

White paper

New value for legacy data through Hybrid IT

Businesses need to move into the digital era but can't afford to lose the hard-earned value of data held in their legacy systems. Fujitsu's approach to Hybrid IT helps organizations better compete with disruptive new businesses and make the most of their legacy systems by seamlessly integrating these with cloud services and other advanced digital technologies.



Introduction

Companies have all kinds of data, some of it decades old, stored on their systems. There's data about products, finance, research and development, personnel, customers – the list is endless. Much of it is held in legacy systems, often multiple systems that don't connect to or communicate with one another. But imagine being able to access all of this data through digital technologies like cloud services and via devices such as tablets and smartphones. Imagine being able to apply analytics to better understand how your product portfolio has developed over the years, how your customers have responded to it, how your user base has grown and shifted, how customer segments and requirements have changed over time.

Using advanced technologies like the cloud, Big Data analytics, machine learning and more could free your legacy data and bring it into the digital age. By doing so, you can generate new value from old data systems and improve your ability to compete in today's disruptive, ever-changing business environment. That's more important than ever with the rise of new digital-first, billion-dollar trailblazers like Uber.

Hybrid approach

There are many reasons for a company to move applications away from legacy systems and into the cloud: greater flexibility, faster support for innovation and improved adaptability to changing security and regulatory demands, not to mention the potential for reduced operational expenses. However, making the business case for transformation isn't necessarily simple or straightforward.

Moving to the cloud, for example, does not immediately eliminate all of a company's legacy IT demands or expenses. Nor is software-as-a-service always less expensive than in-house systems. For many companies, a hybrid approach combining some elements of legacy and some elements of public and private cloud can be the most efficient – and cost-effective – solution. Achieving the right balance of technologies, though, requires careful planning and smart strategies.

Taking such steps is vital for legacy companies that hope to compete with disruptive businesses built from the ground up on digital technologies. These businesses – which today operate in every category from dining and delivery to events, transportation and personal services – are succeeding because they have found breakout opportunities in new digital models.

Traditional and digital business models

Even the most traditional companies today have an online presence of some kind. However, for many that presence is just an extension of the traditional business model, rather than a true digital business model.

Becoming truly digital requires much more than a website or an online store. Companies that make the transformation can, for example, use analytics to optimize services and channels and to target customer groups. This lets them focus on up-selling and cross-selling and helps them learn more about their target customers' shopping habits. Armed with such insights, they have a clear competitive advantage over companies still stuck in traditional business models. Businesses today that haven't pursued digital transformation are at risk of becoming irrelevant in the marketplace and of disappearing.

New digital business models pose a threat to legacy firms. While Uber-like personal services and products differ in form and execution, their value propositions are more tuned in to modern consumers' high expectations. They are chasing traditional companies' customers, market share and profits. And they're doing this across every sector, reconfiguring how benefits will be profitably delivered to consumers.

Many companies still depend on legacy

Despite the drive toward digital, many companies still depend on data held in legacy IT systems. Maybe they do this because they're dependent on a long-time supplier or because they fear change. Through digital transformation, businesses can turn end-of-life systems into valuable assets, rich with historical data. However, the challenge is unlocking that data in a non-disruptive way.

If replacing a legacy system is out of the question, it's possible to enhance one with new functionality by building interfaces to other applications. Middleware, for example, offers a proven technology to add web-based interfaces to old mainframe applications. This creates the illusion of a 'new' system, keeping all existing functionality with little need to train end-users. The downside is it creates an extra layer between the business and the supporting functions, resulting in longer response times.

Another solution is to build completely new systems that connect to legacy IT, turning old records into valuable databases. This approach can add new functionality for digital business. However, future changes and upgrades will be costly and time-consuming, as the legacy system still needs to be maintained.

Finally, there's the option of migrating the legacy environment to the cloud. The challenge here is finding a future-proof platform that can support different types of cloud and can also integrate with the legacy environment. The hybrid approach enables gradual migration from old systems (according to business function, legacy module, database, etc) in a way that addresses business concerns about continuity, risk, change and transformation management.

Whatever transformation strategy traditional companies pursue, they can turn the undervalued historical data in their legacy systems into a big advantage. By placing this information in the context of decades of market, customer and product development, they can reap enormous market potential. But this works only when they are supported by the right IT infrastructure that allows them to 'Uber-ize' their current business models.

Starting with value creation and commercialization

To succeed in the digital age, businesses need to understand their customers better than ever. This means analyzing customer needs, interests and concerns, financial and otherwise. By doing this, companies gain insights into value drivers so they can better align services to customer demands. They can identify new opportunities for sales and services and find new ways to differentiate their services from the competition's. They can also find new ways to quantify and communicate value to customers.

Service development

Whatever services they offer, businesses need to structure these so they are easy to apply, scalable, repeatable and efficient. Doing this requires them to create rules and guidelines for developing services, for instance, via DevOps.

