Future of Work Enabler: Flexible Service Delivery

A flexible service delivery model is essential for enabling the agility, responsiveness and innovation needed for surviving in business today. This report is an installment in our multi-part series that explores the shifts necessary for future-proofing your company.
Executive Summary

Business success today hinges on fast response, whether to market forces, global catastrophes or new customer desires. Speed and agility are the new core competencies for any 21st century business.

However, technology infrastructure is often the long pole in the innovation tent. In the time it takes to stand up the servers, storage, networking and security capabilities to develop a new product or service, an unanticipated competitor – from anywhere in the world and with little technology investment or overhead – can easily steal the show. And at the slightest hint of yet another shift on the global stage or in consumer taste, these same light-footed competitors can efficiently morph, add onto or even withdraw their current offerings and move on to the next best thing.

The time has come for companies to rewire their operations to minimize the technology overhead and investment required for effective delivery of IT services. This is possible with a flexible service delivery model, whether through utility and on-demand computing; as-a-service applications, infrastructures and platforms; and private, public and hybrid clouds. All of these approaches also allow for businesses to extend their capabilities into an emerging new master IT architecture, which combines social, mobile, analytic and cloud technologies (the SMAC stack) to create a flexible, scalable platform that supports more collaborative and boundaryless ways of working.

A flexible services delivery model is one of the eight enablers companies need to consider when mapping their journey of reinvention for the new world of work, as described in our
overview paper, “Making the Shift to the Next-Generation Enterprise.” In this installment, we will look at some of the drivers propelling companies toward a flexible service delivery model, as well as the many choices and considerations they must make when adopting a more agile and adaptable IT infrastructure.

### Mapping the Enablers to the 3 R's

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<th>Enabler</th>
<th>1 Community Interaction</th>
<th>2 Innovation</th>
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Figure 1
Business Drivers
To survive in business today, companies need an IT infrastructure that minimizes costs, reliably scales resources according to need and enables quick introduction of new offerings. And they need to do this without incurring the static overhead and long lead times associated with traditional build-deploy-manage technology models. Not all of these new product and service initiatives will be successful, so companies also need the ability to quickly remove the underlying costs associated with failed endeavors and reallocate those funds to other innovative ideas. This is the new standard by which businesses will remain competitive.

In addition to extremely uncertain and highly variable processing needs, business will also need various options for rightsizing their financial models. All will need to balance Cap-Ex vs. Op-Ex expenditures; for instance, some may need to drive toward more of an Op-Ex approach, while others remain tethered to Cap-Ex models. Different computing models offer different levels of capital spending; for instance, companies still purchase their own hardware for private clouds, while they maintain no equipment with public cloud-based infrastructure-as-a-service. All the while, they also need heightened levels of transparency, control and visibility into their expenditures, independent of how the services and compute resources are being provided, and how their technology infrastructures are serving them.

More companies are realizing they need a flexible services delivery platform that meets the needs of the future of work (see Figure 1). No matter which platform the business chooses – private or public cloud, as-a-service or a hybrid approach – a move away from rigid IT infrastructures will enable improved agility in a cost-effective way.

Quick Take
Here is a summary of considerations for deciding which business functions to transition to a flexible service delivery model:

Determine your primary pain points: What keeps you up at night: long time to market, lack of flexibility and agility, low performance, security gaps, high costs, poor processes, immature service management?

Do a core vs. context analysis: Which business activities does your company excel at vs. which could be offloaded to external providers?

Start with lower risk processes: Common targets are non-production or back-office functions.

Consider resource requirements: What are the application’s needed levels of availability and resource consumption?

Don’t overlook change management: It will take education and communication to shift the corporate mindset and conduct business in a new and faster way.

Analyze your service requirements: Most public cloud providers offer standard, non-customizable service level agreements.

Check for security qualifications: Security is a top-of-mind consideration, particularly for applications and systems that deal with personally identifiable information.

