PLATFORM ALTERATIONS



The spread of networking has increased the power of the platform. Professor N Venkatraman, David J McGrath Jr professor of management at Boston University School of Management, draws on the university's Lucent-funded GMII research into emerging trends in the mobility space to explore the role of platform development in the network era

Information and communication technology is impacting businesses at multiple levels. Products are becoming more digital and more connected; business processes are becoming both more dispersed and more information-intensive; and service delivery – be it local or virtual – is being critically shaped and supported by superior data, information, knowledge and insights. There are no industries or markets where communication technology is irrelevant. In short, we are becoming networked at a fast pace. But our business thinking has failed to keep up.

Networks bring the concept of platforms into sharp focus. For example, it took many years for HP-Compaq and Palm to realise they were in the business of platforms and not products. These companies have now realised a PDA is not intrinsically valuable but only when supported by applications and interoperating with other platforms like personal computers. So recognising the power of the platform is the first step. The winning game then calls for simultaneously increasing market share in terms of customer volume, along with accumulating the lion's share of supporting applications.

This duel strategy has significant implications for the wireless market as it evolves towards 3G networks and services.

Platforms are powerful in many ways. In a wireless context, they allow individual end users easily to deploy customised add-ons that have been developed to operate seamlessly with a specific platform; they allow telecom operators to launch new services easily and to customise individual services for different market segments. Platforms also allow enterprises to think about a portfolio of products and services customised for different market segments.

Platforms fall into four main categories.

Platform as a product

Some companies are in the business of selling platforms so that customers – individuals and companies – can effectively integrate and interoperate a set of components. Microsoft Windows is a classic platform in this mode: the PC changed from being IBM-compatible to being Windows/Intel-compatible. That's the reason for Microsoft's success. It did not do it alone but with a set of co-creators – most notably Intel, HP-Compaq and Dell. The power of partnership in the evolution of world-beating platforms is an important lesson the wireless industry has been slow to assimilate. But the point here is that directly or indirectly, customers pay for Windows not because it's intrinsically valuable but because it's the glue that makes other products and components work.

Sony is another platform vendor in the product mode. Sony's PlayStation is the games console that also connects to the internet. The console itself is of limited use in isolation but gains value because of the many games available for it. Recognising that next generation consumers may not use PCs but games consoles as primary gateways to the internet, Microsoft responded to Sony's challenge by introducing the Xbox game console to defend (and extend) the Windows platform. Suddenly Sony – a consumer electronics giant – finds itself in competition with Microsoft – a software giant. That's the business challenge of the network era: industry boundaries can disappear overnight. Wireless operators and vendors should be mindful that their industry has entered a period in which historical dominances are likely to be challenged.

Platform as channel

In the network context, a channel acts as a platform that enables customers to access a wide range of products

and services. Amazon made early gains in the e-commerce arena because it offered a new channel for consumers to access books and other products. Is the company a bookseller, a music or video store or a phone vendor? Where does its product-line end? To a degree this decision is made not by Amazon but by its customers. If they stop buying their mobile phones from Amazon, the company will stop carrying them. The platform Amazon has built is based on superior databases, distinctive analytical engines that 'recommend' related products and streamlined order processing. Amazon can extend its platform as long as customers allow themselves to be served by it. The vendor is also developing applications so that other smaller companies find it easier to create an Amazon shopping area within their site.

> "The wireless environment offers a significant opportunity for the 'mobile channel platform' to emerge because of the value-add of location."

The wireless environment offers a significant opportunity for the 'mobile channel platform' to emerge because of the value-add of location. But when is a location-based offer helpful and when is it intrusive? Who will customers trust as the custodian of such data? Just as Amazon protects the privacy of individual purchases but uses sales data to make the channel more efficient, what can a mobile channel offer that attracts customers and incentives purchases? How should you price the channel gateway? Who controls the look-and-feel of the screens on these devices?

We have barely scratched the surface of the potential of mobile internet as a customer channel. The opportunities are staggering. It's also clear that in retrospect downloading ringtones and SMS messages will appear faddish and marginal once mobile devices become the primary access point for nearly all products and services.

