HITACHI

For the Mission Critical.

Hitachi Vantara Federal Customer Stories

HITACHI

Innovate with Hitachi Vantara Federal.

We’re for the mission critical.

From advanced data storage platforms to comprehensive infrastructure and engineering services, our solutions are trusted by every Cabinet and Armed Forces agency to power their missions.

Our Partnerships

HITACHI

Hitachi Vantara Federal empowers federal agencies to use data strategies in ways that generate competitive advantages, foster digital transformation, and deliver mission results. Can we help transform your mission?

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Modernizing Multimedia Archives

An international laboratory built and operated by multiple countries around the world was tasked with fostering a low-earth orbit economy, developing technology to support taking humans deeper into space, and conducting fundamental research in physics and biology to help the people of earth.

A U.S. Space Agency maintained the previous imagery repository for this laboratory, which dated back to the shuttle era and was no longer keeping pace with the performance, scalability, and availability demands of global customers.

This agency engaged Hitachi to successfully implement a new hybrid cloud data storage repository that would scale with the agency's growing demand for data and deliver performance and data availability aligned to the agency's mission needs.

OUTCOME

- Highly scalable data storage with hybrid cloud capabilities
- Immediate and uninterrupted access to data
- Predictable pricing and lower total cost of ownership (TCO)

Detecting and Defending Against Orbital Threats

A U.S. Defense Agency required architecting a medium-earth orbit missile tracking system that would transmit data collected from SBIRS and next-gen OPIR satellites to a ground system for real-time processing and advanced threat detection.

Hitachi and a major federal systems integrator successfully architected and delivered a data platform that could ingest, store and process telemetry, multimedia, and other data at the scale and performance needed to support next-generation application workloads and generate real-time intelligence.

OUTCOME

- Future-focused scalable and expandable storage foundation
- Uninterrupted availability and accessibility of mission-critical data
- Performant storage foundation for next-generation application workloads

Centralizing Regional Data and Records

A U.S. Justice Department agency tasked with handling the nonjudicial, administrative business such as maintaining statistics, archiving records, and managing court budgets underwent a major initiative to integrate data from regional courts and offices into a centralized data lake/data warehouse.

This agency partnered with Hitachi, and together developed an automated data integration and management solution that would serve as the underlying technology for the data warehouse's ingest, orchestration, and ongoing reporting and advanced analytics.

OUTCOME

- Automated data integration from over one hundred regional courts
- Orchestration of several disparate data formats and types into one unified environment
- Enhanced data visibility, reporting and analytics capabilities

Scaling Secure Enterprise Cloud Service Delivery

A U.S. Civilian Agency's fee-for-service organization, responsible for the management and operation of data center hosting services to tenant agencies across government, successfully partnered with Hitachi to modernize its enterprise block storage capacity in support of its tenants' diverse application workloads and to architect a new enterprise-level backup and recovery as-a-Service capability to support cloud workloads.

OUTCOME

- Highly simple, scalable data storage with hybrid cloud capabilities
- Cost-effective and predictable cloud-like customer experience
- FedRAMP High-certified cloud-extensible backup capability
- Automated infrastructure management
- 30% cost savings compared to customer architecting their own private cloud solution
- Enhanced security-based analytics to identify and mitigate potential cyber threats

Dramatically Shrinking Data Center Footprint

U.S. Defense Agency tasked with operating and defending the Department of War's (DOW) key cyber terrain and providing information technology (IT) services to Pentagon and National Capital Region (NCR) customers engaged Hitachi to successfully modernize its enterprise storage data services for open system and mainframe block, file services, and object storage archival - with synchronous and asynchronous replication between four different sites and four different security enclaves.

OUTCOME

- Non-disruptive migration to new storage infrastructure
- Improved performance with all-flash NVMe
- Increased resiliency for mission-critical workloads
- Reduced future storage refresh timeframes by 75%
- Eliminated stranded storage capacity
- Reduced data center footprint by 25%

Powering Nonstop Scientific Discovery

A multidisciplinary U.S. national laboratory and federal funded research and development center (FFRDC) was conducting research across biological science, computing and mathematics, environmental science, engineering science, materials and advanced manufacturing, nanodevices and microsystems, physical science, and radiation and high energy physics.

