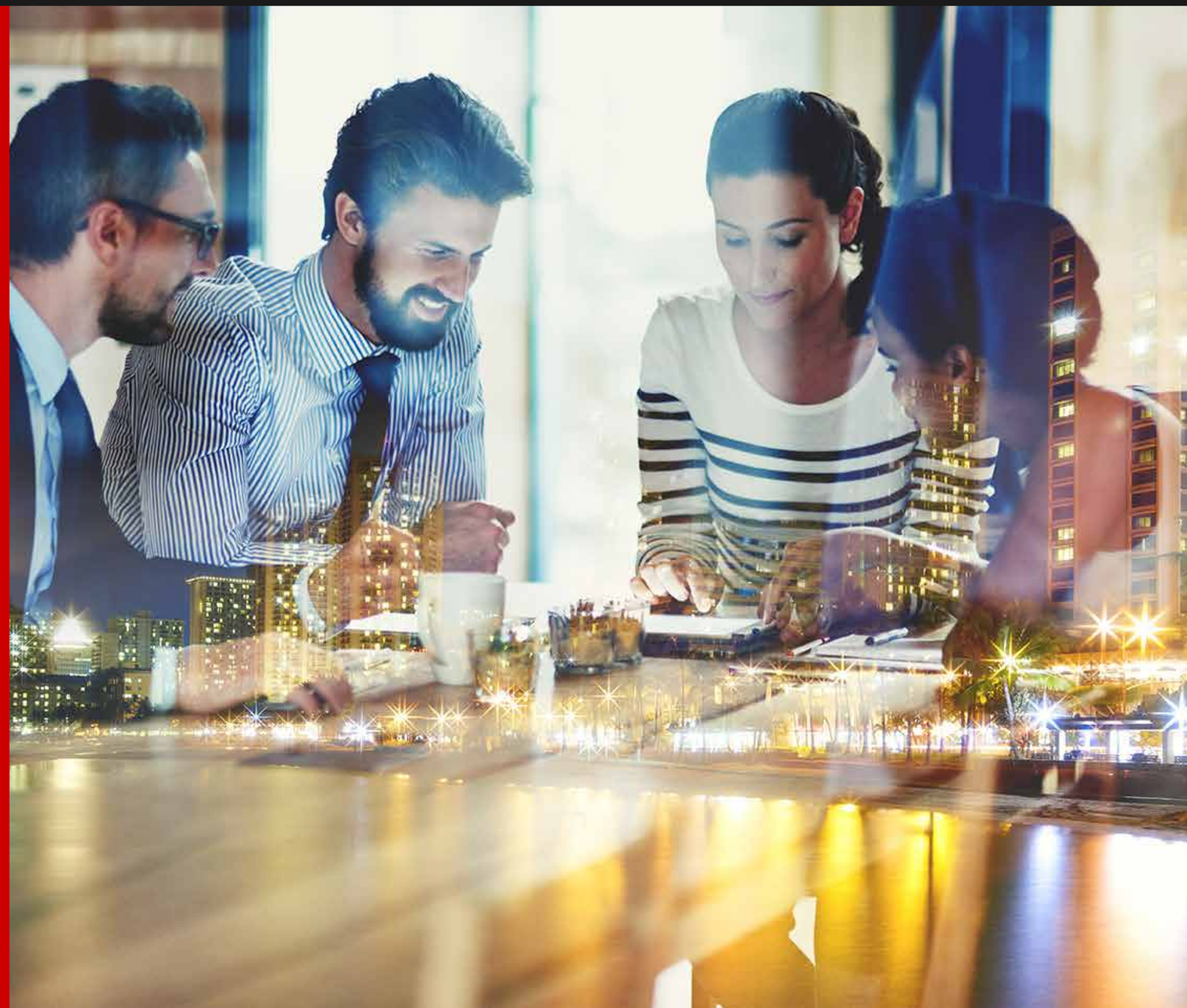
Build a Data Governance Strategy for the New Digital Era



