Computing Viewpoints

Endpoints – shifting platforms

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The world according to Windows

Until recently, the accepted wisdom had long been that hardware choice was cosmetic and no longer that important: Windows PCs had won the war for desktop OS supremacy, with Linux flavours trailing a long way behind for coders, DIY enthusiasts and some core enterprise applications. In distant third, Apple’s ecosystem offered a superior walled garden, but one that, for most buyers, was simply too isolated and expensive to enter, and which for business users was a no-go outside of the art or multimedia departments.

Any new iteration of Windows – 98, Millennium Edition, XP, Vista, 7, and the rest – was headline news affecting nearly every computer user in the West, and often represented a wholesale hardware upgrade for business.

In such an environment, “hardware choice” for 90 per cent or more of buyers meant buying a desktop Windows PC that was either inexpensive, functional and robust, or one that was more of a lifestyle statement, but still essentially a faster, more powerful version of the same system. Badges aside, processor speed, RAM and storage capacity were the key. Everything else was just the three Cs: casing, connectivity and (systems) continuity. It was a self-propelling legacy.

Laptops – around en masse since the 1990s – were a complementary buy that, again, ran a standard version of Windows. Rather than an alternative paradigm, it was the same basic computer as the desktop, just smaller and more portable. For these reasons (plus their comparative expense and security exposure) laptop-based hot-desking has been seen as too risky for many large-scale enterprises.

In that distant-seeming world, HP was a style badge, Google was a search company that aggregated news, Amazon was a retailer, Apple was a stylish cult with a hardcore of Motorola fans, Samsung was a second-tier electronics company, and Nokia phones were what everyone wanted for voice calls and texts. BlackBerrys, meanwhile, were something that salespeople used on the road, and Facebook was an escalating argument between a group of students in the US.
**The new wave**

Today, of course, the landscape visible through the corporate window has changed beyond recognition, and that presents a challenge to IT strategists. HP is battling its own history for a new identity; Nokia has had to go back to the drawing board, in partnership with Microsoft; Google’s online estate is vast and its Android OS powers smartphones and tablets; Amazon underpins an invisible ecosystem of enterprise cloud services and has launched a low-cost range of tablets; Samsung is battling Apple for mobile mindshare and IP; Apple turned the IT industry on its head; BlackBerry has blossomed and withered and Facebook’s wealth means it can jump in any direction. Netbooks, meanwhile, are low-cost impulse buys.

But while the “old” desktop-accessed world may seem like ancient history, the challenge for IT strategists is that – with one or two exceptions – it still exists for business; the Noughties’ wave of consumer technologies, social platforms and mobile devices may have overwhelmed it in the public imagination, but IT leaders still understand, manage, support and secure the old world and its certainties.

While that wave of change crashes over the enterprise and its hard-pushed IT department, the underlying reality for most businesses is just the same as it was in the 1990s: Windows-based desktop PCs and client/server computing – with the complementary dimension of cloud-based infrastructure, platforms and applications delivered on demand in non-mission-critical areas of the organisation.

The rest, in terms of IT strategy and policy management, is an unwanted support and security headache – but, nevertheless, not something that IT leaders can ignore.

The result of that popular wave outside of the enterprise has been something unexpected for IT strategists. This is not the future they were promised by analysts, futurologists and the enterprise IT industry itself – a services-led, internet-delivered economy in which dumb, brand-agnostic terminals accessed endpoint-blind, on-demand content and applications from the net.

Instead, something unexpected has happened: this “future” – our present – is one in which hardware preference, application platform, operating system, lifestyle statements and even browser choice have all became core considerations once again – considerations that many believed Microsoft had eradicated for good with a functional omnipresence that few (beyond Steve Ballmer) wanted to holler about.

It is as if the mid- to late-1990s have been erased from popular memory – except that the 1990s model is what still informs IT decision-making, largely because it works and because large-scale, legacy enterprise infrastructures have been built around it. Tearing up that blueprint, throwing it in the bin and starting again is not an option for most enterprises.

So where does this leave IT leaders? Support for the (still widely used) Windows XP is being discontinued in two years’ time, and so many organisations face a tough strategic decision: which version of Windows should they upgrade to – if any?
How far should you go?

In this unexpected future, equally relevant questions for the enterprise now include: How far should IT departments go to support collaboration, mobile computing, social platforms and “bring your own device” (BYOD) schemes? What will the most productive and attractive environment be for the new generation of employees leaving school and colleges – who are all children of the internet, mobile and social media ages? And, ultimately, should organisations recognise that enterprise IT has left the desktop for good?

