

EBOOK

# Anything is Possible with the Right Data Foundation

How can federal agencies take full control of their data to drive decision-making and achieve mission goals?

# Table of Contents

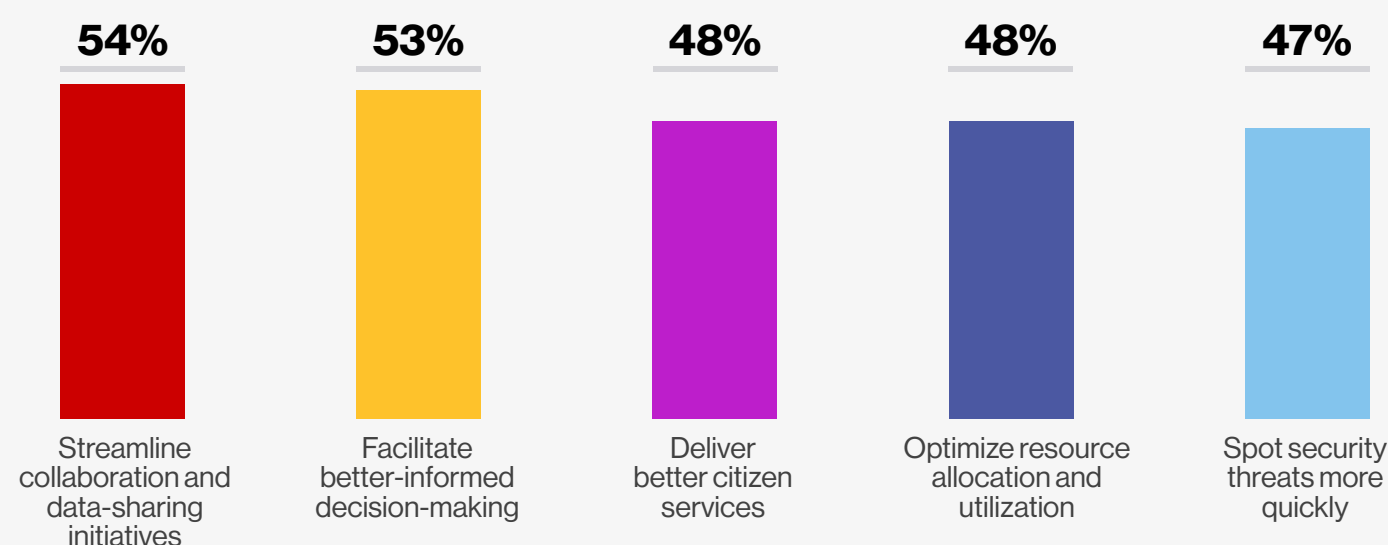
- 03**    **How Data Supports Agency Missions**
- 04**    **Why Aren't Agencies Using Data to Its Full Potential?**
- 05**    **It's Clear: Infrastructure Is Not Up to The Task**
- 06**    **Anything is Possible with the Right Data Foundation**
- 07**    **Unlock the Full Potential of Your Data with the VSP One Family of Solutions from Hitachi Vantara Federal**
- 09**    **How a Federal IT Service Provider Modernized Its Data Foundation with Hitachi Vantara Federal and VSP One**

# How Data Supports Agency Missions

Federal agencies face increasing pressure to use all of their data to drive decision-making and achieve mission goals. But agencies have so much data that it can be hard to fully leverage it all, access it all, and share it between systems and stakeholders. Meanwhile, structured, unstructured and semi-structured data is streaming in from sources like video feeds, location services, IoT sensors and machine learning models. The struggle is real: less than 1 in 3 Federal IT stakeholders rate their ability to use data-driven insights an “A.”

Agency IT stakeholders know that if they could fully leverage data, they could improve how they deliver their missions, including: more informed policymaking, real-time information sharing with the warfighter, improved service delivery and better fraud detection and prevention.

## How modern data capabilities improve mission outcomes



How to take back control? For better insights and mission outcomes, agencies should focus on upgrading data storage infrastructure, investing in advanced analytics tools and continuing to enhance data protection measures.

