# Transforming mission-critical services with Multi-Cloud

Embracing the cloud isn't always straightforward. But a partnership between two Multi-Cloud experts is giving businesses all the help they need.

When the cloud first emerged as an alternative to traditional server technology, the main attraction was twofold: The cost savings it offered, and the organizational efficiency it provided. Fast forward to today, and the focus is much more on how it enhances the agility of those businesses who know how to exploit its capabilities. That's happened because cloud technology allows them to develop a service, test it, gain feedback and then deploy it globally at speeds they could never have dreamt of using traditional IT. What used to take months now takes minutes. So it's easier and faster than ever to disrupt the marketplace and gain a competitive advantage.
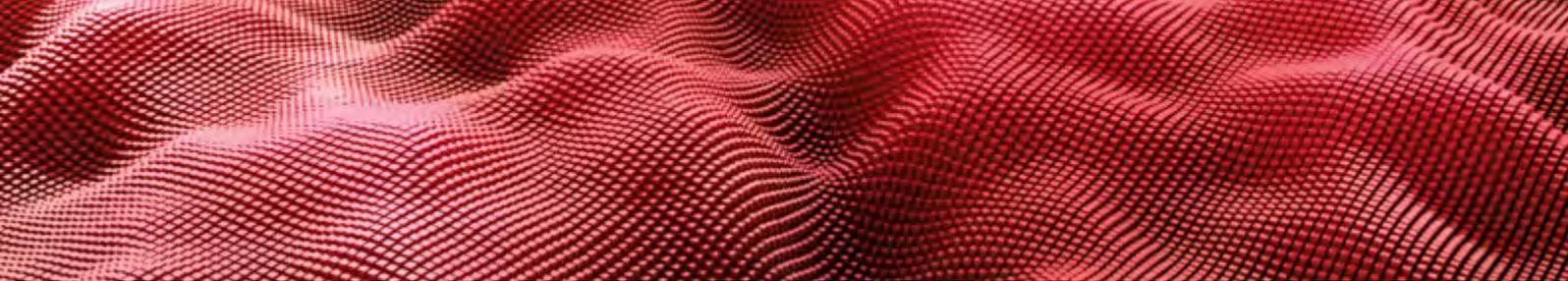
So why isn't everyone doing it?

Of course, the Cloud isn't an automatic passport to a more agile, more intelligent, more connected business. There are still barriers to adoption for many enterprises, illustrated by the fact that only an estimated 20 – 25% of ICT systems and projects are in the cloud – and these are predominantly new projects rather than systems that have been migrated from heritage platforms including mission critical applications. And as we move to the next phase of cloud adoption, organizations will have to achieve even higher levels of transformation.

As Mark Phillips, Fujitsu Head of Multi-Cloud & Hybrid IT in EMEIA explains, "Organizations are going to need a deep understanding of what legacy IT looks like, how it is constructed and which parts of it require mission critical resilience. Most importantly, they'll need comprehensive knowledge of the capabilities of new platforms, too. In short, it's going to be much more difficult to migrate legacy IT into the cloud than it has been up until this point."

"Deploying on a single cloud platform in a single country can only achieve a maximum availability of four-nines (99.99%), but mission critical services require five-nines (99.999%) availability. The difference may only equate to a few hours downtime per year, but those few hours can have a massive impact."

Mark Phillips, Fujitsu Head of Multi-Cloud & Hybrid IT, EMEIA

Other factors can act as a brake on cloud adoption too:

Every business, when migrating to the public cloud, must balance cost against considerations like resilience, agility and data residency. But in one of these – resilience – they simply can't compromise.

