Is It Time to Migrate to the Cloud?
THE MULTINATIONAL FOOD COMPANY ALMURI WAS CONSIDERING MIGRATING TO THE CLOUD to cut costs and gain flexibility. Was Hewlett-Packard’s hybrid cloud model the best choice? What adjustments would be required operationally, and how should they be coordinated with HP?

With more than 100,000 employees and billions in revenue, the multinational food company Almuri had recently approved a strategic plan aimed at making it the world leader in the snacks market within five years. But to realize this ambitious growth plan, CEO Jeffrey Sandler knew that Almuri needed the right operating system and, most important, better information management.

The proposal on the table was whether to adopt HP Helion, a hybrid cloud computing system from Hewlett-Packard designed for companies that would take advantage of Almuri’s current servers and complement them with resources in the cloud under a single solution. Sandler had a big decision before him.

**Pros and Cons**

If Almuri opted for the HP Helion contract, it would no longer own the IT infrastructure and servers. Rather, it would have to depend on an information storage and management service over which it would have less control.

In particular, part of Almuri’s data would go from being internally held and managed to being held and managed by HP. The vulnerability of company data was a major concern for Sandler. Fresh in his mind was another well-known cloud-computing service, Amazon Web Services, which had been in the news for suffering a security breach, leading to the loss or hacking of sensitive customer data.

Despite those concerns, the HP Helion solution would give Almuri greater flexibility and responsiveness to make updates and develop applications, and would also reduce the risk of errors, thanks to unified data management by HP. Moreover, Almuri would no longer have to worry about infrastructure maintenance, which at times had become a real nightmare for the company.

Above all, the HP proposal would make the process of integrating other businesses with Almuri’s IT infrastructure that much easier. This was an extremely relevant consideration, given Almuri’s strategic plan to buy up smaller competitors.

Although it was difficult to calculate the exact cost savings, HP had estimated that its cloud-based solution could save Almuri as much as $2.5 million a year. This would be achieved via economies of scale and the standardization of services that were made possible through the use of large server farms in the cloud.

The advent of such possibilities was leading more and more companies and government agencies to migrate their IT needs to the cloud, for two additional reasons: (1) capital expenditure (capex) could be converted to operational expenditure (opex), which carried different fiscal implications; and (2) energy use would be made more efficient, reducing the overall environmental impact.

**What Were the Alternatives?**

If Almuri ruled out the HP option, one alternative was to continue with its traditional model, developing and managing IT infrastructures itself. At the other end of the spectrum was full migration to the cloud, as some of the younger IT staff were advocating.

For the latter option, there was a growing number of services on the market, which varied according to one’s particular security needs and how much one was willing to pay. These services were based on either a public cloud, which enabled different customers to share resources via the internet, or a private cloud, which leveraged the company’s own infrastructure to serve its different locations via the web.

For the public cloud model, Amazon was the benchmark with its Amazon Web Services. Microsoft had created Azure. Google was also an important player through its Google Cloud Platform and Google Drive. IBM and Oracle also had their own offerings.

Given this range of options, what was the best choice for Almuri? Should it go with HP or keep exploring other avenues? And if it chose HP Helion, how would it need to adjust its operating model? For example, how should new applications be developed? Who should start the process, control the execution, solve potential problems, and so on? These were among the many questions swirling around in the CEO’s head as he faced a decision confronting many companies today.}

The case study “The HP Helion Proposal: To Migrate or Not to Migrate to the Cloud, That Is the Question” (P-1140-E), by Juan Enrique Flores, Francisco Vázquez and IESE Prof. Philip Moscoso, won the 2015 European Foundation for Management Development (EFMD) Case Writing Award in the category of Supply Chain Management. The case is available from IESE Publishing at www.iesep.com.
The cloud has clear advantages but a number of measures are needed to mitigate the risks.

