GAME-CHANGING STRATEGY FOR YOUR DATA CENTRE

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EXECUTIVE SUMMARY

For today's enterprise CIO, the data centre is a strategic and immediate priority. Big issues need to be addressed, and quickly. How will your data centre help you meet the significant technology challenges of cloud, mobile and Big Data? How do you future-proof your technology infrastructure? Does it make more strategic sense to build your own data centre – or to use a purpose-built data centre facility from a specialist provider? How will you justify your decisions to the board and to shareholders?

With many organisations embarking on transformational IT strategies, the data centre is at the sharp end of decision-making as never before. Get it right and you create an effective platform to serve the evolving needs of the enterprise. Get it wrong and you could be taken out of the game.

This whitepaper explores the new rules for technology decision-makers as they seek to create a game-changing data centre strategy.

THE STRATEGIC ROLE OF THE DATA CENTRE

By 2015, IDC estimates 90% of IT investments will be evaluated in terms of strategic goals. This means that, by 2018, half of all executives will look upon the CIO as a business innovator. (Source: IDC Insights Predictions 2013: CIO Agenda.)

The role of IT is clearly shifting from reactively prescribing systems and tools that get the job done – towards proactively helping the board discover new opportunities and capabilities that deliver on an enterprise's strategic goals for growth.

IT needs to become more agile, flexible and scalable to support the new ways stakeholders want to communicate, collaborate and conduct business. At the same time, IT must deliver the new applications and services that enable the organisation – without making big capital investments or increasing their operating budget.

Enterprises need smarter, more cost-effective applications and services that help to deliver speed, agility, flexibility and scalability.

This has put the data centre at the heart of the business. It is the point from which social media, Big Data, mobility and cloud technologies can be harnessed and turned into growth opportunities.

Most of today's dedicated enterprise data centres were built before the economic crisis in 2007, and also before the 'tipping point' of widespread server virtualisation and mature cloud-based enterprise applications. This creates a mixture of financial and operational challenges. Many IT directors and CIOs now find themselves with an asset on the balance sheet that must somehow be upgraded or extended into a future-proof model without recourse to additional investment.

This 'future-proofing' applies in particular to on-premise data centres. These were not originally designed for interconnection with web-based applications, and are not in a position to benefit from the innovations and potential cost savings of pay-as-you-go utility computing offered by the cloud.

The game is changing. New IT service delivery models – made possible by the maturation of the cloud, widespread virtualisation and partnering with customers, suppliers and services – are changing the way you compete.

Today, the crucial question has to be: **If an enterprise is to deliver on a strategy for growth, can it do this through building and maintaining its own data centre?**

Or would it be more strategic to work with a specialist, enterprise-class data centre provider, offering purpose-built facilities designed to maximise your business agility, flexibility and scalability?

While undoubtedly critical to enterprise success, IT seeking innovative, more cost-efficient ways of delivering services is nothing new. What really is a paradigm shift, however, is IT proactively delivering new revenue opportunities from new markets, new applications and services, and new customers.

In forward-thinking enterprise organisations, IT is now moving from the back office to being at the very front end of revenue generation. The game is changing – and it's time to make your next move.

A TIME OF CHANGE FOR THE DATA CENTRE

Data centres today are transforming. Virtualisation, cloud and high-density computing hardware mean that corporate data centres may need less physical space – but are demanding more and more power.

According to a recent IT industry survey, the total power requirements of all data centres worldwide grew by 63% in 2012 to 38 gigawatts – enough to power over 30 million homes. (Source: 2012 DatacenterDynamics Industry Census.) Demand for power is growing faster than the demand for space – according to the survey, demand for data centre "white space" (the area in the data centre that houses the IT equipment) grew by just 8.3% to 26 million square meters in 2012, though it is expected to increase more substantially in 2013.

Another wave of change is away from corporate built and owned data centres and towards more use of specialist data centre providers. Analysts IDC predict that by 2016, more than a quarter of all the data centre floor space in the United States will be owned by these third-party providers. (Source: IDC U.S. Datacenter 2012-2016 Forecast.)