This national laboratory partnered with Hitachi to successfully modernize its storage infrastructure supporting Virtual Desktop Infrastructure (VDI) and other application workloads across multiple networks and levels of classification.

OUTCOME

- Uninterrupted access to mission-critical data for VDI users across the laboratory and its tenants
- Future-proof performant and resilient flash storage infrastructure for next-generation application workload demands

Modernizing Records Management

An office of the U.S. Executive Branch routinely moves massive amounts of records and materials from one agency jurisdiction to another, which assumes legal and physical custody of those materials and archives the records for public access via the Freedom of Information Act (FOIA).

This office partnered with Hitachi to successfully ingest, index, and catalog digitized records into a common object based system with replicability across data centers and in the cloud, and to assist the recipient agency in receiving and maintaining these records each change of administration.

OUTCOME

- A long-life repository that enables instant access to structured and unstructured data from authorized users and seamless handoff of data to the recipient agency
- Replication to DR site and cloud for enhanced data availability and disaster recovery
- More comprehensive and efficient data discovery capabilities for improved FOIA fulfillment
- Shortened end to end collection and archiving process by nearly 6 months each transfer
- Accelerated recipient agency's certification of receipt and compliance from 4+ years to under 3 weeks

Boosting Public Safety and Traffic Efficiencies

Moreno Valley is bordered by hilly terrain, freeways and a military air base. These presented complex challenges for the city as it pursued a community-wide camera system to improve public safety.

The municipality partnered with Hitachi and numerous public and private entities to build an innovative and effective video ecosystem. This co-creation approach resulted in the ability of the customer to deliver better traffic flow through city intersections, faster and more accurate emergency response, and greater situational awareness throughout the jurisdiction.

OUTCOME

- Multiple jurisdictional collaboration and information sharing
- Real-time visibility of multiple information systems
- Accelerated proactive response and situational awareness
- Highly scalable software and hardware for future expansion

Powering National Cancer Research

A U.S. federal government scientific agency conducting national cancer research and training partnered with Hitachi to refresh an end-of-support HPE storage area network (SAN) and NetApp block storage environment and modernize storage capabilities to support next-generation scientific application workloads.

OUTCOME

- Modern all-flash storage providing the performance and resilience needed for mission-critical workloads and applications
- 2-4x enhanced effective capacity of storage environment via Adaptive Data Reduction
- Maximum scalability and resiliency across the NCI storage environment via virtual storage scale-out (VSSO)
- Streamlined deployment and ongoing maintenance of SAN and storage through a single vendor relationship
- Cost efficiencies enabled budget for 100% mirrored data replication environment and additional storage capacity to pre-production lab environment

