

CASE STUDY

Tintri, ManTech Intl., and Cypherpath Deliver Converged Infrastructure for the US DoD

IntelliFlash

ManTech

division designed, engineered, built, and operates the Department of Defense Cyber Range to model and simulate the Tier 1 Global Information Grid (GIG) and provide a joint-service environment to enable cyber personnel to train, test, exercise, and evaluate functions they carry out operationally.

ManTech International Corporation was founded in 1968. Today the company is a multi-billion-dollar public company that provides the innovation, adaptability, and critical thinking needs for defense, intelligence, and other fields internationally. ManTech's Cyber Security

The Challenge: Inability to Scale

Traditionally, organizations would build test environments, test ranges, cyber ranges, etc. focused on using traditional hardware approaches that limit the scale, and are costly and time consuming to configure and set up. In many cases, these small test ranges have limited capabilities to emulate the real vulnerability to the operational network.

The Solution: Tintri IntelliFlash

Ernest McCaleb, who works with the DoD on behalf of ManTech, turned to both Tintri and Cypherpath to deploy a scalable, agile, cost-efficient, and fast solution.

McCaleb had worked with a number of storage companies, "I found that IntelliFlash could offer the DoD a solution that had ease of use, agility, and flexibility," he said, and also noted that IntelliFlash had an excellent price point for a flash storage solution. Ernest continued, "Tintri has a great team. They react quickly to questions and they are very forward thinking in their approach to flash-centric storage architecture."

Tintri offers an extensive line of all-flash and hybrid storage solutions as part of their IntelliFlash portfolio. IntelliFlash systems can be optimized to maximum performance with all-flash and mixed with hard disks to maximize economics, along with a feature-rich IntelliFlash Operating Environment, delivering one flash platform for any workload.

Tintri joined with Cypherpath to deliver a converged infrastructure solution. Cypherpath's Virtual Container Platform delivers an IT infrastructure on-demand by enabling any machines, networks, apps, storage, and app containers to be placed inside a software-defined infrastructure container.

"We were excited to team up with Tintri," says Kevin Rogers of Cypherpath. "Just think of how much storage the DoD will generate from their machines, apps and servers. The DoD needed a solution that they could build on top of their apps and hardware. IntelliFlash helped clear a path for them. IntelliFlash has the most enhanced storage infrastructure we've seen."

IntelliFlash provides the high performance, capacity and reliability that organizations desire at a relatively low cost. Data reduction technology provides a usable capacity that's greater than the system's raw capacity. A no-single-point-of-failure architecture, automated snapshot, and thin replication features make them more reliable than competitive alternatives.

IntelliFlash all-flash systems feature significant memory, sizable read-and-write caches using flash, multiple networking interfaces, dual power supplies, and hot disk spares to provide high performance at low cost. The systems' software simplifies administration and optimizes storage for various applications, including virtualization, file services and databases. All-inclusive pricing for features such as auto-snapshot, auto-replication, near-instant recovery, on- or offsite failover, and virtualization management provides simplified software licensing at a fraction of the cost of storage incumbents.

Challenges

- Inability to scale
- Solutions are costly and time consuming to configure and set up
- The DOD needed a solution that they could build on top of their apps and hardware

Solution

- Tintri IntelliFlash™

Results

- Simplified converged infrastructure platform.
- IT infrastructure on-demand by enabling any machines, networks, apps, storage and app containers to be placed inside a software-defined infrastructure container

The Results: Infrastructure On-Demand by Enabling VMs to Be Placed Inside a Software-Defined Infrastructure

The combination of the IntelliFlash architecture that could work with thousands of existing machines and Cypherpath's software overlay created a strategic solution for the ManTech DoD Cyber Range. IntelliFlash features high-density enterprise flash SSDs designed to support mission-critical applications that require extremely high performance at low latency for extended periods of time. Issues that customers typically have with all-flash storage systems are expensive price per gigabyte, short-lived components and lack of density comparative to hard-disk drive systems have been rendered obsolete with the IntelliFlash all-flash systems. In a typical mixed-application environment, IntelliFlash achieves a 5X data reduction to realize a \$1/GB street price. At an effective 55TB per RU, the systems go well beyond traditional HDD-based density.

By partnering with Tintri and Cypherpath, ManTech can build and deploy an entire Cyber Range within hours and minutes versus weeks and months. Furthermore, virtual environments can be copied and reused, saving time and money. Testing and experimenting with new services and capabilities can be developed and introduced rapidly to meet mission needs. Risks are also mitigated because mission-critical infrastructure remains untouched while mirrored virtualized environments are used to experiment and create better solutions.

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Ernest McCaleb, ManTech

Experience Different! For more information on how Tintri IntelliFlash can turbo-charge your business success through a simple, Intelligent Infrastructure, visit tintri.com/intelliflash.