

# Unlock Modern Backup and Recovery With Object Storage

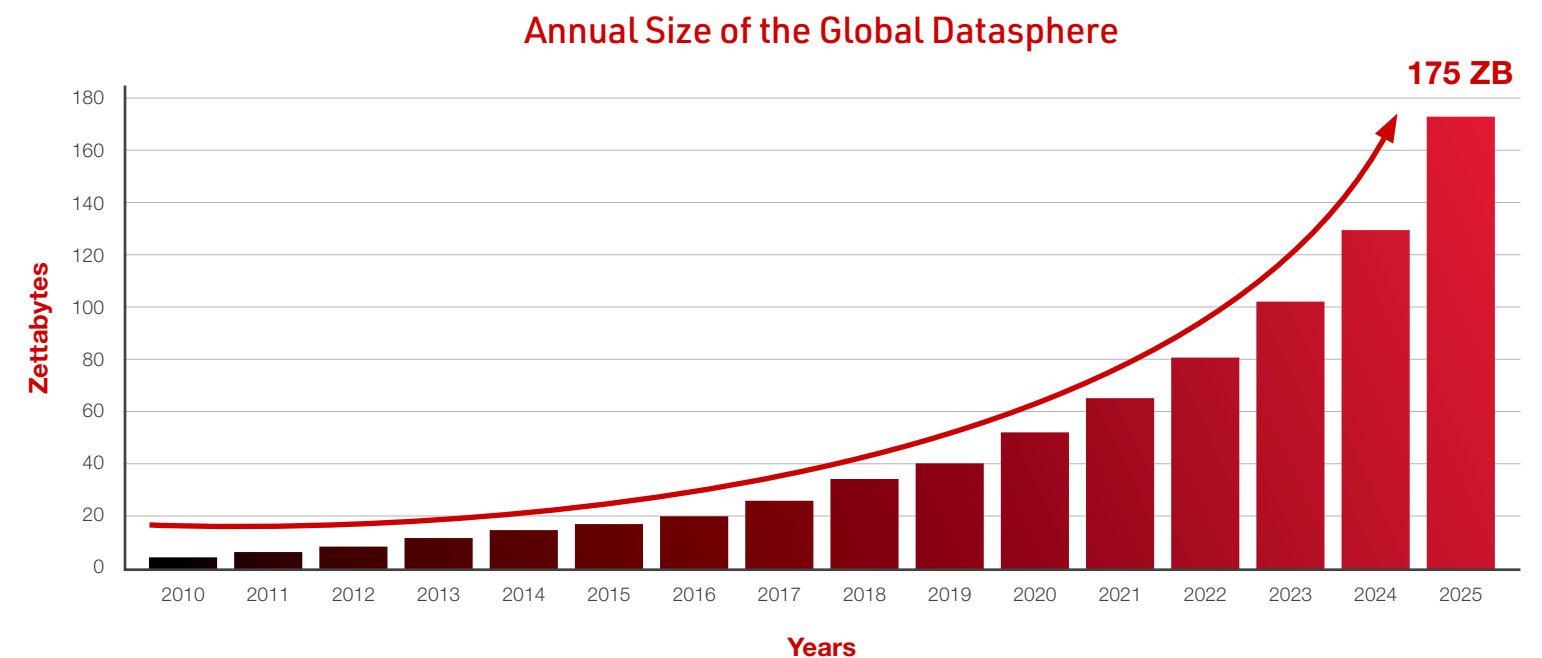
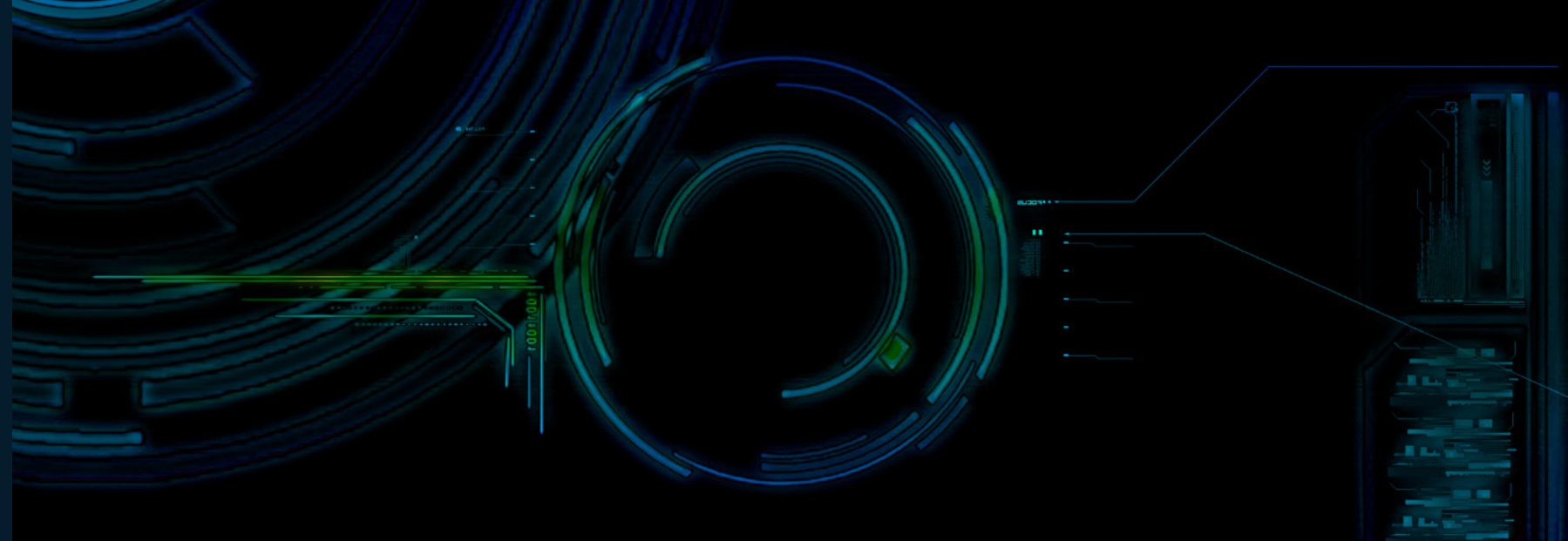