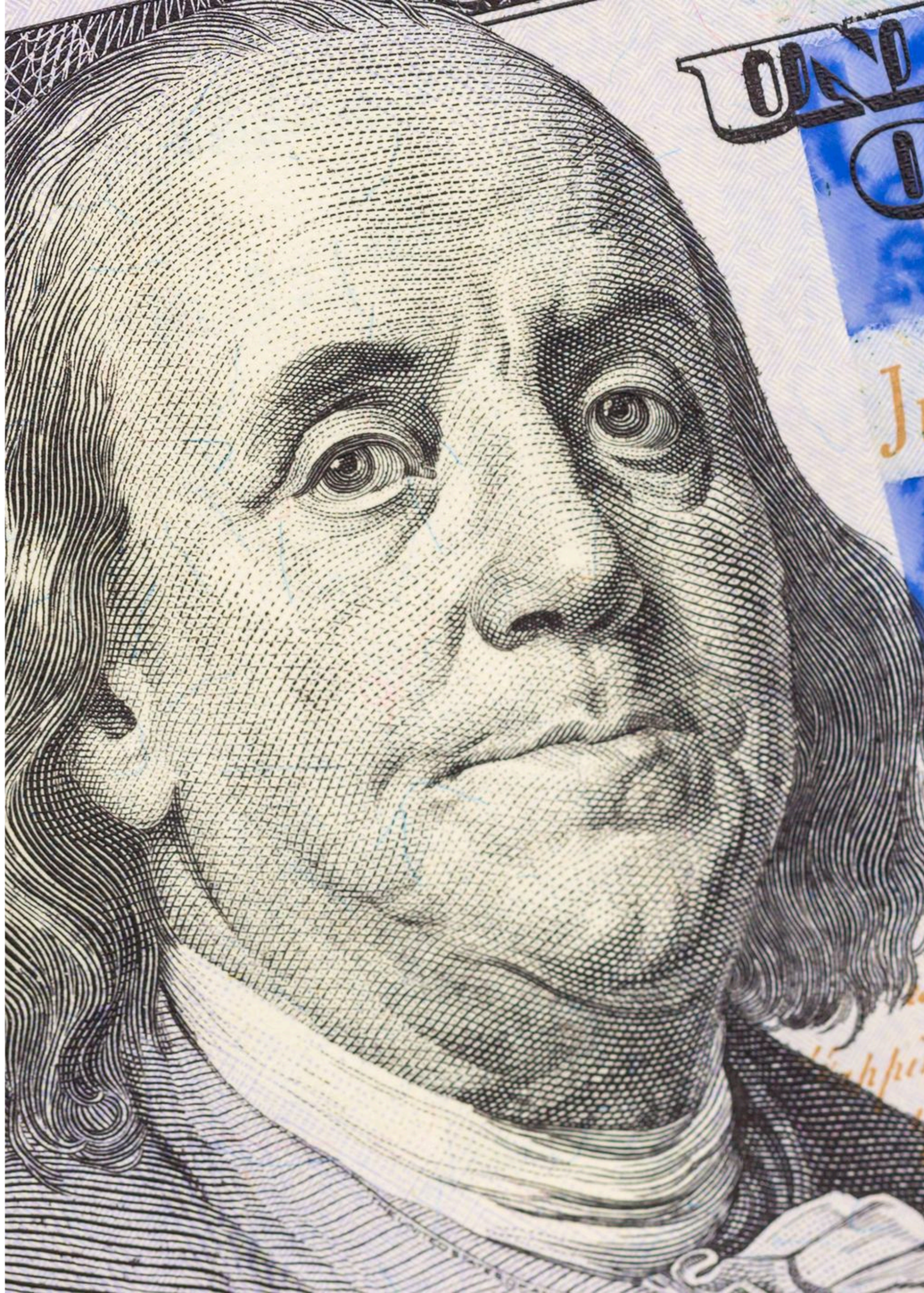
Modernizing Electronic Records Filing Application Infrastructure

A U.S. Financial Agency needed to upgrade its antiquated mainframe computers; not all computer systems could talk to each other, information wasn't available in real time, and records filed on paper were often manually entered by typists.

As part of a broader effort to digitally transform its operations, this agency partnered with Hitachi to architect a digital foundation that would scale and perform to meet growing workloads, such as electronic records filing applications, and accelerate data replication between its main data centers.

OUTCOME

- Improved performance with enterprise-class NVMe
- Increased resiliency for mission-critical workloads
- Accelerated data replication between main data center sites
- Connectivity between legacy storage implementations and e-file application host
- Scalable foundation for current and future diverse application workloads



Providing Law Enforcement with Critical Information

A U.S. Federal Law Enforcement Agency was tasked with delivering timely, accessible, and relevant criminal justice information to qualified law enforcement and other licensed organizations in order to enhance officer safety and achieve law enforcement objectives.

This agency had a longstanding partnership with Hitachi, and engaged Hitachi to successfully bolster its data storage capabilities to support mission-critical applications such as background checks and identity history.

OUTCOME

- Performant, scalable mainframe storage capacity
- Increased resiliency for mission-critical workloads
- Uninterrupted data availability
- More accurate and timely law enforcement intelligence

Providing Cost-Effective Weather Insurance

A U.S. Civilian Agency provides cost-effective, weather-related insurance to property owners, renters and businesses.

This agency partnered with Hitachi to address their complex data integration and orchestration requirements supporting the insurance program. These requirements included a variety of data types including weather, geospatial, time series, and other data sources that are used to forecast demand and inform decision-making for the agency.