Achieving up to five-nines availability means 'cherry picking' cloud-based services to secure optimum resilience in every area. Often, that can mean hosting such services on several different platforms, or even different countries. For government departments or financial institutions, hosting in a single country is non-negotiable. So the only option to achieve up to five-nines availability is to use multiple platforms. But this can bring its own problems around the compatibility of services and platforms. It's to overcome these that Fujitsu's *Your Multi-Cloud* was developed; a 'cloud without compromise' approach that delivers the agility and cost associated with the public cloud, without sacrificing resilience or performance.
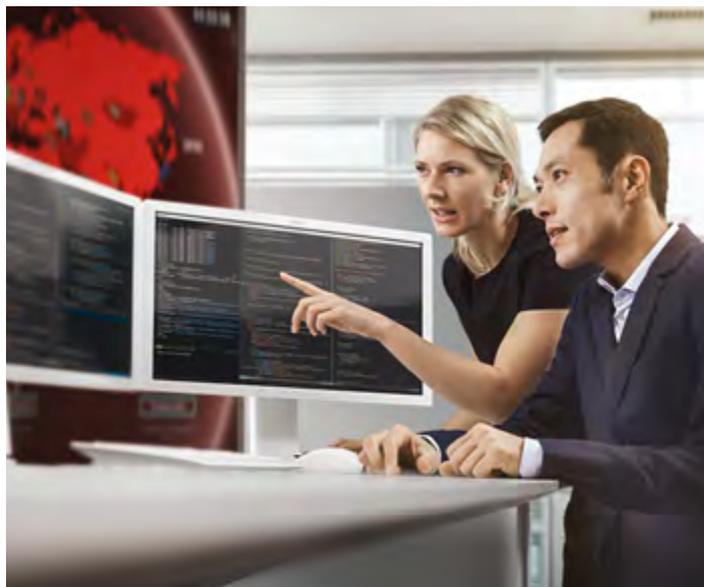
Combined resources for success

To deliver Multi-Cloud, Fujitsu collaborates with VMware, the global leader in cloud computing and virtualization software services. Stuart Glastonbury, VMware Sr Global Partner Manager explains: "The solution is based around Fujitsu Managed Private Cloud Service (FMPCS), a fully resilient platform hosted either in Fujitsu's or a customer's own data centers. This is combined with VMware Cloud on Amazon Web Services, delivering the exact same capability as a private cloud solution, but with all the flexibility and agility of the public cloud." As a result, companies can run VMware applications seamlessly in both environments, enjoying resilience, data sovereignty, affordability and agility as part of one, compromise-free solution.

Scalability matters

As well as ensuring resilience up to five-nines, Multi-Cloud's scalability means it can provide extra resource during peaks in demand. Mark Phillips explains:

"Government and tax revenue departments' requirements increase by about 70% during the self-assessment period. It would be wasteful to build that capacity in permanently. So Multi-Cloud allows them to expand capacity for those few days and only pay for what they use, before contracting back to normal capacity. An online retailer would have a similar need during high seasonal demand, or on a shorter term-basis, Black Friday".

Multi-Cloud can also help in disaster recovery efforts by providing hosting in several locations and allowing users to shift applications and services running in one location to another if a problem – such as a natural disaster or major outage, occurs.

Delivering applications to the cloud safely

One of the key concerns for many organizations is getting mission critical legacy applications into the cloud safely, securely and without disruption to live services. Most cloud providers have what they call a 'Cloud Adoption Framework' (CAF) that helps clients make the move to their own cloud services. However, few make provision for adequate security measures when platforms and services from different providers are deployed together – often with high dependency on one another. Fujitsu's Multi-Cloud Adoption Framework (MCAF) allows customers to overcome these challenges by taking a more holistic view, using resilient methods for a safe, secure migration process and protect the Multi-Cloud applications and data on an ongoing basis thereafter.

Enabling interoperability

Understanding interoperability is a key part of migrating workloads to the cloud, especially in mission critical environments. Yet there have been several examples of migrations faltering because of interoperability issues, most notably in financial services. This can have a devastating impact on the reputation of the brand involved, so Fujitsu introduced its seven-by-seven (7x7) Transformation methodology to ensure complex migrations take interoperability issues into account. 7x7 Transformation combines a close evaluation of the current environment and its connectivity requirements, through automated processes for migrating inter-dependent systems and workloads in manageable groups, quickly and efficiently. Once the newly migrated eco-system has been screened and debugged of any interoperability issues, the system and groups are migrated to the target platform whilst still operational, and in complete confidence that the service will not be disrupted. If necessary, the legacy platform is then be de-commissioned, having been replaced by the new cloud-based system.

Security questions... and answers

Two years ago, the main reason IT decision makers gave for not migrating to the cloud was security. "Since then, major cloud technology providers have invested heavily in security to stay on the right side of increased regulation, such as GDPR," explains Mark, "and because of this, improved security is now one of the key drivers for cloud adoption – a complete turnaround in just 24 months."

"In fact, cloud security is among the largest growth sectors in the industry with hyper-scale cloud providers taking over responsibility for mainly their infrastructure, leaving customers typically responsible for their data and applications."