# It's a New Era for Data Protection

In this age of digital transformation, data is growing at an astounding rate, posing challenges for data protection, long-term data retention and adherence to business and regulatory compliance. In just the last two years, 90% of the world's data has been created by computers, mobile phones, email, social media, IoT smart devices, connected cars and other devices constantly generating streams of data<sup>1</sup>.

IDC predicts that the data we generate, collect, and consume will continue to increase significantly—from about 50 zettabytes in 2020 to 175 zettabytes in 2025. With massive collections of data amounting, trying to keep pace with the performance required to protect and recover it quickly, while scaling cost effectively, has become a major pain point for the enterprise.

<sup>1</sup> Jeremy Waite, IBM '10 Key Marketing Trends for 2017'



Global Data Growth Prediction

50 zettabytes in 2020 → 175 zettabytes in 2025

1 zettabyte (ZB) =  
1 trillion gigabytes

175 ZB of data stored on DVDs would circle the earth 222 times.



# Redefine Data Protection Requirements

How will your current backup, recovery and long-term retention strategy scale as data reaches uncharted volumes? Consider that for every terabyte of primary data stored, it is not uncommon to store three or more terabytes of secondary data copies for protection, high availability and compliance purposes. New storage volume requirements can strain technology budgets as infrastructure and storage costs quickly skyrocket.

Once you have a place to store your data, it needs to be easily accessed so that information is constantly available so you can:

- Confidently maintain business continuity, meet SLAs and guard against threats while staying in compliance.
- Respond to regulators requests, like the GDPR 'right to be forgotten', if they came knocking. Or answer to ransomware, malware or other malicious attacks.

This helps to avoid poor security and compliance initiatives and the threat of damage and destruction of data, downtime, lost productivity, reputational harm, and more.



By 2021, ransomware is expected to attack a business every 11 seconds, with damage costs predicted to reach \$20 billion globally ([Cyber Security Ventures](#)).

Improving data backup and recovery is the number one IT priority for mid-market organizations over the next 12 months (ESG Lab Review: Data Protection, Recovery and Business Continuity). Over the next 24 months, 53% of organizations expect to accelerate spending for on-premises object storage in response to backup, archive and compliance concerns related to data growth (ESG Research).

This e-book will review the risks of traditional data backup and recovery methods and how modern object storage can help keep your data safe.



