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The New IT Experience: Cloud as a Solution to Legacy System Problems in Financial Services

To try to fix or replace everything in the legacy systems infrastructure is to oversimplify the problem and to overinvest in the solution. The project is simply too big, expensive and risk-laden to contemplate. Cloud computing, which makes sense in its own right, offers a strategic solution for resolving legacy systems problems. DataArt's Cliff Moyce explains the benefits of cloud migration.

Back in the days before centralized water and electricity, people had to dig their own wells and procure their own generators. As centralized infrastructure became available, it made sense to connect to the grid. Similarly, cloud computing has now become that grid for business. It makes sense in its own right, but it has an extra and significant role to play in financial services and capital markets – that of strategic solution for resolving legacy systems problems. This article explains the benefits of cloud migration.

The problems of legacy IT infrastructures in financial services and capital markets are many and manifest. On-premises, home-grown, self-managed infrastructures fail any modern objective measures of value for money, time and quality. They are expensive to operate; inflexible; opaque; hard and slow to support, enhance and test; insecure; difficult to scale; and contain high levels of redundancy and obsolescence.

When times were good, business divisions effectively (or actually) had their own IT divisions building their systems. Though it was incredibly inefficient from a corporate perspective (the corporation was often building the same systems over and over again from scratch) this “shadow IT” model allowed business units to respond quickly to opportunities and client needs.

Since this time, budget constraints have forced financial institutions to integrate those previously independent systems into something that can be operated, distributed and secured centrally. This has created a whole new set of problems. To try to fix or replace everything in the legacy systems infrastructure – and there have been many articles exhorting the industry to start again with a clean slate – is to oversimplify the problem and to overinvest in the solution. The project is simply too big, expensive and risk-laden to contemplate. Further, it will not solve all the problems of building and running your own infrastructure, as it could simply replicate the model with “new legacy.”

Yet there is a strong need to align IT services to modern business operations, as many institutions are now facing the need to replace obsolete hardware in an IT estate that has been starved of money since the crash.

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Setting a strategic target of migrating infrastructure to the cloud will force a large degree of rationalization that might not otherwise be contemplated, thus reducing the problems of redundancy and support. It will also force the adoption of an infrastructure that exemplifies best practice in all measures (flexibility, scalability, performance, security, sustainability, etc.)

and will allow financial institutions to move onto more modern hardware, firmware, middleware, operating systems, databases and applications with little or no capital investment.

Benefits of cloud include:

Security. Although people tend to attribute security to physical possession, it is a common misconception and can be compared to holding money under a mattress as opposed to in a bank. In reality, cloud is much more secure – the average on-premises infrastructure is penetrated multiple times a day, whereas the average big name cloud provider may only have been penetrated a handful of times in its existence. Also, you cannot be as secure as you should be if any version of your firmware, middleware, operating system, databases, anti-virus, firewall, application software, etc., is not fully up to date (one high-profile successful cyber-crime intrusion in banking was enabled in part by a small group of servers having been overlooked for security software upgrades).

Vendors and the open source community work hard to plug quickly any vulnerabilities uncovered in their products and services; but many of their customers are slow to implement essential upgrades (the worst that the author has seen is a 10-year delay, but there are bound to be worse examples). The chances of an on-premises installation ticking all of the “current version” boxes is close to zero. Financial institutions just do not have the resources for monitoring, planning, and implementing. The chances of a top cloud vendor ticking the boxes is far higher – as this is what they do for a living.

Low cost, always accessible, elastic IT infrastructure. A big issue for enterprises is the high cost of running and maintaining IT infrastructure. A bank can spend up to 50% of its budget running IT-based business operations. Cloud computing offers near real-time, on-demand, subscription-based provisioning of almost infinite compute, storage and network resources, with the ability to scale up and down automatically, intelligently and in a matter of seconds.

Continued availability of service and resources. The reality of running on-premises data centers and data infrastructure is that availability and recoverability is never guaranteed. Provided that applications are cloud-enabled, continuous availability and disaster recovery are a function of the design and infinite horizontal scalability of the cloud.

Efficiency. Applications designed for the cloud and using cloud services take significantly less time to build and deploy and are cheaper to run.

These benefits of cloud empower businesses to advance toward a more flexible, agile and data-driven model in several ways:

Empowering agile approaches to development. By enabling self-service infrastructure acquisition, provisioning and deployment, as well as elasticity and scalability, cloud computing encourages innovation and experimentation, and speeds up continuous integration and delivery, empowering agile approaches to product, service or software development.

Enabling data management and business intelligence. One of the bases of the digital economy – the availability of data and ability to process data – is enabled and reinforced in the cloud, which offers access to tools and compute power to process and consolidate (big) data and prepare it for specific tasks. Migrating data sources and data pipelines to the cloud gives the technology team sufficient data and infrastructure elasticity to run predictive analytics and gather data driven business intelligence.

Improving the speed and quality of decision making. Cloud plays a vital role in enabling faster and more informed decision making by providing broad and immediate access to data, irrespective of location, thereby reducing interdependencies between “information holders.” A

strategy of migrating legacy infrastructure to the cloud should have ubiquitous, transparent access to operational, process and customer data as an important objective. Current forced integrations of multiple systems (many doing a version of the same thing in an inconsistent manner) commonly create information silos.

Freeing up resources and improving flexibility. Cloud can make an organization “lighter” and more flexible, as it allows a move from systems to services. This is especially relevant in modern heterogeneous computing environments with multi-tiered applications requiring a broad mix of technologies. Creating a “composable enterprise” of software modules can become a reality if made an objective of migrating to cloud. Resources that were previously invested in running and maintaining outdated technology can be re-directed to innovation in serving customers.

The above points are well illustrated by the global insurance group Ageas. The company adopted a cloud-based enterprise platform that integrates the full range of back-end and front-end processes, from policy administration to claims and from finance to HR. As a result, the company’s processes are streamlined, operations agile and enterprise analytics easily accessible.

Conclusion

The industry has a strategic solution for large enterprise legacy IT architectures that, if implemented correctly, can free financial institutions from the limitations and implications of outdated technology. Cloud computing is much, much more than simply outsourcing the operation of your IT systems. It is a paradigm shift in how we think about and experience IT in our financial institutions. The benefits will be seen by customers, business users, IT developers, financial officers, operational executives, shareholders, regulators and many other stakeholders. It is the future. Never forget: Every cloud has a silver lining.

Original article — <http://tabbforum.com/opinions/the-new-it-experience-cloud-as-a-solution-to-legacy-system-problems-in-financial-services>