Platform as service

A service platform is an extension of the channel concept, in that specific services are marketed on the platform as a result of a better understanding of customer preferences and the effective exploitation of such preferences.

Consider NTT DoCoMo's i-mode: the customer buys into a particular service platform on the basis that content and services will be channelled through the i-mode platform. Some of these services are likely to be location sensitive. Customers pay subscription fees to access specific sites and NTT DoCoMo takes a percentage of such transactions in addition to the fee for delivering the basic i-mode service. The core billing and service delivery platform can be scaled up rapidly to meet the demands of the customers (more than 25 million users) and service providers (several thousand official sites). This is a classic service platform.

Or take instant messaging (IM) in a wireless context. Customers clearly prefer a single IM service that operates across multiple devices – desktop, laptop, phone, PDA and so on. This means any company developing the service platform in this arena cannot simply treat the wireless as a separate concern but needs to make the requisite hooks into related areas and services.

In the world of telematics, General Motors offers OnStar as a telematics platform to deliver a range of services like door-unlocking, remote diagnostics and emergency services linked to airbag deployment and activation. In addition to such functionality, the company also offers a set of concierge services like news, shopping, weather, traffic and music. This is clearly a service platform in the mobility space as General Motors has become a reseller of cellular minutes and capacity. At the same time, OnStar serves car vendors other than General Motors. In most cases, the telematics company receives a monthly service fee as well as a share of transactions executed on the service platform. Who will be OnStar's competitor in the future? Other car companies? Mobile operators? And where does General Motors' automotive business end and telecom business begin?

The fact is such demarcation makes less and less sense in the network era.

Until recently, services have been conceived and delivered piecemeal because no single market sector has had the ability to deliver a holistic, integrated suite of services. Now the mobile service platform has the potential to alter radically how customers receive services and how much they pay for them; it will redefine service value propositions and change the competitive landscape across a wide range of service industries.

Platform as process

This is a situation in which the platform may not be visible but is useful for the creation of end user products and services. This is the 'invisible' or 'back office' process platform. In the mobile telephony arena, consider the jockeying going on among Nokia (Symbian), Palm (Palm OS) and Microsoft (Smartphone). Customers may not discern the difference between platforms, but each group of players is striving to get its version adopted as the core process for developing a suite of services in the wireless space. Keeping with the network theme, each is trying to enlist leading device manufacturers to commit to its particular platform to create distinctive features for their customer segments.

There are many other invisible process platforms.

- Groove Networks is creating a platform for peer-to-peer interactions;
- a wide range of companies is seeking to establish the micro-billing functionality on the mobile device;
- Microsoft's recent .NET initiative is an example of a process platform designed to encourage a variety of products and services to operate under proprietary specifications;
- integrator SAP is in the process of providing hooks to its enterprise architecture so that the business processes can be extended to mobile devices;
- Qualcomm's BREW is an example of a process platform focused on high-speed data to mobile devices.

These various initiatives may appear discrete but are converging elements of an emerging platform that strives to integrate disparate parts of enterprise communications architecture.

The emerging shape of the process platform is a major issue for those dealing with mobility applications supporting enterprises (as opposed to consumers). The battleground for the process platform will, for example, determine how quickly insurance companies develop mobile applications for their claims agents and underwriters to incorporate multimedia capability; it will dictate how fast the construction industry will adopt this technology to coordinate its activities. The availability of the process platform will also dictate how mobile knowledge workers in different industries redefine the boundaries of their work – seamlessly extending their activities from their offices to client locations to conference centres.

Why do platforms emerge?

The distinction between wired and wireless will be arbitrary in next generation communications infrastructure. From an end user perspective, business processes need to be seamlessly designed and executed further to blur the distinction, whether they be how information is displayed on different devices or in the selection of appropriate mode of interactions with the customer – for example, voice versus data depending on the context. Companies will be rewarded according to how well they design and execute their business processes on the next generation infrastructure – incorporating the functionality of the mobile internet.