According to analysts Ovum, there are several key drivers for this trend towards working with specialist data centre operators. There is an increasing need to support the infrastructure that underpins today's enterprises – online services, digital marketing, customer-facing web applications, and mobility. Organisations can move from the capex of building a data centre to opex, and can hedge against the increasing risk that their data centre will be obsolete much sooner than its projected lifecycle. Enterprises also need to have data centres ready for high levels of virtual server and cloud deployment. (Source: Ovum: 2013 Trends to Watch: Enterprise Data Center Operators.)

CHANGE AND DISRUPTION:
TODAY'S BUSINESS ENVIRONMENT

Think back a few years, and it soon becomes clear where the momentum behind this has come from – and how the business environment has changed almost beyond all recognition.

Before the recent global financial crisis and the ensuing four years of recession and low growth, few organisations had cause to consider what happens when banks, and indeed countries, fail. Regulators generally adopted a 'light touch' approach, and gentle economic growth meant each year was not too dissimilar from the one that came before.

Those days are over – and most analysts agree that there is no going back. There is no reason to expect in the next decade that the situation economies are in today will be any better. Rather low or zero growth in western developed economies is what is being described as the 'new normal'. Famed investor Jeremy Grantham recently told clients: 'The US GDP growth rate that we have become accustomed to for over a hundred years – in excess of 3% a year – is not just hiding behind temporary setbacks. It is gone forever.' (Source: GMO Quarterly Letter, November 2012.)

Recent years have seen massive disruption in the world of business. Companies thinking innovatively and disruptively have succeeded, while companies unable to adapt and evolve have stagnated and foundered.

Research the world's most successful enterprise brands today and top of the pile comes Apple whose market capitalisation has risen sevenfold from 2008 to 2012 to make it the most highly valued American company ever. With a market capitalisation that has oscillated between the $500 billion to $600 billion mark the simple truth is that it is five times the size of News Corporation ($60 billion) and Ford (£43 billion) combined.

Google has similarly grown in just over a decade to be worth more than $200 billion. Facebook, which only launched under its current name in 2008, became the third largest IPO in USA history when it floated in May 2012. In fact, until its shares dipped, it was valued at roughly the same price as General Motors, which still holds the record for the largest IPO in US history.

Even at this stellar level of growth, companies that want to stay in the game still need to be agile. Apple's first-mover advantage saw its iPhone and iPad devices dominate – but just a few years later, Google's Android platform accounts for two in three of all new mobile devices shipped, topping Apple's current 16% market share. Perhaps the most notable point is that Blackberry, the largest smartphone platform as recently as 2010, is now struggling to retain third place.

So, while there may not have been noticeable growth across most developed economies, there have still been extraordinary performances from enterprises that have utilised the economic disruption to do business differently. Be it a complete revolution in handsets, or tracking software to improve efficiencies in supply chain, or utility computing to serve the needs of seasonal e-commerce shoppers.

This needs to be set against an economic outlook that remains bleak. With IMF figures showing the Eurozone flat-lining at 0% growth for the first half of 2013 (1% for the latter half) and the US showing moderate 2% growth for the year, compared to 7% in Asia, it is clear that markets fall into two categories. In traditional zero or low growth markets, organisations will have to take market share from rivals by outflanking them and thinking and working smarter. In emerging markets, organisations should be aiming to gain market share by delivering products and services faster and more efficiently, for first-mover advantage over traditional and new rivals.

So, there are economic challenges that need to be overcome with the aid of IT – but there are also massive IT challenges and opportunities that need to be addressed. In fact, Gartner has described IT as leading business decisions via a 'nexus of forces' – in which the intertwined trends of social, mobile, cloud and information are driving a new phenomenon of 'extreme collaboration'.

Extreme collaboration means that staff, stakeholders, consumers, clients and prospects are communicating with one another, as well as researching and buying services and goods in new ways. The widespread deep penetration of mobile devices is fuelling this revolution, where customers and staff alike are taking greater control of their actions, choosing how, when and where they interact with brands they like or are considering, as well as with their network of fellow employees, contacts, prospects and peers.

