

Reducing Operating Costs for U.S. Intelligence Community

Overview

Managing the excessive and costly demands associated with data center hardware, space, power and cooling present difficult challenges to any sizeable enterprise, particularly constantly growing and evolving government agencies. Soaring energy bills and ongoing reconfiguration of people and equipment space translate into increasing pressure across the board in government agencies to implement critical system infrastructures that minimize architectural footprints and reduce power costs.



Challenge

DigiFlight was helping a leading U.S. intelligence agency encourage, gather, pilot and implement leading-edge concepts proposed by employees working in a test area of the organization. Initially, the agency leveraged multiple rack-mounted servers to support this initiative. This equipment requires not only significant space, but also substantial power and cooling capacity, so the customer turned to DigiFlight for an alternative approach.

Approach

DigiFlight proposed a virtualization solution to consolidate the physical hardware infrastructure into fewer, more energy-efficient servers. As part of the effort to encourage and harvest employee input, DigiFlight recommended that ideas and related requirements be introduced in this new smaller-footprint environment. Several steps were required of the DigiFlight team to ensure the successful integration of this innovative technology strategy:

- **Research and Analysis:** Test and prove the proposed approach before introducing it to the customer.
- **Introduction:** Describe how the virtualization technology works, provides the same functionality as the existing system, and delivers additional benefits.
- **Interoperability:** Explain how the technology will interact effectively with existing technologies and hardware.
- **Redundancy:** Ensure information protection and retrieval in the event of platform failure.
- **Requirements:** Specify how the new approach meets customer requirements.

Demonstrating the viability of this approach to the customer required a significant shift in the agency mindset. Users were familiar working with physical hardware—something you can touch—rather than a virtual environment. The DigiFlight team encouraged the migration by outlining how this approach to collecting and prototyping ideas aligned with the overall intelligence community objective of reducing space, power and cooling requirements.

Ease of Use, Flexibility and Accuracy

The virtualization solution facilitated creation of customized testing templates for every submitted concept and its related requirements. Instead of being constrained by limitations of existing equipment—memory, for example—the desired environment can be created with the click of a keystroke using the virtual platform. Also, once the baseline infrastructure is established, the virtual environment can be duplicated quickly, accurately and reliably, whereas the physical environment requires human intervention and is, therefore, prone to error.

Accelerating Mission Success

DigiFlight enabled its intelligence community customer to achieve the targets specified in the government's stated mission to reduce space, power and cooling.

In implementing this robust virtualization solution, the agency:

- Decreased equipment footprint by 80 percent
- Optimized space efficiency
- Converted equipment space to people space (reducing facility expansion costs)
- Lowered temperature thresholds/increased cooling efficiency
- Increased visibility of benefits of virtualization technology
- Minimized human intervention and error
- Delivered repeatability and scalability
- Accelerated turnaround on piloting and implementation process
- Simplified setup using templates vs. servers
- Reduced energy consumption and operating costs

To find out more about how DigiFlight can help you accelerate mission success, please contact us at dfih@digiflight.com or 703.774.1080/866.DIGI.FLT (866.344.4358).

ABOUT DIGIFLIGHT

DigiFlight helps government and commercial customers accelerate mission success with technology solutions that protect our national security. Our unique core competencies enable us to deliver integrated support services for all critical phases of acquisition and technology management—Aerospace Technical & Acquisition Solutions, Compliant Solution Architectures, Cybersecurity, Integrated Acquisition & Technology Management, Systems and Software Development, Systems Engineering & Technical Assistance and Test & Evaluation. Highly skilled DigiFlight teams apply a holistic mindset to ensure that our customers' capabilities interoperate securely and effectively in operations and warfare environments.