Require a high level of transparency: Companies should be able to view and monitor the entire environment through a dashboard to make day-to-day capacity decisions.
Choices and Considerations

When it comes to designing a flexible service delivery model, many factors come into play, including the company’s maturity, appetite for risk, competitive stance and strategic goals. Decision points include performance levels, security, dynamic requirements and impact on end users. Here are some of the top considerations and recommendations for making the transformation to a flexible service delivery model.

• **Determine your primary pain points:** The first step is to determine your business’s major area of weakness. What keeps you up at night: Is it long time to market, lack of flexibility and agility, low performance, security gaps, high costs, poor processes, immature service management?

Many companies would want to improve in several or even all of these areas, so they need to establish priorities. If the business is constantly pushing for the capability to introduce new products and services, then time to market is the most critical factor. You may want to become more agile in your ability to make business decisions and react to market changes, for instance, but if service performance is poor – whether process-, operations- or compute-wise – that needs to be addressed first. Other companies may be under heavy pressure to reduce costs. Still others may be highly agile and need help with compliance or reliable service delivery.

All of these areas can be addressed through flexible service delivery, but the actual model you choose will depend on your top pain point.

• **Take a staged approach:** Next, you need to select which functions and processes to shift to the flexible service delivery model. This entails a “core vs. context” analysis, in which you identify the business activities your company excels at, which ones provide competitive differentiation and which should be offloaded to external providers.

Very often today, what was previously considered core is now viewed as context. Examples from an IT infrastructure management perspective include network management or Tier 1 support for internal customers. In finance and accounting, context functions might include performance measurement or budget/financial planning.

• **Start with lower risk processes:** Many companies choose to begin the transformation with non-production environments, such as testing and development, that have lower performance requirements and less impact on end-user clients and customers. Another option is to leverage the model for back-office functions, such as e-mail and time entry.

A national hotel chain, for instance, began with back-office functions and is now experimenting with the new model for its room-booking applications. However, there are also companies that start with customer-facing applications when they have a pressing need to quickly bring to market new products and services (see business case, next page).

• **Consider application resource requirements:** Another step is to look at the applications themselves and determine the levels of availability and resource consumption required, such as CPU, memory, network and disk requirements. Applications can sometimes incur surprising network charges, particularly “chatty” applications that traverse the network between the cloud provider and the business. This can result in a much higher bill than expected because the application is using network resources that the company was unaware of.
Don't overlook change management: Cultural challenges are a reality, as internal IT and even business units are accustomed to stoic processes and technologies and need to understand how to optimize the dynamic capabilities of a flexible service delivery model. It takes education and communication to shift the corporate mindset and conduct business in a new and faster way.

For instance, once the technology infrastructure can be provisioned quickly, the application development and testing organizations need to change their processes so they don't become the bottleneck. In other words, if IT has delivered the equivalent of a 12-lane highway, other parts of the organization cannot remain in horse-and-buggy mode. The challenge is to effectively leverage the change in cycle time and optimize it across the entire enterprise so that other areas don't hold up the software lifecycle.

Analyze your service requirements: Most public cloud providers offer standard service level agreements that cannot be customized according to client needs. The service levels offered may be sufficient for a development environment but fall far short of the demands of a production environment.

Check for security certifications and qualifications: Security is a top-of-mind consideration, particularly for applications and systems that deal with personally identifiable information. Cloud providers today typically conduct security audits at a more intensive level than companies hosting internal private clouds; therefore, some of the security concerns perceived today can be addressed by vetting providers' security qualifications.

Require a high level of transparency: Lastly, companies should be able to view and monitor the entire environment and all of its operational parameters through a dashboard, straight down into the lowest end server. With this transparency, they can make day-to-day decisions about the level of CPU, memory and storage required and use metrics and trending dashboards to make future decisions about capacity managing and financial modeling.