## Data Trends

Federal agencies are experiencing increasing volumes of data types including:



Biometric



Machine-generated



Multimedia



Geospatial

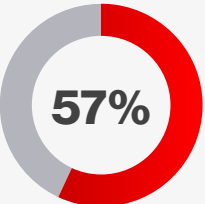
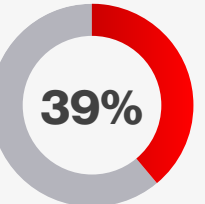
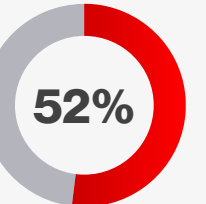
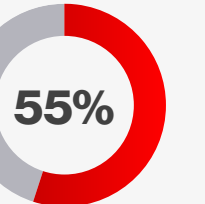
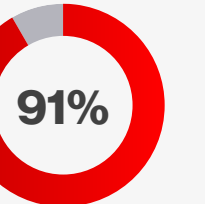


Unstructured data

# Why Aren't Agencies Using Data to Its Full Potential?

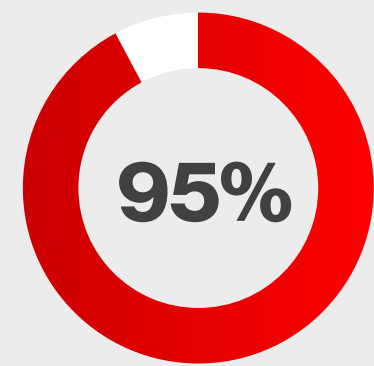
With all the available data, what's holding agencies back from converting data to insights? Agencies are experiencing many infrastructure challenges, most notably complexity, security vulnerabilities, and outdated technology.

## Data Challenges for Agencies

So much data	Lack of integrations	Higher performance workloads	Complex data security	Hybrid cloud management
<p>Agencies have all the data they need to make critical decisions and solve meaningful problems—but they can't always access it, share it or make full use of it.</p>	<p>More data sources and types (unstructured, structured, etc.) create siloes between infrastructures, data types and deployments.</p>	<p>There's pressure to utilize high performance workloads, such as artificial intelligence (AI) and machine learning (ML), but existing agency infrastructure wasn't designed to handle this much data.</p>	<p>It's increasingly challenging to protect accumulating data volumes and types. Infrastructure failure, human error and bad actors all create risks for data loss and penalties.</p>	<p>A 100% cloud environment isn't feasible for government performance and compliance demands, so agencies are forced to use the hybrid cloud. But many agencies struggle with hybrid cloud management.</p>
<p> 57% of Federal IT leaders feel their current data infrastructure is being overwhelmed by increasing data volumes.</p>	<p> 39% of Federal IT leaders say that interoperability and compatibility issues between different data sources are a bottleneck in their data pipeline.</p>	<p> 52% of Federal IT leaders say their organization's current data infrastructure is not agile enough to adapt to evolving technologies.</p>	<p> 55% of Federal IT leaders share concerns that their organization may not be able to detect a data breach in time to protect data.</p>	<p> 91% of Federal IT decision-makers have experienced hybrid cloud operational challenges, namely data compatibility and downtime issues.</p>

# It's Clear: Infrastructure Is Not Up to The Task

Over half of Federal IT leaders feel their current infrastructure isn't agile enough to adapt to evolving technologies, and six in 10 feel their infrastructure won't be able to scale to meet their data needs over the next two years. To optimize data storage and streamline operations, it's now critical for agencies to rethink their data storage and accessibility strategies.



**95%** of Federal IT leader have experienced bottlenecks with their existing pipelines, the biggest of which are processing and analysis.

## Time for a Modern Data Solution

Federal IT decision-makers are urging agencies to prioritize upgrading and modernizing data storage infrastructure by investing in cutting-edge solutions that provide agility, scalability, resiliency, and seamless integration with emerging capabilities like artificial intelligence and machine learning. The recommended solution includes leveraging hybrid cloud environments and software-defined storage to keep pace with escalating data volumes and rapidly evolving technology needs.



# Anything is Possible with the Right Data Foundation

Agencies have high expectations for data storage transformation and future technological advancements—all they need is the right data foundation to make it happen. With secure access to any data from any source at any time, anything is possible!

## How to Invest in the Right Data Foundation



**#1** Upgrade and modernize existing data storage infrastructure.



**#2** Implement advanced data analytics tools and technologies.



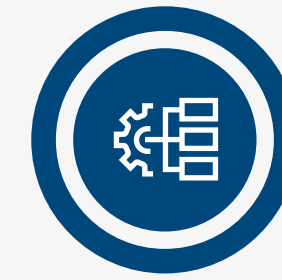
**#3** Enhance cybersecurity measures for enhanced data resilience.

Investing in a modern data foundation doesn't need to be complicated. In fact, agencies can achieve all of their infrastructure goals in one place with the VSP One Family of Solutions from Hitachi Vantara Federal.