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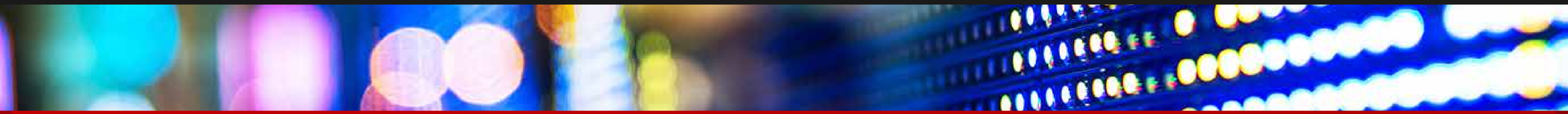

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The digital transformation is disrupting traditional, tried-and-true business process and leaving many enterprises scrambling for alternatives. Although the customer remains king for business success, data is quickly becoming an organization's most strategic asset for reaching, interacting with and retaining customers. With ransomware attacks on the rise, a strict regulatory environment, and nimble, competitive upstarts entering the market, protecting and extracting value from your most strategic asset is a business imperative — and a formidable challenge.

One solution for meeting this challenge is capturing, harnessing and utilizing the growing volume of data to reveal competitive insights, inform new-product development, and develop a deeper understanding of customers.

Yet many business and technology leaders are ill-equipped to answer even the most basic questions about their data: Is it protected? How long should it be retained? Where is it located? Who has access to it? What does it contain? And how can the data be used to produce a competitive advantage?

Enter data governance. Data governance helps organizations better manage the availability, usability, integrity and security of enterprise data. And with the right technology in place, it can also drive enormous business value and support digital transformation.

More and more business leaders see object storage as the right technology solution for data governance.

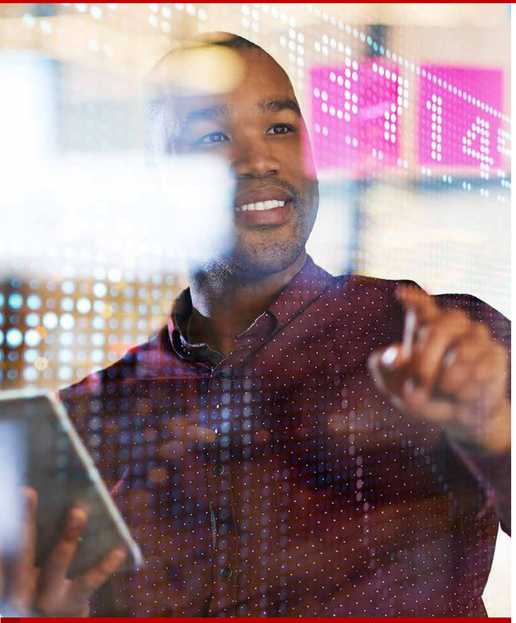
More and more business leaders see object storage as the right technology solution for data governance. Object storage is a data storage architecture that manages data as objects rather than as more-complex file hierarchies or blocks.

One of the biggest advantages of object storage is that it brings structure to unstructured data, such as audio, video, images and documents. The complexity of governing unstructured data stems from both its variety and its difference from information found in a traditional database. Object storage makes it easier to store, protect, secure, manage, organize, sync, share, search and analyze all data, including unstructured data. Although use cases vary from file synchronization and sharing to cloud storage and big data, object storage is particularly critical to organizations in highly litigious and increasingly regulated environments. Regulatory compliance requires such organizations to store and organize large volumes of data, and these volumes simply overwhelm the capabilities of many legacy systems and traditional transaction-based technology architectures.

As a result, many organizations in regulated industries, such as financial services, banking and healthcare, end up with large volumes of siloed data as they try to satisfy the volatile nature of regulatory requirements. To be compliant, the data in each of the silos must be analyzed individually. This is a time-consuming and resource-sapping task for IT teams and business leaders. Similar challenges arise when managing enterprise communications data for supervisory review, compliance and e-discovery compliance.

Three Key Drivers of Data Governance

- **Security**
- **Speed and access to data**
- **Mandatory compliance requirements**



Employing HCP, organizations can develop a best-in-class compliance strategy based on cutting-edge technology that not only strengthens IT control but also provides a key competitive advantage.