OUTCOME

- Improved data intelligence and analytics capabilities
- Enhanced decision-making
- More efficient demand forecasting and cost planning

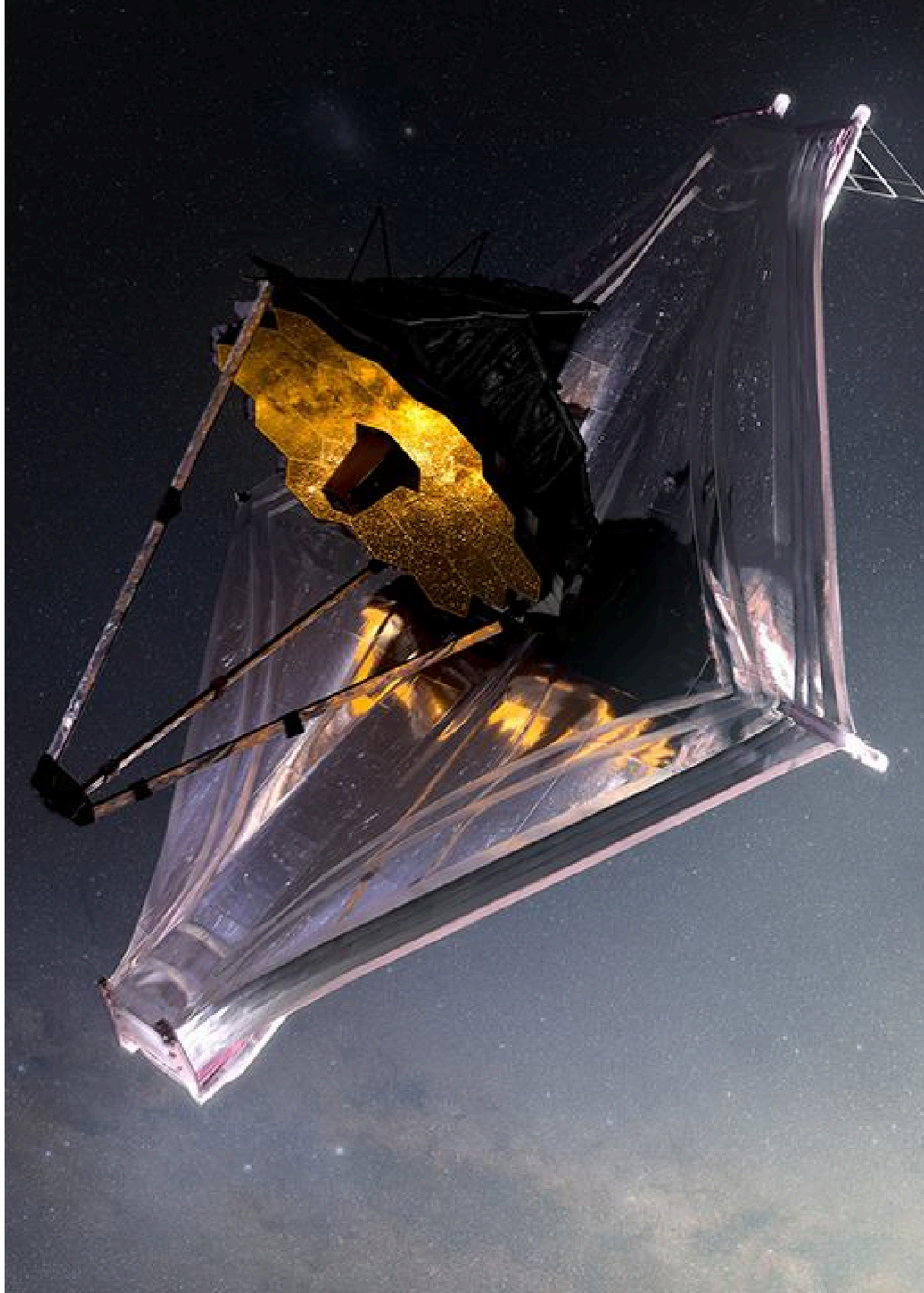
Observing the Early Universe

The world's premier infrared space observatory orbiting far beyond Earth's moon uses sensitive instruments that will detect infrared radiation from Solar System planets, exoplanets, stars, nebulae, and galaxies. These observations will help us to better understand the early universe, how galaxies and stars change over time, and the characteristics of other worlds.

A U.S. Space Agency, acting as the lead partner on the program, partnered with Hitachi and a major federal systems integrator to refresh end-of-life storage servers and file servers supporting the telescopes' operational data, and expand storage capabilities to support the telescope program's ongoing operations, telemetry, and maintenance.

