



# IT Modernization with Nutanix - A Cloud-Smart Approach

Nutanix simplifies legacy IT infrastructure while simultaneously enabling IT-as-a-Service by providing the secure and intelligent automation capabilities cloud-based datacenter architectures require

## THE BUSINESS VALUE OF NUTANIX

- 60% lower cost of operations
- 39% lower IT infrastructure costs
- 534% 5-year ROI
- 61% more IT staff efficiencies
- 7 month payback
- 97% fewer outages
- 73% less staff time to deploy compute resources
- 68% less staff time to deploy storage resources

Federal agencies are increasingly being asked to spend less time on infrastructure and allocate more time and budget to application services that add business value. Despite a continuous stream of IT hardware and software enhancements, the infrastructure challenges and costs faced by agencies continue to rise. Traditional IT infrastructure and virtualization software required to meet agency needs are complex and expensive, and datacenter management has become painful. Far too much time, effort, and budget are focused on just keeping the lights on and the ability to support an agile continuous development environment with no downtime is not possible today.

Today, IT is distributed. There's no longer just one cloud. Business applications run in private, public, and distributed clouds. But with many clouds, come many silos—different management tools, infrastructure technologies, and consumption models – all of which make IT more complex.

Legacy infrastructure—with separate silos of proprietary hardware-based servers, storage, storage networks, and virtualization—is not well suited to meet the growing demand or agility needed to service cloud or numerous enterprise workloads including virtualized, bare metal, container-based, DevSecOps automation use cases, or hybrid cloud architectures. The silos created by traditional infrastructure have become a barrier to agility, change, and progress, adding complexity, cost, downtime, and delays to every step from acquisition, to deployment, to on-going troubleshooting and management. New business initiatives require buy-in from multiple teams, and IT capacity and performance requirements must be predicted 3-to-5 years in advance. As most IT teams know, this is almost impossible to get right. In addition, vendor lock-in and increasing licensing costs are stretching budgets to the breaking point.

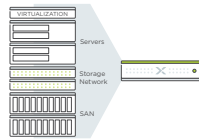
## TIME TO RADICALLY SIMPLIFY FEDERAL DATACENTER AND CLOUD OPERATIONS

Federal agencies need the ability to deliver on-premise IT services with the speed and operational efficiency of public cloud services such as Amazon Web Services (AWS), Microsoft Azure, and Google Compute Engine, yet with the simplicity of consumer-based cloud services such as Apple's AppStore or Netflix.

Source: IDC White Paper, sponsored by Nutanix, Nutanix Delivering Strong Value as a Cost-Effective, Efficient, Scalable Platform for Enterprise Applications, August 2017

“HCL provides cost benefits to the Corps that help us continue to be good stewards of taxpayer dollars. It collapses layers for computing, storage and networking, and creates an environment where we can dynamically provide capacity when and where it is needed across the enterprise.”

- Lt. Col. Dale Webster USMC, HQ



**BEST-IN-CLASS  
HYPERCONVERGED  
INFRASTRUCTURE  
(HCI)**



**RAPID IT  
DEPLOYMENT**



**APPLICATION  
LIFECYCLE  
MANAGEMENT**



**ANY APP,  
ANY SCALE**



**SINGLE PANE  
OF GLASS**

The Nutanix solution is 100% software defined, allowing agencies to fully abstract their applications from the infrastructure and commoditize the underlying hardware, virtualization stack, and cloud platforms, with freedom to choose which components best provide the performance, and service levels they require. By decoupling applications from the underlying infrastructure, IT teams can focus on what matters most to the mission, while streamlining datacenter operations with consumer-grade management. Agencies increase speed and agility, support DevSecOps automation efforts, reduce costs and complexity, eliminate multiple vendor silos, and simplify IT operational management. In delivering these capabilities, agencies will now have a “cloud ready” platform from which they can deploy applications into the optimal cloud environment, whether on premise or in a hybrid cloud (with AWS, Azure, GCP) at the appropriate time. In legacy architectures, this type of application mobility is not possible with the ease and efficiency that Nutanix provides without having to re-platform and re-architect many of the current workloads.

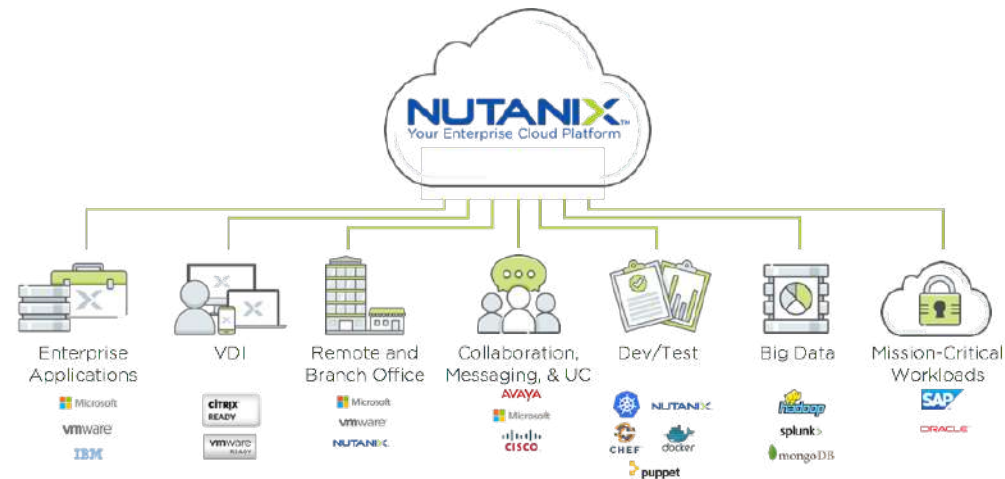
Our industry-leading software platform delivers a superior hybrid cloud experience by simplifying the management of private and public cloud resources. With all capabilities natively built into the platform including intelligent data tiering and data locality to ensure predictable performance, resilience and high availability, replication, virtualization, application lifecycle automation, DevOps orchestration, self-service, hybrid cloud management, centralized management, one-click upgrades, and government-grade security, Nutanix can support any application and use case at any scale, at less cost and complexity, and greater speed.