# Traditional Backup Targets Just Don't Cut It

To protect your data and meet compliance requirements, you have traditionally had three backup target options: tapes, Purpose Built Backup Appliances (PBBA) and the public cloud. But how do these solutions stack up against today's IT demands and risks?

“

75% of organizations experience tape failure each year.

Redmond Magazine

”

## Tapes

Tapes have been around for ages and many businesses continue to use them for backups. They back up data to tape, and those tapes are shipped offsite for safekeeping.

Simply put: old school tapes have become time consuming to manage, are plagued with hardware compatibility issues and have very limited durability. Over time, tapes result in poor recovery performance or they just fail altogether. This is obviously unacceptable in today's data-driven business world. Just imagine trying to backup and restore petabytes of data with tapes on a regular basis. It is nearly impossible to maintain with any kind of reliability – especially if you are trying to sustain positive uptime and data availability KPIs.

Lastly, the fact that tapes can be overwritten puts your data at risk. What if you overwrite the data you need to recover from outages or malicious attacks?

Common tape failure scenarios:



### CONS

- Unreliable
- Time consuming to manage
- Poor performance
- Hardware compatibility issues
- Media migration for older tape



## Purpose-Built Backup Appliances (PBBA)

Backup appliances have been long-standing alternatives to tape backups. One early reason for backup appliance adoption was the unique ability to dedupe and compress data. These once-exclusive appliance capabilities are now built in to backup software.

Without major advantages, pitfalls of appliances become more difficult to accept. Appliances typically mandate vendor lock-in, leading to considerable inflexibility and inability to scale. As a result, appliances become costly in the long run.



## Public Cloud

At first, it may seem tempting to back up all your data to the public cloud: you can avoid the capital expense of buying equipment, pay only for what you use and spend less time on maintenance and support. But organizations are becoming increasingly aware that backing up all of their data to the public cloud is not the best choice. In fact, many data security policies today restrict the storage of business data in the public cloud.

Relying on a third-party vendor for security and performance can put your data at risk. Can your cloud provider meet your SLAs and keep you in compliance? Would you be able to access your data from the public cloud quickly enough to recover from a disaster?

There is also financial risk in the public cloud: paying for what you use as data volumes climb at petabyte scale can rapidly increase costs.

These backup and recovery concerns are driving a new wave of cloud repatriation, particularly among organizations subject to strict compliance mandates.

### CONS

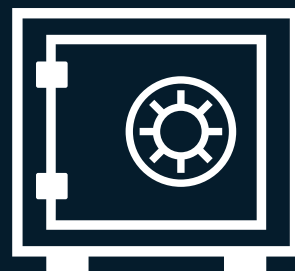
- Vendor lock-in
- Inflexible
- Limited scale
- Expensive

### CONS

- High costs for access
- Slow system recoveries
- Limited control
- Relinquished data ownership
- Risk exposure

Top three concerns  
driving cloud repatriation  
to on-premises storage:

(ESG survey)



Data security



Cost



Regulatory  
Compliance



# The New Way: Backup and Recovery Solution

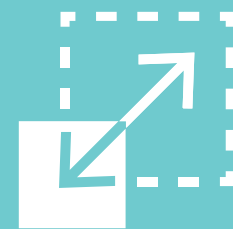
Today's organizations are 24/7, have hundreds if not thousands of applications and must support new technologies, such as convergence, hyper-convergence and cloud. Corporate data is everywhere, dispersed throughout the organization from the data center to branch offices and even end-user devices. On top of the operational challenges, businesses today have more stringent regulatory and compliance requirements than ever before.

Many organizations continue to use traditional backup and recovery methods that put them at greater risk, incur unnecessary hardware and staffing costs, and create a more complex environment. Waiting around for hours or even days for backups and restores to complete can lead to missed SLAs and poor Recovery Point Objectives (RPO) and Recovery Time Objectives (RTO). It's time for a modern backup solution to meet today's needs.

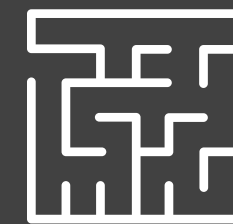
Traditional solutions weren't designed for today's modern environments.