Consider how digital disruptors like Uber develop and deliver services. These cutting-edge companies transform their personal services into a synonym for products, creating a valuable and attractive alternative in consumers' minds. It all boils down to conversion: If a brand is not a service today, its value needs to be tied to a service. This, in turn, should convert a low-value asset into a more valuable service. With Uber, for example, idle car and driver assets are converted from non-use to use.

In the same way, traditional companies must embed their products and goods into services or find services to embed them. The value of products then becomes more than the product itself.

To succeed in service industrialization, companies must take two critical steps. First, they need to ensure that service development is outside-in, creating value for customers, rather than just an inside-out approach based on technology or products. Second, they need to build a service structure that enables efficient, flexible creation of customer-specific services from standardized components. This structure and these components should be also digitalized to ensure standardization and repeatability.

Service development versus product development

To develop services that create value for themselves and their customers requires businesses to take both an inside-out and an outside-in approach. They also need to understand their market and their competition.

Companies can develop personalized, customer-specific services by choosing a modular, standardized structure that makes it easy to tailor offerings on a case-by-case basis. A clearly defined service structure can also enhance sales teams' understanding of available services and thus improves their ability to respond to customer needs. In short, a well-defined service structure promotes cross-selling and boosts sales growth.

Another key to modern competitive services is ensuring they can be delivered on demand. Such services are available anytime, anywhere. Mobile apps play a crucial role in delivery, but it is really about fulfilment in whichever way is fastest. In short, this is about moving from a 'go-to' marketplace to a 'come-to' marketplace, where benefits or services come directly and immediately to consumers. This digital 'Uber-type' business model is also based on pay-as-you-go. Brands sell only what a consumer needs in that moment, no more.

Transforming legacy into a Hybrid IT model

Many companies are looking to rapidly transform their customer-facing services. But they also face the challenge of providing a stable platform for ongoing operations such as processing orders, booking sales, setting schedules and ensuring regulatory compliance. If any of these back-office processes, which often reside on legacy platforms, fail or go down, the results for a business can be disastrous.

There are also risk and time challenges. Accelerated transformation can lead to data that does not integrate and systems that go down. The IT department can also find itself overwhelmed by trying to make everything happen at once.

So how can the need for agility in the market be balanced with the need for stable back-end systems? The alternative to an all-or-nothing approach is Hybrid IT. This dual-speed strategy lets digital and legacy systems coexist, giving businesses the time and resources they need to manage disruptive change.

Digital transformation: customer-facing systems

High on the list of priorities for digital transformation are applications focused on customer experience. These help companies provide compelling and personalized user experiences that are effective via any device or channel. Such systems draw data from multiple parts of the organization, bringing everything together for customers in one seamless transaction.

Consequently, the first proposition for deploying Hybrid IT is to fast track customer-facing functions such as ecommerce, CRM and social media. This approach will quickly raise digital standards to where customers need them most.

Hybrid IT supports coexistence between new emerging digital and legacy systems managing the dilemma of disruptive change

Back-office transformation: internal-facing systems

With the initial focus on customer-facing systems, the IT team can take a less rushed, more risk-managed approach toward internal-facing applications. These systems are often tightly integrated into the back-office operations of the company. For example, an order fulfilment system will pass through sales, finance, inventory, logistics and customer management.

These systems do not need to be upgraded as frequently as other digital applications that must keep up with competitors and consumer demand. Refresh cycles can be scheduled as dictated by internal needs or supplier maintenance schedules.

Many of these internal systems are built on legacy technologies or proprietary (or even bespoke) systems, which do not support rapid transformation.

For example, monolithic ERP systems are good candidates for a Hybrid IT approach. The traditional concept of end-to-end systems like ERP reduces agility and the ability to compete. The challenge now is to break up the company's legacy systems and not to replace the entire ERP environment. The hybrid approach helps modernize specific portions of these systems through cloud-based software-as-a-service. Legacy systems can be connected to new digital infrastructures with minimal disruption through the use of APIs (application programming interfaces).

In other words, these systems do not remain static. The back-office track allows for a sequence of mini transformations (perhaps finance first, then supply chain, then distribution) in order of impact and ease of implementation. This means the IT department can pace itself and not become overwhelmed by an over-accelerated transformation.

Be disruptive from day one and take the necessary time to transform

Hybrid IT is not a permanent state of coexistence between two separate systems.

At the current pace of change, even the most cutting-edge digital systems become legacy technology in a matter of months. Over time, companies that adopt Hybrid IT will find legacy systems becoming an increasing burden on organizational agility and innovation. These systems are also costly to maintain. Hybrid IT simply allows order, planning and time to prepare for a still needed, inevitable migration path.

Eventually, many companies will want to move their IT architectures to a unified, highly agile digital platform. Hybrid IT is not a substitute for this digital end game. It is just a measured, risk-managed and practical route to getting there, enabling legacy businesses to better compete with their digital-native competitors.

