Approaching Clouds

Private Banking and Cloud Computing

Pilots have always known: don't fly into a cloud unless you are equipped with the right instruments and know the procedures. CIOs, CTOs, and other senior managers in private banking should learn from them and should not rush into cloud projects without clear objectives, an assessment of the project's feasibility, and a business case supporting the project. Ideally, they should also know when to stay away from a cloud project.

Today, cloud computing is marketed as the panacea for all IT problems, promising that it renders companies more efficient, allows them to serve the customer better, and enables them to cut cost and stay competitive. No wonder that business and IT representatives of virtually every financial-service company want to participate in the magic. This is also true for wealth management and private banking companies, though some caution regarding security and compliance remains.

One of the reasons for the hype about cloud computing in banking is the success story of internet companies like Amazon and Google; let us copy their superior technology, you may suggest. The idea is convincing, but unfortunately, the characteristics of your private banking applications are typically very different from those of Amazon and Google. Most banking applications are not as cloud-suited as you would like them to be. In addition, banking operates in a very different regulatory environment.

Another reason for the hype is that providers and vendors exaggerate the benefits of cloud computing. Don't get carried away. Without a definition of underlying assumptions, many claims are simply false or meaningless at best. The mere fact of hosting an application in a cloud environment will not automatically transform it into an agile, high performance, scalable, and reliant application, nor will it necessarily increase its business value.

As with many potentially disruptive technologies, there is a lot of confusion about cloud computing. While the term cloud computing goes back to the 90s, the underlying concepts have been around much longer. Definitions abound, but basically, cloud computing denotes a provisioning and management technology that enables *utility computing, elasticity, availability, reliability, and multi-tenancy.* There is a broad range of individual technologies that fit into that category; the main enabling technology is virtualization. Virtualization adds an abstraction layer by creating virtual versions of computer hardware, operating systems, storage devices, and computer networks. Different versions of middleware, operating systems, and hardware can thus be deployed, maintained, and updated without interfering with operational applications.

Given the fuzzy definition and broad range of enabling technologies, it is not surprising that almost every IT provider can claim to have an offering in cloud computing. Likewise, almost every bank can claim to be using cloud technology, because most server installations employ virtualization techniques somewhere.

In this situation, the key to reaping the true benefits of cloud computing is to assess the cloud-suitability of your application portfolio.

If, for example, your applications are data-rich and performance-critical, they will not profit from a cloud implementation, because virtualization and time-sharing typically slow down performance. The same is true for applications where data are simultaneously accessed multiple times, or even simultaneously updated, because virtualization technologies cannot easily share data between instances of services or applications.

Not your typical cloud application

An example in private banking of a data-rich and performance-critical application is client transaction pricing. This application calculates the price that is charged to the client for a transaction such as the purchase or sale of a financial instrument. The calculation typically requires data from various systems and databases (client data, instrument data, market pricing, static price data, client individual price data, etc.) as well as calculation rules and approval workflows. The calculation is done pre-trade and is performance relevant for clients (in case of online banking), and client advisors alike. Without being modified, the client pricing application will not benefit from the cloud but rather experience performance degradation.

In contrast, applications with significant computational requirements stand a good chance to profit from the cloud, because they can take advantage of the grid aspect of cloud computing. An example in private banking is an application that uses Monte Carlo simulation for portfolio evaluation.

Conclusion

Wealth management and private banking companies cannot afford to stay completely away from cloud technology. As they embark on areas such as social media, big data, and analytics they face the same challenges as other industries regarding resource management and scalability of code and data.

But due to the confusion and hype about cloud computing, senior management need to select cloud projects very carefully. They should assess the cloud-suitability of the company's application portfolio and use the results to compile a sound business case. And rather than settle for purely IT operational benefits, they should focus on true business benefits such as enhanced customer-service, and new or extended application functionality.