All platforms emerge as a result of networks and interconnections. They become powerful through two types of network effects – direct network effects (customers find it more valuable as more users embrace it) and indirect network effects (other companies find it attractive to design and develop their offerings to interoperate with it). What makes platforms so important is that a winner in the platform race gains significantly more than its closest competitor due to a phenomenon called 'increasing returns to scale.' In simple terms, this means the leader attracts more customers and complementary modules simultaneously and creates a positive feedback cycle.

Many competitive battles in high tech markets are about network effects: look at the global competition between various mobile standards – GSM versus CDMA in the access network specification; Symbian versus Palm versus Smartphone for devices.

As noted, Amazon's success is based on its ability to create a broad-base network of products and services (indirect network effects) along with a growing customer base (direct network effects). As more customers buy more products from Amazon, there will be incentives for different manufacturers to sell through Amazon's channel. This creates a positive feedback loop propelling Amazon to win over other less networked companies.

Winning in the network era

The big question is how companies should incorporate platform concepts into the development of business strategy? Here are some key considerations that help focus discussion in a wireless context.

Which type of platform impacts your business?

For infrastructure vendors, the platform is a product. Is it possible to establish a superior product platform that ▶

is attractive to current customers – ie. telecom operators and potentially new customers that may enter this arena?

For telecom operators like Orange or Vodafone, AT&T Wireless or Sprint, the pertinent strategic discussions revolve around the ability to establish one of two platforms. First, the creation of a channel platform so that customers use their devices for a high percentage of their service interactions – ie. from work to play to commerce. And second, transcending their role as passive conduits of information, to what extent can operators earn service fees based on a service platform that exploits superior intelligence about customers? Finally, system integrators and those businesses concerned with delivering supporting infrastructure are focused on the process platform.

> "One thing is clear: if you fail to see how the platforms are emerging, your strategy will be weak and marginalised."

Irrespective of where you are located in the evolving business network, one thing is clear: if you fail to see how the platforms are emerging, your strategy will be weak and marginalised.

Who is likely to shape the platform in your industry?

The biggest mindset challenge for wireless industry players centres on a recognition that platforms cut across industry boundaries. That's the power of networks. They transcend traditional boundaries and challenge the competitive landscape. When Microsoft launched Car.NET as part of its .NET initiative, it signalled its desire to influence the design and development of automobiles. By making the Car.NET platform available to the automakers, Microsoft has already entered the competitive fray. By entering the video game console space with Xbox, Microsoft is again signalling its intent to be the platform architect in video games.

The reason why platforms are strategic in the network era is that traditional industry leaders may not have the requisite technological capabilities and thereby lose their position to someone with superior networking technology. You may think that you are a leader in the telecom industry, the way it was defined yesterday, but can you defend your margins and growth in the face of different emergent platforms? Can you defend your 'cash register' in the face of these changes or will you get marginalised?

How will these platforms change?

Recognise that the shape and scope of platforms are far from static. This is largely due to the evolving power of information and communication technologies. OnStar started with safety as the focus but evolved to include convenience and concierge services. i-mode could shift to become a payment mechanism. Sony's Playstation-2 could morph into a digital command centre controlling home networks. Mapping the plausible trajectories of platform evolution will help you get valuable insights.

Do the various types of platforms connect?

The four main types of platform operate within specific markets in an interconnected fashion. In a wireless context, infrastructure vendors may focus on the product platform while telecom operators concentrate on the channel platform and other enterprises on process and service platforms. Since these platforms are continually evolving, players need to work together to ensure contiguous platform iterations deliver value to all concerned – including customers. Once you array the different players focusing on the different types of platforms, you see them as a business ecosystem that creates new value. The business is no longer an island in delivering customer value.

Can you successfully navigate in the network?

As we have seen, by definition platforms require the support of alliances and partners. i-mode's success is founded on its portfolio of alliances and partnerships with device manufacturers and content providers. This kind of network is based on mutual dependency and co-sharing of revenue and margins based on distinctive capabilities. Orchestrating a network or ecosystem with its dynamic set of relationships is a hallmark of winning strategies in the brave new world. Many companies still have the 'I win; you lose' mentality when it comes to dealing with partnerships. But a networked world calls for understanding the partner's distinctive competencies and the partner's drivers of margin and navigating in such a way that both win. ■

http://management/bu.edu/research