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ETISALAT MISR

Defining the future of telecommunications services

etisalat

Etisalat Group, one of the world's leading telecom groups in emerging markets, provides innovative solutions and services in 19 countries across the Middle East, Asia, and Africa. When its Egyptian subsidiary Etisalat Misr was launched in 2007, the array of mobile services and rate plans it offered were so compelling that a million subscribers signed up in the first 50 days of operation.

Today Etisalat Misr covers 99 percent of the inhabited areas in Egypt with a robust, high quality network and offers a wide range of mobile services, including video call, mobile television, and fast broadband internet services in the home and on the move. As the first and only operator in Egypt with an international gateway, Etisalat Misr provides competitive calling rates to destinations around the globe.

OUTPERFORMING THE COMPETITION

"Our success is based on providing mobile users in Egypt with more options, better service, and better value for the money," says Khalid Al Mansouri, Chief Information Officer. "Egypt's young population demands speed, innovation, and control. And the competition for this market is very strong."

In addition to other telecoms, Etisalat Misr faces competition from over-the-top (OTT) companies, such as Google and Netflix. "With these big names in the market, we no longer have the luxury of relying on voice and data revenue streams," says Al Mansouri. "We have to innovate and offer new kinds of B2B and end-to-end ICT services for different industries, such as education or health."

To achieve its objectives, Etisalat Misr IT wanted to make the transformation to cloud and IT as a Service (ITaaS) as quickly as possible. "It is the responsibility of IT to always provide the edge that will enable our business and commercial divisions to compete in new ways," says Al Mansouri. "Cloud is the cornerstone of our market adaptability. It enables faster time-to-market, cost-efficient experimentation, and the shift from fixed costs to a variable, pay-as-needed model. Cloud is also critical for the data analytics and context-driven variability needed to deliver user-defined experiences and product relevance."

After a formal procurement process evaluating services and solutions from multiple vendors, Etisalat Misr selected EMC® as its IT transformation partner. EMC had shared the details of its own enterprise IT transformation experience across people, process, and technology. It offered a federation of solutions to simplify and speed the transition to a software-defined data center, aligning neatly with

Etisalat's own vision of a software-defined enterprise. EMC consultants also built a proof-of-concept cloud for Etisalat IT staff to use so they could see for themselves how the technologies worked.

"Software-defined enterprise technologies enable us to compete effectively in a fast-changing market. EMC provided Etisalat with a much needed fast-track approach to hybrid cloud and infrastructure and storage as a service, positioning us for the third platform, big data, and monetizing our data."

Khalid Al Mansouri, CIO

OPTIMAL CLOUD DELIVERY MODEL TO FIT BUSINESS CONSUMPTION

Once engaged, EMC interviewed business and IT stakeholders and applied its Cloud Advisory Service methodology and proprietary platform to analyze workloads to help determine cloud application placement and define the cloud architecture to deliver ITaaS. The consultants documented short- and long-term requirements, assessed readiness for service automation, performed gap analyses, and proposed a phased approach to meet Etisalat Misr's objectives. EMC also developed the business case and a step-by-step roadmap for implementation. "The clarity of the EMC roadmap gave us a timeline of execution, so we could manage our pace and costs. It showed us how we could realize incremental business benefits as we moved to the future," says Al Mansouri.

From day one, Etisalat Misr IT knew it wanted a hybrid cloud, says Khalid AlKaf, IT Infrastructure & Operations Director. "We wanted to combine the performance, security, compliance, and control of private cloud with the flexibility of public cloud services to be able to scale up quickly for load-heavy projects and source services globally."

Speed was of the essence, as was seamless interoperability and visibility across public and private cloud so that IT could effectively broker services, optimize operational efficiency, and maintain corporate standards. "We needed to move quickly and EMC offered Federation Enterprise Hybrid Cloud, a well-defined, productized hybrid cloud solution using standard hardware and software components and open APIs for fast deployment," says AlKaf.

Etisalat Misr already used many of the core components in the Federation Enterprise Hybrid Cloud reference architecture, such as VMware® vCloud® Automation Center (vCAC), EMC ViPR® Controller, and EMC storage. The proof-of-concept cloud gave in-house staff the opportunity to get hands-on experience with new cloud tools.

DELIVERING INFRASTRUCTURE & STORAGE AS A SERVICE

In Phase 1 of the project, EMC leveraged Etisalat's existing VMware and EMC assets to build a private cloud foundation and automate Infrastructure as a Service (IaaS) and Storage as a Service (STaaS) on-schedule, using EMC ViPR, the VMware vCloud Suite, and a self-service portal. EMC consultants also integrated the cloud stack with nine different existing Etisalat use cases.

"Going live so quickly enabled us to see that we are on the right track and to realize business benefits that encouraged us to keep moving forward," says AlKaf. "Since the solution was built on standard hardware and software and nothing proprietary, we were able to operate the private cloud ourselves right after launch."

Today, infrastructure and storage provisioning is fast and fully automated. "Previously, it took weeks to provision a physical server and one day to provision a virtual machine; now we can provision a physical server in eight hours and a virtual server in one hour," says AlKaf.

A self-service portal makes it easy for users to select from a catalog of pre-configured services to request new servers with a choice of operating system, storage capacity, backup, database, and platform service options, as well as to make on-the-fly changes to existing services. Services are presented in a shopping cart set-up and approvals are automated.