Manual efforts introduce risk and are **inefficient**



Lack of support for hybrid infrastructure **limits flexibility**



Management complexity, inconsistent policies, and **lack of data visibility**



Lack of automation **slows response times**



Inability to **meet governance regulations** such as GDPR



# What to Expect From a Modern Backup and Recovery Solution

To achieve success, your backups must complete successfully without issues, and your data must be readily available with fast access when you need it. To achieve this scenario, you need a modern backup and recovery solution that is **SAFER: Scalable, Affordable, Fast, Easy, and Reliable**.

## SAFER Backup and Recovery Checklist

Scalable	Scales easily and quickly, using your hardware of choice, so you do not have to jump through hoops with upgrades, migrations, and significant additions to your infrastructure footprint.	▶
Affordable	Reduces your overall costs, instead of acting as a perpetual money pit that consumes your valuable resources.	▶
Fast	Accelerates backups with faster data recovery—within minutes or hours—to meet SLAs.	▶
Easy	Integrates with your existing backup solutions so that you can continue to use the same tools you already use today.	▶
Reliable	Guarantees both long-term and short-term reliability while delivering data integrity, data protection and data availability to protect against threats and keep your business in compliance.	▶







Traditional backup methods can not satisfy today's data demands

Slower | Costs more



<<1's and 0's data patterns>>



- Unreadable and prone to failure
- Time-consuming to manage
- Poor performance
- Hardware compatibility issues



- Vendor lock-in
- Inflexible
- Limited Scale
- Expensive



- High-costs for access
- Slow system recoveries
- Limited control
- Risk exposure

Make your backups SAFER with on-premises control and performance with hybrid cloud flexibility

Faster | Costs less



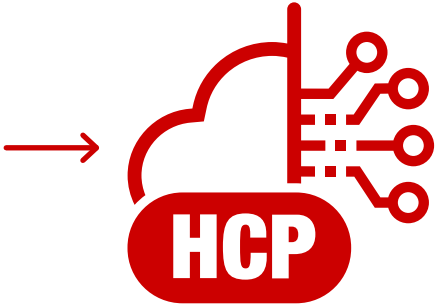
Store



Secure



Protect  
at unlimited  
scale



# Modernize Backup and Recovery With Hitachi Content Platform

With Hitachi Content Platform (HCP), a hybrid cloud object storage solution for the enterprise, you can store, secure, and protect your data at unlimited scale. It is a modern backup and recovery solution that works seamlessly with your existing backup applications to deliver you SAFER backup and recovery.