A Business Case

We recently worked with a large U.S.-based telecommunications firm to help it develop the best path for designing and building a flexible infrastructure to support a new set of digital products and services for its subscribers. Market pressures are high in the telecom industry, as customer habits and the services themselves are quickly evolving with the move to digital platforms. To secure a competitive edge, providers need to continuously innovate to provide differentiating products and services.

The client needed a delivery infrastructure that could quickly scale up to tens of millions of subscribers when required and release new services and updates quickly and on the fly, without high overhead costs and with little or no disruption to subscribers. Subscribers needed the ability to change, modify and remove services, and these changes needed to be quickly and automatically handled by the technology infrastructure.

Because the digital services being developed were experimental and extremely leading edge, the client anticipated it would need to make several and frequent changes to the product line. This introduced a challenge, as the client knew it was extremely likely that it would delete many product iterations before the production versions were released. Even then, the product line would need to be expanded upon by continuously incorporating subscriber feedback and improving the service levels being provided.

Originally, the company considered a traditional infrastructure, but it quickly determined that choice would not provide adequate levels of flexibility or continuity.
When we began working with the client, it was fairly well down the path of choosing a public cloud provider to host the infrastructure. However, when we completed an analysis of using a public vs. an internally hosted private cloud within its own data center, we determined the public cloud would be the far more expensive option—not initially but over time—because of the incremental costs. Our business case analysis further determined that an internal private cloud was the model that would meet the client’s primary requirements: time-to-market, minimal downtime and the ability to scale up and down very quickly. The model also left open the option for incorporating the public cloud in the future.

Our team helped the telecom provider design and implement an on-demand technology infrastructure that was virtualized across servers, storage and the network, with a high level of availability that ensured low impact of outages. The model included:

- Cloud-based software as a service for the applications.
- Open source tools for the application development environment.
- Platform as a service for other devices, including enterprise service bus.
- A private cloud hosted internally.

The open-source development tools provided the client with process change integrations to help expedite service delivery, with tighter control and more pronounced visibility into infrastructure performance. This led to enhanced flexibility and agility in the cloud environment with reduced costs and ensured that it could provide applications more quickly and robustly than with its traditional tools.

The holistic goal of the environment was achieved, and the client was able to build upon established design principles, such as improved security, by ensuring that only projects appropriately selected within the enterprise could initially take advantage of the new infrastructure. Additionally, aspects traditionally considered an afterthought, like business continuity and disaster recovery capabilities, were seamlessly integrated into the design and supported within the infrastructure from

Increased Focus on Flexible Delivery Platforms

Although a third of respondents are not yet focusing on flexible platforms, more than half say it’s a top priority.

(McKinsey defines flexible delivery as cloud- and mobile-based platforms. Respondents who answered “don’t know” are not shown; figures do not sum to 100%.)

Base: 1,469 C-level executives


Figure 1
the outset. The beta test phase confirmed that the model enabled rapid elasticity, with the ability to quickly add and subtract compute resources as needed, increase uptime and reduce time to market for new products and services. The client now deploys new and updated applications on the open and highly available environment that can be seamlessly deployed with little or no downtime.

Call to Action
The traditional business-as-usual approach will stifle most companies in today’s competitive global economy. The lead times and upfront knowledge required with traditional technology infrastructures are far too great to keep up with market reaction in distant corners of the world.

The changes required to move to a flexible service delivery mode can seem overwhelming. But when you map out what needs to happen, you can more clearly focus on the key choices and considerations you need to make.

The first step is to assess where you stand in several key areas, including business goals, core vs. context analysis, appetite for risk, service level requirements and the ability of your organization to absorb change. At that point, you can identify your strengths and weaknesses as they relate to your strategic business priorities, and target specific areas where improvement is necessary. From there, you can build a strategic roadmap to drive necessary change in a purposeful, effective manner.

In the future of work, companies need an IT infrastructure based on a flexible service delivery model that can adapt quickly to today’s swift-changing and unforgiving business world. It is only then that companies can respond to known changes, as well as the unknowns of tomorrow.

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