Gartner's summary is that those enterprises that adapt to and embrace the changes that extreme collaboration brings will prosper. To do this, IT has to fundamentally change the way it operates. From being a prescriptive build and teach function, IT needs to develop a more collaborative approach, working with other business functions such as sales, marketing and operations – to provide a flexible combination of IT services and applications that can adapt to and absorb change, both from within and outside the organisation.

DATA CENTRES AT THE HEART OF CHANGE

The growing requirement for agility puts the data centre at the core of any enterprise's strategy.

Complacent organisations constrained by in-house data centres, with poor global interconnection, limited physical space and outdated infrastructure, may soon have a rude awakening. The enterprises that prosper will be those that put the data centre at the heart of delivering the organisation's agenda for growth and change.

The fast adoption of cloud technologies bears testimony to enterprises realising that infrastructure, platforms, applications and services can all be provided as a service. The as-a-service movement means no upfront investments in hardware, software licenses, or ongoing management and maintenance costs. This means that precious financial and human resources can be redeployed into other more front-office-facing and revenue-generating activities.

The key lies in designing your IT architecture according to your appetite for risk, your desire for control, your plans for future services, and your available budget – and housing it where you can get access to the widest range of partners and suppliers to enable maximum choice and flexibility across all of these dimensions.

By locating your data centre within the same enterprise-class colocation facility as the world's most trusted providers of cloud technologies, applications, social media and mobility solutions (as well as the home of some of the worlds largest and most trusted managed services partners and systems integrators), you can access a whole range of new IT service delivery models – and you can balance this against your own appetite for risk, control and budget.

In a self-build environment, creating this flexible IT architecture with direct access to such a wealth of services would be almost impossible – as well as prohibitively expensive and inefficient from a resources and budget perspective.

This new combination of business factors – the bleak economic conditions in developed countries, the exponential growth in emerging markets, the trend for extreme collaboration brought about through Gartner's 'nexus of forces', and the emergence of new IT service delivery models – means that the lines between business strategy and IT strategy are blurring.

The focus for this new thinking is a flexible, agile, cost-effective data centre, which is not only at the heart of an organisation's strategy, but also part of an ecosystem where customers, partners and suppliers come together to transact business and deliver growth.

HOW THE GAME IS CHANGING

Enterprises must tap in to new capabilities and business agendas if they are to survive and thrive. Let's look in more depth at some of the key factors changing the data centre game.

From capex to opex

Savvy enterprises are fast realising that there is little point pumping large sums of money upfront into their own data centres. Not only does the asset depreciate, but it also attracts the focus of IT away from the core business and into the running of a data centre facility. Everything costs money – from the physical space and power, to the security and staff required to keep the lights on. It also requires IT resources that could (and should) be used in other areas, to innovate, increase efficiency and deliver revenue.

Cloud and SaaS

At the forefront of this revolutionary shift from capex to opex is the cloud and 'as a service' model (which can encompass IT infrastructure, platform and software). The idea that systems and applications can be delivered to customers over a network, just like electricity, has seen it dubbed 'utility computing'.

Few enterprises will opt to put all their data exclusively in one type of cloud – either a low security 'public' cloud, or a safer but more expensive 'private' cloud. Instead they are making mature decisions based around balancing cost and acceptable risk, and mixing the two to build 'hybrid' clouds. Email, for example, may be allowed to run on the public cloud, while financial or customer information is not allowed to stray beyond the internal data centre or a private cloud.

This requirement to mix and match IT service delivery models underlines the flexibility and agility gained from being able to directly connect to best-in-class providers of cloud and IT services..

Big Data

From the dawn of civilisation until 2003, humankind generated an estimated five exabytes (or five trillion gigabytes) of data. Now we produce five exabytes every two days – and the pace is accelerating. (Source: Google chairman Eric Schmidt.)

Internet traffic has increased by a factor of eight in the past five years, and will quadruple again over the next five years, according to Cisco. Mobile data is set to increase by a factor of 18 from 2011 to 2016, growing at three times the rate of fixed device traffic. (Source: Cisco Visual Networking Index.)

Not only is there more data, it's coming from a great variety of sources in many unstructured forms and at greater speeds than ever before. This 'volume, variety and velocity' combination is hallmark of the latest enterprise challenge – Big Data.