# Why Hitachi Content Platform is a SAFER Backup and Recovery Solution

✓ Scalable

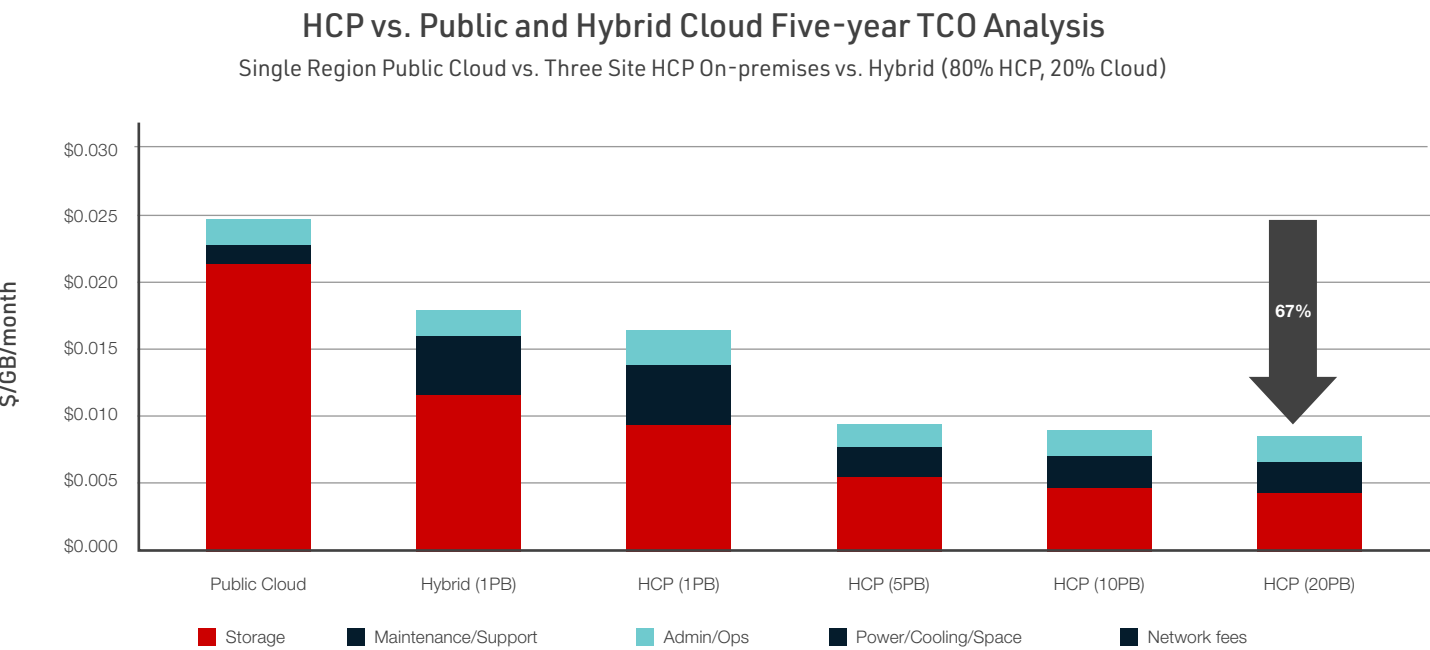
## Take HCP On-Demand to Exabyte Scale

Hitachi Content Platform is a software-defined solution that allows for massive scale-out and scale-up capabilities on your hardware of choice. This means no data migrations are required for software upgrades or hardware refreshes. Scaling out with HCP provides nearly unlimited capacity and performance.

✓ Affordable

## Lower TCO and Increase ROI With HCP

Whether you go private or hybrid, Hitachi Content Platform is the most cost-effective object storage solution in the industry, delivering 67% lower TCO over public cloud.



Source: Enterprise Strategy Group







## Fast

### Reduce Recovery Time to Minutes or Hours

Hitachi Content Platform reduces the time it takes to recover data to minutes or hours. Simply search, click on the file(s) you need and the data is yours. This is in contrast to tapes, which first need to be located—and in many cases shipped back to your site—before you can begin the cumbersome process of restoring individual files. The tape recovery process may take hours, days or weeks depending on if the tapes are onsite or at another location.



## Easy

### Integrate Seamlessly With Your Existing Backup Applications

Hitachi Content Platform is certified and tested to work with many major backup software vendors, including Veritas NetBackup, Commvault, IBM Spectrum Protect, Veeam and more. With support for S3 and the most popular APIs, HCP makes integrating your backup applications easy. Autonomic Migration helps ensure extended retention seamlessly while H/W components upgrade in the background. HCP's extensive independent software vendor (ISV) ecosystem of over 80 technology partners also satisfies a myriad of other enterprise uses cases ranging from Big Data Optimization and Data Governance, to Archive and Compliance.



Clearly, this is a long way from traditional object storage. Hitachi Vantara has long been a trusted provider of solutions for enterprise customers, including large, complex environments with distributed employees. The company's solutions are known for reliability, security, availability, and enterprise-class features. This HCP performance validation adds to the company's strong resume.

**Enterprise Strategy Group (ESG)**







Reliable

## Guarantee Long- and Short-Term Reliability With Self-Healing Objects and High Availability

Hitachi Content Platform has a number of self-healing technologies that protect the integrity of data over long periods of time. This includes regular integrity checks and automatic recovery for objects found to be corrupt. HCP's infrastructure compliance surpasses normal disk-based storage, where integrity is only checked and repaired during read or write I/O, which, for long-term retention, may be very infrequent.

## Safeguard Data With Active Data Protection and Replication

The Hitachi Content Platform Portfolio supports the highest security protocols in the industry to protect data across your entire IT landscape. HCP data integrity, data protection, and data availability features include self-healing and failover capabilities, as well as a choice of replication and erasure coding options. To protect against emerging threats like ransomware and malware attacks, WORM and S3 Object Lock make backup data immutable. These features keep your data safe and make HCP better suited for the replacement of tapes for long-term retention over other disk-based backup solutions.

