

Does one size fit all?

What platform convergence means for TMT.



This speech was delivered to an audience of senior executives by David Tansley in November 2004. The dinner was the second in a series organised by Deloitte.

Our question this evening is 'does one size fit all?' I'll firstly provide a definition of what we mean by platform convergence, explain what the drivers are together with some of the benefits, and then draw some conclusions on what it means for all of us.

Those of you who were able to attend our first convergence dinner will recall that we used a very specific definition to cover the broad topic of convergence. At the macro level we defined convergence as "the successful application of multimedia products and integrated services that previously did not exist, or were provided separately, from organisations across the Technology, Media and Telecoms (TMT) sectors".

So essentially two previously discrete lines of business combine to create something new – this could be a new product or service, a new alliance, a new value chain structure, or a new economic model ... basically something that creates new value for the business.

What is platform convergence?

Focusing specifically on platform convergence requires a more explicit definition.

When trying to develop a definition it became clear that getting the boundaries right would be a challenge. For example, is the platform the mobile telephone, the entire mobile network, or both?

Fortunately, most people have an intuitive feel for when platform convergence is taking place. It could be using the same mobile device to make telephone calls and send and receive email, using the same cable and signalling protocol to send voice and data packets, or using your PlayStation to play games as well as watch DVDs.

In other words, there are three different levels at which platform convergence can take place. These are:

- The device – eg. mobile telephone, DVD player or PC.
- The network or bearer – eg. broadband, mobile or satellite.
- And also rules, protocols and standards – eg. Internet Protocol (IP), Session Initiation Protocol (SIP) or the DVD.

Each of these levels has different characteristics, and the way in which platform convergence occurs in each layer is driven by different things.

So, keeping all this in mind, we arrive at a definition of platform convergence that is simply "a single platform element – a protocol, a network or a device – that can be used for multiple and previously separate purposes."

There are already some good examples of this happening in practice. For example, Voice over IP (VoIP) – or IP telephony – is a good example of a single platform being used for multiple and previously separate purposes.

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The drivers of platform convergence

What are the drivers towards platform convergence at the various levels described above, and more importantly, is it a good thing?

Well, the rationale for platform convergence is fairly straightforward:

- First, the simplification and removal of duplication from a platform can lead to very substantial cost savings, which ultimately translate into the creation of additional value. If we stay with the VoIP example, the convergence of voice and data onto a single platform has the potential to substantially simplify the network, reduce maintenance and support costs, and ensure that the network assets are worked harder. Thus platform convergence can create the potential to deliver value for operators.
- Second, platform convergence has the potential to deliver substantial benefits to end users by creating a better user experience.
- Finally, platform convergence also has the potential to allow companies to both defend and extend their businesses. Yahoo!’s addition of voice and video over IP services to its instant messaging (IM) service, and the extension of its IM service onto the mobile platform is a textbook example of platform convergence as a driver for product extension. Other examples include mobile operators leveraging their platform to deliver content to end users, and fixed operators seeking to deliver multiple applications through a single customer connection.

As an example, look at the distribution of music over the internet using IP and the PC as a music device. The digitisation and electronic distribution of music has given customers much greater variety and choice through access to a bigger catalogue, while at the same time lowering costs – at least to the end user!

In parallel, it has created a lower cost channel to market for content distributors and has enabled different types of companies to participate in the value chain – for example Apple. Thus platform convergence can serve to fuel greater creativity and innovation in the development of new products and services.

Platform convergence therefore has the potential to generate enormous value – both in terms of cost savings, incremental revenues through product and service innovation, and by enabling the extension of a service provider’s existing customer proposition.

The levels of platform convergence

Achieving consistent success requires a greater understanding of each of the different levels of platform convergence. As mentioned earlier, each level has its own characteristics, and each is converging at a different pace and for a different set of reasons.

Protocol

Let’s look first of all at the protocol level. There is an inevitable move towards platform convergence at the protocol layer. IP – the internet protocol – could be considered the silent force behind digital convergence. It delivers a common language and a common mechanism for information exchange between all things digital.

IP is now much more than just the underpinnings of the internet. It has found its way into PDAs, mobile phones, domestic appliances, cameras, remote sensors ... and even buildings. IP allows products that were previously bound to a physical format to be re-invented in the digital world.

Across the TMT landscape, IP is becoming embedded and in many ways is already essential. It’s a safe bet that in five years’ time, IP will be the ubiquitous, de facto standard for the communication of everything digital. IPv4 may have been replaced by IPv6, IPv7 or even 8, but fundamentally, platform convergence at the protocol level will have truly happened.

And this is just the beginning. Although my comments have centred on IP, we expect to see a similar trend emerge with other protocol standards such as SIP also becoming pervasive, enabling the end-to-end initiation and control of interactions between any devices, at any time, anywhere.

In future, companies across the TMT sector will be able to build their businesses around a standard, unified set of protocols.

Network

However if we move up a level to the network, things begin to look rather different. A brief assessment reveals an ever-increasing choice of network and bearer systems. Consider the wireless world – just ten years ago there were essentially three types of network platform: AMPS (Advanced Mobile Phone System), NMT (Nordic Mobile Telephone System) and TACS (Total Access Communications System). Today there are at least a dozen platforms – most of which are entirely incompatible and have overlapping footprints. They include: CDMA, WCDMA, TDS-CDMA, EDGE, GPRS, HSCSD, EVDO, GSM, PCS, WiMAX, 802.11(a-g), UWB, PHS, ZigBee, Bluetooth.