"Faster provisioning of infrastructure and storage are helping to speed innovation and time-to-market," says Al Mansouri. "The feedback from our business users has been very positive."

"From IT's perspective, self-serve means we spend less time on user service and support and more time on innovation," says AlKaf. "Everything is policy-based, so administrators can easily re-configure the policies that drive services and expand the self-service environment to fit new use cases as they are developed."

Transformation to hybrid cloud with IaaS and STaaS has reduced the physical footprint and cut IT costs significantly, reducing capital and operation expenses and improving cash flow by shifting from fixed costs to a variable, pay-as-needed model.

SOFTWARE-DEFINED STORAGE ADVANTAGES

Etisalat Misr IT uses EMC ViPR software-defined storage to deliver Storage as a Service from the private cloud, as well as to automate the provisioning of storage to servers for various projects.

"Creating new VMs, provisioning new servers with storage volumes to the business, and migrating data among storage arrays to optimize utilization are all daily activities for Etisalat Misr IT," says Samer Roshdi, IT Infrastructure Operation Line Manager. "Manually, these tasks were difficult, very time-consuming, and full of risk. Now they are fully automated and it's very easy to move workloads to different storage arrays."

ViPR Controller automates policy-driven provisioning of storage virtualized via EMC VPLEX® technology in software-defined storage pools and provides comprehensive monitoring and reporting for all physical and virtual storage. ViPR automatically optimizes utilization by non-disruptively moving application data to physical arrays in the storage pool that matches the required attributes. As a result, Etisalat Misr IT can bring in new storage technologies, or migrate data between different storage arrays or tiers, without any application downtime.

"We have improved storage utilization and availability significantly," says Roshdi. "What's more, we have reduced admin time so dramatically that we no longer need to dedicate resources to storage management."

Currently, Etisalat Misr uses ViPR with VPLEX Local, but plans to implement VPLEX Metro and EMC RecoverPoint® Continuous Data Protection (CDP) in conjunction with VMware vCenter Site Recovery Manager (SRM) software to automate data protection over distance.

IT AS A SERVICE BROKER

With Phase 1 transformation to hybrid cloud with automated provisioning of self-service IaaS and STaaS, Etisalat Misr improved IT services, while reducing physical infrastructure footprint and operational costs. "Our ability to fulfill business requests quickly and easily has increased user satisfaction. Our ability to scale IT rapidly to take advantage of opportunity is helping the business to accelerate revenue and outperform the competition," says Al Mansouri.

FEDERATION ENTERPRISE HYBRID CLOUD ON VCE VBLOCK

Now, in Phase 2, Etisalat Misr and EMC are migrating their private cloud into Federation Enterprise Hybrid Cloud on standard VCE Vblock infrastructure, which will position IT to act as a broker of public and private cloud services for even greater business agility.

"At Etisalat Misr, we believe that a strong IT backbone remains critical to our ability to innovate to introduce new offerings and better meet the needs of our consumers," says Al Mansouri. "The Federation Enterprise Hybrid Cloud Solution enables us to balance the performance, security, and compliance capabilities of the private cloud with the agility and cost benefits of a public cloud. The new transformative infrastructure is a step forward in Etisalat Misr's mission to redefine the future of telecommunications services in Egypt."

Etisalat Misr IT is also expanding the self-service catalog to offer new services, such as Database-as-a-Service (DBaaS) for Oracle and SQL and web application (WebLogic/Apache) server provisioning. It is working to provide transparent cost/pricing with showback/chargeback to the businesses and to integrate and automate additional systems and processes, such as the Configuration Management Data Base (CMDB).

"As ITaaS becomes more mature, our focus is moving from infrastructure to automation and service delivery," says AlKaf. "Pricing transparency and the ability to charge each business based on its actual IT consumption will enable better planning, budgeting, and alignment of IT with business priorities."

FLASH STORAGE BOOSTS AVERAGE APPLICATION PERFORMANCE 300%

Etisalat Misr has also migrated some of its high-performance workloads from traditional congested high-end and mid-range storage to EMC All Flash Arrays to improve application performance and handle I/O-intensive workloads.

"The All Flash EMC storage array improved overall application performance by more than 300 percent," says Roshdi. "Database response times dropped from 8-10 milliseconds on average to a sub-millisecond average. We see flash as a key transformational technology and plan to adopt it in all Etisalat data centers."

ACCELERATING INNOVATION

Planning has also begun on a Phase 3 Platform-as-a-Service (PaaS) initiative and infrastructure automation for non-virtualized environments, which will leverage EMC Pivotal Cloud Foundry to speed new application deployment and the launch of new services in the market. The company is also exploring Network Functions Virtualization (NFV) and other technologies that will enable it to deliver better services while decreasing costs.

"Etisalat Misr started out as a mobile provider," says AlKaf. "Then we became a broadband provider. Now we are entering the digital and business-to-business sector. With our software-defined data center, we will enable customers to also be our developers, whether they are sitting at home, in a college, a factory or an office."

"Software-defined enterprise technologies enable us to compete effectively in a fast-changing market," says Al Mansouri. "EMC provided Etisalat with a much needed fast-track approach to hybrid cloud and infrastructure and storage as a service, positioning us for the third platform, big data, and monetizing our data. EMC, with its IT and modern data center experience, technologies, application profiling, and phased methodologies, has helped us to put software-defined concepts to work for business advantage."

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