

# Moving to the Cloud

## ...Part 2: Choices!



By Mark Haley, Mark Hoare & Nick Price

This article is the second in a series discussing key strategies a company's IT leadership should consider in making a move to the cloud. Part 1 covered what the cloud is and why it should be attractive to most organizations. Part 2 discusses some of the key decisions that need to be made in planning the move. Part 3 will examine the impact of the transition on the IT organization.

For most enterprises, moving to the cloud is a strategic shift in the application of resources that fundamentally changes the way a company does business. Executing this strategic shift requires vision, planning and above all, communication. The IT leader that is driving the move needs to have that vision and articulate it in a meaningful manner to the business, especially Finance, and to the IT team.

This article examines some of the critical decisions that IT leaders need to make in executing the migration process. Some of these decisions include:

- What applications to move and in what order?
- What cloud(s) do you choose to reside in?
- What level of cloud services to source?

### ***What Applications to Move First***

You get the idea. The key thing, the IT leader needs to identify the aspects of cloud computing that will resonate with their organization and move their business drivers, not another organization's business. There could be many attractive reasons to move business processes to the cloud, but three of four at most should stand out. If you are having difficulty

**"...start with non-strategic applications"**

early in your enterprise cloud journey, the wise plan is to start with non-strategic applications first. In many companies, this will mean email and productivity applications using Software as a Service (SAAS) suites like Microsoft Office 365 or Google Apps for Work. Starting here will raise awareness of cloud applications in the organization, relieve the IT team of the burden of administering Exchange Server or similar applications and generally result in an always-current suite of productivity applications. And it is likely to be better managed, more securely hosted and more reliable than what you have today. This

early adoption familiarizes the business with the approach of using operating expenses (OPEX) to fund software acquisition instead of capital expenses (CAPEX).

Back office accounting is another candidate for early migration, especially the aspects relating to approvals for purchase orders and payments. These are high-frequency, low-value activities usually executed by numerous employees in disparate locations: In short, ideal for the cloud. While closer to the business itself than email and productivity applications, it isn't generally a back-breaker if there are some hiccups in the migration, and it further drives awareness while reducing the need to maintain those servers, operating systems, applications and versions. This allows the IT team to focus on activities that create business opportunities and advantages.

A third class of applications to consider front-loading into the cloud, anything new you are introducing or replacing. At this juncture, you are probably looking at a more strategic application, perhaps a hotel Property Management System (PMS). But if your current PMS or vendor are no longer serving the business fully, perhaps it is time to move an application like that to the cloud.

Of note, consider cloud-based PBX systems as an early candidate. Hotel PBXs have been ignored by owners for many years and are typically big boxes long past replacement date. For most hotels, especially small and medium-sized, a cloud PBX is an obvious choice that demonstrably saves CAPEX and cash.

### ***Where to Move Them***

The cloud is not an undifferentiated mass hovering above the business landscape. Much as weather clouds can be classified into categories like cumulus, stratus, cirrus and more, IT clouds be classified as public, private or hybrid. Further, a hosted solution that might not meet the formal definition of "cloud computing" (see Part 1 of this series), may well appear indistinguishable from cloud to the end-user or even the administrator.

Public clouds are multi-tenant scenarios, where your applications and data reside alongside that of other tenants in the cloud. Microsoft Azure and Amazon Web Services (AWS) are examples of public cloud solutions. A private cloud scenario will typically be dedicated to single client, with much more control over the environment, the hardware, performance levels etc., but also at higher cost. A hybrid is exactly that, a hybrid of some combination of public cloud, private cloud or even premise-based computing resources, choreographed to deliver optimum performance and security. And, given that hotels by definition are on-premise physical assets containing systems that cannot be moved, or cannot be moved yet, a hybrid cloud model is well-suited to the fundamental business structure of our industry. Our industry anchor in its natural hybrid cloud model is an essential consideration when selecting a vendor cloud technology with which to start the journey.

