

Bring Your Own

Bring Your Own – fear it, tolerate it, embrace it? Is this the future of end user IT in your business?

Bring Your Own, or BYO as it is commonly referred to, has made its way firmly onto the IT decision-maker's radar. Whether it refers to devices (laptops, tablets or smartphones) or the software tools (productivity apps, file sharing, etc.) used to perform work tasks, end users are increasingly going outside of the IT perimeters set out for them and taking IT provisioning matters into their own hands.

A great deal of confusion – and so caution – currently surrounds the topic of BYO. At one end of the hype spectrum is the notion of BYO as an unstoppable tidal wave that caters to every whim of the ever-demanding end user while threatening to bring about a technology free for all. At the other is the understanding of BYO as a natural evolution of the existing desktop environment; a development that sees users gradually assume greater say in decisions relating to the tools they use for work, while simultaneously providing an opportunity for the IT department to transform its role within the business.

This Capgemini Point of View cuts through the hype surrounding BYO and aims to help you both decide whether it is right for your business and also shape the list of factors to consider before implementation.

It is important to first and foremost de-bunk the notion that IT departments are powerless to deal with BYO. On the contrary, in many organizations, interest in BYO is being driven by the potential benefits available to both the business and IT.

These benefits include:

A change in the way business users perceive IT

Bring Your Own is an opportunity to change the way the business perceives both IT as a department and also IT as the set of tools used to perform work tasks.

For IT as a department, BYO offers the opportunity to provide a consumer-like service to the business. By facilitating change and choice, the IT department can re-position itself as an enabler – rather than an obstacle – to improved productivity and 'value add'.

In terms of IT as the set of tools people use to perform their work tasks, BYO can help transform the notion of IT as a standard-issue platform that remains relatively standardized regardless of role into IT as a set of tools that can be tailored by the user to help meet the specific demands of the job at hand.

Empowerment of end users

BYO represents an opportunity for users to pick the tools they feel are right for their job and for businesses and IT departments to tap into the potential productivity and innovation benefits implied by consumer enthusiasm for the latest IT devices.

Forrester Research Inc. has identified a correlation between employee empowerment and tools: "The relationship between the tools you provide employees and the level of empowerment and resourcefulness is direct. While we can't prove that tools make HEROes, the evidence

that empowered employees have the tools they need is irrefutable.”¹ In a professional environment increasingly focused on the fulfillment of KPIs and personal objectives, BYO helps put the emphasis – and accountability – on employees to provision themselves with the tools that enable them to work to the best of their abilities.

Optimized IT investment

BYO carries with it the potential to change the way the IT budget is invested. Depending on variant implemented, BYO enables the IT department to generate direct savings (e.g. stipulating that users contribute to the cost of provisioning devices) or shift costs from the capital expenditure (CapEx) column to the operational expenditure (OpEx) one (e.g. by establishing a technology fund from which subsidies are granted to users). BYO is sufficiently flexible that initiatives can be mapped and modified to best suit the budgetary and strategic directions of the business and IT department.

An opportunity to change the shape of the IT department

As the trend towards business and IT alignment intensifies, so IT departments need to adapt to fulfill the needs of the business. BYO creates the opportunity to re-distribute resources and shift focus to those areas of IT that contribute more directly to strategic objectives (e.g. the development of business applications) and growth, while reducing the volume of resources dedicated to supporting non-strategic assets and initiatives.

What is driving the demand for BYO?

Increased consumer choice and enthusiasm for IT (the consumerization of IT), as well as generational, social and occupational factors, are driving users to bypass official IT channels and take it upon themselves to decide what their best IT fit is.

Changes in the end user IT landscape

Desktop virtualization, the advent of app stores and the increasing popularity of web- and cloud-based applications have paved the way for a change in the way IT services are provisioned, paid for and consumed. This inevitably leads to a re-evaluation of the extent to which devices should be considered strategic assets and so, the need for them to be provided and managed exclusively by the IT department.

IT budgets are coming under increasing downward pressure and businesses are demonstrating an increased desire to escape from the traditional CapEx-heavy (Capital Expenditure) desktop refresh lifecycles and reduce their support costs. This, in turn, is forcing IT decision makers to explore new cost models and ways of provisioning end user IT.

Increasing penetration by IT into work/home life

Driven in no small part by the falling cost of hardware, the prevalence of the Internet and the ubiquity of consumer devices equipped with compute capacity, IT has seemingly penetrated every aspect of our daily lives – both personal and professional. This, combined with our evolving approach to the ‘where’, ‘how’ and ‘when’ aspects of work, is causing increasing overlap between our personal and professional lives. As this convergence intensifies, end users and businesses are questioning the sense – financial and practical – of carrying, paying for and operating two separate sets of IT kit.