The Hitachi Vantara object storage solution, called Hitachi Content Platform (HCP), changes all of this. This centralized, fully integrated object store that collects and securely stores every piece of relevant data and eliminates silos, which means individual elements can be easily sorted, compared and analyzed. HCP automatically collates, secures and indexes structured as well as unstructured data into a searchable data hub, making it easier to audit data for regulatory requirements and/or compliance. And because of its inherent flexibility, HCP can evolve to accommodate ever-changing industry regulations and the growing mountains of data.

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Data Governance Defined

At its most basic level, data governance is about bringing data under control and keeping it secure. Successful data governance requires knowing where data is located, how it originated, who has access to it, and what it contains. Effective data governance is a prerequisite to maintaining business compliance, regardless of whether that compliance is self-imposed or mandated by an industry or governing body.

Regulatory compliance generally adds to complexity, requiring the ability to properly search data, know every word or number it contains, and produce the right data point if requested for any purpose, quickly and accurately.

But that's not all. The quality, veracity and availability of data to authorized personnel can determine whether an organization meets, or violates, stringent regulatory requirements.

Yet the volume of data in the world only continues to expand, and many of these petabytes of data are both unstructured and siloed in different applications.

That's why object storage can serve as the foundation for any successful data governance program. This technology addresses the scalability issues resulting

62% Unstructured data is growing at the rate of 62% per year.

Source: IDC

93% By 2022, 93% of all data in the digital universe will be unstructured.

40K EXABYTES The digital universe is doubling every two years and will reach 40,000 exabytes (40 trillion gigabytes) by 2020.

42% Digital data will grow at a compound annual growth rate (CAGR) of 42% through 2020.

from data growth. Its flexible architecture and innovative features, such as security, auditability, policy-based controls, encryption, access management, data mobility and portability, also create a whole new standard for secure anywhere, anytime data access.

Unlike information governance, which manages how information is used and retained, data governance moves beyond business processes to encompass several areas.

The HCP solution addresses each of these components, bringing structure to unstructured data in a single, fully integrated object store.

From the HCP central data hub, IT leaders can ascertain and establish policies for who owns the data, who has access to the data, and where the data is located. They can also determine roles and responsibilities regarding data stewardship and management as well as tag data with custom metadata to drive efficiency and assign value without compromising visibility or control.

Data can be sorted by source, such as by email, so that access and retention policies adhere to specific regulatory requirements. It's also important to use uniform search and audit techniques to obtain accurate and reliable results. A single solution such as HCP can do this, so organizations need not rely on the actions of disparate business users, who may or may not follow a methodology with discipline.

What's good for governance, though, is also good for data management, mobility and analytics. By collating, securing and indexing both structured and unstructured data for greater compliance, HCP also helps to reduce management costs, drive data mobility and generate business insights.

What Is Data Governance?

Data governance moves beyond managing information to support business processes, to encompass a broad set of data strategies and functions.

Data security:
protecting against unauthorized access to or corruption of data.

Data lineage:
managing the origin of data, what happens to it, and where it moves.

Data integrity:
ensuring the veracity, accuracy and quality of data.

Data delivery and access:
any actions related to storing, retrieving and acting on data.

Data synchronization:
establishing consistency among data types.

Master data management (MDM):
the complete collection of processes, policies, standards and tools for defining, governing and managing data.

Data loss prevention (DLP):
ensuring that sensitive data isn't sent outside the corporate network and/or controlling what data can be transferred.

The High Cost of Compliance

If IT teams ever needed an incentive to govern data tightly, it's compliance. The cost of failing to comply with stringent regulatory requirements can add up quickly, once you factor in legal, litigation and settlement fees. HCP affords the IT staff with this degree of control and offers the flexibility to balance the data governance policies you put into place. This makes it possible to ensure that the business is protected without sacrificing workforce productivity.

