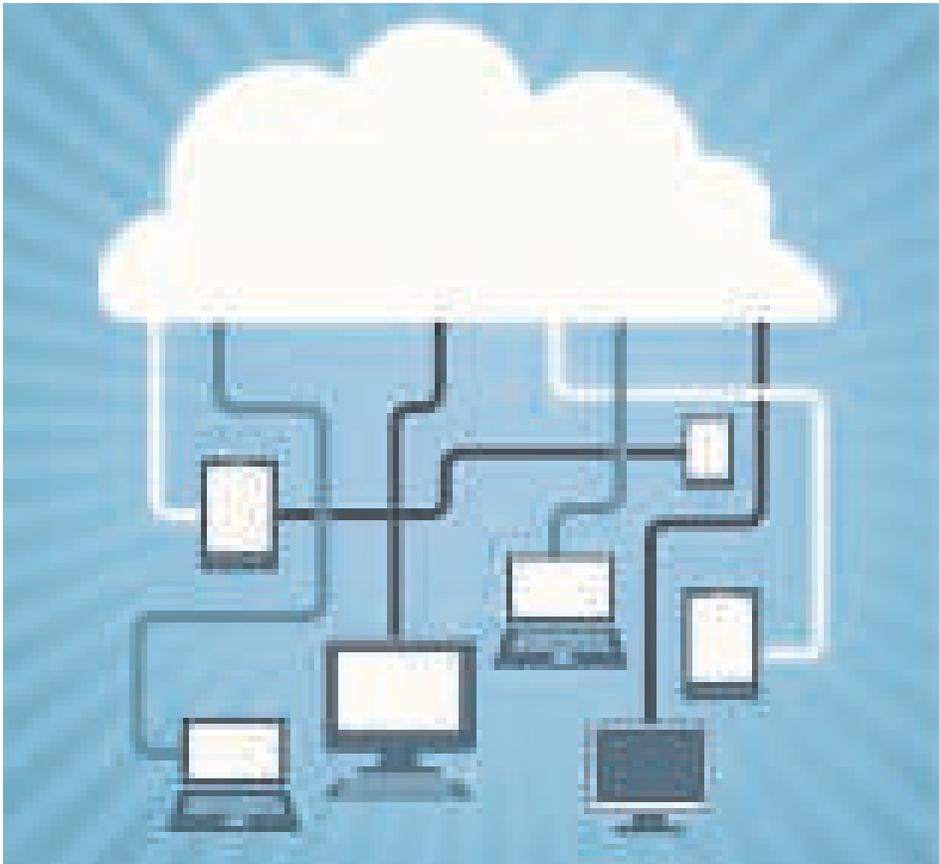


MahaGov CLOUD

Set up at the State Data Center, based on VMware's virtualization technologies, the MahaGov cloud has helped departments reduce project start up costs from Rs 20 crore to Rs 5 crore.

e-Governance Success Stories in Maharashtra



It was around November 2011, that the DIT, Government of Maharashtra looked at adopting the cloud approach for its then ongoing state data center (SDC) project. The objective was to reduce the cost of IT while increasing the flexibility and efficiency of the data center, such that it would allow the IT team to kickstart projects quickly and

in a scalable manner.

With this in mind, a Proof of Concept (PoC) was initiated for creating cloud environments with both VMware and Microsoft's virtualization technologies. As the state government has a lot of applications and wanted to avoid dependency on a particular technology it chose to deploy both VMware and Microsoft's

virtualization platforms.

However, most of the critical applications are currently hosted on the private cloud infrastructure based on Vmware's virtualization platform. Close to 350 virtual machines have been deployed on the Vmware-based infrastructure. The Government of Maharashtra has deployed VMware's vSphere and VMware vCloud Director to virtualize the state datacenter, which hosts the MahaGov Cloud.

VMware was chosen after an extensive evaluation conducted by the Government of Maharashtra. Shri. Rajesh Aggarwal, Secretary IT for the Government of Maharashtra, said, "The Government of Maharashtra is committed to making e-governance a success in the state. We were confident that virtualization and cloud computing would play a critical role in enabling our vision for e-governance in the state of Maharashtra and have partnered with VMware, the industry leader, to help us on our cloud journey and fulfill this vision.

"State departments hosting their applications on the MahaGov Cloud will allow for better management of the state's IT infrastructure, while also bringing about transparency, efficiencies and lowering costs," he added.

MOVING TO THE CLOUD

Through the MahaGov cloud, the state

government is offering infrastructure-as-a-service (IaaS) and platform-as-a-service (PaaS) to its various departments. Departments such as Public Health, Mhada, DIT, Charity Commissioner, Textile, Law and Judiciary, Water Supply and Sanitation, IGRO, Food and Drugs, School Education, Social Justice, Relief & Rehabilitation, Forest, Tribal, Bombay High Court, Rojgarwahini, UID, Solapur University, Sales Tax and Cidco are currently using the cloud to host their applications and web portals.

The deployment has helped the Government of Maharashtra lower the cost of hosting, improve the management of the state datacenter infrastructure, and drastically reduce the time required to provision infrastructure for various state departments. This has encouraged state departments to host their mission critical applications on the MahaGov Cloud, making it the only government cloud in India that is running a production environment with a high volume of servers and applications.

For instance, the template image and replication features provided by the platform has considerably reduced the time provision server resources, so much so that it took only three months to deploy the 350 VMs. Furthermore, the state government has been able to keep its storage requirements in check due to thin provisioning. On the other hand,

The DIT has published a rate card for the cloud services that any government department or public sector undertaking can avail at a nominal cost. The rate card helps limit indiscriminate use of the cloud resources and has also helped set an upper limit for prices of standard services.



“State departments hosting their applications on the MahaGov Cloud will allow for better management of the state’s IT infrastructure, while also bringing about transparency, efficiencies and lowering costs.”

Shri Rajesh Aggarwal

IAS, Secretary (IT), Government of Maharashtra

features like live migration have allowed the IT team to manage planned maintenance without any server or application downtime.

PAY-PER-USE

The Directorate of Information Technology (DIT) conducted a number of user awareness programmes and has laid down guidelines for state departments to confidently host their applications on the MahaGov Cloud. It has also published a rate card for these cloud services that any government department or public sector undertaking can avail at a nominal cost.

Based on the initial capital and maintenance costs, the DIT created a billing and metering mechanism. A few departments were given dummy bills so that they have an idea of how much of resources are being provisioned and consumed by them. The rate card also helps limit indiscriminate use of the cloud resources and has helped set an upper limit for prices of standard services.

DEPLOYMENT BENEFITS

The flexible provisioning features and the pay-as-you-go model has yielded several benefits for MahaGov cloud. Virtual machines for departments can be provisioned for as low

as Rs4000 a month. DIT has been encouraging all state departments to proactively opt for MahaGov cloud services for their IT requirements because it not only means lesser investment but also the time to start a project is accelerated. By hosting their infrastructure on the MahaGov cloud, the departments have been able to reduce project start up costs from Rs20 crore to Rs 5 crore.

The list of departments that have moved to the cloud prove that it has been well received by the State Government. This has prompted the SDC to go beyond IaaS and PaaS and offer Software-as-a-Service (SaaS), BI-as-a-Service (BaaS), GIS-as-a-Service (GaaS), API-as-a-Service (APIaaS) and Survey-as-a-Service (SyaaS) to further encourage the various state departments to adopt cloud on a larger scale.

For instance, the GIS as a service enables state departments to take advantage of GIS and in future, it will also integrate data from smart meters in households across Maharashtra combined with UID data of that household. GIS would then become a common platform for delivering services across several schemes and programs that would benefit the citizen.