TalkTalk Business

Business Brief

Technology

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Technology - are you ready, willing and able?

Is it any wonder the modern enterprise is caught in a dilemma? Five years on, and counting, since the financial liquidity crisis first hit, UK PLC is trying to come to terms with the ultimate strategic temptation – whether to invest to grow.

For many, even those at the risk averse end of the corporate scale, the answer is no longer so clear cut. The pace of technological development during this period of economic consolidation is now bringing many corporates out of hibernation or selfpreservation mode. The revenue and profit hunger pangs are returning, fuelled by end users' changing consumption patterns.

That's not to say cost-cutting is not high on the C-suite's agenda – it remains unwaveringly so – but we are now witnessing a business environment, which is focused on providing a better customer experience – with technology at the heart of the offer.

The theory goes that there's nothing like a recession to put a business back on track. And, if that is the case, then technology is the ultimate change agent. For the CIO, technology is the perfect antidote to investment inertia – being both an enabler of innovation and a means to achieve cost efficiencies.

Business prioritisation - it investment

A recent study by Forrester has revealed some interesting forecasts when it comes to IT investment. In the report almost 3,000 IT executives claim that 50% of their future spend will be focused on supporting existing systems, while 20% will be attributed to expanding capacity for future growth. But, most interestingly, the remaining 30% is likely to be committed to "new initiatives".

So, where should this spend be ploughed? And why? The four major business priorities, for most CIOs, will be focused in the following areas. For you, getting a business grade solution to these needs is the ultimate end game. Business grade means flexible, scalable and capable. It also means costeffective, progressive and pragmatic:

1. CONSOLIDATING INFRASTRUCTURE
2. BUSINESS INTELLIGENCE
3. VIRTUALISATION AND AUTOMATION
4. BUSINESS CONTINUITY

1. Consolidating infrastructure

The primary issue for many corporates is the burden of legacy systems trying to cope with the enormous pace of data growth. Storage space, costs and risks are at the forefront of enterprise concerns, whether your information is hosted on or offsite.

Consolidating your exposure or reliance on a data centre or network of servers can be offset by an IT strategy based around virtualisation technology. While there is much hype around the cloud, it should also be acknowledged that there is also significant reticence too. Many CIOs and their executive boards fall into the common trap of making a straight-forward, like-for-like cost comparison between internal data centres and 'on-demand', pay-as-you-go cloud services. The issue with this is that it ignores the following self-owned/managed overheads:

- **Physical infrastructure related costs such as power, floor space and server utilisation**
- **Indirect costs such as increased networking and storage capacity**
- **Finance and procurement resources to manage the funding of new or upgraded storage**

One should also mention that all of the above are also reliant on that very finite of internal resources – the IT department. In contrast, outsourcing to a business grade hosted solutions partner can help you enjoy:

- **Fixed costs**
- **More transparency**
- **Greater flexibility**

In measuring up what your requirements are, it pays to clearly define what actually needs to be hosted on site and what can be migrated to the cloud. Two key questions should spring to mind at this juncture. What is the opportunity cost of tying up precious capital in depreciating assets? Will a hosted solution improve the internal and external accessibility and usability of data, models, tools and applications?

And, while being mindful of the hype around the cloud, two key trends cannot be ignored. Firstly, cloud storage has become measurably cheaper in recent years, given that a critical mass of adopters is building up and firms are benefitting from their economies of scale. Secondly, the process of pushing and pulling data to and from the cloud is becoming noticeably easier – and across multiple devices, including BYOD.

Be confident that you have a collaborative and proactive account handler, as it's essential that you establish a level of trust within this relationship. It's important that they understand the unique quirks of your business and can manage not only migration, but minimise disruption caused by any issues that might crop up on a day to day basis.

More tangibly, you also need to ensure you have a deep understanding and confidence in the support structures they offer in terms of pre-sales, technical consulting, project management and service delivery. Your support structure should be delivered in a way that suits you. No two businesses are the same and you need a unique, tailored service offering that will truly align with your business needs and support your business where it needs it.

You need the flexibility of scalable bandwidth in order to grow your connectivity in line with your aspirations. You need this to be delivered through a transparent pricing structure, so you can choose the service and price point that best suit your unique needs.

2. Business intelligence

Applying technology as part of amplifying the enterprise reflects both the changing nature of business strategies, and executive expectations about the role of technology in realising those strategies.

Mark McDonald, Group VP for Gartner Executive Programmes

Investment in analytics and information management allows businesses to understand the strengths and weaknesses in its operations. From identifying both efficient and inefficient internal working processes and tools to focusing on the most profitable customers, BI can be your biggest ally from both a cost savings and revenue generation standpoint.