Fujitsu and VMware can address these challenges together, protecting the customer's data and applications across the Multi-Cloud environment. VMware's cloud security controls ensure consistent protection is built into workloads and applications from the ground up – while Fujitsu's Multi-Cloud Security services detect and deal with any vulnerabilities between cloud platforms.

Making legacy applications fit for purpose

48% of companies migrating to the cloud now use application transformation processes to convert existing legacy applications hosted on-premise for use in the cloud. This retains an application's original functionality and enhances it with all the additional advantages of agility, speed, security and easy iteration that come with the cloud environment. A major retailer and financial provider paid huge dividends. With the help of Fujitsu's Application Transformation services, 30% of transactions were moved from counters to online services. A staggering 1.6 billion transactions in all and resulting in an enhanced customer experience that drove revenue of over £120 million.

Selling it all in

As impressive as all of the above sounds, it can be a challenge for the IT department to articulate to a non-IT audience, the tangible benefit an IT investment can have on the business. In fact, Fujitsu's research found that as many as 25% of cloud IT projects fail because project managers couldn't explain the benefits in language C-suite decision makers would understand. Leveraging its consultancy and change management expertise, Fujitsu's answer was to develop its 'Results Chain' methodology and solution, which analyze and validate the outcomes of cloud services investments and map them against wider business objectives to provide cast-iron proof of their value.

Cloud-first: A lasting transformation

Clearly, a cloud-first strategy is important for digital transformation.

"A cohesive and well-executed migration to the cloud can make a significant contribution to the financial success of an organization," explains Stuart Glastonbury.

"Fujitsu and VMware have collaborated to help some of the world's largest enterprises and government organizations transform with the power of Multi-Cloud and Hybrid IT."

Such customers include Lowell - explored later in this article - and HMRC. With the latter, Fujitsu managed the migration of 99 million accounts and 17,000 users to a new database without affecting service availability – resulting in a more secure and stable system that is driving significant cost efficiencies. Stuart continues, "Many others have yet to begin their journey. But when they do, they can be sure the experience and resources of two of the biggest names in cloud, globally, will always be there to help them."

Q&A with Rory Choudhuri, Solutions Marketing Director, VMware

Marrying mission critical applications and platforms in the cloud

Collaboration and co-creation are the rule rather than the exception in the provision of today's IT systems. We explore how one such partnership, between Fujitsu and the leader in virtualized software for business, VMware, adds value at every touchpoint for customers seeking to migrate their mission critical applications to the cloud.

VMware Solutions Marketing Director Rory Choudhuri took time out of his schedule to answer the key questions.

What are VMware's recommendations for transforming applications in the cloud?

As we transform the legacy applications that we place into the cloud, it's important to be aware of their legacy requirements and interdependencies as they get into a much more fluid and dynamic world. There are a number of risks associated with these changes, so choosing the right platform is crucial. VMware and Fujitsu together are giving customers the opportunity to transform and build new, exciting innovative applications that provide differentiation to the business – on a completely solid and resilient foundation that is fit for mission-critical services.

How are organizations utilizing VMware technologies delivered with Fujitsu as the backbone of their service in the cloud?

There isn't a 'standard' way of using cloud services, of course. It varies from customer to customer. But many of those we work with are using Fujitsu Managed Private Cloud Service combined with VMware Cloud on Amazon Web Services to make the transition – from data center and private cloud to using public cloud resources – at a pace that's right for them. On top of the platforms, what VMware and Fujitsu do together is provide the pathway to Multi-Cloud without compromising security, and with no nasty surprises during migration. Once those applications are in the cloud, our end-to-end experience and resources guarantee service resilience is a given.

How can VMware help address complexity as Multi-Cloud adoption accelerates?

It's a complicated world – but what we've delivered is a common platform with one single point of operation, not multiple silos and toolsets to manage different infrastructures. And what that lets you do is build, manage, run, connect and secure your applications easily, across a diverse environment, to ensure your organization achieves its business objectives.

What should organizations be monitoring as they accelerate their cloud journey?

One of the most important things to monitor is cost. We've developed a complete solution that allows organizations to monitor their spend so they can make sure they don't exceed budgets, whilst making intelligent placement decisions for new applications and new workloads in every environment. Apart from cost, we also help customers to establish and keep an eye on latency, performance, access, and security... all critical considerations which influence the decision of 'which cloud to use' for a particular service – and which need to be continuously monitored thereafter.