End Users

The profile of the typical end user is changing. The proportion of people in the workforce whose first experience of IT was as a consumer (as opposed to previous generations, whose first experience of IT will have been in the workplace) is growing. Commonly referred to as ‘millennials’, ‘generation y-ers’ or ‘digital natives’, these users know nothing else but being masters of their own IT environment and are far more likely to consider their personal IT superior to that which would typically be provisioned by the corporate IT department.

For these users, the imposition of a highly standardized corporate IT experience – one that could be considered restrictive in comparison with their personal IT – will likely be met with discontent or attempts to work around. It’s not just existing employees that need to be considered – providing an attractive end user IT environment or the freedom to choose can be viewed as an opportunity to differentiate when recruiting new talent.

IT is failing its user community

The consumerization of IT and the changing profile of the end user has served to widen the gap between the IT department and the end user community. This has led to the notion that IT departments are failing their users by not providing access to the IT tools people need to work effectively.

IT decision makers must understand that corporate IT cannot keep up with consumer IT and that attempts to keep pace are doomed to failure. BYO represents an opportunity for the IT department to move out of the authoritarian role it has traditionally occupied into one of overseer and coordinator of BYO initiatives. In this way, BYO can take place without the security threats, duplicated efforts and inefficiencies implied by disparate, rogue attempts to work around corporate IT.

What is Bring Your Own?

Bring your own is the notion of people using devices (smartphones, tablets or laptops) and/or tools (file sharing, productivity apps, etc.) other than those provided by the IT department for work purposes.

Depending on their individual circumstances, businesses will have different interpretations of this concept and how it can be applied within their organization. Capgemini has identified and provided an overview of the most-common implementations of Bring Your Own with a specific focus on the PC device (commonly referred to as BYOPC or BYOC).

	How Does it Work?	End User	IT Department	Business
IT Catalog	<p>Ownership/Payment The employer owns the principle work device. Employees are provided a budget and can supplement this from their own pocket if desired.</p> <p>Level of choice Device options are limited to a pre-defined list, typically from a single vendor. User privileges can be extended to increase user control.</p>	<ul style="list-style-type: none"> ⊕ Degree of choice and extended user privileges affords user some freedom to pick the right tool for the job. ⊖ Some freedom choice, but restrictive for those with a strong affinity to particular brands/devices. Potential for discontent remains. 	<ul style="list-style-type: none"> ⊕ Common platform ensures consistency of service. ⊕ Economies of scale benefits retained. ⊖ Security threats still present due to mix of personal/professional use. 	<ul style="list-style-type: none"> ⊕ Secure and safe systems (when right policies are implemented) ⊕ Best purchasing power – economies-of-scale benefits and procurement arrangements unaffected. ⊖ Traditional IT model – What you see is what you get. Will this do enough to improve user satisfaction and sense of empowerment?
IT Catalog & Bring Your Own	<p>Ownership/Payment IT supplies and owns the principle device. Employee owns and uses a secondary device.</p> <p>Level of choice Principle device determined by IT department. User free to choose secondary device.</p>	<ul style="list-style-type: none"> ⊕ Employee able to supplement standard corporate IT experience with preferred device. ⊖ Limited in comparison with purest form of BYO. ⊖ Unlikely to change the perception that the IT department is failing its users – more about users being given the green light to take matters into their own hands. 	<ul style="list-style-type: none"> ⊕ Service consistency and compatibility guaranteed on principle device. ⊕ Highest degree of manageability (for principal device estate). ⊖ Security threats possible when personal devices used to access corporate network/data. 	<ul style="list-style-type: none"> ⊕ Best of both worlds (theoretically). ⊕ Secure and safe systems (when right policies are implemented). ⊕ Best purchasing power – economies of scale and procurement arrangements remain unaffected.
Contractor Model	<p>Ownership/Payment Employee is free to use their personal device for work purposes.</p> <p>Level of choice User is free to choose device make and model – IT department is not involved.</p>	<ul style="list-style-type: none"> ⊕ Degree of choice affords user high degree of freedom to pick the right tool for the job (so, theoretically, high level of empowerment). ⊖ No guarantee of high-quality support from IT department. 	<ul style="list-style-type: none"> ⊕ Reduced provisioning obligations. ⊖ Greater potential for security and data breaches. ⊖ Increased support challenges due to device estate diversity. ⊖ Question marks over service consistency, performance and compatibility. 	<ul style="list-style-type: none"> ⊕ Potential for improved productivity and innovation from staff. ⊕ Potential CapEx avoidance. ⊖ Risk of damage to employer reputation – who monitors personal content stored on devices? ⊖ Reduced purchasing power – procurement agreements potentially compromised.
Bring Your Own	<p>Ownership/Payment Employee provides and owns the primary device (with or without stipend).</p> <p>Level of choice IT department stipulates minimum device specifications or specifies a limited number of makes and models.</p>	<ul style="list-style-type: none"> ⊕ Degree of choice affords user some freedom to pick the right tool for the job. ⊕ Reasonably high level of choice so greater sense of empowerment (theoretically, improved productivity and innovation). 	<ul style="list-style-type: none"> ⊕ Reduced provisioning obligations. ⊕ Certain level of service consistency guaranteed. ⊖ Increased potential for security and data breaches.* ⊖ Increased support challenges in comparison with traditional models. <p><i>* Though reduced in comparison with Contractor Model.</i></p>	<ul style="list-style-type: none"> ⊕ Potential for improved productivity and innovation from staff. ⊕ Potential CapEx avoidance. ⊖ Risk of damage to employer reputation – who monitors personal content stored on devices? ⊖ Reduced purchasing power – procurement agreements potentially compromised. ⊖ Potential taxation or benefit-in-kind implications (where stipend is provided).



