

Technology Strategy Tear Sheet

March 2, 2015

Trends

- Secure public cloud brokering integration and security.
- Increased mobile use, in an “anytime, anywhere, on any platform” access and use model for solutions with a high dependence on cloud technologies.
- Increased focus on the need for detailed supply chain management capabilities to address global variations in various legal and regulatory requirements, but also supply logistics and transportation and provide input to business processes and planning.
- User and customer-centric design and ease of use will begin to be the differentiators for cloud and “as a Service” providers of technology, for all functions of business.
- Data will need to be treated as an asset that is trusted and accessible, and cloud hosting disrupts the “data lake” useful for protecting the data as well as applying analytical tools consistently across it, as well as the exponential increases in the creation of it.
- Data management governance is becoming an increasingly needed activity as amounts of generated data grow, experimentation increases, and the pool of analytical talent remains immature.
- Sophisticated security threats will focus on data and its location in cloud and off-premises services as well as mobile, which increases the need to ensure data-at-rest and in-motion security.
- Identity management is the next forefront of ensuring privacy, transactional non-repudiation, and security for end consumers and organizations, and will exist on multi-factor platforms such as tokens, cards and mobile devices.
- Need to balance governance of IT with the business drivers and operating models, this will include judicious and prudent uses of newer technologies and ensuring that management and operational models can be adapted quickly to adjust for rapid advancements.

Futures

- “Everything as a Service” (EaaS) is evolving, as each component used to build and develop and offering is made from piecemeal offerings from different vendors and providers.
- Automation of the complete IT delivery lifecycle will increase, including migrations to customer-centric service platforms to support BYOD and “self-service” activities.
- Leverage quickly adapting cloud-based supply chain management to account for possible lags when continuing with current internal management systems, and increase the focus on the complete lifecycle rather than just the supply-side.
- In-Memory computing will be a major driver in performance increases as prices go down and capacity and speed of chips increases creating a true solid-state computing environment.
- Consolidation of development technologies, such as languages, IDEs, and application servers, of which will be deployed on off-premises solutions in a common, consolidated managed service environment.
- Capitalizing on the processing power of distributed cloud computing will increase the ability to better analyze and manipulate large data sets using scalable architectures, and allow for better as faster visualization opportunities.
- Embedded, cloud-enabled technologies, such as those seen in IoT devices and mobile systems and new wireless technologies will complicate the security landscape and make it rife with opportunity for exploitation, requiring broad but also very specific skillsets and tools in order to protect.
- Content distribution models are shifting, and are neither uniform nor consistent domestically or globally and will require thought into technologies and platforms used to service these needs.

- The move to virtual employees/office will put pressure on technologies that allow for constant connectivity to workers, their data and applications, securely and at any time.
- The use of open, portable and well-documented APIs for services, applications and data will be a driver into allowing scalability, resilience, accessibility and performance across the demands of the enterprise.
- Wired infrastructure will be abandoned for wireless infrastructure as costs for deployment and maintenance will be the inverse for the former versus the latter and also allow for newer technologies in that space to be rolled out quicker.

Vendors

- Cloud services vendors: Amazon, Google and Microsoft, still will control most high-demand turn-key solutions, however other segments of the market are banking on OpenStack to support interoperability.
- Consolidation of networking and network access providers will address scale issues, but may increase costs due to monopolization of the markets since there are no truly “open access” technologies for bandwidth provision.
- Many specific “functional” solutions, created by smaller companies to address niche demands or to solve an issue not addressed by major vendors (SAP, IBM, Oracle, Salesforce.com, Google, Microsoft, Amazon) will be acquired to enhance the latter’s service offering and portfolio.
- Vendors that specializing in integration, building of components that allow for interchange of data and interoperability of disparate services and “as a Service” offerings will command a large portion of interest from organizations as many cloud providers provide a general base, but require construction of customized operations on top of those platforms, which includes data and systems presently hosted and maintained internally.
- Digital identity management solutions are rife with innovators, but often on supporting technologies and standards proposed and/or managed by larger market players such as Google, Facebook and Apple.
- Vendors for services are becoming split in two, those for large scale and long term professional services engagements and those who are brought on for specialized skills or abilities on a piecemeal, on-demand need, both of which have different requirements for workplaces, rewards, and incentives.
- Core commodity services, such as databases and e-mail, will only be provided eventually in the cloud as traditional vendors will cull their traditional software platforms to optimize resources on developing for one distribution and maintenance channel.