NetApp®

Cyta Hellas Steps up Its Telco Business with an Agile IT Built on a FlexPod Solution

cyta

KEY HIGHLIGHTS

Industry
Telecommunication services

The Challenge
Deploy an agile and efficient storage infrastructure to support company growth in a highly fluctuating market environment.

The Solution
Consolidate on a Cisco® and NetApp® FlexPod® reference architecture enhanced by VMware® virtualization to deliver CRM, ERP, billing, databases, collaboration, and other mission-critical services.

Benefits
- Gained the agility to expand their cloud service portfolio and accelerate company growth
- Achieved leading efficiency and data management through FlexPod reference design with VMware virtualization
- Realized an analysis-proven TCO advantage with up to 35% cost savings compared to legacy storage infrastructure
- Saved 50% storage capacity through deduplication

Customer Profile
Cyta Hellas, established in 2007 as a wholly owned subsidiary of Cyta, the leading integrated telecommunications company in Cyprus, started commercial operations in Greece in October 2008. Being the latest entrant in an already mature telecommunications market, the company has implemented differentiation strategies as a means to facilitate growth and development. Contrary to the usual course, the company has expanded from the rural and suburban areas to the biggest cities and has contributed much to broadband penetration in peripheral Greece. In line with its philosophy of combining business development with social contribution, the company covered even rural communities that offered little or no economic benefit.

Cyta Hellas, the latest entrant in the market, appeared as a pioneer due not just to its differentiated expansion strategy but also because of its unique integrated approach involving customers, employees, technology, product design, place, and promotion. Cyta is still the only operator in Greece to officially offer a new era of broadband solutions to the mass market based on the VDSL2 technology, providing speeds of up to 50Mb/s.

Showing the highest rate of market growth, today, after only four years of commercial presence in Greece, the company covers more than 68% of the population in the country with its privately owned fiber optic network of more than 3,500 km, offering an expanded range of telecommunications services (fixed telephony, Internet, data, connectivity, and value-added services) to home customers and businesses.

The Challenge
An agile IT to drive growth
Cyta Hella's IT infrastructure is the backbone of advanced digital communications services, including Web-based multimedia. In order to extend these offerings and support substantial business growth, the company needed to significantly alter their storage foundation and rethink how IT can reflect internal and external business processes.

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"Based on FlexPod, we have definitely built an agile IT that will support our business growth well over the next years."

IT Manager, Cyta Hellas

The Solution
Cisco and NetApp FlexPod with VMware virtualization

Cyta Hellas's solution of choice for delivering agile and efficient IT services was the Cisco and NetApp reference architecture, FlexPod. It offers a validated shared infrastructure for cloud and service-delivery models built on Cisco UCS™, Cisco switches, and NetApp storage and data management. Cyta Hellas opted for VMware solutions to enhance the shared infrastructure by server virtualization, high availability, and cloud capabilities.

At their primary data center in greater Athens, Cyta Hellas employs a NetApp FAS3160HA system equipped with two storage controllers and a mix of SAS and SATA disks to balance superior I/O performance with cost-efficient high capacity. Cisco UCS servers running Linux® and Windows®, Cisco Nexus® 5020 switches, and Cisco 6140 fabric interconnects for uniform access to networks and storage complete the FlexPod setup. Cyta Hellas streamlines operations by delivering most data cost efficiently through Fibre Channel over Ethernet (FCoE) – one of multiple FlexPod protocols.

Today, all in-bound and customer-facing applications in Cyta Hellas' IT infrastructure – databases, content management, collaboration and communication, customer relationship management, enterprise resource planning, and billing – are delivered from the FlexPod shared infrastructure and safeguarded by NetApp's integrated data protection. A combination of NetApp Snapshot™ technology, NetApp SnapManager® management software, and NetApp SnapMirror® replication technology enabled Cyta Hellas to extend data protection to business continuity. A NetApp FAS3210 system at their secondary data center is the target for backup data. NetApp SnapMirror is in place to replicate the data between the production and disaster recovery sites. Snapshot copies and system clones are generated at night and stored for backup missions.

NetApp SnapMirror technology gives Cyta Hellas the capabilities and flexibility to have all of their data and services ready to run at the secondary site. This enables the company to take backups on the remote site instead of using the resources of the production servers and storage.

NetApp partner Logicom Solutions has implemented the complete solution in cooperation with MTI Systems. According to Cyta Hellas' IT management, Logicom did a great job. The experienced integrator for a FlexPod solution offers outstanding support and knowledge.

Business Benefits
35% decrease in TCO

Cyta Hellas' billing structure requires a physical server foundation, as does the database infrastructure. However, the company aims to virtualize as many applications and servers as possible to optimize resource utilization in the cloud through thin provisioning and other storage efficiency routines, while cutting down on expensive overprovisioning. These efforts have resulted in a current virtualization level of 35%, which Cyta Hellas wants to raise further.

Cyta Hellas created a thoroughly applied virtualization strategy to save rack space and reduce energy consumption. They experienced a 50% reduction in cabling by delivering IP and storage data through FCoE, which does away with the duplicate IT infrastructure for storage and networking. Several clouds run on just four cables, while smart Cisco UCS file replication reduces the need for cabling even more: There is just one replication for all racks needed, and the number of switches was reduced from six to one.