## Expected outcomes of data foundation transformation



Faster data access and retrieval for real-time applications



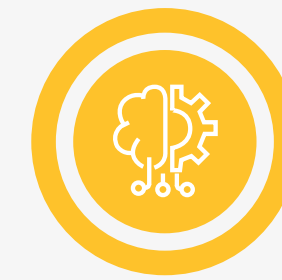
Data management processes for increased efficiency



Data reliability and resiliency for mission-critical applications



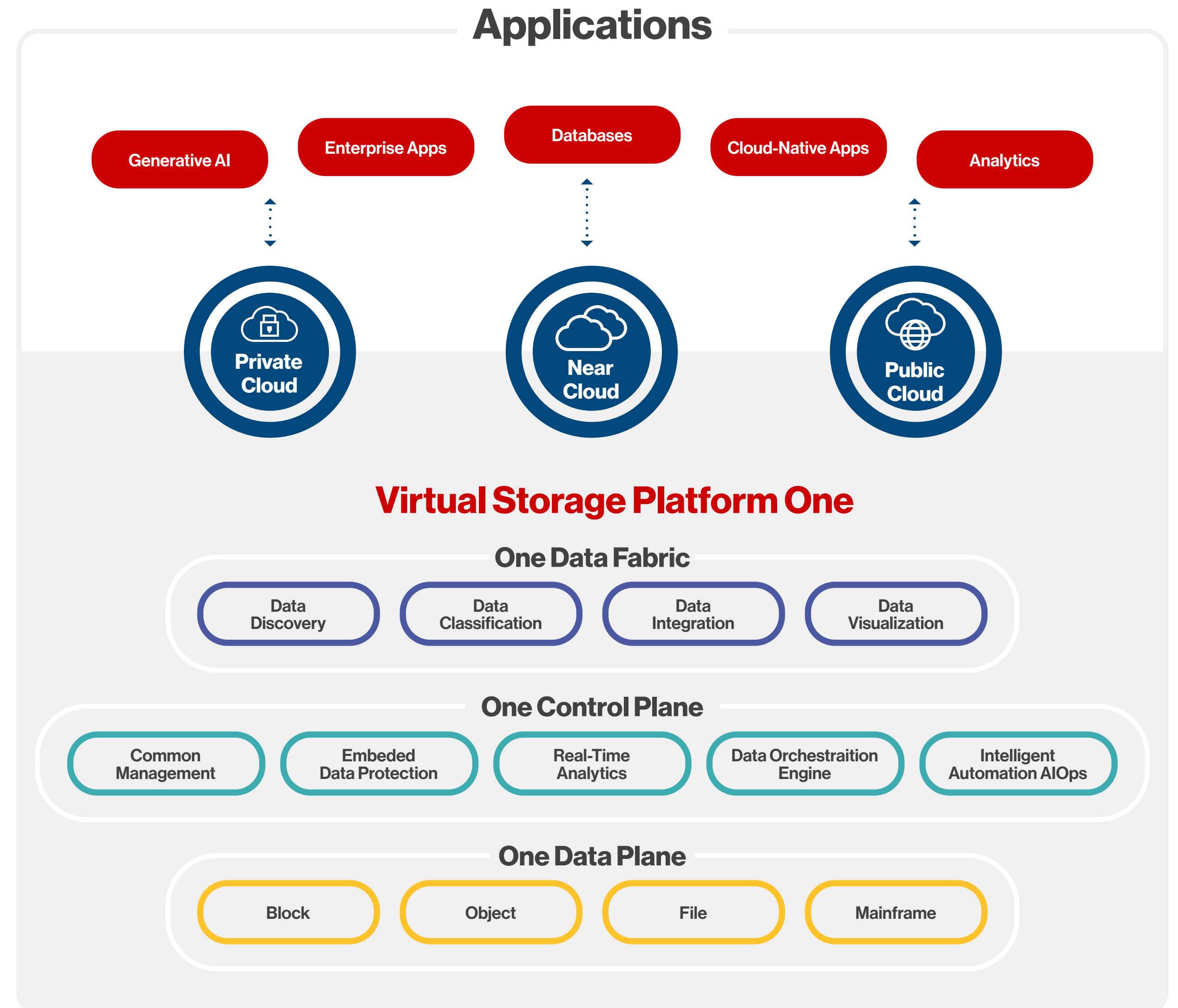
Scalability to accommodate the growing volume of data



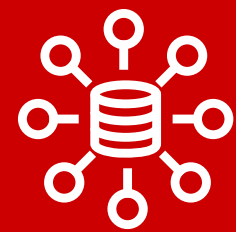
Seamless integration with emerging technologies like AI and ML

# Unlock the Full Potential of Your Data with the VSP One Family of Solutions from Hitachi Vantara Federal

Hitachi Vantara's Universal Data Management architecture simplifies data management to help agencies quickly deploy demanding workloads, AI/ML applications and analytics at scale. Our data foundation accelerates data-driven outcomes while keeping data secure.