“The gradual but powerful trend of Technology Populism is changing the way that technology is provisioned within organizations, with more individuals provisioning their own technology, sometimes with little regard for company standards.”²

Forrester Research Inc.

Beyond the hype: What to consider before embracing BYO

Security

Greater device diversity and a higher number of devices – particularly mobile devices – being used for work purposes represents an increased security challenge. In those instances where devices are work tools by day, family web-browsing equipment by night, the risk of corporate data being exposed to viruses, trojans, spyware and botnets increases. Whether through revised user codes of conduct, capabilities that enable devices or images to be wiped remotely or a combination of the two, any successful BYO initiative must be accompanied by measures that guarantee the isolation of corporate data and assets from everything else that finds its way onto a given device.

The role of the IT, HR, Legal and Finance departments

Any BYO initiative will require a fundamental re-think of who pays for IT (not just the devices and support, but also data plans and home internet connection), who is responsible for its management and who is accountable for devices, data security and responsible usage. These aren't all questions that the IT department alone can answer. Firewalls, VPNs, user privileges and sandboxed experiences will continue to play a key role, though increasingly, IT decision makers will need to work with the HR, Legal and Finance departments to define appropriate usage guidelines, policies relating to device ownership, responsibilities to protect sensitive data and even taxation implications (where stipends are provided to fund device acquisition).

IT Service Delivery

Though device diversity will depend on the type of BYO initiative introduced (i.e. total freedom of choice or specification- or vendor-specific) decisions will need to be made on how best to deliver IT services. Virtualization and streaming can help ensure data security but are reliant on network connection and compatibility with the existing infrastructure and applications. Web- and browser-based applications, meanwhile, help overcome compatibility issues, but again require connectivity and awareness of access device. Consider the role of different application delivery technologies and gauge the ability of service vendors to develop services according to common, accessible-by-all-devices platforms, such as html5. The centralized IT structure prevalent in so many organizations today emerged as a result of a desire for common standards and platforms on which IT services can be delivered. Lose this and service quality falls and costs spiral.

Usage, Licensing & Procurement

Software license management has typically been the IT department's domain but a BYO initiative may require a change in tack. Are business-provisioned services licensed per device, per user, or per virtualized instance? What about apps chosen and self-provisioned by the user without the involvement of the IT department? Who is responsible for checking the terms and conditions of their use, deciphering what constitutes personal use (in some cases free) and

what constitutes business use (and so likely paid for). Who is liable for non-compliance?

Depending on the type of BYO initiative deployed, there may be repercussions for IT procurement contracts and arrangements. Economy-of-scale benefits may be weakened and, in some cases, freedom to procure devices from multiple vendors may compromise exclusivity or minimum-purchase agreements with other vendors.

IT Support

The IT department will need to re-consider the accountabilities and capabilities of the Service Desk. Questions will abound... Who supports those devices used for work but not provisioned by the business? Should the IT department continue to be responsible for hardware support or should the purchase of a product-care contract be a stipulation of the BYO agreement? Who is to decide whether damage – physical or viral – has been incurred as a result of personal or professional use and how should such cases be dealt with? How best to prevent IT support from becoming a slave to two distinct sets of users – ‘conventional’ users and bring your own-ers? These are all questions that IT – with help from other departments – will need to address.

Next steps towards BYO

Considering introducing BYO at your business? Capgemini has the following recommendations:

Understand the security and manageability capabilities of devices before they enter the workplace

Do your homework prior to adding

devices and software to your list of acceptable Bring Your Own technologies. Different vendors are at different stages in terms of providing business-level security and manageability capabilities. Check which device and software vendors best address the security and manageability requirements of your organization and sector prior to approving any new technology.