Data has moved beyond numeric or binary – and into opinions, user-generated information and crowd-sourced ideas. Combine this with existing enterprise Business Intelligence systems, data repositories, internet data, and purchased market data, and the information landscape becomes hugely complex and dispersed.

But, there is a big difference between raw data and the kind of high-value information you can use to drive action. How do you make smart decisions when the data is in 140 characters or less? How do you keep track of global inventory via RFID codes when you are shipping millions of units a day? Does a Facebook 'like' really equate to additional sales? Can you stop a fraudulent credit transaction in real-time? The sheer size of the problem threatens to engulf even the most die-hard data fan. There is too much data, analysis tools are too rigid, the complexity is often simply overpowering, and the white flag is raised.

Partnering with Big Data analytics providers through direct connections inside your colocated data centre makes for a different reality. Your organisation gets the insights you need, at the time that you need them, to make the decisions you need to make. Your enterprise can have its own Big Data solution, without the huge investment of acquiring the processing power, database capacity and interrogation tools you would need to build it yourself. You can also gain direct access to the data scientists you need to analyse the data, match the disparate data sets and turn out actionable insights.

Agility and innovation

Once market operators understand where prospective liquidity lies, they need to design and position their Enterprises need to innovate new goods and services, open up new markets, retain their traditional client base, and win over customers from rivals. In a low or zero growth economy, these are inescapable facts.

To do this, IT needs to be less prescriptive and more adaptive. What if you could provision storage and compute services to the lines of business, as and when they require it for R&D, testing or product extension? What about using new cloud-based platforms to extend products and services as needed? Without agility, an enterprise can have a winning strategy but may not ever be nimble enough to deliver it.

Flexible scalability

Only enterprises that are able to 'flex' their capabilities and increase processing, storage and network capacity at speed will deliver on their strategies for growth.

Organisations that are limited to a physical footprint in an isolated data centre will find it hard to build in flexibility and scalability, so may be unable to handle the growth they are seeking.

Mobility

Extreme collaboration lives in the palm of the hand. Today, most salespeople will update Salesforce.com from their Blackberry, iPhone or iPad. Office workers will use mobile messaging platforms as they stand in the queue at Starbucks – and of course, your email will get you everywhere.

But that is just one side of the story. Consumers and customers also want to take control. Just about anything – from monitoring the blood insulin levels of a diabetic through their iPhone app, to monitoring the weather, to making stock trades – can all be done via the smartphone handset. Today's competitive landscape is mobile, and transformational CIO's are getting on board. They are working out how to provide information and value-added services in real-time to their customers, employees and partners, via apps built to extend the service offering.

The gains are so clearly visible that IDC believes one in three new application development projects in 2013 will be focussed on mobility. (Source: IDC Insights Predictions 2013: CIO Agenda.)

But to do mobility successfully, you need to think about how easy it is to get high-speed mobile and fixed-line networks connected into your data centre. By taking the colocated approach, you can directly connect to mobile network operators, applications developers, and mobile service providers such as payment gateways. Not only that, but you can also realistically test the delivery of your mobile service before it launches, so that you can guarantee user experience – impossible without a carrier-neutral data centre enabling maximum connectivity.

Regulation, security and transparency

Changing regulations are a headache for enterprises. Following the financial crisis of 2008, it is safe to assume that regulation will continue to increase. The onerous task of ensuring data is stored, accessed, logged and handled in the most appropriate and legal manner is only set to become tougher.

Compliance with regulation is an extremely costly exercise, and often must happen almost overnight as the regulations take effect – for example, cookie declarations on websites, the Data Protection Act and Sarbanes-Oxley. Regulatory compliance also reduces the ability of an enterprise organisation to stay agile as it seeks to deliver on strategies for growth.

In an enterprise-class colocation facility, we put primary importance on compliance with security and regulatory requirements. Since the facility is shared among multiple enterprise organisations, so are the costs of managing and securing it. In addition, you have access to Equinix experts who can provide guidance on data centre compliance with guidelines and regulations, locally and globally.