This latter point – profitability – is vital, given that it is linked to growth and wider business strategy, not just IT strategy. Pointing your business towards the wants and needs of your most vital assets is almost always the best policy.

For example, while many businesses fail to implement mobile or e-commerce models, irrespective of their customer desires, valuable revenue streams are being lost - perhaps forever. In mature, competitive and increasingly global markets, the lurch towards technology is no longer a need. It's a natural survival instinct.

But it's not just technology that is the enabler, it's data too. Finding the perfect blend of data and technology can lead to true business intelligence. For the corporate enterprise, intelligence on customers, systems and markets is often extracted from 'big data' – the buzzword of the moment.

The fact is, we operate in a knowledge economy and data is increasingly used for generating insights and, ultimately, producing growth opportunities. Data, however, is expanding not just organically – through existing platforms and technologies – but due to the proliferation of social interactions, devices, sites, facilities, equipment, processes, applications and physical infrastructure.

Some argue that "not all data is created equal" and that, perhaps, is the golden rule of data management. It's vital for big business to handle their data appropriately – to adopt a strategy of classifying their information, through rule setting, at the point of creation.

This will not only minimise manual intervention down the line, but also enable this 'unused' resource or budget to be channelled into new IT initiatives – ones that will contribute to business growth or efficiencies.

Built into this classification process, enterprises should forecast when the value of data is likely to degrade, so that it can be re-prioritised for future storage and accessibility purposes. You can bring down the overall cost of hosting and security by always prioritising value above volume. In essence, allowing the quality of data to dictate your infrastructure needs, not the other way around.

Consider too the appropriate hierarchy of onsite storage, private and public cloud environments – remembering that cloud services will take out much of the set up and maintenance costs of data management systems.

Although there will be a general improvement in processing power to offset the rise in data volume, there are other reasons to strategically tackle this information explosion.

For example, customer behaviour on e-commerce and other online platforms provides an opportunity for big data to be exploited with careful management. When big data connected with purchasing information this gives a full view of customer behaviour, which presents an opportunity to nurture leads and create further opportunities for monetisation.

Companies that can analyse their big data, interpret the results and make insightful decisions may benefit from opportunities to implement initiatives such as stock, credit and risk management, cash flow prioritisation, sales forecasting and behavioural marketing.

Big data tools can also enable businesses to optimise web applications and detect for fraud, revenue and customer churn. In turn it can be used to improve the trafficking and sharing of resources, processes and data itself.

It's business intelligence as you've always known it – only smarter.

Big Data will join mobile and cloud as the next 'must have' competency as the volume of digital content grows to 2.7ZB (1ZB = 1 billion terabytes) in 2012, up 48% from 2011, rocketing toward 8ZB by 2015.

IDC Predictions 2012: Competing for 2020

Has your business adequately investigated and answered some of the fundamental technology questions?

Even more so, have you altered your IT and business strategy accordingly?

Is your supplier providing the right level of interaction to enable you to make fully-informed, correct decisions?

Here are just a flavour of the key issues you should be examining:

Would the use of new technologies help to improve customer lifetime value?

Do our competitors provide access to technologies which provide superior customer satisfaction?

Do we have the business grade connectivity to fully utilise all relevant technologies?

Do we have the choice of moving towards a fully managed and integrated solution immediately, or being able to implement it in stages?

3. Virtualisation & automation

IT priorities survey 2012: cloud, compliance and virtualisation come out top. As for infrastructure projects, professionals continued the emphasis on server virtualisation with more than half (58.3%) citing it as a top priority this year

TechTarget, 2012

The ultimate objective of virtualisation should be to help improve technology utilisation. Businesses annually waste huge amounts of investment on servers running at fraction of their capacity.

Making use of virtualised desktops, tools and applications not only improves utilisation, it also helps to simplify IT management due to having only one operation to maintain and administer. And, in the process, not only do your overheads fall, but increased scalability comes into view.

It's important to remember that legacy connectivity cannot always offer the speed, scalability and reach that a virtual environment needs. Follow these simple steps in your pursuit of a 'best practice' virtualisation strategy:

Know your network

Don't approach virtualisation from a purely server oriented perspective. It's essential to understand how all components of the IT infrastructure work together and align to communicate and interface with your employee base, and other stakeholders. If you know your server, traffic and growth patterns well, you're in an excellent position to harness virtualisation technology in the optimum way for your business, and implement the right solutions as part of a wider IT strategy that is aligned to – and can grow with – your wider organisation.