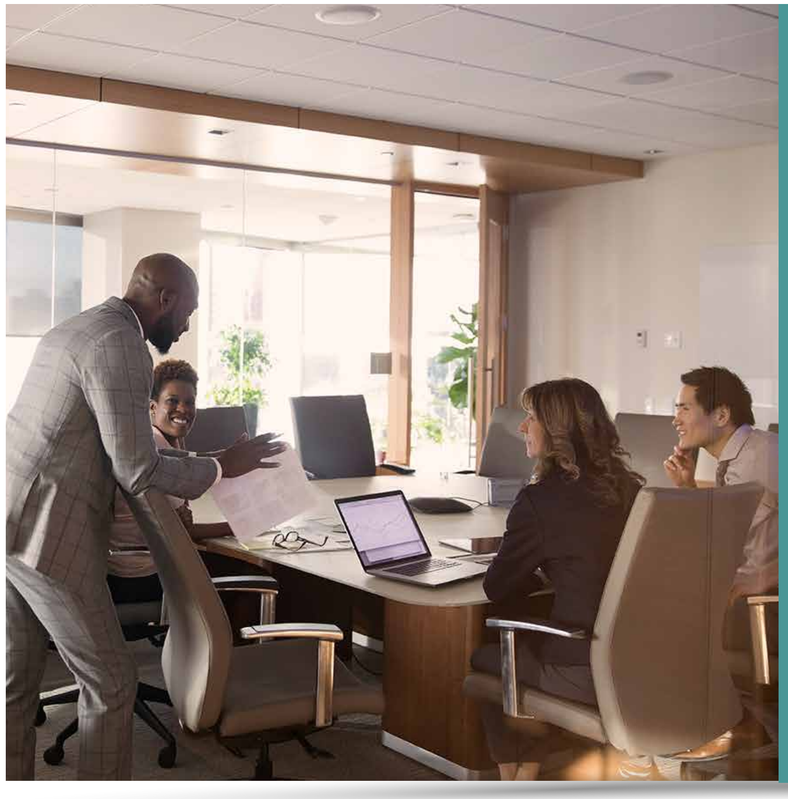
Consider, for example, the EU General Data Protection Regulation (GDPR), which requires companies that handle the data of European Union citizens to comply with strict data privacy regulations. Organizations that fail to comply with the GDPR after it goes into effect in 2018 could face penalties of up to 4% of their global revenue, not to mention a tarnished reputation.

With penalties of this size in mind, it's no wonder that many organizations are investing heavily in compliance initiatives. Some even view compliance as a key competitive advantage.

Yet many factors make it increasingly difficult for organizations to maintain compliance. First, there's the growing number of regulations across multiple industry verticals. Case in point: Global banks work under 100+ different regulations at any given time. These include Securities and Exchange Commission (SEC) regulations, Dodd-Frank, EU GDPR, and the Markets in Financial Instruments Directive (MiFID). And these are only a handful of the regulations around the world.

Complicating matters further is an increasing number of producers and consumers of data and the growing mountain of data as emails, voice messages, videos, backup tapes and other data sources spread across disparate systems.

Another challenge: Legislation and new regulations are outpacing the capabilities of existing IT investments and the budgets necessary to adopt adequate solutions.



Case in Point: The PSD2 Banking Regulation

CIOs and IT directors in the EU are readying for a new banking regulation: PSD2, or Revised Payment Service Directive. Set for implementation in 2018, PSD2 enables consumers and businesses to use third-party providers, such as Google or Facebook, to manage finances, pay bills or analyze spending.

The impact on EU banks is very real: They will be required to provide these third-party providers access to customers' accounts through APIs. As a result, IT costs will likely increase, due to new security requirements, such as stronger identity checks, and API development.

4,000

ransomware attacks occur daily in the United States.

Source: U.S. Department of Justice

For example, the technologies used to protect applications from cyberattacks may lag new regulations on data security. Similarly, the length of time that sensitive data must be stored to meet regulations may surpass an architecture's physical storage capabilities.

In response, many IT leaders over implement data control processes. This not only stifles innovation and productivity but also hampers the built-in flexibility needed to adapt to changes in the regulatory landscape.

