



ost organisations in the Middle east region are looking to migrate to cloud as the expanded functionalities availed by this platform become too hard to ignore.

To get there, IT managers need to familiarise themselves with the cloud computing stack, if they haven't already. This stack broadly describes the range of services built on top of one another with Infrastructure as a Service (IaaS) serving as the base of the stack, Platform as a Service (PaaS) in the middle and Software as a Service (SaaS) sitting at the top of the structure.

SaaS is perhaps the more common of the trio, pioneered by cloud application provider of CRM, Salesforce.com.

SaaS continues to grow today in the region and elsewhere, observes Biswajeet Mahapatra, research director, Gartner. "Like other parts of the world, SaaS was always the first one to be adopted and the fastest growing in the Middle East." Mahapatra says. Lots of options, easier to adopt, not much internal changes required except for beginning to consume from the cloud, lesser impact on people and processes, are the main reasons Mahapatra cites as contributing to greater SaaS adoption. "Most importantly, organisations (both business and IT) look at IT from the prism of applications, and it's generally accepted that it is easier to convince and port applications on to the cloud," he adds.

Sachin Bhardwaj, director, Marketing & Business Development, eHosting DataFort concurs, citing statistics by Gartner, which expects SaaS to grow 25 percent in 2015 to \$205.7 million in the MENA region. "SaaS represents the largest cloud market and is growing quickly," says Bhardwaj. "SaaS uses the web to deliver applications that are managed by a third-party vendor and whose interface is accessed on the clients' side. Most SaaS applications can also be run directly from a web browser," Bhardwaj explains.

With SaaS, it's easy for organisations to streamline their maintenance and support, because everything can be managed by third party vendors."

SACHIN BHARDWAJ, DIRECTOR, MARKETING & BUSINESS DEVELOPMENT, EHOSTING DATAFORT (EHDF)

Because of the web delivery model, SaaS eliminates the need to install and run applications on individual computers, making it the preferred segment in the cloud computing stack. "With SaaS, it's easy for organisations to streamline their maintenance and support, because everything can be managed by third party vendors: applications, runtime, data, middleware, OSes, virtualisation, servers, storage and networking," Bhardwaj explains.

IaaS continues to make inroads as well. Today's businesses desire options with the shortest go-to-market paths, says Murugesan Vaithilingam, head of services at Alpha Data. "IaaS offers a simple route to getting into the cloud for any immediate requirements that involve infrastructure such as virtual machines and storage and demand a shorter turnaround time," he adds.

Most IT professionals also prefer to explore the capabilities of the cloud via Test and Development environments which allows them to keep workloads in the nature of Archive Data stores and static websites. "The cloud is built for agility, so IaaS is preferred for projects with shorter go-to-market plans. IaaS is also easy on IT budgets as it provides fixed monthly/ annual recurrence costs and services such as Backup as a Service (BaaS), Disaster Recovery as a Service (DRaaS), and Security as a Service (SECaaS) which can significantly increase operational efficiencies," Vaithilingam says. Alpha Data currently offers these services in its Alpha Cloud.

SaaS is also a strong contender, though, Vaithilingam asserts, with offerings such as Office 365 and hosted email services now common. Other SaaS services are emerging and we can expect more adoption in the coming years, he adds.

Cloud, in whichever format, avails unique benefits more superiors than anything before it.

Potential users are attracted to the cloud's flexibility of supporting a 'pay-as-you-go-and-grow' model which enables them to pay on a usage basis, according to Vaithilingam. They are also drawn to the benefit of getting the same experience of an on-premise virtual environment in the cloud with simplified dashboards and various add-ons such as backup which further reduce IT overhead, Vaithilingam adds.