Understanding your network through proactive monitoring and management also gives network security a boost, because you're better equipped to spot any anomalies that might indicate a threat. Take the time to know your network – and what your network needs. Once you're travelling along the right network, take the time to conduct frequent network and security assessments – take stock of your environment and study network traffic. Ensure that you're working to your network strategy and, if not, find solutions to steer your business back to the right path.

Optimise your resource

Different skill sets are required within the IT department for a move to a virtual world. A move towards skills centred around network infrastructure is becoming apparent, rather than traditional on-site hardware maintenance and the management of application or software updates. Increasingly, budget is being allocated to hosted solutions and outsourcing to the data centre.

A holistic approach to infrastructure, as well as applications and interfaces is required. The first step is to establish where you can streamline your processes and where legacy connectivity can be consolidated and migrated to a business grade network.

Once you have established where duplication and unnecessary processes are occurring, you can implement a virtualisation solution that encompasses the needs of all components in your IT and telecoms framework.

Virtually future proof

Virtualisation has the inherent benefit of being flexible, and as such, scalable to future business needs but it's also important to appreciate the effects it will have on factors such as business processes, administrative rights, performance monitoring tools and security strategies, which will all need to adapt to your virtualisation strategy.

Enterprise level organisations will need to adopt high capacity Ethernet services to accommodate their virtual world and Data Centre networks. Many are doing this right now, in order to future-proof their investments. You need bandwidth that can be supplied at a granular level so you can scale up, or indeed down, in line with the evolution of your business strategy.

You need fast fixes in place, so that if anything does go wrong, you have the SLAs that an enterprise level organisation needs, to avoid lost time resolving issues.

Simplified management

You need a virtualisation solution which allows management, monitoring and reporting to be performed remotely: allowing you to view network performance, and to completely manage your systems without needing to attend a physical site. Through design optimisation, consolidation and convergence onto one network, processes can be implemented to draw the complexity out of the monitoring and management. This allows the CIO to leverage one "viewing platform" to understand quickly how traffic is flowing through the network and, going forward, establish where further consolidation can be implemented and processes streamlined further.

The data centre model provides the most streamlined approach to embracing virtualisation. The responsibility for security, for example, can be taken from the hands of the IT department and entrusted to the provider.

You should be demanding a data centre that can offer physical as well as data security 24 hours a day, 365 days a year, to ensure your information is only being accessed by your employees, as and when they need it.

Reliability and security

Security needs to be in built from the design stage – not bolted on once new processes or applications have been implemented. Consider security costs as part of the virtualisation design and implementation package. Ask questions of your provider: how will your legacy processes remain secure when running through a virtual network? What levels of protection does your data centre have in place?

If the reliability of your new virtual world is in doubt, you will lose the efficiencies you sought to gain from it in the first place. Ensure that you've got the business grade connectivity you need to virtualise properly, to reduce disruptive events, maximise business continuity, reduce server downtime and efficiently manage server maintenance.

Virtualisation is a fantastic enabler for organisations, and is lighting the way forward in implementing new applications and processes. To gain competitive advantage, you will need to look towards implementing a virtualisation strategy – but make sure it's the right one for you.

Work with a provider that truly understand your business, the level and layer of virtualisation you need, and the connectivity you will need to get the most from a virtual world.

4. Business continuity

The main preventative concern within UK businesses, and one that is holding them back from harnessing the benefits of an "always on" technology-enabled workforce, is the issue of security.

Businesses are right to be concerned. Global professional services firm, PwC, reports that security breaches remain at historically high levels and the cost to UK PLC is billions of pounds every year. Indeed, the number of significant hacking attacks on large organisations has doubled over the last two years.

With increasingly stringent compliance guidelines such as PCI and HIPAA, the cost of a security breach has also increased. Not only is it becoming increasingly complicated to remain secure – it's more costly when you can't.

Providing secure, on-demand access to an increasingly mobile, tech-savvy and demanding workforce is a challenge for the CIO. A high level of investment is required to protect vital assets and data stored in the cloud, whilst implementing security measures to protect a myriad of devices and ever-increasing volumes of data is no easy task, but still it remains business critical to ensure that the organisation is not put at risk.

Cut the complexity

By migrating all business processes and applications on to one network, under one provider – businesses are in a better position to carefully monitor and proactively tackle changes to system configurations, which could indicate an attack or malware infection. The sooner a breach is identified, the lower the cost of addressing it will be.