Lesson learned: Exposure to risk will continually grow as the gap widens between applications, people, processes, systems and existing technologies with each new or modified regulation. With an object storage solution such as HCP, however, organizations achieve cost-effective compliance.

Data Security Unleashed

Organizations and their data are under constant threat. The U.S. Department of Justice estimates that in the United States alone, more than 4,000 ransomware attacks occur daily. Globally, these attacks have increased 6,000% compared to the number in the previous year. But as recent attacks have shown, ransomware is a worldwide issue: Cybersecurity Ventures predicts that global ransomware damage costs will exceed $5 billion in 2017, up from $325 million in 2015.

For IT departments, frequently running data backups and installing the latest antivirus software can help minimize damage, but it's often not enough. And although information security and identity management can help stave off unauthorized access to data, keeping it within the organization and geographical boundaries, security must span from an organization's core to every endpoint.

For instance, a financial institution may be compliant with regulations, but as soon as the organization allows trade activity via a customer's personal device, it introduces a new endpoint and increases exposure to attacks.

Not all threats to data security are malicious. IT leaders must also maintain the integrity of data and protect data from being corrupted or irretrievably deleted by accident or destroyed by some unforeseen outage or event.

Fortunately, the same suite of products that addresses compliance can protect data in the data center, across remote or branch offices, and even protect employee endpoint data located outside the corporate firewall. HCP delivers centralized data security even as the boundaries of a data center extend farther and farther away from the organizational core.

Analytics and Intelligence for Dynamic Data Governance

A strong data governance strategy doesn't build a new silo dedicated exclusively to compliance. Rather, it combines governance requirements with data analytics for a more

$5B

Global ransomware damage costs will exceed $5 billion in 2017, a 15x increase from 2015.

Source: Cybersecurity Ventures

dynamic data governance process. Traditional data management techniques make it nearly impossible to easily access and analyze data for actionable insights. Yet, organizations need a way to integrate and visualize data quickly to meet compliance requirements, while also driving better business decisions.

The good news is that IT leaders don't need to choose between retaining data for analytics purposes and ensuring full compliance with industry regulations. There's no reason why the analytics solution selected to address compliance can't be the same solution used to investigate trends, uncover new business opportunities, and generate new revenue streams.

By using software to move data to a central data hub and then managing access, protection, retention and expiry of each object, HCP creates a win-win situation. Organizations derive greater value from data and help drive a broader strategic and analytic plan at the C-suite level. And by enabling users to add custom metadata to each object, HCP helps ensure timely, accurate responses to regulator requests.

But that's not all. Many organizations simply store vast volumes of data. However, by gathering, analyzing and gleaning insights from organizational data, IT leaders can readily detect and respond to regulatory inquiries, perform early case assessments, and explore new business opportunities based on data with the highest referential value and quality. With the data under control and centralized, it is possible to defensibly delete data, when its value to the business is no longer measurable, with a standardized approach. The amount of data stored is limited to that which is most relevant, and the need to buy more capacity is reduced.

The Role of the Modern Data Center

The data center as we know it today is evolving and must evolve further. Traditional data centers often end up as repositories for silos and disparate data sources and require time-consuming, hands-on management. Modern data centers, on the other hand, are designed to support and fund innovation. The value of infrastructure standardization,

Building Blocks of a Solid Data Governance Strategy

Delivering a distinct competitive edge, the single-vendor HCP solution bridges bimodal challenges and next-generation data management while leveraging existing investments.

Unified and tightly integrated, the portfolio delivers a central way to manage data. In fact, HCP presides over private and hybrid cloud storage, cloud storage gateways, data protection and preservation, file sync and share, collaboration and advanced content analytics. The result is software-defined object storage that manages unstructured data from diverse sources for greater compliance.

Key advantages of the HCP portfolio include:

- **Greater agility and cost efficiencies.**
- **Broad security capabilities to minimize data threats.**
- **Full compliance with ever-changing regulations.**
- **Intelligent use of metadata to exploit unstructured data for better business outcomes.**

data intelligence and data centralization is key to delivering the highest-quality and most referential data to the business.