Add to this a raft of different transmission frequencies, signalling methods, data formats, interface standards and charging schemes, and you have a picture that is arguably far more divergent than convergent.

So why has convergence not yet happened at the network bearer level? We think there are three main reasons: lack of customer demand, current vested interests, and timing.

Starting with customer demand, we currently all use many different networks to support different applications in different circumstances. For example we may use broadband for data access, mobile for voice and messaging, and Bluetooth for the automated synchronisation of devices.

To date there hasn't really been a huge pull from consumers for a single, converged network. I think it's more likely that we'll see the evolution of a world in which several types of network exist comfortably side by side, fulfilling different needs and functions, for different groups of customers.

The real value lies in being able to access these different networks in a standard way, using a standard interface, a standard authentication and security mechanism, and a standard way of communicating presence and personalisation settings.

But even for that to happen a great deal needs to change. There are substantial vested interests behind today's network platforms. Billions have been spent installing cable, digging roads to lay fibre, and on acquiring mobile licences and building infrastructure. I can't see any of these players being prepared to concede defeat – at least not just yet.

Finally, it may just be that the timing is not right. For networks to converge successfully they have to have reached a reasonable state of maturity, with well-developed standards and a critical mass of user adoption. It may simply be too early to consider converging today's network systems this early in their technology cycle.

But IP still has a role to play. If we assume that 'IP in everything' is the most likely outcome in the TMT space as a whole, then those networks that are IP-compatible or capable stand the best chance (a) of surviving and (b) of creating value through convergence later on.

So I believe that we are likely to witness a Darwinian 'Survival of the fittest'-style battle – and currently the fittest are those networks that are IP-compatible.

Devices

Finally, let's discuss the device level. This is often the area that generates the most interest because new gadgets are very tangible. However, at the device level, platform convergence is actually very rare – in fact, divergence dominates. If you think about the devices in your home, your car and your office... they are typically based on very different platforms and satisfy very different needs. And often the natural replacement cycles are slow.

And in the most part, that works fine – companies innovate by creating proprietary technologies to support new products, because they know that the resulting novelty and exclusivity is worth something to customers. They use their platforms for differentiation, customer segmentation and of course, value creation.

So far, there is only scant evidence of platform convergence at the device layer. But there is some ... the RIM Blackberry is a reasonable example. The Blackberry represents successful platform convergence – it combines a full-blown email solution with voice calling and messaging, on a device that runs on a wireless network. It's still of course a niche offering, but does at least serve to demonstrate that platform convergence is possible and potentially profitable at the device level.

The same applies to other examples such as the PlayStation 2 – a next generation gaming console and DVD player in a single box, launched at a time when most households had neither – providing double the reasons for purchase.



“Platform convergence is real, is happening and has the potential to generate enormous value. But it’s early days yet ...”

If you would like to discuss any of the points made in this speech, please contact one of the hosts of the convergence dinner series:

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Does one size fit all?

The answer is yes, maybe and no (but not necessarily in that order!). Let me conclude by drawing out a few observations and closing remarks.

- My first observation is that there is a logical sequence to platform convergence that almost by definition has to start at the protocol layer. In essence, by building from the protocol level upwards, companies at the very least deliver the capacity to converge. Without protocol convergence, platform convergence at the network and device levels becomes functionally and technically more difficult, if not straight impossible.

So at the protocol level, one size does indeed appear to fit all. One protocol will power all things digital. IP will pervade every aspect of the TMT world, and will be the foundation on which the future of the industry is built. You can’t envision having a world with intelligent devices, multimedia appliances and broadband communications without a single all-encompassing protocol and set of rules that allows all of them to interact with each other, and the user, in a meaningful way. So for me, platform convergence at the protocol level is a fait accompli.

- My next observation is that, at the network bearer level, we expect to see a story emerge that’s more about consolidation than convergence in the medium term.

In spite of the rather chaotic picture today, it’s quite likely that we’ll see a gradual reduction in the number of different network types. For example, WiMAX may well make wireless LAN obsolete. ZigBee may never dent the Bluetooth market, and so on.

Putting voice, data, games, music and other offerings over IP-based networks of different types will continue. The key will be to ensure that customers are able to access these different underlying networks in a standard way, such that they are ‘always best connected’.

- My final observation is that divergence still has a very powerful effect in shaping customer behaviour. In fact, in certain respects divergence is a far greater source of value creation. Let’s face it... customers are hardly queuing up in stores demanding convergent devices. Mostly, customers derive value from choice and customisation.

At the device level, I really don’t envisage platform convergence on a mass scale for a long time to come...and more to the point, convergence will always be subordinate to divergence – divergence drives innovation, segmentation, differentiation and value growth. Until customers start asking for convergence, it’s unlikely to have a defining role in all but a handful of niche devices.

Platform convergence is real, is happening and has the potential to generate enormous value. But it’s early days yet ... and for the time being, the only level on which platform convergence is a dead cert is the protocol and controls level. The network and device levels are still more open to debate.

The issue to take away is how does platform convergence affect our business? Are we ready for an IP-based world? Are we ready to make bets on which networks survive and which ones fall by the wayside? And are we close enough to our customers to understand how platform convergence can generate new value for... and from... them?

Two further research notes will discuss convergence at the product and service and organisational levels.

For further information, visit our website at www.deloitte.co.uk

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