

# Red Hat OpenShift Data Foundation

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**Applications**

The diagram features two overlapping, white, arrow-shaped banners with red outlines. The top banner is tilted upwards and contains the word "Applications". The bottom banner is tilted downwards and contains the word "Data". Both banners are positioned over a light pink circular background. A vertical grey line passes through the center of the circles, behind the banners.

**Data**

# Data needs to be stored somewhere

That's driving the adoption of containers

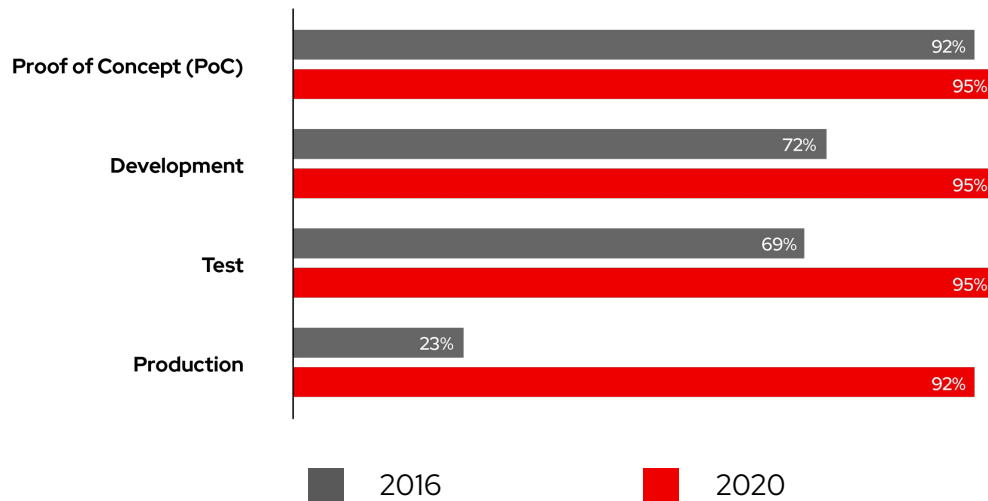
# 91%

## ARE USING KUBERNETES

Businesses are using Kubernetes to

- Drive automation
- Improve efficiencies
- Increase application agility

## Container adoption is accelerating



# The trouble with cloud-native environments

Key questions users need to address

## SECURITY

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How is that data...



...secured?



...protected from loss?

## ACCESS

---

How is that data...



...found?

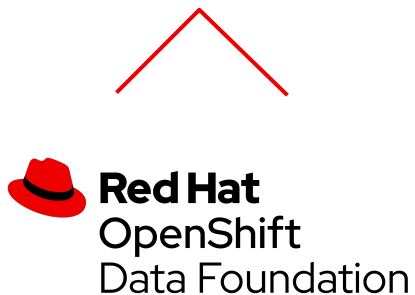


...audited?



...controlled?