So what cloud to move to becomes an important decision. A small organization with limited IT resources will possibly end up in several clouds, following the leads of their strategic and other vendors. A larger firm will probably choose a public cloud offering, something like Azure, and strive to select vendors that operate in that cloud environment. And a much larger enterprise may well use a hybrid, reserving high value, high-security

*"So what cloud to move to becomes an important decision."*

applications (such as a global hotel company loyalty program) for a private or on-premises component of a hybrid architecture. Global companies will want to choose a cloud that can operate globally, such as Azure with presence in over 140 countries, including the People's Republic of China.

Regardless of which vendor's cloud technology is selected, a primary consideration prior to finalizing selection is the cloud service level agreement [SLA], and for those moving to a cloud/SAAS model for the first time, this SLA is likely to be very different to

anything negotiated or agreed before. First, you don't own anything (except perhaps your data, and this must be explicitly spelled out), and this lack of ownership implies that you need to select your partner wisely. If the supplier goes out of business, then your application will likely stop working too, making your data inaccessible as well. Running the system with your own resources simply isn't an option here, so choose wisely and for the long term.

And, equally important, because your data is held outside of your direct control, don't forget to explicitly define requirements for Data Privacy and protection of data, and for Data Sovereignty – in which country and under which legal jurisdiction your data resides. These sound like dry uninteresting subjects, and they may not be subjects that you will have had to think too much about before, but in Cloud/SAAS they are of vital importance from day one, and should form part of the vendor selection process.

#### **What Cloud Services to Source**

In Part 1 of this series, we introduced the concepts of Software as a Service, Platform as a Service and Infrastructure as a Service (SaaS, PaaS and IaaS, respectively). An entrenched IT shop will probably

“...migrating to PaaS is usually the preferred target, even for larger shops.”

push for IaaS, so they can continue to manage and administer the underlying operating systems and databases. In our opinion, migrating to PaaS is usually the preferred target, even for larger shops.

PaaS removes the administrative burden, and relieves IT leadership of needing to staff and supervise for these skills. Applications that have been written, or re-written, for today's cloud, with real-time dashboards that visualize the services delivered and enable resource provisioning and administration are central to a successful PaaS implementation.

Unlike IaaS, PaaS-delivered compute/storage resources are abstract notions delivered through applications rather than specific numbers of servers, cores or TB of storage, and they lend themselves to new and interesting OPEX charging models: transactional / data throughput etc. These flexible charging models are also well suited to the typically variable workloads of the hotel industry. In essence, if you set things up correctly, under PaaS, you pay for what you use, and resource auto scaling allows you to address even the largest of workload needs with targeted compute/throughput increases wasting very few resources.

Now, by no means are we suggesting here that the PaaS cloud model is universally better than IaaS, although it's clear that we generally favor PaaS over IaaS due to the purity of the approach. The real world though is by no means as pure as we would like, and it's probable that a typical cloud adoption will necessitate usage of all three cloud models [IaaS, PaaS, SaaS], and probably all three at the same time. However, do remember that if IaaS is an easy start point, and it is, then PaaS is most likely the ultimate destination with the very likely addition of numerous SaaS applications as travelling companions along the journey.

In this part 2 of the series, we have reviewed what to move, where to move and what services to buy. Part 3 will examine the impact on the IT organization of a sustained cloud migration and how it possibly affects the interaction with business units. Sourcing and managing cloud applications calls for new activities and capabilities on the part of IT teams. ■

---

*Nick Price is the CEO of NetSys Technologies, former CIO of Mandarin Oriental Hotel Group and a member of the HFTP International Hospitality Technology Hall of Fame. Mark Haley and Mark Hoare are members of The Prism Partnership, a consultancy serving the global hospitality industry. For more information, please visit: [www.theprismpartnership.com](http://www.theprismpartnership.com), or call +1 (978) 521-3600*

Article first published in Hospitality Upgrade