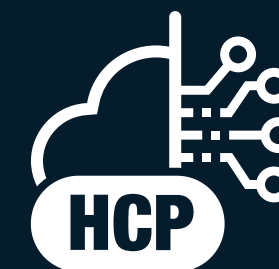
## Satisfy Compliance Needs With Confidence

Hitachi Content Platform includes compliance-oriented features like the ability to automatically delete data after a certain period of time, the ability to store data for only a specific length of time, and the ability to completely delete or shred data so that it is unrecoverable. Combined with enterprise features like erasure coding, replication, encryption, immutability (WORM, object versioning, S3 Object Lock) data durability and data integrity, these retention capabilities ensure data is always available and in compliance.

## Maintain Data Control With Data on Demand, When You Need it Most

Hitachi Content Platform gives you on-premises control and performance with hybrid cloud flexibility across any cloud, whenever you need it. HCP guarantees that your data is safe with enterprise compliance features, data immutability for protection against malicious attacks, and the highest levels of encryption, durability, and accessibility.

## HCP's Unparalleled Data Protection



### Built-in Active Data Protection.

15 nines of data durability

*Each data fragment can survive the simultaneous loss of six drives*



10 nines of accessibility



2 copies of all metadata



Customer-configurable redundant local object  
copies (2,3, or 4)



Content validation via hashes and automatic object repair



Replication – offsite copies with  
automated repair from replica



Object versioning – protection from  
accidental deletes and changes

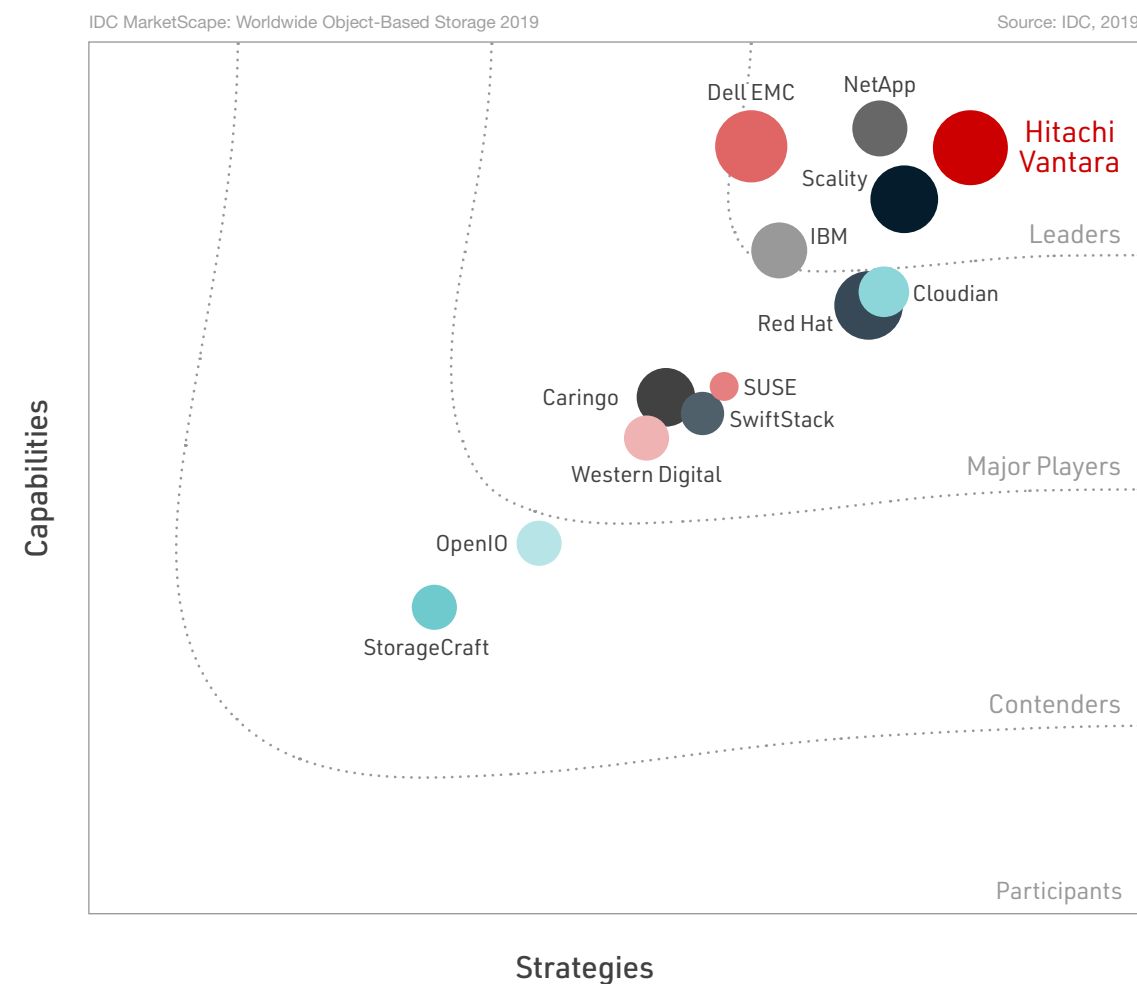
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**Equals: Unparalleled data protection and  
reduced backup burden**

