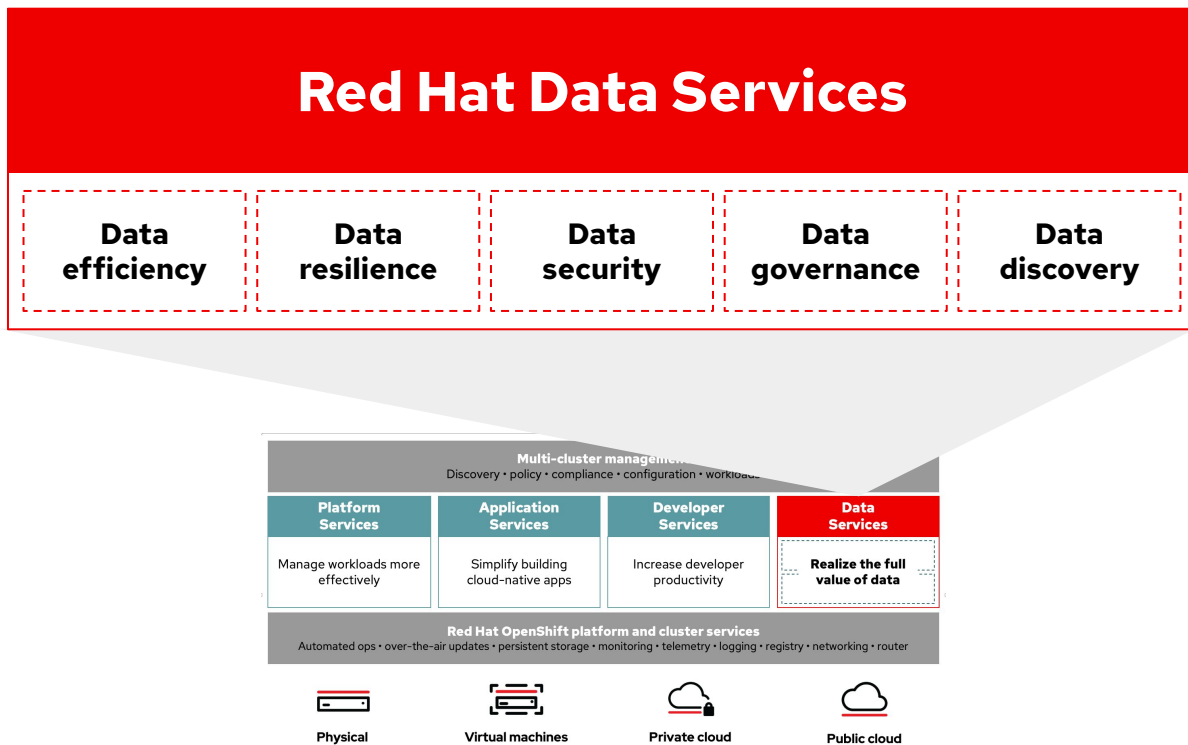
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The Red Hat Data Services opportunity

Red Hat Data Services in a nutshell

Data efficiency
- Erasure coding
- Compression
- Performance

Data resilience
- Snapshots
- Clones
- Backup
- Recovery
- Business continuity
- Disaster recovery

Data security
- At rest encryption
- In flight encryption
- Key management

Data governance
- WORM
- Auditing
- Compliance
- SEC & FINRA
- GDPR

Data discovery
- Cataloging
- Tagging
- Search

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Data Services: A change of mindset

Traditional, static approach

- Focus on improving efficiency
- Infrastructure-up view
- Poor performance at scale
- Disconnected
- Manual, monolithic and rigid

Dynamic, data services approach

- Focus on innovation
- Application-oriented view
- Highly scalable
- Always-on
- Automated, on-demand, and flexible

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Simplified access

Consistent experience

Dynamic scale

Red Hat Data Services
mission:

To make data
accessible to
applications across
the hybrid cloud,
unlocking its power
in new and
impactful ways

Delivering on the Red Hat
OpenShift promise:

Innovation without
limitation

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Data is the most significant asset in today's businesses—give it data services

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- Data services focuses on infrastructure and application needs so they can run and interact with ease and efficiency

- Data services provides a foundational layer for applications to function and interact with data in a simplified, consistent and scalable manner