A Hybrid Cloud Is Fine, But...

by César Juan Quintana
Chief Information Officer, OHL

I BELIEVE ALMURI SHOULD OPT FOR the hybrid cloud model, as it would provide greater flexibility, scalability and professional IT services. However, there are risks. To mitigate those, I would recommend that Almuri executives pay close attention to the following potential trouble spots:

- the coordination of processes, systems and people to ensure a smooth shift during this major transformation.
- the erosion of competitiveness, which can result from a loss of internal knowledge when you outsource services, especially if those services form vital links in your current value chain.
- the ability of CIOs and their teams to handle the transition, given that they are typically better at technical skills, and the managerial skills needed for an undertaking of this nature are rather different.
- the possibility of becoming beholden to the new service provider, owing to the dependencies created by these hybrid relationships.

Before accepting any proposal from HP, the first thing Almuri must do is study the alternatives, such as those of IBM or Oracle. Even if Almuri ultimately goes with HP, studying the other offers will give Almuri better bargaining power, especially when it comes to the price.

To assess the alternatives, it can be a good idea to use an external consultant – perhaps one of the Big Four firms. They can help draw up comparable quotes that not only reflect Almuri’s needs accurately, but also take account of wider considerations that an internal executive may not have thought of. Apart from ensuring that best practices are being followed with regard to the contract itself (contract duration, cancellation terms), the firm should home in on service levels, clauses related to intellectual property and data protection, and a spelling out of the laws applicable in the geographies where Almuri does business.

After choosing the model, the ICT department will need to be reorganized, with several people assigned to work in partnership with the service provider and the business units. It is important that these individuals be highly familiar with the organization, so the demands they make and the verification they provide are appropriate to company requirements. The people the company chooses for these roles will affect the degree to which knowledge vital to the business is preserved internally.

These partners must be capable of managing new applications without having to go back and bother the leaders each and every time. They should maintain consistency while minimizing unnecessary disruption.

All the various contractual clauses and service agreements need constant monitoring, which requires a control center of some sort. Again, a Big Four firm could serve that function. Doing this would bring some independent governance. Moreover, in the event of noncompliance, retaining a firm to deal with such issues would end up paying for itself.

Increasingly, firms and providers are creating joint ventures to absorb assets (human, tangible and intangible) in the ICT field. Basically, both parties set up a new unit whose value proposition is based on the business knowledge of the firm and the operational experience of the provider.

Granted, going this route involves more initial work on valuation and appraisal of assets. However, it allows for “variabilization” – transforming fixed costs like machinery into variable costs on the balance sheet, by doing things like passing capital investments to an associate company and then renting them back and only paying for the assets that you use. Companies are finding this to be not only cost effective but also a source of competitive advantage.
CLOUD SERVICES HAVE BEEN GAINING GROUND for legitimate reasons: they allow companies to constantly evolve their technology while keeping it tailored to the actual needs of their business; they grant companies flexibility and agility, and save them money, as capital expenditures (capex) are converted to operating expenses (opex) on the balance sheet.

However, moving to the cloud does mean giving up some degree of control. Companies have to take extra steps to ensure information security. And they need to stay on top of the latest legal requirements concerning the transfer and storage of sensitive data.

Fortunately, more and better solutions are available. Increasingly, companies are able to manage their services transparently – quickly and securely migrating less critical work to the public cloud. This permits more self-provisioning of services, whereby users can launch apps and auto bill and pay without the need for the IT department to intervene. Companies always have the option of moving work back to the private cloud, if and when necessary.

Given such possibilities, the cloud’s value proposition is irresistible. For Almuri’s Jeffrey Sandler – or any other CEO – the real question is not whether to make the leap to the cloud, but how best to do it.

Clearly, sticking to a traditional IT model will make it hard for the company to obtain the flexibility it needs to meet future business challenges. Yet one cannot dismiss the difficulties involved with cloud computing.

The most radical option – simply migrating everything to Amazon Web Services (AWS), for example – would not solve everything. While AWS would expand Almuri’s capacity (such as providing more database storage), it is less helpful when it comes to developing customized or proprietary solutions. Having access to a suite of web services is not the same as having the hands-on support of an IT provider who can walk alongside the company and address specific IT needs as a client. What Almuri could do is start experimenting with AWS for certain processes where additional processing capabilities are occasionally needed.

