

FEDERAL WHITE PAPER

# A 3-Prong Approach to Federal IT Transformation

Federal agencies serve the American people with a wide variety of services and missions. They cannot deliver these services and execute their missions efficiently and responsively with outdated information technology infrastructures, budgets consumed with maintaining legacy systems, and overloaded and highly specialized IT staffs.

Neola Group believes that federal agencies can leverage their IT resources for better results by simplifying their IT operations, improving their cloud agility, and unlocking the hidden value in their existing data resources.

## SIMPLIFIED IT

Many IT operations today are a hodgepodge of legacy and modern systems, commercial cloud and on-premise data centers, block and object storage, physical and virtualized infrastructure. Managing these varied infrastructures is time-consuming, complex, and requires staff with many specializations.

As a result, federal IT environments can be highly siloed: the infrastructure, the data, and even the staff, which are highly specialized for specific roles and missions. However, data demands continue to grow dramatically even while federal staff and budget resources continue to decline or stay flat. This is unsustainable. Agencies require IT operations to be agile and simple to manage, maintain, and troubleshoot without the need of a highly specialized staff.

Neola Group makes IT easier to run and maintain by employing solutions that are highly automated and orchestrated so that formerly manual processes are now automatic, re-imagined, and streamlined to be far more efficient.

The Hitachi Storage Viewer (HSV), powered by Aptare, for example, provides dynamic reporting, chargeback, and management of heterogeneous storage environments, providing insights into storage capacity, server virtualization, SAN fabrics, file analytics, and backup data protection across multivendor IT infrastructures. HSV's single pane of management eliminates the need to have specialized staff managing each infrastructure component.

Similarly, the Hitachi Storage Virtualization Operating System (SVOS) simplifies operations by abstracting data management from the underlying hardware, enabling multiple

physical storage systems to be managed as a single, consolidated resource pool. With SVOS, a single IT administrator can easily manage multiple petabytes of heterogeneous storage.

## CLOUD AGILITY

A key concern for federal agencies as they pursue cloud options is having the flexibility to operate seamlessly across multiple on-premise and cloud-based infrastructures. Agencies require the agility to migrate data freely from one environment to another, access data wherever it is hosted, and have that data operate across multiple environments as needed. Moreover, with this capability, end users should not need to know or care where their data resides — and security, access controls, and governance policies should follow the data wherever it goes, at rest or in transit. These concerns often stymie agencies' efforts to migrate legacy applications and data into modern cloud-based environments.

Neola Group helps federal clients navigate these challenges by deploying a single, on-premise system to store, share, sync, protect, preserve, analyze, and retrieve file data. The system — the Hitachi Content Platform (HCP) — effectively serves as a policy-based data router that “sees” all data, wherever it resides, and determines where those data are needed based upon the IT, mission, and security policies associated with them.

HCP enables end users to rapidly access and query data and applications across physically disaggregated data storage pools to get what they need. Data can reside in and be seamlessly accessed from a cloud-based application, a private data center, or both, depending on what data policies are in effect, providing maximum agility.

## BIG DATA OPTIMIZATION

Today's Federal agencies create, collect, and store large volumes of data from many sources. Many struggle to aggregate and analyze these multi-varied data sets to produce meaningful insights. This is often because the data comes from infrastructure silos based on type, source, format, business/mission owners, and governing policies. Many agencies lack the ability to ingest and normalize disparate data to allow a consistent, single version of the truth across all sources of information for aggregation, correlation, and analyses.

When agencies decide to integrate disparate data sets, the effort can be extraordinarily complex and time-consuming, especially if there is hand-coding involved. Consequently, many agencies fail to fully unlock the value of their data resources in support of mission goals. These challenges also reduce the ability to integrate machine data into operations, support Internet of Things (IoT) capabilities, and evolve digital operations to address business and mission needs.

Federal agencies need a way to integrate any data stream or data set simply and quickly. Neola Group utilizes the Pentaho Data Integration platform to ingest and integrate data of any volume, velocity, type, format or source quickly and easily. The Pentaho platform provides easy-to-use tools to

harness data for actionable insight. These include powerful data extract, transform and load (ETL) capabilities; an intuitive and rich graphical design environment; and an open and standards-based architecture.

Pentaho's drag and drop capability speeds time-to-value and reduces the complexity of integrating big data sources by avoiding the need to write code. Pentaho's template-based approach to quickly and reliably onboard data sources into Hadoop. Pentaho's enterprise scalability and performance — including in-memory caching — and its ability to integrate with Hadoop, NoSQL, traditional online transaction processing (OLTP), and analytic databases, make it a more versatile and scalable choice over proprietary and homegrown data integration tools.

## CONCLUSION

Federal agencies are under intense pressure to modernize their data resources to deliver greater value to their enterprises and the citizens they serve. Neola Group approaches this challenge with a focus on simplifying infrastructures and operations; improving agility to operate seamlessly in a hybrid cloud environment that can include multiple clouds; and optimizing data and IT assets for improved efficiency and effectiveness.

## ABOUT HITACHI VANTARA FEDERAL

Hitachi Vantara Federal provides technology solutions that enable government agencies to extend and modernize their IT and data infrastructure. By engineering technologies from the ground up, Hitachi Vantara Federal offers agencies greater reliability and scalability, while reducing total cost of ownership in budget conscious environments.

Hitachi Vantara Federal is U.S. based, located on U.S. soil, and staffed by U.S. citizens. We support the mission of the U.S. federal government to innovate faster and manage risk with data-driven solutions that insights that matter.

## ABOUT NEOLA

The Neola Group is an SDB/WOSB that designs and implements analytics, cloud, and data center infrastructure solutions for Government clients. We are an experienced organization that serves as a resource for our clients by regularly investigating and presenting new and compelling technologies that simplify management and growth while optimizing capabilities and value.

To learn more about how Neola Group can help your agency, go to [www.neolagroup.com](http://www.neolagroup.com).