OUTCOME

- 2x performance improvement compared to previous file servers
- Common management across block and file storage with Hitachi Ops Center
- Ability to successfully ingest custom applications
- Enhanced mission-critical storage capabilities with the performance and resilience needed to support the next generation of deep space research



Delivering Data-Driven Intelligence Globally

A U.S. Intelligence Agency supporting mission partners and global tenants engaged Hitachi to transform their mission-critical data infrastructure.

Over the course of several years, Hitachi successfully virtualized and migrated the agency's legacy storage infrastructure between global data centers, modernized core infrastructure with enterprise block storage, digitally transformed the infrastructure from NAS to cloud, and implemented a modern, resilient backup and recovery strategy.

OUTCOME

- Unmatched data availability, scalability, and resiliency
- Readily available intelligence for mission partners and global tenants
- Data foundation for mission-critical application workloads
- Non-disruptive migration between sites

Enhancing Healthcare Services

A U.S. federal integrated health care system partnered with Hitachi to ingest, orchestrate, and analyze health and lifestyle data from patients enrolled in a trial program to uncover trends, inform process changes, and ultimately pursue better health outcomes.

OUTCOME

- Integrated various data types and sources into a common management framework
- More efficient and effective analysis of individual and collective patient conditions and behavior
- New insights generated for better patient outcomes

Powering the Workflows of Democracy

A U.S. Legislative Agency's administration committee sought to modernize and automate the extract, transform, load (ETL) capabilities of the information resources data warehouse supporting the agency's growing list of enterprise applications including IT support case management, user directories, and other business applications.

This agency partnered with Hitachi to advance ETL automation for data pipelines and implement a data governance framework that can support future programs providing additional data governance, quality, optimization, and insights for the agency.

OUTCOME

- Improved data governance, quality, and trust relating to the department's enterprise data warehouse
- Automation of formerly manual ETL processes across a variety of use cases and business applications
- Ease of training for new developers creates faster time to value and enables development of new use cases rapidly, flexibly, and affordably

