Pragmatic Enterprise Cloud Strategy

Cloud computing has transcended from a technology buzzword to being a critical element of an organization’s business strategy. It can fuel growth, keep companies competitive and agile, and lower costs. Hybrid cloud is cited as the ‘second wave’ of cloud computing. Nearly 71 percent of enterprises are adopting a hybrid cloud strategy that enables them to enjoy the best of all worlds: public cloud, private cloud, and on premises.

by Harippriya Sivapatham, Architect, Micro Focus Engineering
Cloud as the Game Changer

Cloud computing is a significant shift in the business model, helping to transform companies into efficient, economical, and dynamic entities. It helps major organizations to reshape and realign their business processes, while leveling the playing field for smaller companies by helping them to get up and running quickly.

Regardless of the size of the organization, the cloud offers many benefits:

- Reduce the up-front capital investment by switching to a pay-as-you-go model (OpEx instead of CapEx)
- Dynamically increase and decrease resources to align with demand (elasticity)
- More robust and secure networks and faster upgrades

The cloud is no longer just an IT commodity. It is one of the key determinants of business strategy and, obviously, one of the key concerns of every CIO, department leader, or decision maker.

The top ways businesses are using cloud to drive business transformation

<table>
<thead>
<tr>
<th>Business Transformation</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive cost efficiencies</td>
<td>49%</td>
</tr>
<tr>
<td>Better enable mobile workforce</td>
<td>42%</td>
</tr>
<tr>
<td>Improve alignment with customers/partners</td>
<td>37%</td>
</tr>
<tr>
<td>Better leverage data to provide insight</td>
<td>35%</td>
</tr>
<tr>
<td>New product development/innovation</td>
<td>32%</td>
</tr>
<tr>
<td>Develop new business models</td>
<td>30%</td>
</tr>
<tr>
<td>Shift to a global shared services model</td>
<td>28%</td>
</tr>
<tr>
<td>Faster time to market</td>
<td>28%</td>
</tr>
</tbody>
</table>

Source: 2014 KMPG Cloud Survey Report

Figure 1. Using cloud for business transformation

Source: http://icomputerdenver.com/reduce-it-costs-with-cloud-computing/
**Pragmatic Strategy: Hybrid Cloud**

While everyone agrees that the move to the cloud is imperative, the actual migration is slower than the excitement on the topic. Many enterprises run hundreds if not thousands of critical, custom-designed legacy applications on premises. Migrating all of these applications without disrupting the business and their customers is a complex, time-consuming, expensive process. The go-to strategy that provides a balance is hybrid cloud.

Hybrid cloud strategy enables enterprises to gradually move to the cloud at their own pace, with less risk and lower cost. Hybrid cloud is a blended infrastructure that combines the best of all worlds: public cloud, private cloud, and dedicated on premises servers working together in any combination.

In this model, some applications and data remain on premises and will work seamlessly with other applications that are running on the cloud.

According to the RightScale survey, hybrid cloud is the most widely adopted cloud strategy, with 71 percent of enterprises utilizing hybrid cloud.

**96% of Respondents Are Using Cloud**

<table>
<thead>
<tr>
<th>Public Cloud</th>
<th>Private Cloud</th>
</tr>
</thead>
<tbody>
<tr>
<td>92%</td>
<td>75%</td>
</tr>
<tr>
<td>24% Public Cloud Only</td>
<td>71% Hybrid</td>
</tr>
<tr>
<td>4% Private Cloud Only</td>
<td></td>
</tr>
</tbody>
</table>

Source: RightScale 2018 State of the Cloud Report

Figure 3. Cloud survey responses

Figure 2. Hybrid Cloud Strategy

![Hybrid IT Diagram](attachment://hybrid-it-diagram.png)
How Hybrid Cloud Helps Enterprises

Hybrid cloud is adopted by many enterprises because it offers:

- Better flexibility to pick and choose what to move to cloud, when, and how
- Better control in maintaining and extending any customizations to the cloud
- Better product by testing on various OS and hardware configurations, improving quality
- Increased innovation by providing a quick way for developers to try out innovative ideas without the red tape
- Better security and compliance options

Security and multi-tenancy, which in turn impact compliance, are the most common concerns of moving to the cloud. A hybrid portfolio eases these concerns by allowing you to choose dedicated servers, choose network devices that can isolate or restrict access, and design an integrated architecture that enables servers to communicate securely across networks. A properly designed deployment can satisfy auditor requirements.

Hybrid Cloud Security Challenges

Gartner has predicted that 60 percent of digital businesses will suffer major security failures by 2020. Hybrid cloud models are further accelerating this trend by blurring the perimeter of the secure enterprise network. Enterprises need to create a security framework that takes care of this expanding threat landscape. Identity and Access Management for hybrid cloud is one particular challenge that requires a comprehensive solution.

How Access Manager Helps

Micro Focus® Access Manager that is tried and tested on premises can be extended to protect applications on the cloud as well. The proposed deployment provides security for the entire hybrid IT.
Enterprises can build a uniform and robust access control framework by integrating Access Manager on premises, with a lightweight Access Manager on public cloud. Federation-based integration ensures that the architecture is generic and can work with any access management solution.

Ease of Use (Single Sign-On)
Regardless of the migration approach, there must be no impact on the users, business, or customers. Changes to the IT infrastructure should be transparent to users and enable them to:

- Seamlessly access any application, regardless of where it is hosted
- Authenticate with a single set of enterprise credentials to access any application
- Perform single sign-on when navigating from one application to another

All these requirements can be addressed by the Access Manager deployment illustrated above. The two Access Managers have federation set up between them. Hence, users authenticate once with the Identity Provider, using the enterprise credentials. From that point on, federation ensures single sign-on. The legacy applications that don’t use federation also have single sign-on, thanks to the Access Gateway proxy service.

Protect Identities
Enterprise identities can stay within the enterprise firewalls. Only the Identity Provider needs to access these identities. Federation ensures that all other applications can be accessed without direct access to the identities.

Consistent Policies and Ease of Administration
The policies and roles defined for on premises access can be extended to include cloud applications as well. This simplifies administration and, hence, decreases the learning curve.

Next Steps
To learn more about Access Manager on public cloud, visit: www.netiq.com/products/access-manager/resources

Access Manager provides a comprehensive solution for securing your enterprise APIs, mobile, SaaS and PaaS offerings, federated applications, and legacy systems.

Learn more at www.netiq.com/products/access-manager/resources