

Asset Management Company Builds New, Agile Data Centers



Executive Summary

- **Customer Name:** Allianz Global Investors
- **Industry:** Financial services
- **Location:** United States, Europe, Asia-Pacific
- **Number of Employees:** 2800

Challenge

- Streamline data center management by centralizing and consolidating five existing data centers
- Standardize on platforms and applications across acquired assets
- Establish agile data centers that can deliver new solutions and respond to market needs faster

Solution

- Virtualized Cisco Data Center Solutions, including Cisco UCS Blade Servers and Cisco Nexus Switches, to physically consolidate data centers, enhance scalability, and streamline management

Results

- Reduced footprint by over 90 percent, consolidating more than 52 legacy racks into only 3 racks for servers and storage, supporting critical SAP, trading, and other applications

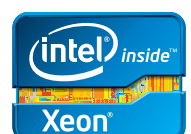
Allianz Global Investors standardizes on Cisco Unified Data Center solutions to improve scalability, flexibility, and performance.

Challenge

Built largely through acquisition of top asset managers, Allianz Global Investors (AGI), a world leader in asset management and a subsidiary of Allianz SE, found itself faced with the challenge of integrating each organization's disparate infrastructure. Each acquired company still used its own legacy hardware, applications, and processes as they merged with AGI.

As a result, the company managed five independent data centers across the United States. IT administration was inefficient and complex, with each data center requiring different maintenance schedules and IT staff with expert knowledge on each environment. These differences made communication between systems and their managers difficult.

"We had deployed a number of 'work-arounds' that enabled applications, data centers and legacy domains to communicate with each other, but the solution was very complex," says Jeffrey Wood, Director, US IT Operations at Allianz Global Investors. "As a result, our environment became extremely rigid, since any changes to the environment would force us to essentially reevaluate our integration solutions. We couldn't have this be the limiting factor within our data center, and we needed a fully integrated, scalable solution to support a growing business."



“Using automated workflows on Cisco UCS Manager, IT staff can deploy a new virtual server in just 30 minutes with the click of a button. Faster provisioning enables us to quickly respond to business and market needs by rapidly scaling out existing environments, or supporting the roll out of new applications and services almost immediately.”

– Jeffrey Wood
Director, US IT Operations,
Allianz Global Investors

In addition, the facility costs for the data centers were high. The five legacy data centers were located in the office buildings of the acquired companies, placing them in prime office locations in some of the biggest cities in the United States, including New York and San Francisco. The rent costs, in addition to expensive city cooling and electric costs, added up for AGI. The IT team saw value in moving the data centers out of the office buildings and cities to more remote locations, both in terms of costs and in terms of moving to locations less prone to natural disasters, power outages, and other outside forces. At the same time, the company did not want to sacrifice performance.

Wanting to simplify, reduce costs, and increase agility in the data center, AGI developed a plan to centralize data centers supporting the entire company and bring business units together with a single, unified global platform. With this plan, the company hoped to increase data center flexibility, helping enable the company to scale with its organic growth, as well as growth through acquisitions, while streamlining and standardizing management for a lower overall operating cost.

When two key offices were chosen to relocate, IT leadership saw an opportunity to kick off the company's data center consolidation project. AGI found small-scale success with virtualization and a shared SAN storage architecture leveraging technology from Egenera, but desired a more cost-effective and scalable enterprise-class solution. The company chose Cisco® Unified Data Center solutions because of their ability to rapidly scale by leveraging a high-performance, memory-dense architecture built for virtualization. Additionally, the Cisco solution offered enhanced management capabilities and shared SAN storage, setting the stage for streamlined IT management.

Solution

Allianz Global Investors worked with data center services provider IO to establish two data centers in the United States: a primary data center in Arizona and a disaster recovery data center in New Jersey that can be brought online in 30 minutes to help ensure reliable access to the full suite of applications, services, and data. The data centers are built around 14 Cisco Unified Computing Systems™ (UCS®) 5108 Blade Server Chassis that host 104 Cisco UCS B200 M2 Blade Servers and Cisco UCS B230 M1 and M2 Blade Servers. In addition, AGI leveraged the performance of the Cisco Nexus® 7000 switches to move to a centralized storage array deploying the Cisco Blade Servers under a stateless architecture. With high performance and density, Cisco UCS blade servers increase the company's capacity to scale and move critical applications into a highly virtualized environment running on VMware.

Cisco Nexus 7000 Series Switches form the core of the network with high performance and support for virtualized networks. With support for Ethernet, Fibre Channel, and Fibre Channel over Ethernet (FCoE) connections, Cisco Nexus 5000 Series Switches add flexibility and agility to the network. Cisco MDS 9500 Series Switches add high-performance connections to the SAN and HP 3PAR storage array.



The centralized data center now hosts all business-critical applications supporting the U.S.-based businesses as well as key, high-availability, global services, including Microsoft Exchange, PeopleSoft, SAP applications, and specialized global trading, back office, and banking infrastructures. Previously, performance limitations on the traditional environment, especially for large SQL, Oracle, and Sybase databases, limited virtualization of only up to 50 percent of the databases and applications. With Cisco UCS, the company has now been able to virtualize its database and application environment by up to 95 percent. At the same time, AGI has been able to increase the guest-to-host ratio, leveraging the Cisco UCS Blades, by up to double the legacy platform figure, while simultaneously improving performance and reliability across all hosted solutions.