# Rely on a Worldwide Leader in Object Storage

Hitachi Content Platform is the world's best cloud object storage solution to optimize your backups to reduce costs, maximize performance, and mitigate risks. Think of us as your trusted technology partner, working to evolve ahead of global data and security challenges. We are pioneering customer-driven technologies that empower you to modernize, activate, and innovate your way – for today, and for what comes next.

But don't just take our word for it. We've been recognized – for the 4<sup>th</sup> consecutive time – as the Worldwide Leader in Object Storage by IDC



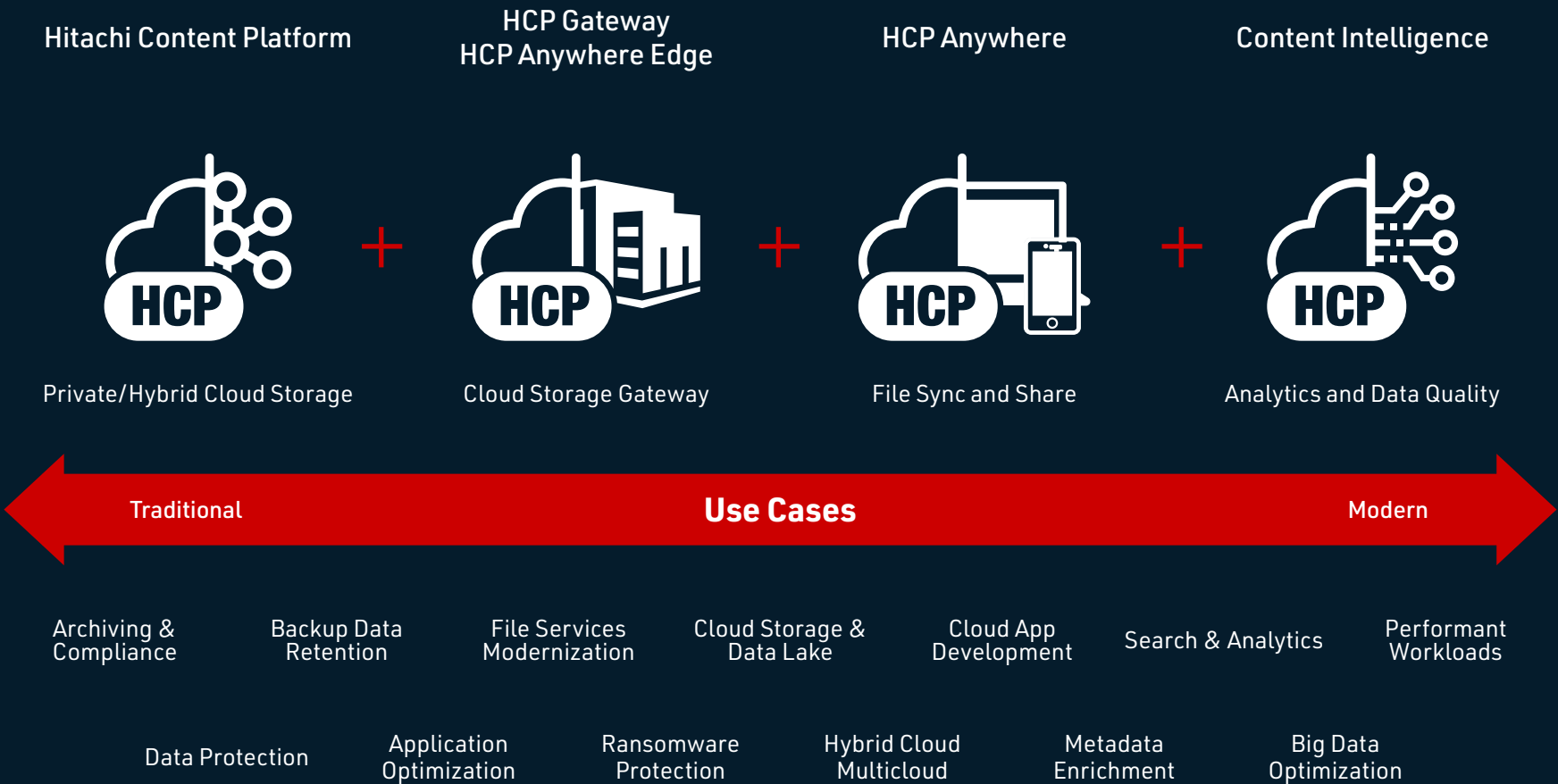
Hitachi Vantara's HCP portfolio offers the company's customers flexibility to pick and choose offerings that best meet the requirements of the organization in a scalable, customizable and comprehensive manner.