# Introducing Red Hat Data Services



# Unlock the value of data



**DATA AT REST**

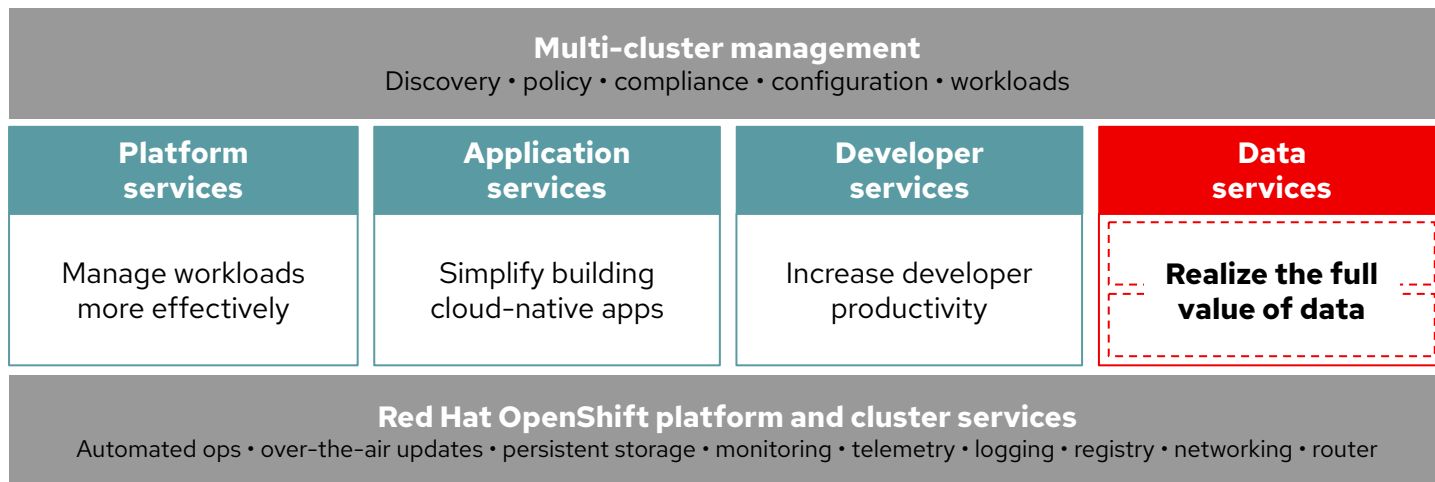


**DATA IN MOTION**



**DATA IN ACTION**

# How Red Hat Data Services fits



Physical



Virtual machines

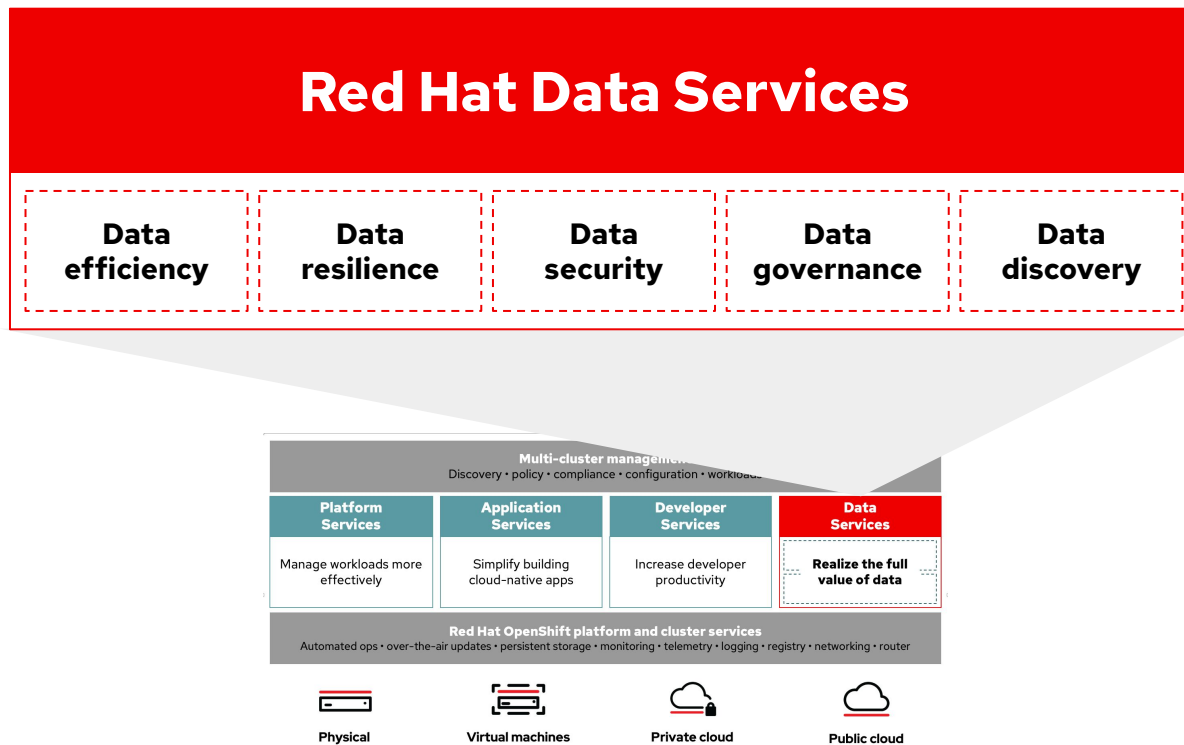


Private cloud



Public cloud

# 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

# 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



**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

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



- 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

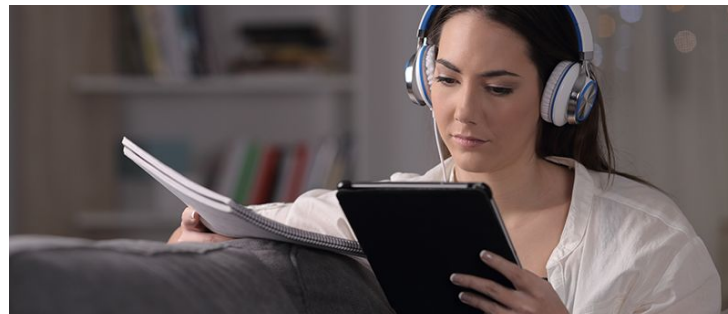
# What Data Services means for developers/data scientists