AGI made extensive use of the virtualization capabilities supported by Cisco UCS. By moving from standalone servers for applications to having multiple applications running on virtualized Cisco servers, the IT team can now simply move server images across the network for streamlined management and faster service provisioning. “We were amazed at how quickly and easily we were able to migrate five data centers onto the new Cisco UCS platform. Utilizing standard P-to-V tools, and consolidating servers ‘over the wire,’ we were able to build out facilities and move into production in only six months,” says Wood.

Results

By moving to a virtualized Cisco environment, AGI has significantly reduced its data center footprint and achieved significant costs savings, while providing room for growth. The company consolidated its five data centers across the United States into one for an 80 percent reduction in floor space. Since the data center space leased through IO is only 50 percent full, Allianz Global Investors retains significant room for growth in the future.

“The space savings from consolidating onto virtual Cisco UCS servers has been incredible,” says Wood. “The old San Francisco data center had 52 racks of servers, but we distilled it down to only 3 racks for all servers and storage.” One of the reasons for this consolidation has been the increased use of virtualization, which helps enable the creation of thousands of virtual servers in a fraction of the space. Wood estimates that the current data center could be expanded to host up to 14,000 virtual servers in a location that could only hold about 300 of the legacy physical servers.

The consolidated data centers also provide significant cost savings for AGI. With fewer physical servers in a smaller footprint, the costs for powering, cooling, and hosting the data center have been reduced while significantly lowering the company’s carbon footprint. The streamlined and integrated Cisco infrastructure helps AGI run more efficiently, using fewer components and requiring less investment.

With the integrated Cisco Data Center solution, Allianz Global Investors greatly accelerates the provisioning time for improved business agility. Under the legacy IT environment, the complexity in the environment and the need to acquire hardware made provisioning a long process, taking as much as two weeks to establish a new server.

“Using automated workflows on Cisco UCS Manager, IT staff can deploy a new virtual server in just 30 minutes with the click of a button,” says Wood. “Faster provisioning enables us to quickly respond to business and market needs by rapidly scaling out existing environments, or supporting the roll out of new applications and services almost immediately.”

Product List

Data Center Solutions

- Cisco Unified Computing System (UCS)
- Cisco UCS B200 M2 Blade Servers
- Cisco UCS B230 M1/M2 Blade Servers
- Cisco UCS 5108 Blade Server Chassis

Routing and Switching

- Cisco Nexus 7000 Series Switches
- Cisco Nexus 5000 Series Switches
- Cisco MDS 9500 Series Switches

Network Management

- Cisco Unified Computing System Manager

Virtualization

- VMware

Applications

- SAP
- Microsoft Exchange
- Microsoft SQL
- PeopleSoft
- Oracle
- Sybase
- Business Objects
- Microsoft Reporting Services
- Microsoft SharePoint

Storage

- HP

Automated provisioning and policy-based management through Cisco UCS Manager helps the IT staff respond to changing IT needs without growing staff. The move from multiple facilities to a centralized, hosted data center has eliminated most of the hands-on, regular maintenance for staff, which frees staff to concentrate on adding services, optimizing environments, and being proactive in the IT environment. With the integrated Cisco Unified Data Center solution, IT staff no longer needs to learn to manage multiple, complex environments. Instead, staff can manage and provision both data centers remotely from any terminal with Cisco UCS Manager.

Despite major changes to the IT environment, including centralization, major physical consolidation, and greater use of virtualization, even for databases and other performance-intensive applications, performance on the Cisco data centers has improved. In early testing, several application owners calculated that application performance was increased significantly; in some cases as much as 60 percent.

"Internally, there was initially resistance to moving the applications farther away, but Cisco UCS overcomes challenges associated with virtualization and running applications remotely, such as latency, and delivers outstanding performance," says Wood. "Most importantly, the Cisco Unified Data Center solution eliminates complexity and increases IT flexibility. With greater business agility, we can roll out services faster than ever and continue to enable the goals of AGI as a world-leading global asset management company."

Next Steps

With a largely virtualized data center, next up for AGI is to build out a true internal cloud. Although the foundation for the cloud has been established with the Cisco Data Center solution, the company is investigating platforms including Cisco Intelligent Automation for Cloud (CIAC) to achieve fully automated provisioning for end users.

AGI is also testing a pilot program for a virtual desktop infrastructure (VDI). Although the company is still firming up its plans to offer VDI, the IT team from AGI is confident that it has the right platform in place to deliver and manage virtualized desktops across the company should that option be desired.

For More Information

To find out more about the Cisco Unified Data Center, please visit:

www.cisco.com/go/unifieddatacenter.

To find out more about the Cisco UCS, please visit: www.cisco.com/go/ucs.

To find out more about the Cisco Nexus, please visit: www.cisco.com/go/nexus.



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