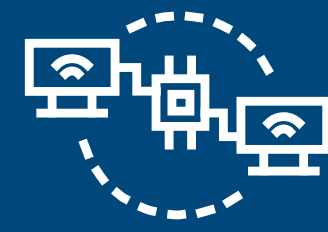


## Benefits of VSP One from Hitachi Vantara Federal



### Flexible

Easily connect data from the edge of your core data centers into the public cloud with agility and automation. Remove application complexity with a common data plane across block, file and object workloads.



### Intelligent

A scalable data infrastructure platform that supports all data types and application workloads and drives data optimization and insights. Automation simplifies data management and efficiency.



### Resilient

World's fastest enterprise storage with 100% Data Availability Guarantee and Data Reduction Guarantee of 4:1.



### Trusted

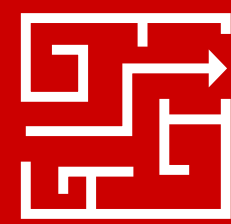
Hitachi Vantara delivers the intelligent data platforms, infrastructure systems and digital expertise that support more than 80% of the Fortune 100.



### Sustainable

Hitachi Vantara has reduced the annual carbon footprint of Virtual Storage Platform by up to 86% since 2014. Hitachi Vantara is the only storage vendor to have its products certified by Carbon Footprint for Products.

# How a Federal IT Service Provider Modernized Its Data Foundation with Hitachi Vantara Federal and VSP One

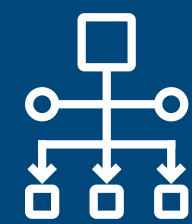


## Challenge

For several decades, a Federal IT service provider worked to deliver the most efficient IT infrastructure possible to tenants within a highly classified environment but eventually fell behind industry improvements in storage technologies. Siloes from piecemeal procurements and trapped capacity throughout the storage estate made volume management difficult, as well as capacity and performance analysis.

Initially, the Federal agency's officials solved these challenges with a storage virtualization layer to improve storage management. They implemented the Hitachi Vantara Federal Virtual Storage Platform (VSP) G1000 which created a single point of data management and dramatically improved their technology refresh timeline from two-to-three years to two-to-three months.

By 2020, the Federal agency's mission-critical data workloads – which include some of the Federal government's most sensitive, highly classified data – required greater resiliency, agility and performance.



## Solution

To address evolving needs, the Federal service provider engaged with Hitachi Vantara Federal to modernize and replace its core storage infrastructure, including the virtualization engine. The Hitachi Vantara VSP 5000 series was selected to consolidate data and improve storage and efficiency.

The Hitachi Vantara VSP 5000 series provides enterprise storage data services for open system and mainframe block, file services, and object storage archival with synchronous and asynchronous replication between four sites and four security enclaves. With the unique ability to non-disruptively migrate between generations of technology, this new platform was easy to implement.



## Results

Without any system downtime or impact to end users, the storage infrastructure upgrade reduced the historical refresh implementation period by 75%, shrunk the Federal agency's data center by 25% and delivered major benefits in cost, resiliency, and performance.

In addition, the Hitachi Vantara VSP 5000 series supports executive branch goals of reducing greenhouse gas emissions and increasing the sustainability of Federal supply chains, including green energy and sustainable purchasing goals. Cleaner infrastructure reduces the need for cooling and floor space and reduces power consumption by up to 40%.

Overall, implementing Hitachi Vantara VSP 5000 series brought major benefits to the Federal IT service provider and American taxpayers alike, reducing the operational costs of running the data center and heightening resiliency, performance, and reliability.

# Architect the Future: Start with the Right Data Foundation

Built for data flexibility and resiliency, the Virtual Storage Platform One family of solutions brings the simplicity and scale Federal agencies need to unleash the possibilities of their data. Hitachi Vantara Federal is transforming the way data fuels innovation. We're on a mission to build data infrastructure that supports critical data-driven decision-making and advances with the future.

Learn more about the  
VSP One platform →

Discover the Power of VSP One from  
Hitachi Vantara Federal

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