The tablet war that began in earnest with the mass popularity of the iPad intensified in the early summer with the announcement of Microsoft’s Surface “tablet with a keyboard” concept, and the debut of Google’s Nexus 7 tablet – which, like Amazon’s expanding Kindle range, is smaller than Apple’s all-conquering iPad. A smaller iPad is set to follow later this year, alongside the next-generation iPhone.

Microsoft, meanwhile, has been playing catchup. Inspired by the success of Apple’s iOS-powered iPad and iPhones, Microsoft plans to position its Modern UI interface and Windows 8 as a means of uniting its desktop and mobile operating systems – which would certainly be a benefit for corporate device management within the enterprise. In this way, continuity and legacy can be sustained. But that is not the same thing as future-proofing the enterprise for new technology usage patterns and behaviours.

The challenge for enterprises has been that, despite their mass popularity, the lack of physical keyboards makes many tablets unsuitable for standard office tasks, such as text-intensive or spreadsheet-style data input. For this reason, the many companies that are reluctant to allow staff (officially, at least) to bring their own...
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“The lack of physical keyboards makes many tablets unsuitable for standard office tasks”

device, may find that convertibles that are being developed in some part as a result of Intel’s Ultrabook initiative to re-invigorate the laptop market – hybrid tablet/laptop devices that have detachable or integral keyboards – become a viable and attractive option.

Even with third-party peripheral keyboards, the iPad is one of several tablets that are unable to operate some enterprise application interfaces that require a mouse. This is another area where Windows-based devices may have an advantage in the long run.

However, the truth remains that Apple's iOS-powered ecosystem of apps and devices, Google’s Nexus 7 and Android-powered devices, Microsoft’s Windows 8, and Amazon’s expanding Kindle range (connected to its own apps, retail platform and infrastructure services) prove that the entire computing industry has moved Apple's way, and is now as much about lock-in to a walled garden of branded services and exclusive content as it is about mobile access to the internet.

So where does this leave the hard-pressed IT leader, pestered from day to day with requests to support iPads, Android phones and all manner of other employee-owned devices?

All of this suggests that IT leaders need to accelerate their shift towards becoming more business oriented and less focused on maintenance, patching and fixing. Old IT policymaking was centred on the known quantities of client/server computing, desktop machines, uptime, disaster recovery and whatever was in the server closet.

It was device- and legacy-focused, in other words, which inevitably meant an IT department that was primarily concerned with keeping systems running, while managing the upgrade cycle of hardware, operating systems and enterprise applications.
But this century, mobile technologies and usage patterns have swept into the enterprise with a vengeance, with most pockets and briefcases containing devices that are as powerful as a corporate desktop, while also being a lot more portable – and insecure. None of these devices are standardised in any way; nearly all will have been customised to suit the user, with whatever apps and add-ons the user wanted to download.

It is not just devices packed with computing power, either: storage technology improvements mean that a USB stick the size of a keyring could contain the organisation’s most sensitive core data and be allowed out of the building unencrypted. Even the most security-aware organisations in the UK have been caught ill-prepared for simple human error.

But IT leaders should see all of this as an advantage, and not as a threat to their leadership or to the corporate systems they manage and maintain. It is quite the reverse: this is an opportunity for IT strategists to lead, by showing that they recognise the challenge and that they know how to meet it. The threat only exists for as long as it is left unaddressed.

The key is to adopt an agnostic approach that is more about usage policy and scenario-planning – IT leadership that is primarily about data-, security-, identity- and application management, in support of the business’ goals.

All organisations should recognise that having a workforce that volunteers to use mobile technologies at all hours of the day, seven days a week, at home, in the office and on the move, could represent a massive productivity opportunity, as well as freeing up the IT department to do what it ought to be doing: supporting the business.

IT leaders should work towards enabling these shifts in work patterns and behaviour, but within robust, sensible, carefully considered business and security policies, which specify the rules and the methods by which users can access corporate data or enterprise applications safely and securely, and in line with corporate IT guidelines.

**“Should organisations recognise that enterprise IT has left the desktop for good?”**
About Intel

Intel is a world leader in computing innovation. The company designs and builds the essential technologies that serve as the foundation for the world’s computing devices. Intel’s active leadership in the development of cloud computing extends across the cloud computing ecosystem and includes technology innovation, standards leadership, and first-hand experience – combining vision (where cloud is going) with know-how (how practical cloud infrastructures are built and deployed). This cloud computing leadership can be immediately useful as you consider and implement your own cloud computing infrastructures. Intel’s current products, as well as products in development, focus on the advances you need for effective cloud computing solutions.