The hybrid cloud model does seem like the best solution, as it would give Almuri both the flexibility and cost reduction it needs. Plus, Hewlett-Packard is a powerful supplier equipped to accompany Almuri during its technological evolution, while still letting Almuri maintain some control over its operations and data. The good news about a hybrid model is that a company is able to balance its processing and storage needs between a public and private cloud, according to its business needs at the time. Even so, it’s a good idea for a company to keep at least two competing suppliers to hand, and preferably ones compatible with open standards, like OpenStack.

Regarding contracts, make sure that any agreement offers the best service at the right price, with appropriate penalties for breach of contract. Negotiate exit clauses carefully: remember, weddings are easy; divorces are when things get messy. Most important, if transferring personnel to the service provider, always be sure to keep highly qualified people in-house. You need people who can correctly interpret your business needs and effectively convey them to the supplier.

I would also recommend looking at whether some core business processes – such as customer relationship management and email – could be served by other Software as a Service (SaaS) like Salesforce or Office 365. These are simple to use and easy to expand. Pay-per-use solutions like these can be better options than homemade solutions built around traditional models.

The real question is not whether to make the leap to the cloud, but how best to do it.

A Middle Path

by José Manuel Inchausti
CEO, Mapfre Iberia

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Despite the cloud’s benefits, there are some keys that companies in Almuri’s situation should consider.

Beware of the Hype

by Olaf Schnapauff
Chief Technology Officer,
Global Operations,
Amadeus

THE CHALLENGE THAT ALMURI AND ITS CEO face is not unique. Many companies are questioning whether to adopt the cloud, and how. Amadeus itself was in this position a few years ago. Thanks to a fully owned and managed data center, Amadeus has become a leading provider of advanced technology solutions for the global travel industry. Today, thousands of travel providers rely on the systems hosted and maintained at Amadeus’ data center, which delivers over 3.9 million travel-related bookings and processes over 39,000 transactions per second on peak days.

Traditional in-house information management is increasingly struggling to keep up with the need to update solutions, develop applications, increase time to market and relocate services geographically. The role of IT for companies like Almuri has changed. Though IT should be an enabler for the real business, such as selling snacks, sometimes it is reduced to being a mere “cost creator.” When treated this way, the cloud starts to look more and more like a solution.

However, adopting these as-a-service offerings is not an easy step in a massive IT landscape with a huge diversity of cloud solutions and implementation architectures.

When wondering whether to migrate to the cloud or not, the key considerations are: mission, data, partner(s) and time. Though listed separately, these items are interlinked, to a certain extent.

MISSION. The mission defines which problems should be solved using cloud technology. The infrastructure management implications, together with the previously mentioned IT challenges, need to be taken into account. There are also business drivers to consider: for instance, how would moving to the cloud positively influence the core business? Many companies struggle to do this basic mapping, and fail to demonstrate a business case for the cloud.

DATA. As the IT world is changing so rapidly, it is important to do proper due diligence and evaluate which, if any, cloud solutions could support the mission. This requires collecting a significant amount of data on the current model in order to build a path for a future model.

PARTNER(S). It is highly recommended to perform this exercise with a partner who is a cloud expert and who will likely be a service or technology provider, or both.

TIME. Preparing for the cloud journey takes time, even with partnerships. This was the case with Amadeus. A key aspect here is to do the math. What are the different costs and cost models today? Which ones are supported by the cloud? What kind of financials are necessary for the transition?

The cloud is surrounded by a lot of hype and, in turn, a lot of myths. It is not as cheap as it may seem. For some companies, it has even been quite expensive. Again, partnering with experts will help to avoid such surprises.

Other important aspects worth noting when adopting cloud technologies are: looking at the entire stack; factoring in traditional applications; the need to manage change when switching to a future-proof solution. You may find yourself having to cope with a diverse and disparate infrastructure, which may even fail, in addition to managing new contracts and interfaces between the application and the layers underneath.

Even though end-to-end automation is upheld as a common benefit of the cloud, it cannot be achieved without changing the application, its development and its underlying architecture. As such, “container” as-a-service offerings are becoming an accepted way of packaging, delivering and managing certain applications in the cloud. This is the approach that Amadeus adopted.