## Traditional, static approach



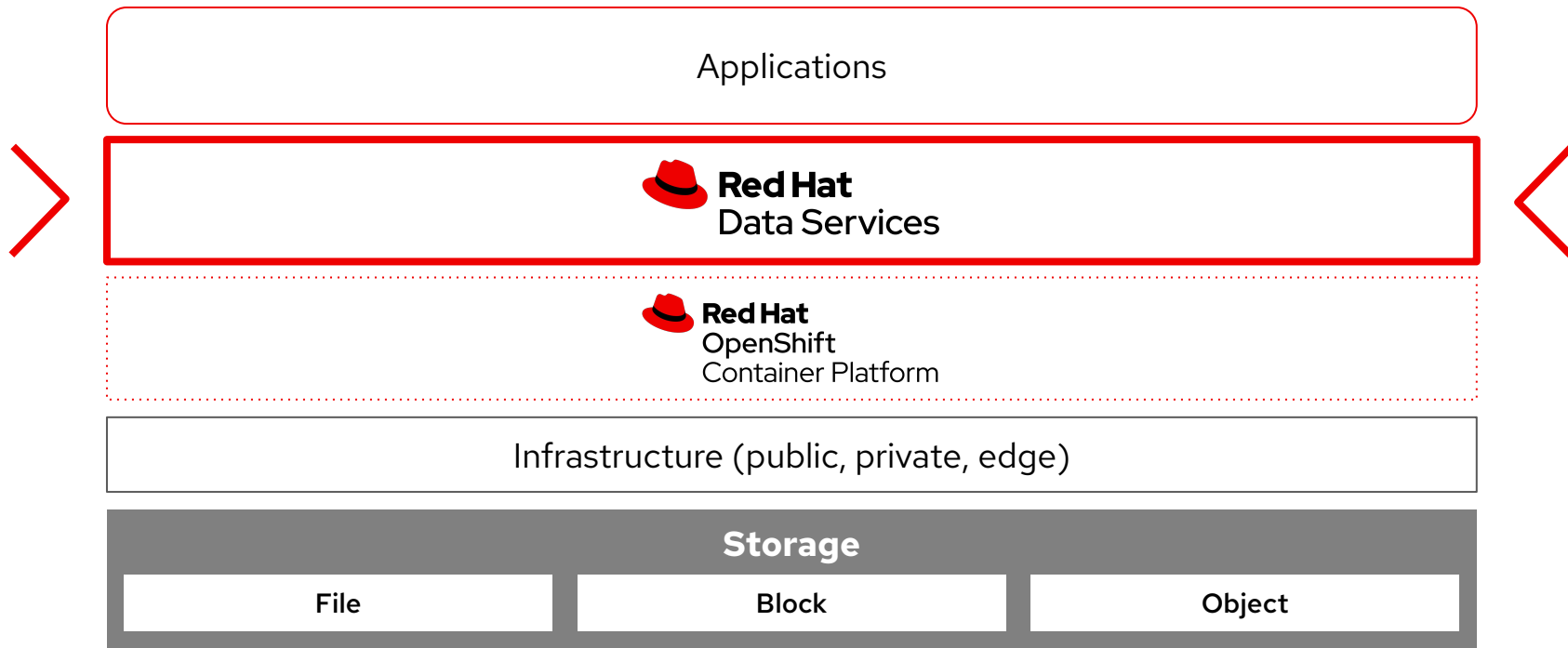
- Must visit the library, again and again
- Strictly limited usage, with limited content on offer
- Can only check out a few items at a time

## 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

# The Red Hat Data Services stack



# 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.



# What's new?

Data resilience with Red Hat OpenShift Data Foundation

**FUNCTIONALITY**



**SECURITY**



**PERFORMANCE**



**EFFICIENCY**





# What's new?

Data resilience with Red Hat OpenShift Data Foundation

**FUNCTIONALITY**



**SECURITY**



**PERFORMANCE**



**EFFICIENCY**



# What's new?

Data resilience with Red Hat OpenShift Data Foundation

**FUNCTIONALITY**



**SECURITY**



**PERFORMANCE**



**EFFICIENCY**



# What's new?

Data resilience with Red Hat OpenShift Data Foundation

**FUNCTIONALITY**



**SECURITY**



**PERFORMANCE**



**EFFICIENCY**



# Thank you

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