

Commentary on mobility trend

Ready or not – here comes Mobility: and it's coming fast!

The end-user has more power than ever before

Enterprise mobility, cloud computing, bring your own device (BYOD), the consumerisation of IT, collaboration, social media... the list of ICT trends is large. But while the vast array of devices and capabilities at the fingertips of end-users has redefined the way we live, work and connect, the current megatrend in IT departments is that they're overwhelmed, overburdened and struggling to enable and support users in this era of pervasive mobility. However, with proper capacity, coverage and performance optimisation, organisations can begin to ride the mobility wave rather than get dragged under it.

Who's in charge of procurement?

According to Nadeem Ahmad, Dimension Data's Global Technology Director for Network Integration, when it comes to new devices on their networks, many organisations are playing catch up. "IT teams can't stop the proliferation of consumer devices accessing their networks, even if they wanted to. The days when the IT department dictated what you work on and where you work are over. The end-user has more power than ever before. In fact, BYOD is one of the most influential trends to hit IT, and has literally redefined the way devices are used in the workplace," adds Ahmad.

Employees want to integrate their personal and professional lives using their mobile devices and leverage the productivity gains that anywhere, anytime, any device connectivity provides. Organisations are being forced to adapt quickly to the consumer device phenomenon or lose their relevance in what is now a world 'on the go'.

Recent statistics indicate that on average, employees have 2.5 devices each. What's more, they expect to use the advanced functionality and applications these devices offer – whether watching videos or Voice over WLAN – anywhere, anytime. In addition, Cisco predicts that by 2016, mobile connected tablets will generate almost as much traffic as the entire global mobile network does today.

Tablets are just the latest bandwidth hogs, and – according to industry analyst firm, Gartner - "just the tip of the mobility iceberg". "When you consider that the media tablet market didn't even exist two years ago, the only thing you can plan for when it comes to mobile innovation is more, more, and more," says Ahmad who points out that a well-designed, pervasive WLAN infrastructure used to be a 'nice to have' but it's now rapidly become a 'must have' necessity.

“The good news is that there’s much that organisations can do to help with the coverage and capacity of their wireless network and meet user requirements around service, performance and seamless mobility,” he says.

Let’s talk infrastructure

In particular, *802.11n enables optimal coverage, reliability and performance across the corporate network infrastructure for data, voice, video and other services vital to supporting mission critical mobile applications and services so if you’re still nursing along a legacy 802.11 a, b or g infrastructure, it’s time to upgrade. And in many instances, connectivity plans need to include mesh topology to support communication in emergency situations, outdoors or in harsh environments.

When designing a high-density WLAN, it’s also important to consider the performance implications of all the tablets, smartphones and other Wi-Fi devices in a small area and that the integration of these multiple devices occurs with ease. Today’s newer mobile devices all use 802.11n, but IT needs to make sure that other users with older devices and older technology – still common in the workplace – don’t suffer.

In reality, many IT departments have been looking at this from the wrong end. “They’ve been so busy making sure the executives or the sales guys have the latest tablets they want and trying to cater to end users bringing in their own devices that they haven’t given enough thought to the fact their WLAN wasn’t designed for all these devices,” explains Ahmed. “But if you don’t optimise your technology and infrastructure, your network will simply not be able to withstand this uncontrolled explosion of new devices.”

Heavy traffic forecasted - expect delays

Gary Middleton, Dimension Data’s Business Development Manager for Network Integration believes we only need to look at the traffic forecast to understand the magnitude of the problem. According to a recent Cisco report, between 2011 and 2016, there will be an 18 fold increase in mobile data traffic. This translates to a compound annual growth rate of 78% over five years.

“That’s huge”, explains Middleton. “It’s almost doubling the amount of traffic per year that will be handled on global networks. Of course, not all of that will be on the enterprise network: much of it will be on the service provider networks. However, - any way you slice it - it’s massive growth and organisations need to prepare the networks for this,” he says.

According to Middleton, it is one thing getting these devices connected to the network: the challenge is managing how all this new traffic affects network performance. “A smart phone now generates 35x more traffic, and a tablet 121x more than a regular cell phone. This amount of traffic - and the rich content, graphic data and ingenious applications that make these devices so attractive - are extremely tough on the network, and if not addressed, will affect performance,” he warns.

Intelligent networking

He says this is where intelligent networking becomes so important. “Organisations need to apply the concept of context. What is being connected; who is connecting; where they are connecting; from and what are they doing? This form of meaningful context is important when handling the network traffic and applying network resources in an appropriate way.”

With the ability to set policy on the prioritisation of traffic, organisations can make sure that, when the network is flooded with traffic, the business critical applications will get the bandwidth they need first.

A ‘free for all’ BYOD policy could come at the cost of mission critical applications. If an employee is at a client and cannot access the information he needs to close a deal because a training seminar is being transmitted to 50 users, then mobility could be getting in the way, and as a result, will stop enabling business.

Middleton says there are many technologies that can be applied to the network to improve performance and manage traffic better. “For example, it’s possible to load-balance users across applications using the context information we have - and even make sure that an iPad receives a more mobile version of an application, so as not to cause bottlenecks on the network.”

Planning for progress

Historically, organisations planned and budgeted around a seven year depreciation of their network. However, with (just) mobile traffic growing at such exponential rates, that seven year depreciation period will not apply anymore. The pace of technology innovation means that the usable life of the capital asset is much shorter. Clients that are holding out for calendar driven refresh over business-agility driven refresh are at risk of falling behind their more ‘mobility conscious’ competitors and losing their appeal to tech-savvy talent.

What we know for sure is the ever-increasing number and type of employee-owned devices in the workplace will be more bandwidth and information hungry than ever before. And

secondly, without proper consideration and future-proof planning, the IT headache is going to get bigger, particularly when network performance really begins to suffer.

“Failing to plan is certainly planning to fail when it comes to enterprise mobility,” says Ahmad. “Today, IT departments take a reactive approach, which is understandable given the speed at which all this is happening. However, it’s critical they become more proactive and put a plan in place. When it comes to the various disciplines of enterprise mobility, we are helping more and more clients map the current stage of where they are today, where they want to be in the future and put together a clear development path to ensure they achieve these objectives,” concludes Ahmad.

-ENDS-

***802.11n** wireless networks let you create a seamless working environment by combining the mobility of wireless with the performance of wired networks.