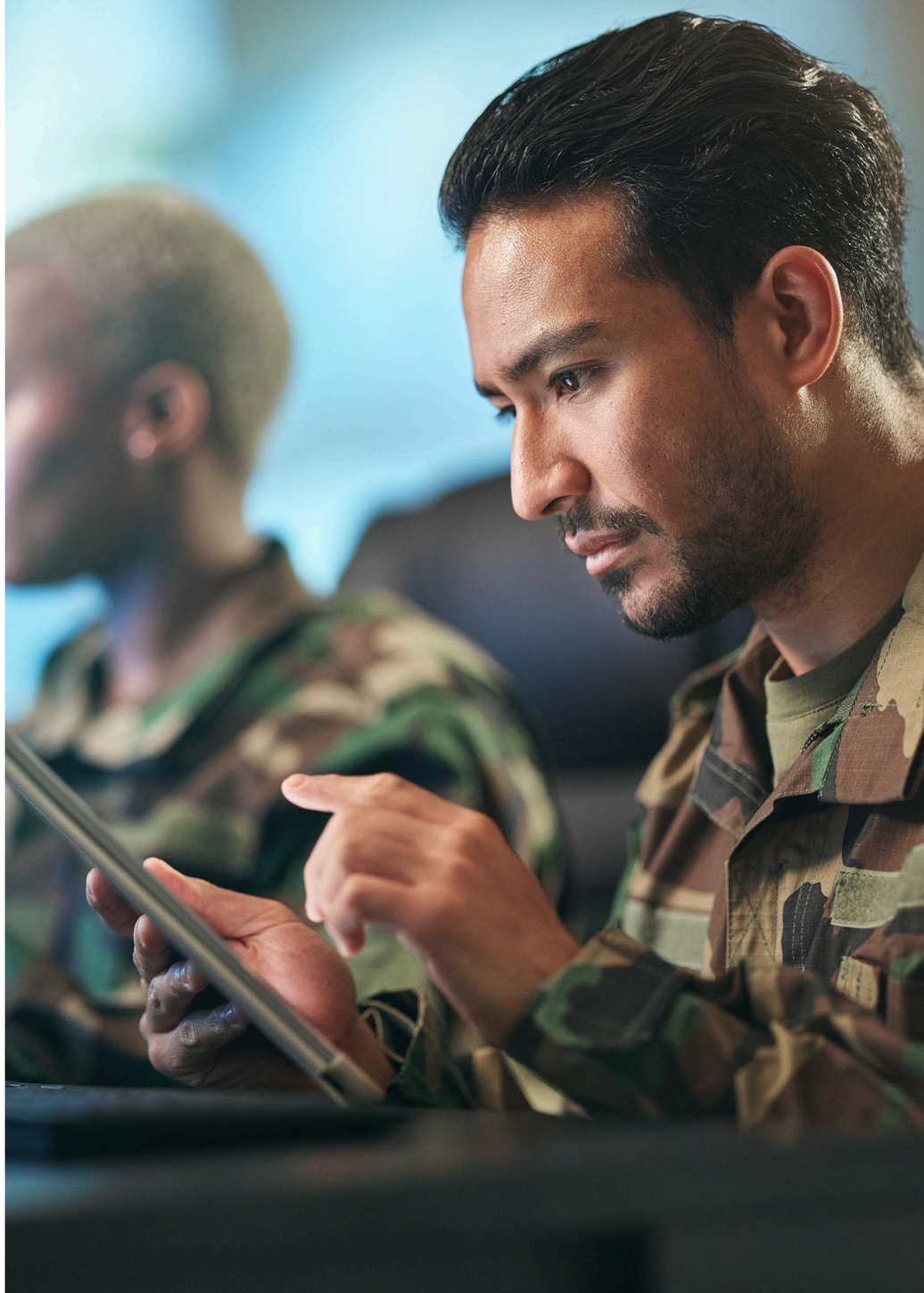
Authenticating Personnel Security

A U.S. Defense Agency serves as the enterprise-wide solution for personnel security, suitability, and credentialing management for the Department of War.

This agency partnered with Hitachi to help ingest diverse inter-agency data into a common system of record, while providing the agency's metrics and analytics team with advanced data analytics and reporting capabilities.

OUTCOME

- Seamless ingestion, consolidation, and normalization of data from across multiple agencies and legacy systems
- Real-time data integration, enabling the agency to deliver timely alerts and insights
- Enhanced data quality and governance via automated data cleansing and transformation tools
- Enhanced security and compliance with FISMA and NIST standards via role-based access controls, data encryption, and ability to automate policy application and maintain audit trails



Maintaining Personnel Data

A U.S. Defense Agency responsible for collating and cataloging personnel, manpower, training, financial and other data for the Department of War sought to overcome capacity expansion and performance limitations of legacy storage infrastructure.

The agency partnered with Hitachi to modernize its SAN and storage infrastructure addressing these scalability and performance limitations while improving efficiencies in the data center.

OUTCOME

- 3x agency's data retention SLAs
- Enhanced performance and capacity at reduced footprint
- Flexibiliity to consolidate future workloads into one NAS environment
- Simplified data workflows under one unified data plane and one control plane

Speeding Time to AI-Driven Intelligence

A Research Lab for a U.S. Intelligence Agency was tasked with building and operating a high-performance computing environment to support the agency's mission-critical research activities.

Hitachi was engaged to help architect an ultra high-performance computing (HPC) environment to support the agency's research-driven mission applications in advanced analytics and modeling, while maintaining interoperability with legacy HPC infrastructure.

OUTCOME

- AI-ready application infrastructure with the performance needed to power future high-performance and AI/ML-driven workloads
- Seamless integration of storage capabilities with preexisting compute infrastructure and file services licensing
- Rapid deployment of infrastructure to operationalize capabilities at the speed of the mission

