



HELLENIC AMERICAN UNION

An educational public charity

NEXT-GENERATION DATA CENTER

Hellenic American Union builds next-generation Solution Overview Cisco Data Center.

ABOUT THE ORGANIZATION

The Hellenic American Union, founded in 1957, is a public-service institution with an international focus and strong community commitment, dedicated to providing opportunities for a diverse range of audiences to encounter and benefit from innovative educational programs and cultural events.

The institution is a not-for-profit association with historic ties to the United States and program links to Western European, American and Balkan institutions but is wholly autonomous and self-financing. Since its establishment, the Hellenic American Union has encouraged the creation of a multicultural atmosphere in all its activities, welcoming students and visitors from all over the world. It is estimated that to date 2,700,000 persons from approximately 75 countries have enjoyed its services.

ORIGINAL CHALLENGE

HAU's IT staff realized that its current server and network infrastructure in their Main Site had serious limitations, consequently requiring significant expansion. The network and server equipment was operating at near capacity with cabling infrastructure and network port exhaustion, a very considerable equipment footprint and high power consumption.

In addition to a move towards virtualization of its entire server infrastructure, HAU wanted also to implement a high performance and scalable unified network and storage infrastructure.

"Though we were meeting our customer needs, the infrastructure needed to be more scalable and flexible to handle the upcoming demand" says Alexis Tagaris, Information Technology Manager of HAU.

WHY ALGOSYSTEMS

Algosystems is HAU's trusted advisor for many years. Our longtime cooperation is based on Algosystems' experience and capacity in proposing the latest technological features that apply to our customers' needs and on implementing and supporting demanding projects.

THE DEPLOYMENT

The HAU IT staff worked together with Algosystems engineers to complete the design and engineering work for the equipment before

it was ordered. They created a new network and server plan based on UCS Blade Mini with B200 blade servers powered by Intel E 5-2650 v3 Xeon processors, Cisco Nexus 5500 Series Switches and EMC FC storage. With Algosystems' team assistance, a proof of concept was implemented. With the Intel Xeon processor and Cisco Unified Computing System, HAU achieved a visible improvement in the number of VMs deployed per core for record-breaking scalability.

HAU also chose Cisco Nexus 5548UP switches. The Cisco Nexus switches were installed as VPC cluster allowing HAU to aggregate Cisco Unified Computing System links efficiently and achieve a 10GB-capacity backbone.

The Cisco Nexus Switches were interconnected with the integrated Fabric Interconnects with 8 total 10G interfaces providing an overall network and storage capacity of 80 Gbps B / W with the UCS blade servers. They were configured to operate as Data Center Access Layer 2 switches without replacing the existing distribution / core switches.

Finally, the new EMC storage infrastructure was interconnected using multiple FC connections to the new unified fabric switches and was made available to the new computing infrastructure using FCoE over the existing 10G Ethernet connections.

RESULTS

Cisco UCS is designed for extreme architectural simplicity and high-performance infrastructure. Thus, it enabled the company to respond rapidly to new business needs. Great savings in operating costs were achieved.

Specifically:

- Significant savings on space, cabling, power and cooling requirements
- 50 percent savings in total support hours
- 30 percent savings in total power (kW) and cooling costs
- 35 percent savings in total data center floor space
- No new cabling infrastructure required.

The new environment simply performed more efficiently and the operation management was simplified.

A converged infrastructure has brought the networking, server and storage teams together to help HAU stay on track to meet its goals over the next years.

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The Cisco Unified Computing System not only minimizes costs, but primarily helps our business operate better, faster and more efficiently.

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Alexis Tagaris,
Information Technology Manager, HAU