Switch the security focus from infrastructure to apps and data

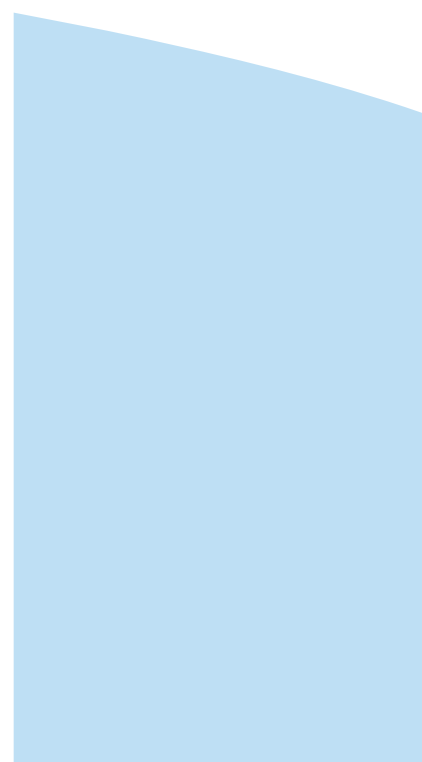
The broader range of devices and locations from which corporate data and applications will be accessed means that the one-size-fits-all, infrastructure-first approach to data security is less important than it has been in the past. Focus on data encryption and application-level security to mitigate the risk implied by the expansion and diversification of the end user IT landscape.

Know your users

Identify the users for whom BYO does – and just as importantly, doesn't – make sense. Power users of IT and content creators are good candidates to start with while task-based desk workers are unlikely to qualify. Seek to understand the workstyles, roles and IT needs of your users before considering firstly whether BYO is appropriate for your business and industry and, secondly, who within the business BYO is suitable for.

Identify potential BYO champions and run a pilot scheme

Proactively seek to engage in dialogue with BYO champions – typically conspicuous by their possession of the latest handheld devices – and seek to understand the business needs and challenges that BYO helps address while simultaneously educating them on



the potential risks implied and the need for adherence to policies. This is an important group and the high emphasis these users place on user experience makes them a potentially valuable sounding board for future initiatives being rolled out by the IT department.

Work closely with the HR, Legal, Finance and Marketing departments to develop the right policies and effective communication plans

Understand the impact and implications of BYO for the relevant parties within the business and develop policies that will ensure the company remains compliant. Once they exist, leverage marketing or internal communication channels to make sure users fully understand the scheme and are fully informed of their options, obligations and rights. While the technologies used to support BYO are important, the manner in which the ‘policy’ and ‘people’ aspects are addressed may well be the key factors on which BYO success or failure hinges.

Consider how IT services will be delivered... now and in the future

Assess your application portfolio and infrastructure estate to understand the compatibility of existing services with newer delivery technology and access devices, and consider how applications in the future will be developed to ensure services are available to all – regardless of device and platform. Consider the role of cloud and look to position the IT department as the overseer and integrator of the cloud-based services used by the business.

Tap into consumer IT trends

Learn lessons from consumer IT – after all, the consumerization of IT has contributed to the demand

for BYO. Consider using forums and wikis as platforms for users to share self-help solutions and productivity tips. Similarly, consider using an app store as a means of provisioning corporate applications, thereby enabling the IT department to centrally manage the portfolio of services but providing users with the option to self-provision in much the same way they purchase music or lifestyle applications for their personal devices.

IT department as the solution, not the problem

BYO and user tendencies to work around traditional corporate-provisioned IT have been driven in part by what users consider to be a restrictive, often stifling, approach by the IT department. Work to change this perception by adopting a ‘how best to empower’ rather than ‘how best to contain’ approach to those users wishing to ‘bring their own’.

¹ Forrester Research Inc.: “How Consumerization Drives Innovation”, May 23, 2011

“HERO stands for highly empowered and resourceful operative — an innovator creating, developing, or launching technology projects, generally from outside the IT department. HEROes most typically spring up in marketing, sales, and other customer-facing positions. But HEROes can be found in every part of your organization, building applications and solving problems using accessible technologies like Twitter, communities, wikis, blogs, mobile apps, hosted video, and cloud services from companies like Amazon, Google, or Microsoft.”

From: Forrester Research Inc.: “The HERO Index: Finding Empowered Employees”, June 24, 2010

² Forrester Research Inc.: “The Implications Of A New Dynamic Workforce On Sourcing And Vendor Management”, March 16, 2011



About Capgemini and the Collaborative Business Experience™

With 112,000 people in 40 countries, Capgemini is one of the world’s foremost providers of consulting, technology and outsourcing services. The Group reported 2010 global revenues of EUR 8.7 billion (approximately USD \$11.5 billion).

Together with its clients, Capgemini creates and delivers business and

Rightshore® is a trademark belonging to Capgemini

technology solutions that fit their needs and drive the results they want.

A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

For more information:
www.capgemini.com/outsourcing

Richard Gillam
Technology Strategist & Enterprise Architect
Global CTO Office | Infrastructure Services
richard.gillam@capgemini.com