Predicting and Preventing Illegal Deforestation

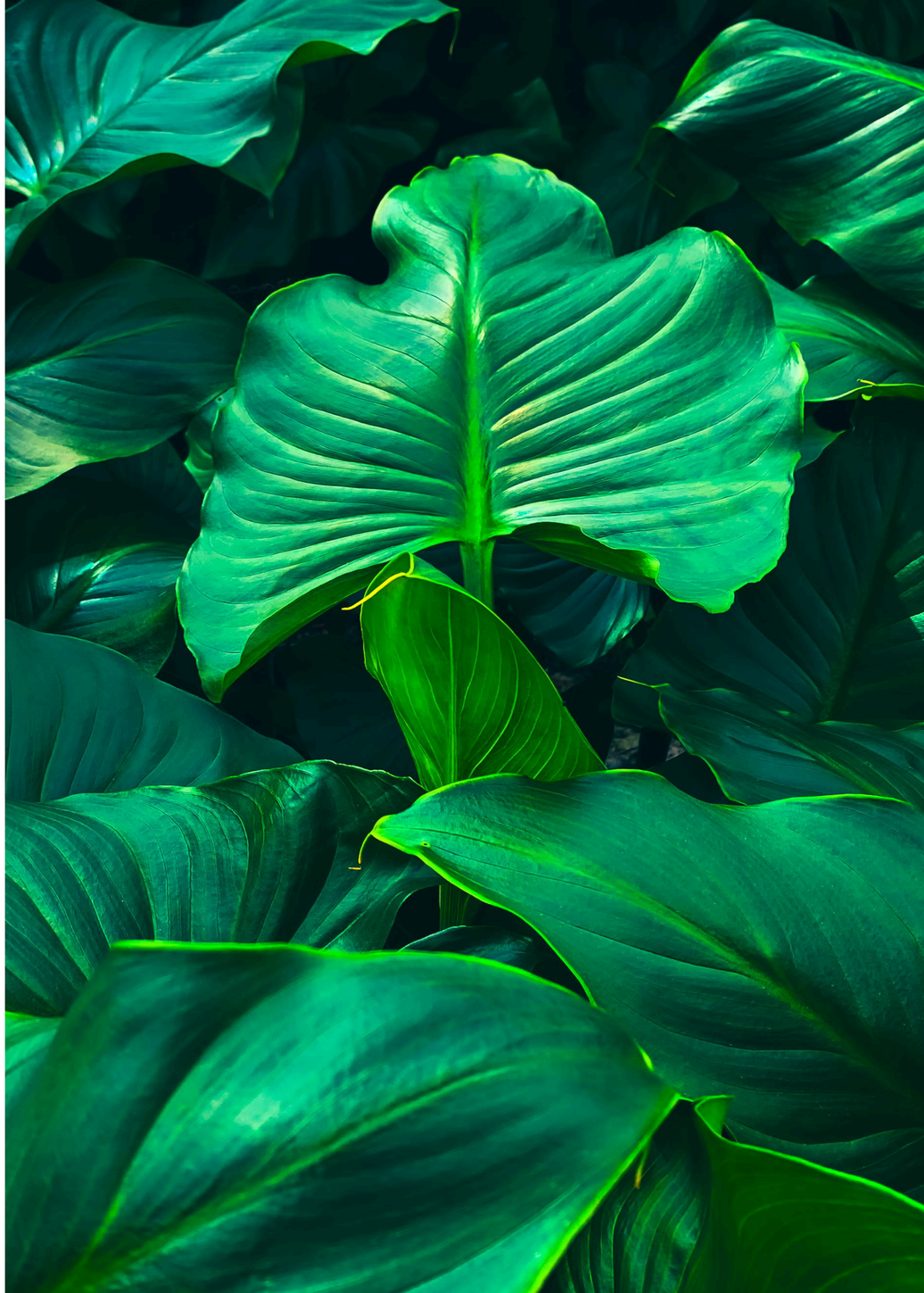
In Sumatra, the Indonesian government recognizes that forests are vital to economic and environmental safety of the communities and authorizes them to protect local forests from illegal logging. With only a few rangers to patrol large forest areas just a few times per month, illegal logging was often discovered only after it had occurred.

Using years of eco-acoustic data collected by Rainforest Connection's 'Guardian' system, Hitachi developed a baseline of forest sounds and built predictive algorithms and AI to detect anomalies such as voices or disturbed birds flying up - sounds that precede logging - empowering local villages with data-driven warnings to help stop illegal logging before it starts.

OUTCOME

- Provide rangers on the ground with advance warning of illegal logging activities
- A more agile, scalable and secure cloud platform that will safeguard bio-acoustic data
- Ability to save more trees and animals and reduce global carbon emissions

RAINFOREST CONNECTION



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HF-PAL-ANON-Federal-Customer-Stories-14Jan26-E