The results are quantifiable; Cyta Hellas ran a comprehensive total cost of ownership (TCO) analysis of its IT redesign. Looking only at the primary site and excluding secondary costs such as management and power usage, the TCO for the
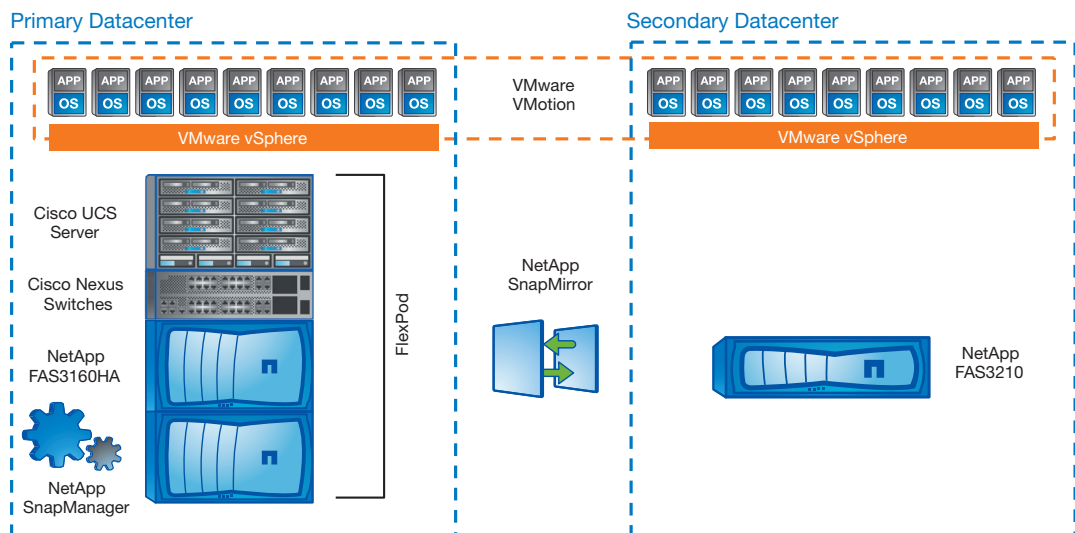
Figure 1: IT infrastructure at Cyta Hellas:
VMware vSphere built on FlexPod with integrated data protection and business continuance.

FlexPod solution was 10% below the competition. For NetApp storage alone, the results are even more impressive, with calculated savings of up to 20%. Figuring in secondary costs will improve these numbers further, because the ease of managing the NetApp infrastructure factors in decisively. Taking the secondary site into account, projected costs over a 3-year period were 35% less than the cost of retaining the legacy storage.

"In terms of efficiency, connectivity, and design, FlexPod is a cut above the rest. Expansion and optimization come much cheaper, whether you look at hardware or staff resources," says a Cyta Hellas IT manager.

Storage efficiency functionalities such as deduplication support the savings. Cyta Hellas needs to store and safeguard financial and customer data, such as invoices, as PDFs. With NetApp, deduplication returning a 50% capacity reduction over all, the provider improved both cost and disk space.

Improved data protection

With a complex business model that includes many different business-to-consumers service offerings and an ever-growing number of mission-critical business-to-business (B2B) services, adding serious data protection functionalities is an important growth driver. Based on NetApp data management, Cyta Hellas employs nearly instantaneous backups and quick recoveries to

implement a comprehensive disaster recovery strategy. SnapManager backup automation capabilities save time and take pressure off Cyta Hellas' admin team of three. Data replication between the production and disaster recovery sites builds the foundation for business continuity supported by VMware vMotion® high availability. In case of a disaster at the primary site, Cyta Hellas will be able to proceed with its business operations in the shortest time possible.

The solution works flawlessly; to date, it has done everything and more. This makes Cyta Hellas already look at extending its scope. A sophisticated solution such as NetApp MetroCluster software providing automation and synchronicity is highly interesting for the company to raise the bar for business continuity even higher.

Agility for new cloud services and business growth

The immediate advantages of the FlexPod solution are a raw capacity increase of 100% in storage space and vastly improved performance, which improve the user's experience and accelerate go-to-market time for new services. The strategic imperative, however, is to enable Cyta Hellas to extend their B2B portfolio easily; for example, by adding cloud services by giving software as a service both internally and externally to customers through hosting and thin clients. The company needs to make sure that IT keeps track

of company growth, in a favorable business climate as well as during times of economic stagnation.

With the FlexPod overall virtualization capabilities and features, Cyta Hellas is able to scale IT resources with minimal impact on their cost structures, thanks to the advanced functionality of VMware in terms of server switching, server group expansion, and node management. Cloning a system or server takes only seconds, as does setting up a brand-new virtualized server, thus shortening the go-live cycle. As a result, service implementation is a matter of minutes.

No hardware constraints hamper the agility, because infrastructure expansion becomes very easy to calculate – and execute. Cyta Hellas can simply add blades, servers, or disks as needed.

Mobile telephony and associated services such as mobile Internet and smartphone-enabled cloud services, as well as a fully fledged cloud portfolio built around service provisioning and application as a service, are the most urgent action items on Cyta Hella's service delivery agenda. The FlexPod infrastructure will help the company to accomplish these objectives. "Based on FlexPod, we have definitely built an agile IT that will support our business growth well over the next years," summarizes Cyta Hellas' IT management.

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IT Manager, Cyta Hellas

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