What Multi-Cloud Security considerations should organizations have – and how can Fujitsu and VMware help?

As we move even further into a Hybrid IT and Multi-Cloud world, there is an even greater security requirement due to everything – critically data – rapidly moving around in a dynamic and distributed environment. Security is built-in as standard with VMware, and always has been. We make sure data is secure at rest, and in motion, and that every application has security wrapped around it. That means, when the workload moves, its security moves with it – no re-configuring or re-authenticating needed. The gaps between legacy estates, Multi-Cloud landscapes and micro-services from other locations – to name just a few – also cause potential vulnerabilities which have to be managed. So not only do the platforms and applications have to be rock-solid with security built in; the differences and gaps between these must be considered in order to secure the whole landscape – and that's where Fujitsu add a lot of value.

Why Fujitsu & VMware for applications transformation?

Now more than ever, applications are the crown jewels of an organization – they are the disruptive differentiator. VMware provides the ability to build new, innovative services and applications – and of course, the platform on which to modernize and transform existing mission-critical applications at the same time. Fujitsu, with their decades of experience, brings the ability to manage the overall journey – including deployment of infrastructure, applications and services; safely, effectively, efficiently, quickly. Together we deliver the best of both worlds, in every possible environment.

How a standardized IT estate is making credit work better for all

Customer success story: Lowell

A powerful example of Fujitsu and VMware's partnership and solutions in action.

Just 6 years ago, the credit management company Lowell operated in one country with 500 employees. Today, it's Europe's second largest in its field with a presence in nine countries, 4,500 employees and account values in the multi-millions. Rapid growth of that kind, however, doesn't happen without putting some stresses and strains on corporate infrastructure, most notably in IT. Early on in their growth stage, Lowell realized they needed a partner that could support them with industry-leading practises, processes and methodologies that would be standard across their IT estate, while being able to handle rapid expansion. The alternative – and the nightmare scenario for Lowell's IT managers - was a patchwork quilt of IT across 9 different countries, creating bottlenecks and interoperability issues that would impact on business performance. Having received proposals from several different providers, Lowell decided to partner with Fujitsu because, as Group Chief Information Officer Gary Edwards put it:

"Fujitsu particularly impressed us by really getting to grips with our business and highlighting the opportunity for Lowell to rethink our operating model to take advantage of our increasing scale. That approach enabled Fujitsu to propose a solution that not only drives scale efficiencies for Lowell, but also applies innovative robotic and AI technologies to generate even greater savings, flexibility and agility".

Stabilize and secure.

The first priority of any digital transformation project is to provide a rock-solid, dependable core of basics. Availability. Resilience. Security. Stability. Without it, how could Lowell's mission to make credit work better for all, be delivered? Fujitsu provided all of that and more through a VMware-based private cloud platform – Fujitsu Managed Private Cloud Service – as well as networks, LAN and applications operations support – and an international telephone-based service desk in English and Nordic languages. It also provided a suite of managed security services, optimized to meet stringent financial services audit and compliance requirements from both the company's clients and regulators across Europe. Having standardized and industrialized its IT, Fujitsu then went on to work with Lowell to develop an accelerated growth strategy through a program of digital transformation. That meant exploring areas such as digital and omni-channel services and tools to offer customers more choice, more convenience and more preferences; driving down Lowell's costs to serve by rationalizing the applications landscape; and deploying robotic and AI technologies such as Social Command Center service automation.

Global expansion, digital transformation

And what of the future?

With an eye on expansion beyond Europe, Lowell need to know they can rely on their IT systems to scale accordingly. With Fujitsu's Hybrid IT and Multi-Cloud Orchestration, there's no question it will. Global resources, a global reputation and globally supported products ensure the space is there to move into, whenever they're ready.

For Fujitsu and Lowell, this is just the start.

"We are on a journey of digitalization. We want to explore what we can do with artificial intelligence, with robotic process automation, with deep machine learning around data. Fujitsu have got a great pedigree, they've got a great reputation – all that experience and all that know-how will help us provide the right services to our customers, to our colleagues and to our clients."
Gary Edwards Group Chief Information Officer, Lowell.

To find out more, speak to one of our Multi-Cloud experts:
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