The value of infrastructure standardization, data intelligence and data centralization is key to delivering the highest-quality and most referential data to the business.

But the centralization of data shouldn't require physically centralizing it. Nor should it matter where data resides in an organizational structure. Rather, the modern data center is all about facilitating a centralized form of control.

By creating a centralized data hub, HCP enables IT leaders to standardize data access, management, and governance at every stopping point and delivers greater convenience to users without compromising security or compliance.

In the modern data center, with centralized data access, the focus is no longer on technology, as the technology stack is so flexible. Instead, IT can focus on turning a regulation or requirement into a policy that both protects the business and enables users to work with data in new and more insightful ways.

Can Data Governance Be Agile?

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Intelligent Data Governance For Dummies

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Anatomy of the Hitachi Content Platform Portfolio

HCP is a software-defined object storage solution that automates data management, movement and access via policies based on metadata and content intelligence.

Advantage: a massive-scale repository with boundaryless data protection and placement.

Hitachi Content Platform Anywhere (HCP Anywhere) streamlines mobile collaboration, enduser data protection, and enterprise file sync and share, while ensuring secure, continuous data protection and access.

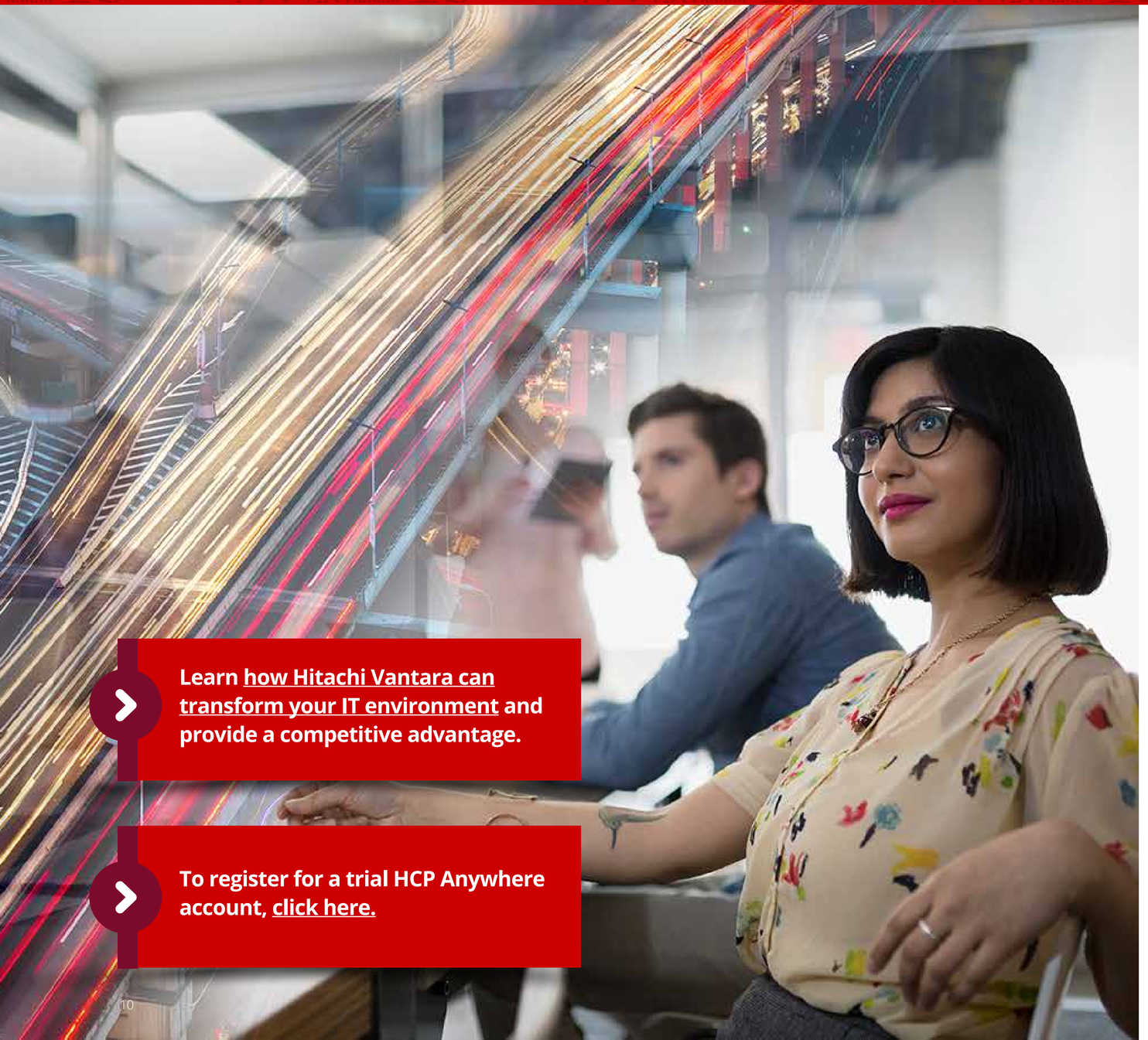
Advantage: increased productivity with secure digital workplace mobility.