Business value from transformed and disruptive legacy

Historically, legacy systems are large and complex, supporting thousands of daily users accessing many hundreds of databases and servers. In addition to being expensive to maintain, these systems are also difficult to scale to meet evolving business needs. This is due to their silo-based, vertical nature, which makes for a complex infrastructure with many dependencies. This makes it difficult to change business processes, extract and correlate data and develop new capabilities.

Slow to adapt to new technologies

In most cases, legacy systems lack the agility to adapt to new technologies and business trends such as:

- Increasing demand for better and more rapid business intelligence capabilities
- Shifting application development environments toward open-source architecture, providing reusable system components
- Evolving channels like netbooks, tablets and smartphones becoming common productivity tools in the company and channels to end users

The 'how' - legacy transformation process

Transforming a company's legacy environment and business processes helps to create a more agile, more cost-efficient environment that supports high-velocity, disruptive business models. This can include rationalization to reusable service components that can be used in different ways across multiple business functions.

Transformation

A transformation from a legacy environment to an open-source cloud infrastructure may take several years to complete. Initially, the focus will be mainly on technology and transferring suitable existing databases and applications to the cloud. After this, the focus can shift to supporting business processes and transforming those applications for cloud-native capabilities. DevOps can contribute to this process by quickly supporting new customer demands on top of the transferred systems.

Open source

Open source can be a key to transforming from a monolithic legacy environment to a more distributed environment. It can help develop common pieces of business logic into service components that can be used by several different business processes. Open source promotes business velocity and maximizes business value through reuse.

One key benefit of open source is cost containment. Throughout the company, self-contained, isolated repositories of redundant application functionality and data can be consolidated. Consolidation reduces software lifecycle costs and the number of software licenses and servers required. Open source also increases IT agility, improves time-to-market, results in better IT utilization and return on investment (ROI) and simplifies the enterprise architecture.

Results of legacy transformation

The transformation of legacy systems greatly reduces system complexity. It increases business value through increased agility and velocity, improved reliability and support, provides a better user experience and enhances cost efficiency.

A new hybrid environment works by implementing horizontal and reusable components, minimizing customizations and transforming business processes. Over time, it also makes it possible to gradually transform the remaining legacy functions to the cloud.

Improved velocity

Transformation and Hybrid IT will support rapid growth and change in business needs, processes and the enterprise applications environment. Patches from suppliers can be implemented in a matter of weeks with minimum resources. The hybrid, open-source environment also allows for DevOps approaches in all cloud types and even in the legacy environment itself.

Enhanced agility

By transforming legacy systems, companies can identify and focus on high-value, differentiated business processes and rapidly deploy supporting capabilities. It is easy to plug new business intelligence applications into the hybrid environment. By identifying and standardizing highly shared, integrated data within the cloud, these business intelligence applications can lead to actionable analytics that support better decision making.

The hybrid environment also makes it possible to offer support functionality to other channels like tablets and smartphones.

How Fujitsu helps to make this happening

When you add cloud-based IT to your existing in-house infrastructure, it's important to remember that you are buying into a journey rather than a one-off change. The challenges in navigating that journey successfully go beyond technology and money, with ramifications for almost every aspect of your business.

However, if you manage that path properly your business can reap numerous benefits both now and into the future. Yes, the cloud offers flexibility and adaptability that no self-managed data center can. But the gains go far beyond that.

Conclusion

Building a proper business case for the move to Hybrid IT takes time and effort. But make no mistake, it's essential. To ensure your journey proceeds as smoothly as possible, ask tough questions about what you hope to achieve. And look for answers that address concerns for everyone involved from employees and department heads to IT managers and executives in the C-suite.

With a well-informed and focused approach to Hybrid IT, your organization can reap such benefits as greater flexibility, faster time to market, enhanced competitiveness and 'quick-to-succeed, cheap-to-fail' innovation.

Next steps

Hybrid IT can help organizations build a flexible, future-proof infrastructure while preserving time-tested and business-critical elements of legacy IT. Fujitsu understands the challenges of such transformations first hand and can help customers successfully navigate the journey to achieve the perfect balance of legacy and cloud.

Contact

ASK FUJITSU
Tel: +44 (0) 1235 79 7711
E-mail: askfujitsu@uk.fujitsu.com
Ref:

www.uk.fujitsu.com

© 2016 Fujitsu, the Fujitsu logo, [other Fujitsu trademarks /registered trademarks] are trademarks or registered trademarks of Fujitsu Limited in Japan and other countries. Other company, product and service names may be trademarks or registered trademarks of their respective owners. Technical data subject to modification and delivery subject to availability. Any liability that the data and illustrations are complete, actual or correct is excluded. Designations may be trademarks and/or copyrights of the respective manufacturer, the use of which by third parties for their own purposes may infringe the rights of such owner.