Financial Services

The business benefit of emerging technologies: keys to successful implementation

By: Brad Wallace and Bob Reinhold

Noted thinker and writer Stewart Brand once said, "Once a new technology rolls over you, if you're not part of the steamroller, you're part of the road." In recent years, many financial services firms have taken this to heart, enthusiastically pursuing emerging technologies that capture executives' attention.

But enthusiasm can have its downside, particularly when a firm adds emerging technologies without a considered and consistent approach. Experience has shown that focusing less on technology as an end unto itself and more on the context into which the technology fits provides stronger and more valuable results. The question is how the technology will benefit a firm's overall business strategy.

Focus on services

A well-constructed technology architecture will have room to grow and change when an innovative technology emerges. The secret to a flexible architecture is to structure the architecture by the services delivered to the business. Instead of asking, "how can I use this technology?" the architecture should answer the question, "what technologies best deliver this service?" The architecture can then be developed by articulating how the business defines "best" — e.g., performance, cost, reliability, maturity — and matching technologies to the service. When a firm is considering whether to adopt an emerging technology, the conversation should be about ways that technology can improve on those service offerings or provide new solutions to existing business problems.

Ernst & Young
Quality In Everything We Do

Know your (internal) customers

When evaluating a new technology, it is important for a firm to understand and manage the concerns of the stakeholders. Some business leaders might be reluctant to trust unfamiliar technology. The deployment of cloud-based email archiving services provides an example. Compliance might be concerned that a cloud-based email archiving system won't conform to regulatory requirements regarding information control; and the security group may have concerns about data protection.

The relatively measured adoption of cloud services in the financial services industry and accompanying lack of industry experience may perpetuate hesitancy to adopt these services in some companies. The industry is evolving rapidly, and many cloud services have responded to these concerns with significant updates to their data distribution control, as well as offerings with higher levels of security than many institutions can provide themselves.

Understanding stakeholder concerns is essential to conducting an evaluation and gathering up-to-date, fact-based responses. By doing the research and clearly communicating potential value in business terms, sponsors can avoid decisions based on common, but possibly outdated, perceptions.

Avoid the pitfalls

While resistance is a common initial reaction to the implementation of emerging technologies, sometimes the reverse is true. An overly enthusiastic executive supporter might try to push the adoption of new technology too quickly, without ensuring solid design, scalability, back-end support and conformance with the firm's technology architecture. When investigating an emerging technology, firms must establish the context for adoption and the measures that would demonstrate a technology's readiness for that use.

By leveraging a services-structured architecture, companies will be able to define the usage context. What are the essential service delivery functions of the technology? What performance levels are acceptable? What scale of implementations must be supported? Establishing and testing these criteria is essential. It is often advantageous to pilot the new technology on a smaller scale in a safe environment — a "friendly" department or function that can tolerate a few technological problems and even downtime (often, this is IT itself).

It is also wise to invest time, money and resources in an "insurance policy" — a backup technology plan that can enable rapid redirection if the proposed emerging technology does not deliver the expected advantages. In some cases, this may mean a smaller scale and slightly delayed parallel development effort with the alternate "insurance" technology. This approach can be particularly useful in those cases where an organization is trying a promising emerging technology in a critical area and is facing a hard deadline. If the solution based on a trial technology does not work as expected, the solution based on the "insurance" technology offers some protection against downtime and outages.

An "insurance policy" for two-factor authentication

The evolution of mobile payments is lining up to become one of the next big shifts in financial services. Although two-factor authentication is not widely utilized for consumer authentication today, it is expected to become commonplace with mobile payments. This increased authentication will be driven by many factors (e.g., the need to address and reduce fraud, to offer customer protection and address potential regulatory requirements). One emerging trend for two-factor authentication is to use near field communication (NFC) as one of the factors. Providers envision a swipe of the mobile device over a point-of-sale terminal plus the entry of a PIN as a user-friendly and viable two-factor authentication process. There are many debates about the strategic prospects of NFC, which may lead to NFC thriving in the marketplace or being replaced by other technologies. In the latter case, companies can invest in running parallel efforts to use NFC as one component of two-factor authentication, but at the same time, invest in a software-based token strategy as an "insurance policy" in the event that NFC does not gain widespread adoption.