Hitachi Data Ingestor (HDI) delivers low-cost, elastic, backup-free file services beyond the data center.

Advantage: secure, right-sized deployment, provisioning and management of remote sites with a minimal IT footprint outside the data center.

Hitachi Content Intelligence (HCI) is a highly flexible, policy-based data exploration and content analytics solution for sophisticated search and analytics performance.

Advantage: automated and secure extraction, classification, enrichment and categorization across any data landscape.



Learn how Hitachi Vantara can transform your IT environment and provide a competitive advantage.

To register for a trial HCP Anywhere account, click here.

A Win-Win Situation

The pressures facing IT have never been higher. Employees now expect access to enterprise data anywhere, at any time, on any device. Business-line leaders demand data that is searchable, viable and pliable enough to deliver actionable insights. And tight regulations require best-in-class compliance processes.

Satisfying these expectations can give rise to considerable security and compliance risks. As a result, IT leaders must find a balance between driving business value and complying with stringent regulations, all without disrupting workforce productivity or compromising business assurance.

Fortunately, the same solution that empowers an organization to manage its data and meet regulatory requirements can also support its journey to digital transformation.

Each component of the HCP portfolio works to consolidate, archive, automate, protect, search and analyze data. For organizations in heavily regulated industries, this helps to speed compliance investigations, minimize costly human errors, and free IT teams from time-consuming data searches and retrieval tasks.

However, more importantly, it forms the foundation for a broader, more impactful data governance strategy that not only strengthens IT control and compliance but also drives better business outcomes.

A Unified Approach to Data Mobility and Portability

According to a forecast from IDC, mobile workers will account for nearly three-quarters (72.3%) of the U.S. workforce by 2020. As their numbers grow, many of these workers will transition away from slow and cumbersome in-house file-sharing solutions to more-nimble cloud-based collaboration tools. However, the more employees send and receive sensitive data via the public cloud, the greater the threat to security.

At the same time, employees need the ability to access files from a variety of devices and share those files quickly and easily with dispersed teams. But not at the cost of compliance.

Fortunately, there are technology approaches organizations can take to meet workforce demands for mobility without compromising data security requirements.