## THE NUTANIX VALUE PROPOSITION FOR FEDERAL AGENCIES

- **Modernize, simplify, and reduce the cost** of IT infrastructure, license, maintenance, and operations by up to 60% for both CapEx and OpEx costs
- Support **Data Center Optimization Initiative (DCOI) and FITARA** for datacenter consolidation to reduce space, weight, and power by up to 90%
- **Accelerate Cloud-Smart initiatives** with intelligent automation that acts as a central cloud service broker to extend your on-premise private cloud, and provision and scale workloads to AWS, Azure, and GCP hybrid clouds in addition to managing all workloads/clouds within one single pane of glass

- Implement a 100% **Software Defined Data Center** to fully abstract all underlying hardware, virtualization, and cloud infrastructure providing freedom from vendor lock-in and full application mobility capable of consuming new enhancements in software with non-disruptive one-click upgrades
- Nutanix provides the ability to adopt a simple and common **Shared Services Architecture** to support all workload/application requirements

This is in contrast to today's approach of constantly re-architecting, deploying, and maintaining disparate silos of server and storage infrastructure to support new application and workload requirements.



The Nutanix scale out software platform supports all application storage requirements for File Services, Bare Metal Apps, Virtualized Workloads, Block and Object based storage requirements, and containerized workloads with one platform – eliminating the need for multiple, disparate, and proprietary-based storage platforms (e.g. IBM, Dell/EMC, Hitachi, NetApp, etc...)

### Rapid Time to Value and True Cloud-like Agility

Nutanix enables full stack private cloud infrastructure to be deployed in minutes.

For example, at one government installation, 70 nodes with 2.5 PB of storage were deployed in 7 hours for multiple workloads.

### Provision hundreds of Virtual Machines in minutes:

Scale out additional storage and compute resources in minutes with no downtime.

### Support DevSecOps Automation and Containers:

Nutanix natively provides persistent storage supporting multiple container technologies

Nutanix can maintain automated consistency between development environments.

Rolling non-disruptive upgrades with no downtime supports continuous innovation and development.

Nutanix Calm is natively built into the Nutanix software providing full application blueprinting for automated lifecycle management, application self-service marketplace, and DevSecOps automation and orchestration with full REST API support for multiple DevOps tools (Chef, Puppet, Ansible, etc...).

### **Operational Simplicity:**

Nutanix reduces the number of component parts it takes to deploy a complete solution which dramatically reduces complexity and increases automation.

Administration and management are streamlined in Nutanix to incorporate as few interfaces as possible (reduces cost and complexity)

Technology specialization is minimized with Nutanix, allowing agencies to maximize IT staff activities and functions, minimize license/maintenance costs of third-party applications, and leverage one-click automation

### **Security:**

The Nutanix operating platform (AOS) and hypervisor (AHV) are pre-STIG'd to NIST 800-53 and DOD/DISA security standards for security hardening, simplifying and accelerating ATO processes.

Self-healing security is automated to ensure no configuration drift from the approved baseline.

Automated machine-readable reports are generated to demonstrate compliance.

### **Platform Scalability:**

Nutanix provides linear and predictable performance for each operational workload unit, making budgeting and capacity planning achievable.

You can incrementally scale up or down with little to no administrative burden on IT staff and no impact on mission or downtime.

Ability to mix and match node types (all flash and hybrid) to right-size for specific compute and/or storage intensive workloads.

### **Resilience/High Availability:**

Nutanix software is designed with the understanding that any hardware will eventually fail over time. Therefore, Nutanix is engineered to be self-healing and able to tolerate hardware component failures including multiple storage drives and nodes with no impact to the application and services.

The cluster becomes more resilient as nodes are added and participate in immediate rebuilds when shutdowns or failures occur with no data loss.

Components of a Nutanix solution are fully distributed by design and have no single point of failure.

Nutanix has been proven to reduce unplanned downtime by up to 97% (IDC Study) in comparison to traditional 3-tier and converged architectures.

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## READY TO TRANSFORM?

Experience the delight that comes from freedom of choice – across hypervisors, hardware and clouds – as well as the operational agility that comes with not having to worry about your underlying infrastructure.

Nutanix is ready to help you transform your datacenter, your IT operations, and your business, giving you the freedom to invent.



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1.800.800.0014  
[www.connection.com/nutanix](http://www.connection.com/nutanix)