Disaster recovery

According to a recent survey, the typical enterprise organisation experienced an average of 16 data centre outages over the past 12 months, at a cost of $5.1 million. The most common cause of downtime was systems failures, followed by human error and natural disasters. (Source: Symantec 2012 State of the Data Center Survey.)

Most organisations have a business continuity plan in place, but many fail to test it. When a disaster strikes or a simple error is made, data and money is lost. Relying on a single data centre – especially one that does not have a policy of regularly testing its disaster recovery plan – will always present a very obvious business continuity and data recovery risk.

Building your IT infrastructure in a colocation environment will give you resiliency against power outages, assuming it is tested regularly. But ideally you need to have a second disaster recovery site, from which you can run your IT and support your business in the event of a natural disaster or other major incident.

The economy continues to become more and more reliant on technology. Companies continue to transform their businesses through use of web-based tools, transactions and mobile service delivery. Customers and stakeholders become even more geographically dispersed. The political and environmental landscape we live in continues to be uncertain. It is clear that the future for enterprises undoubtedly resides in distributed data centres that offer unrivalled business continuity and data recovery assurance.

YOUR NEXT MOVE:
CONSIDER YOUR DATA CENTRE STRATEGY

Having reviewed the facts, it's time to ask yourself some crucial questions.

Can you keep pace with technology, deliver the most cost-effective and agile architecture, and interact with customers and prospects in the most effective manner, from within your existing self-built data centre?

Would you feel more comfortable trusting your data centre to a small-time provider that trades on its lowest cost position – or a globally proven enterprise-class data centre partner?

Are there business opportunities an enterprise-class data centre partner could be offering that you are currently missing out on?

Your data centre should be at the heart of your business strategy, connecting you to your partners, customers, suppliers and employees – and to the world. If it is not doing so now, you are missing out on growth and profit, today and tomorrow.

EQUINIX:
YOUR DATA CENTRE GAME-CHANGER

The difference Equinix can make is extraordinary. We offer advanced, secure and cost effective data centre facilities around the world.

Our additional game-changer is the Equinix ecosystem. Not only can clients have their data centres colocated at our facilities around the globe, they will also find themselves hosted with a 'who's who' of enterprise big names. This opens up endless possibilities to interconnect with existing and new business partners within colocated data centres. Not only is security kept at the highest level, because data never needs actually leave our data centre ecosystem, but also speed, flexibility and agility are maximised.

Multiple trading, marketing, sales, financial and IT partners can be interconnected in a new world of commerce. This all takes place at lightning speed behind secure doors, yet ensures data and resulting insights can be made available in real-time, in a compliant fashion, to local and global executives – in an instant.

Global enterprise organisations that put their trust in Equinix's colocated data centre facilities include Microsoft, Facebook, AT&T, Netflix, Gap, Loreal, JP Morgan and LinkedIn.

Equinix in numbers

Equinix is the world's largest provider of carrier-neutral data centre services:

- 90+ data centre facilities
- 30 global markets
- 5 continents
- 6.5 million+ sq. ft. of capacity
- 900+ global networks a cross-connect away
- State-of-the-art on-site maintenance and support

Equinix is the world's largest provider of carrier-neutral data centre services:

- 900+ network providers
- 300+ Cloud & SaaS providers
- 500+ IT services providers
- 700+ financial firms
- 8 of the top 10 web sites
- 4 of the top 5 video sites
- 4 of the top 5 social networks
- 9 of the top 10 advertising sites
- 4 of the 5 top smartphone platforms
- 9 of the top 10 content distribution networks

MAKE YOUR MOVE

To discuss how we can help you make your data centre work more strategically for your organisation, call Equinix on +44 (0)845 217 3292.

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About Platform Equinix

Equinix, Inc. (Nasdaq: EQIX), connects more than 4,000 companies directly to their customers and partners inside the world's most networked data centers.

Today, enterprise, cloud, networking, digital media and financial services companies leverage the Equinix interconnection platform in 30 strategic markets across the Americas, EMEA and Asia-Pacific.

By connecting directly to their strategic partners and end users, customers are forming dynamic ecosystems inside Equinix. These interconnected ecosystems enable companies to optimize the performance of their content and applications and protect their vital digital assets.

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