A managed IPVPN service with a hosted network firewall is an optimum way to consolidate and cut complexities within the Enterprise network. The network firewall concept is a next generation security appliance that hosts on behalf of customers. All sites on a managed IPVPN network will then utilise the same firewall (or optionally a pair of firewalls) to connect to the internet, allowing support for internet VPNs, so international sites and/or home workers can securely connect to the company's network.

Putting strategy first

Security controls will be more effective if they are designed as part of the architecture, optimised for each modular component and united by a common policy environment. A compartmentalised approach, on the other hand, can lead to weaknesses in security management.

Data centre and networking security have often been "bolted on" after the fact but it's essential to build in security and consider compliance in the design stage. Designed and built-in security will also result in cost efficiencies. It is significantly more expensive to retrofit security measures.

The data centre model is the most streamlined way to remain secure in the new world of work. All virtual services can be housed, administered and backed up in the data centre. This centralised model is less expensive to monitor and manage than a distributed environment and next generation data centres can deliver unrivalled scalability, connectivity and protection by combining top-level technological and physical security.

Police it

Symantec suggests that as few as 51% of enterprises have bothered to communicate a mobile security policy, or even some best-practice tips regarding usage, to employees.

To accommodate the trend towards access from any device, organisations need to upgrade access policies and to ensure that they address the additional challenges of the new ways of working: a mobile workforce that want the fastest connection, on their own device.

These should be your core policy considerations:

- **Have One: once your security strategy is in place, ensure your integrated program is documented in one policy.**
- **Make sure it is customised to your organisation – it should be the best fit for your business needs and take into account the requirements of your employee base.**
- **Make it available to the whole organisation – proactively. There's no point in having a policy that nobody sees.**
- **Ensure your policy matches what your security program is actually doing. Don't be afraid to revisit your policy to stay up to date with new advances in security applications – your policy is only as effective as it is relevant.**
- **Never underestimate the importance of auditing: It's essential that once your policy is in place and actioned, you ensure it is working through thorough and frequent audits. In the event of a breach, you need to have the reassurance that standards bodies will not find discrepancies in your security processes.**

The issue of security is important, not least in order to protect vital company data and assets, but to protect your bottom line. IT security is no longer just the domain of the CIO; it has become an issue of critical concern for the entire board.

Final thoughts

In the competitive world of business to business, the enterprise needs reassurances that IT investment decisions are based upon cost efficiencies, increased capacity and future growth. Your business grade technology therefore needs to deliver in four key areas:

Minimise cost

Minimise time to market

Maximise agility

Maximise competitiveness

Armed with these building blocks, the CIO and IT department can be left do what it does best – providing the business with tools and maintaining interoperability. After all, the availability and usability of technologies – whether they are leveraged by staff, prospects or customers – is vital to business prosperity. The adoption of easier to use programmes with simpler interfaces will help takeholders not only to focus on their objectives but, all importantly, meet them.

In contrast, a business culture and an IT investment strategy, which is based on least cost and minimal risk leads to under-investment, outdated legacy systems, increased maintenance costs, stretched resources and – most tellingly – competitive disadvantage.

The partner you work with should be able to provide you with added value in terms of identifying potential pain points, supporting you in optimising hosted solutions and establishing the best fit connectivity package for your needs, be that through broadband, EFM, Ethernet or a combination network solution.

Demand a business grade service to ensure you get the flexible, resilient, wide-reaching connectivity your business needs – at the optimum price point for your requirements. The network is the most scalable, costeffective platform for application delivery. Legacy architectures operate on the basis that the applications and content workers need to access is locally installed on laptops or desktops. The increasing diversity of endpoints today is well known and that computing model no longer scales. Now, the most cost-effective mechanism for delivering applications and content is through the network

The data centre model is proving to be the most streamlined way to embrace virtualisation, with all virtual services housed, administered and backed up in the data centre. This centralised model is less expensive to monitor and manage than a distributed environment and next generation data centres deliver unrivalled scalability to grow in line with individual business needs, connectivity to support businesses now, and the protection they need from increasingly sophisticated security threats.

The network has become the backbone of the data centre model. IT resources have historically been deployed in tight silos, but with virtual computing, those resources can be distributed to applications when needed. In this model, the network works as the enabler and becomes increasingly important as it is relied upon to deliver information and applications quickly and seamlessly to end users. Better customer service and increased productivity are just two of the rewards.

For more information on how business grade technology can boost your portfolio and maximise your revenue, talk to TalkTalk Business or investigate our connectivity portfolio here.