Think through potential side effects

Adopters of emerging technologies should keep in mind that no technology operates in a vacuum. Organizations should consider the potential impact of new technologies on related systems. For example, if a bank releases a mobile application with an interface that is inconsistent with its main website, the unfamiliar look and feel might give consumers security concerns. Is the mobile application genuine or a "spoof" built to collect private information?

A firm introducing a new system should be as wary of success as it is of failure. For example, a new mobile channel that suddenly becomes very popular could overtax the back-end infrastructure or customer support structure with too much traffic if they are not properly prepared.

Recognize success

New technologies should be adopted to deliver value to the business. To ensure this focus is maintained, an organization should know, as precisely as possible, how it will define success. What does it want the new technology to accomplish? Executives should have a clear set of goals and methods to measure the benefits of a new approach that they can share with their stakeholders. These metrics may not be financial — it can take some time for emerging technologies to have a clear effect on the bottom line. For example, adoption of hardware virtualization technologies may benefit the firm with speed-to-market advantages. Big data investments may benefit the firm by identifying previously undetected instances of fraud.

Not ready for prime time ... but almost?

Balancing the enthusiasm of an innovative team with the pace of actual capability development is a delicate act. As a technology moves up the maturity curve, it is a good practice to identify promising candidates for adoption into the standard architecture. Maintaining and updating a "wish list" of emerging technologies ensures that the organization remains abreast of developments. This wish list is a little different from the one that you might pull together before a holiday. Instead of the technologies you "wish" you had, this wish list captures the capabilities you wish the technology had.

For products that currently do meet a certain price point or standards for reliability and scalability, this wish list can track the trigger points that would signify the opportunity for reconsideration. Ideas like in-memory database management systems or social analytics might not be ready for widespread adoption; putting them into this framework provides the "when – then" triggers for future adoption.

The key to success

The key to successfully embracing new technology is to create a framework that allows for the introduction of new systems that solve business needs while specifically considering the capability of the technology to meet operational and regulatory requirements. By designing a forward-looking, services-based architecture with clear service objectives, a savvy organization will position itself to adopt technologies in the optimal places at the most advantageous time.

Ernst & Young
Assurance | Tax | Transactions | Advisory

About Ernst & Young
Ernst & Young is a global leader in assurance, tax, transaction and advisory services. Worldwide, our 167,000 people are united by our shared values and an unwavering commitment to quality. We make a difference by helping our people, our clients and our wider communities achieve their potential.

Ernst & Young refers to the global organization of member firms of Ernst & Young Global Limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit www.ey.com.

Ernst & Young LLP is a client-serving member firm of Ernst & Young Global Limited operating in the US.

Ernst & Young is a leader in serving the global financial services marketplace
Nearly 35,000 Ernst & Young financial services professionals around the world provide integrated assurance, tax, transaction and advisory services to our asset management, banking, capital markets and insurance clients. In the Americas, Ernst & Young is the only public accounting organization with a separate business unit dedicated to the financial services marketplace. Created in 2000, the Americas Financial Services Office today includes more than 4,000 professionals at member firms in over 50 locations throughout the US, the Caribbean and Latin America.

Ernst & Young professionals in our financial services practices worldwide align with key global industry groups, including Ernst & Young's Global Asset Management Center, Global Banking & Capital Markets Center, Global Insurance Center and Global Private Equity Center, which act as hubs for sharing industry-focused knowledge on current and emerging trends and regulations in order to help our clients address key issues. Our practitioners span many disciplines and provide a well-rounded understanding of business issues and challenges, as well as integrated services to our clients.

With a global presence and industry-focused advice, Ernst & Young's financial services professionals provide high-quality assurance, tax, transaction and advisory services, including operations, process improvement, risk and technology, to financial services companies worldwide.

It's how Ernst & Young makes a difference.

SCORE No. CK0584

1210-1403048 NY

ED 0814

Contacts

Bob Reinhold
Principal
Financial Services
Ernst & Young LLP
+1 703 747 1967
bob.reinhold@ey.com

Brad Wallace
Executive Director
Financial Services
Ernst & Young LLP
+1 704 338 0561
brad.wallace@ey.com