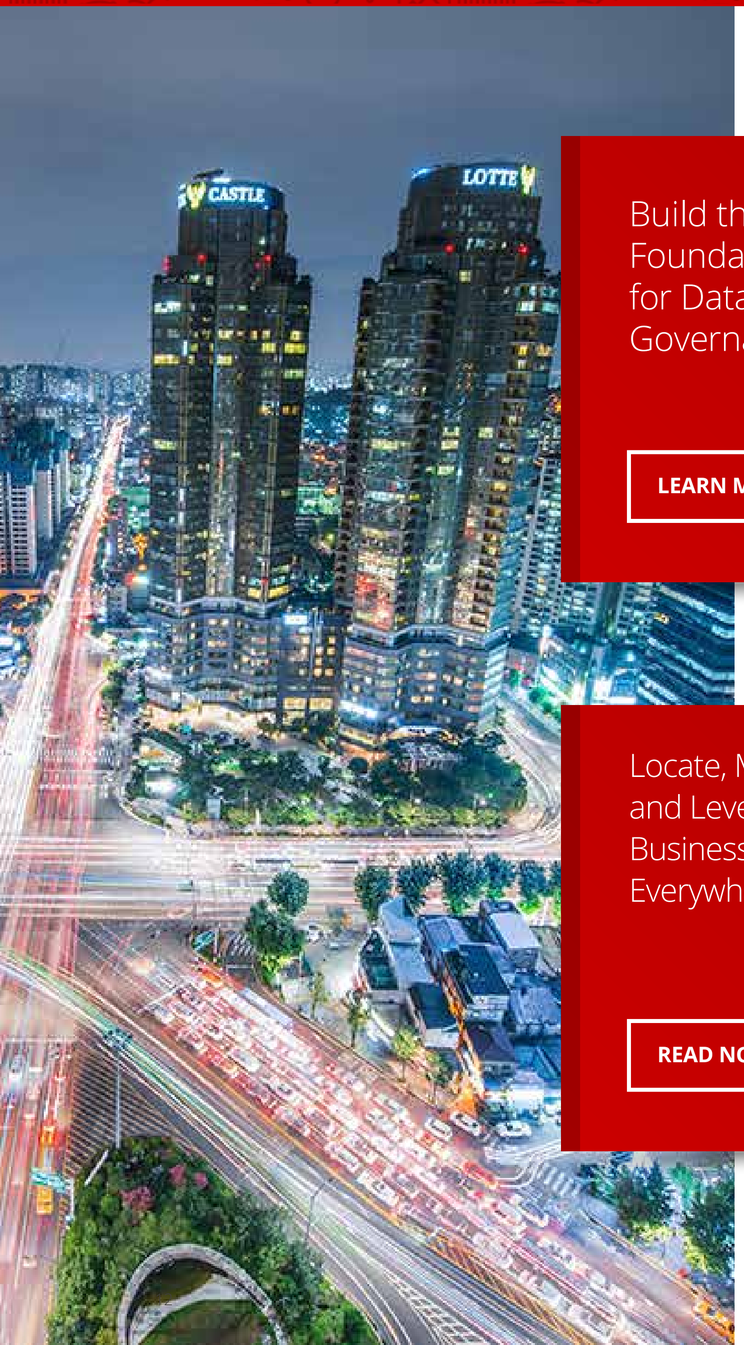
With HCP Anywhere, employees can send and receive links to files of any size, for any device. At the same time, IT maintains visibility into and control of data across the enterprise, whether in the data center or branch office, on a mobile device, or in the cloud. Employees gain access to critical information faster, and IT leaders satisfy data security regulations.

Next, Hitachi Data Ingestor, a backup-free cloud storage gateway solution, collects and ingests content from remote and branch locations and consolidates it in a common pool of storage inside HCP; this enables employees to work seamlessly across locations. From there, IT teams can ensure that data moves across the enterprise in accordance with governance regulations.

And for analytics, Hitachi Content Intelligence gathers and arranges mobile-generated data into a form that can be mined for relevant and insightful business insights.

HCP also enables organizations to secure mobile data by moving it from on-premises to the cloud, based on type, source and sensitivity, for truly comprehensive compliance.

To learn more about meeting mobile user needs while ensuring security, click here.



Build the Foundation for Data Governance

LEARN MORE

Locate, Manage, and Leverage Business Data Everywhere

READ NOW

Get to Know Hitachi Content Intelligence

Introducing Hitachi Content Intelligence. This intelligent data discovery and transformation platform surfaces actionable business insights and relevant content from today's vast volumes of data.

Key Benefits of Hitachi Content Intelligence:

Provides rapid and actionable insight into organizational data with content analytics.

Connects people with relevant content through the enrichment of useful data that prompts action.

Boosts workforce productivity and reduces business risk.

Discovers valuable information to support critical business decisions.

Creates machine-readable content from unstructured datasets.

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