- Red Hat Ceph Storage is a foundational component to drive data services
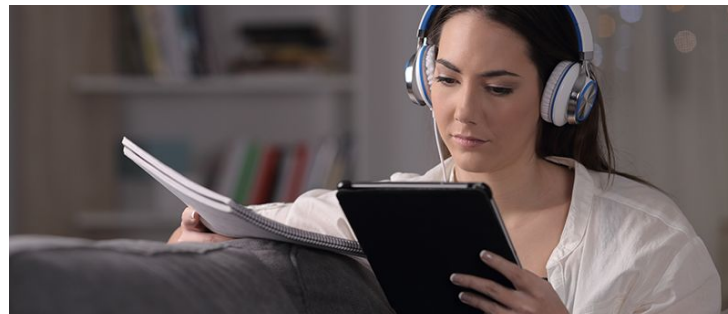
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What Data Services means for developers/data scientists
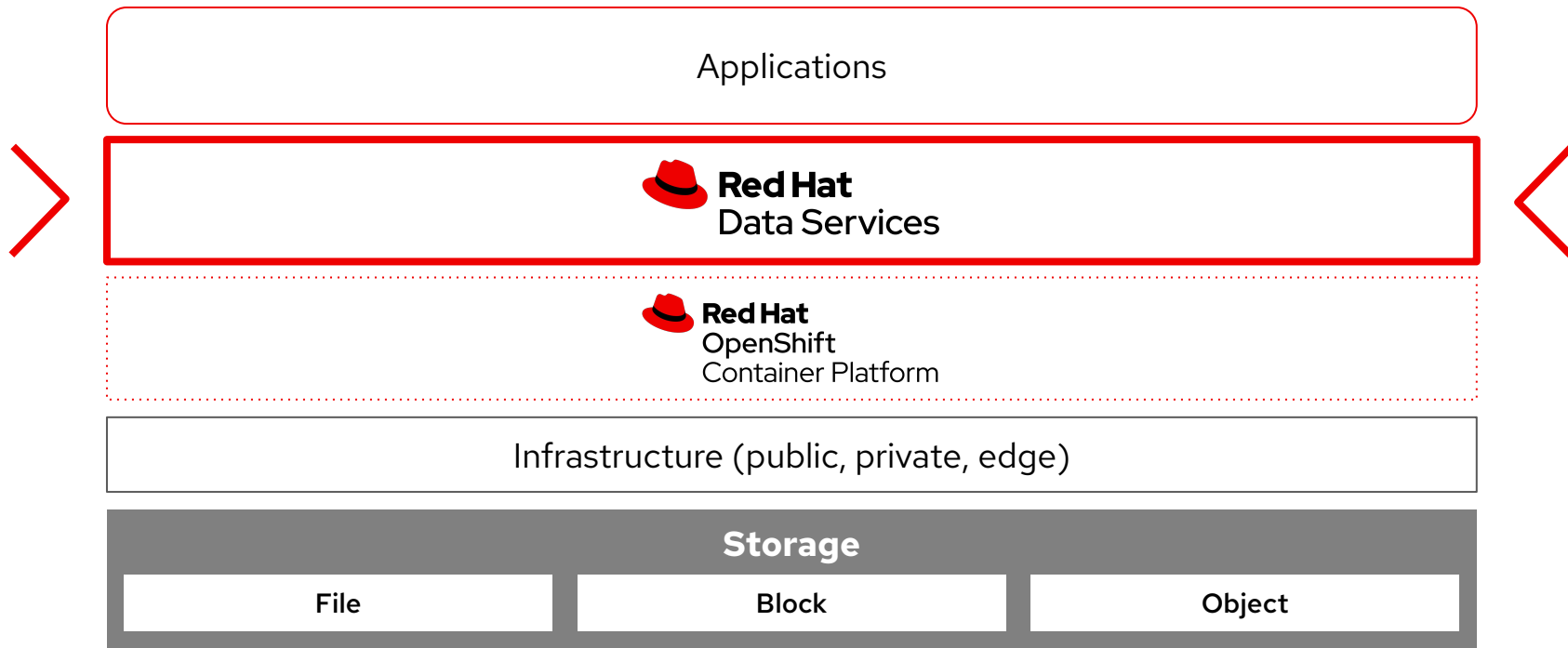
Traditional, static approach

- Must visit the library, again and again
- Strictly limited usage, with limited content on offer
- Can only check out a few items at a time

Data services approach

- Access to data from anywhere, indefinitely
- Simultaneous access to a wide range of content, and almost unlimited usage
- Self-service—no need for manual supervision

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The Red Hat Data Services stack

Applications

Red Hat
Data Services

Red Hat
OpenShift
Container Platform

Infrastructure (public, private, edge)

Storage

| File | Block | Object |

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What's new?

Data resilience with Red Hat OpenShift Data Foundation

FUNCTIONALITY

Greater control and manageability
with over 15 new functionality features.

SECURITY

Enhanced protection with data
encryption and external key management
by Key management service.

PERFORMANCE

Reduced downtime with consistent
experience, dynamic scale and faster
handling of data.

EFFICIENCY

Improved productivity thanks to
simplified and faster access to data.

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What's new?

Data resilience with Red Hat OpenShift Data Foundation

FUNCTIONALITY

SECURITY

PERFORMANCE

EFFICIENCY

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Data resilience with Red Hat OpenShift Data Foundation

FUNCTIONALITY

SECURITY

PERFORMANCE

EFFICIENCY

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Thank you

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services make

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