According to Bhardwaj, most organisations today are looking to

leverage the benefits of cloud computing and their existing IT systems to increase business productivity, leading to expanding demand for cloud services in general. "Cloud adoption in the region is growing significantly as enterprises are seeing tremendous value in having a scalable and flexible pool



• Bhardwaj says cloud hosting with a reliable cloud services provider is more secure than in-house server hosting.

of resources at their fingertips. The assurance of lower IT costs and scalability has drawn IT decision makers to move their business-critical data and applications to the cloud. Also, the popularity of the pay-as-you-go model and having clearly measureable predictable IT costs is another driver towards cloud adoption in the Middle East," he adds.

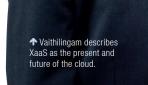
Cost is the biggest motivation for cloud adoption, Mahapatra says. Organisations also want to get rid of some workloads, reduce the pain of managing too many applications/infrastructure vendors, he adds.

An increasing number and diversity of applications are being today delivered over cloud.

CRM, Email as a Service (EaaS), and Disaster Recovery as a Service (DRaaS) are among the most popular of these. Customers are however actively exploring the possible hosting of other applications on the cloud, Vaithilingam observes.

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MURUGESAN VAITHILINGAM, HEAD OF SERVICES AT ALPHA DATA



Mahapatra highlights Office Suite, Digital Content Creation, CRM, and BI as the major applications being delivered over the SaaS model. For PaaS, Database Management Systems and Application Infrastructure and Middleware take centre stage while compute and storage are driving IaaS.

Although PaaS offers a ready platform to develop unique applications and its use continues to grow in developed countries, experts contend its utilisation in the region is minimal.

"The adoption of PaaS for the traditional development platform has not taken off at this point in time as most companies have made on-premise investments already," Vaithilingam says. "However, a number of organisations are willing to look at PaaS as an option for testing emerging technologies such as Big Data, mobility, and DBaaS, though," he adds.

Gartner's Mahapatra observes that interest and skill sets both are growing and the region should see more action in the space moving forward.

Mahapatra takes note of the various flavours of cloud, as defined by Gartner. Apart from the SaaS, PaaS and IaaS, Mahapatra explains, there are Cloud Advertisement, Security as Service and BPaaS (Business Process and Service). "But in this region everything from Managed Hosting, Colocation, part of Managed Services are all clubbed under cloud offerings, which we believe is distorting the picture," he says.

The cloud services market is significantly maturing and the model is no longer the exclusive territory of IT geeks, Vaithilingam observes.

"Most decision makers are already aware of what cloud service providers can deliver," Vaithilingam says, adding, "Since the technology is relatively new, customers can take their time before choosing the right cloud service provider and base their decisions on factors such as where the data will be stored, reliability, security, latency, and local support, among others."



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Data sovereignty is a major sticking point in the region, and is holding back the adoption of public cloud services.

Bhardwaj of eHDF agrees, noting that many organisations face a significant set of data sovereignty and residency challenges when they are contemplating a move to the cloud. However, this challenge can be combatted by hosting the data with a local services provider, he says.

However, contrary to popular belief that hosting data on the cloud is less secure, many organisations in the Middle East are now considering to move to a hosted private cloud model. In fact, Bhardwaj, says, cloud hosting with a reliable cloud services provider is generally more secure than inhouse server hosting.

"Service providers not only have a team of experts across technology domains, but they also constantly invest in and upgrade their technology, knowledge, skills and expertise in order to offer the latest hosting services to their customers," Bhardwaj says.

Bhardwaj explains that a reputed services provider is also certified for various quality and security certifications and conduct regular security system audits. Owing to the fact that they run and manage systems for multiple customers, they continuously keep themselves updated about the changing security threat landscape across verticals, he adds.

According to Vaithilingam, data sovereignty has a significant influence in the process of choosing a cloud service provider, mostly in terms of addressing compliance, latency, and performance issues.

Data sovereignty is the biggest hindrance to most cloud adoption, Mahapatra opines, and until and unless this issue is resolved, cloud adoption may slow down.

IaaS, PaaS and SaaS may already giving way to Anything as a Service (XaaS).

Vaithilingam describes XaaS as the present and future of the cloud. "There are technologies such as the Internet of Things (IoT) and DevOPs which are complementing ongoing efforts to provide XaaS," he notes.