**IDC MarketScape:**  
Worldwide Object-Based Storage Vendor Assessment



# Cover Your Bases With a Thoroughly Modern Portfolio

Beyond Hitachi Content Platform, our broad portfolio is designed for a myriad of uses cases. From archiving and compliance to backup data retention to big data optimization, the Hitachi Content Platform portfolio provides robust and comprehensive end-to-end solutions for all of your cloud storage and data management needs.







# Access HCP's Extensive Partner and ISV Ecosystem

With an extensive partner ecosystem of over 80+ ISVs, HCP continues to integrate with our strategic partners for solutions that span across all verticals and a multitude of enterprise business applications. The current Third-Party Compatibility Guide for the HCP product portfolio is found [here](#).

Healthcare

Carestream  
HEALTH  
Epic  
FUJIFILM  
visbion  
GE Healthcare  
MACH7  
TECHNOLOGIES  
AGFA  
Hyland  
IBM  
VITAL  
CHANGE  
HEALTHCARE  
PHILIPS

Comm, Media & Entertainment

DALET  
Quantum  
QSTAR  
TECHNOLOGIES

Data Movers

Rocket  
CloudBerry Lab  
moonwalk  
QSTAR  
TECHNOLOGIES  
DEFENDX  
Software

Enterprise Information Archive

Rocket  
OPEN TEXT  
STEALTH  
SOFTWARE  
ZL TECH  
AvePoint  
informatica  
Metalogix  
PBS  
software

Data Protection

commvault  
VERITAS  
veeam  
FalconStor  
Software  
IBM Spectrum Protect

ECM or ERM

OPEN TEXT  
CORPORATION  
documentum  
ASG  
STAR  
STORAGE  
COS  
OPTIMAL SYSTEMS  
FILENET  
An IBM Company

Big Data

ALLUXIO  
MAPR  
splunk  
cloudera

Database / ERP

informatica  
SOLIX  
IBM

Telecommunications

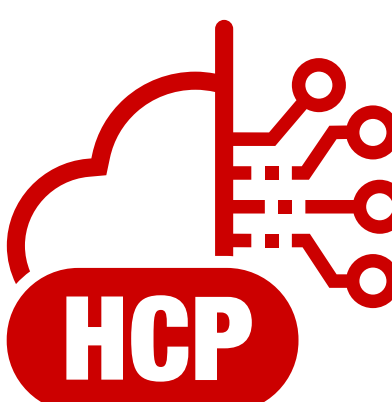
VERINT  
verba  
NICE  
RED BOX  
RECORDERS

Cloud

Rocket  
Sevanto  
DATA TRUST  
SOLUTIONS  
NASUNI  
panzura

MDL / DLM

Good  
airwatch  
by vmware  
MobileIron



Source: IDC, 2019



# Take the Next Step

Learn more about how Hitachi Vantara can help you create a modern backup and recovery solution with object storage.

**READ MORE >**

Contact your Hitachi Vantara representative or visit [hitachivantara.com](https://hitachivantara.com).

## We Are Hitachi Vantara

We focus on making valuable, tangible improvements in how things work because we know how important your success is. By working with you and your team to resolve today's most compelling problems and address tomorrow's most consequential questions, we can improve your business and even change society itself.



## Hitachi Vantara



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