

Mobile World Congress 2010: Mobile Network Architecture Takes Center Stage

Amid the buzz of operator deployments and new product announcements, mobile network architecture solutions that help service providers better manage the explosion of mobile data are finding a captive audience. Interview with Andy Capener, Director of Service Provider Marketing for mobility at Cisco.

Wireless Broadband Perspectives - WiMAX.com Weekly Series

Sponsored By:

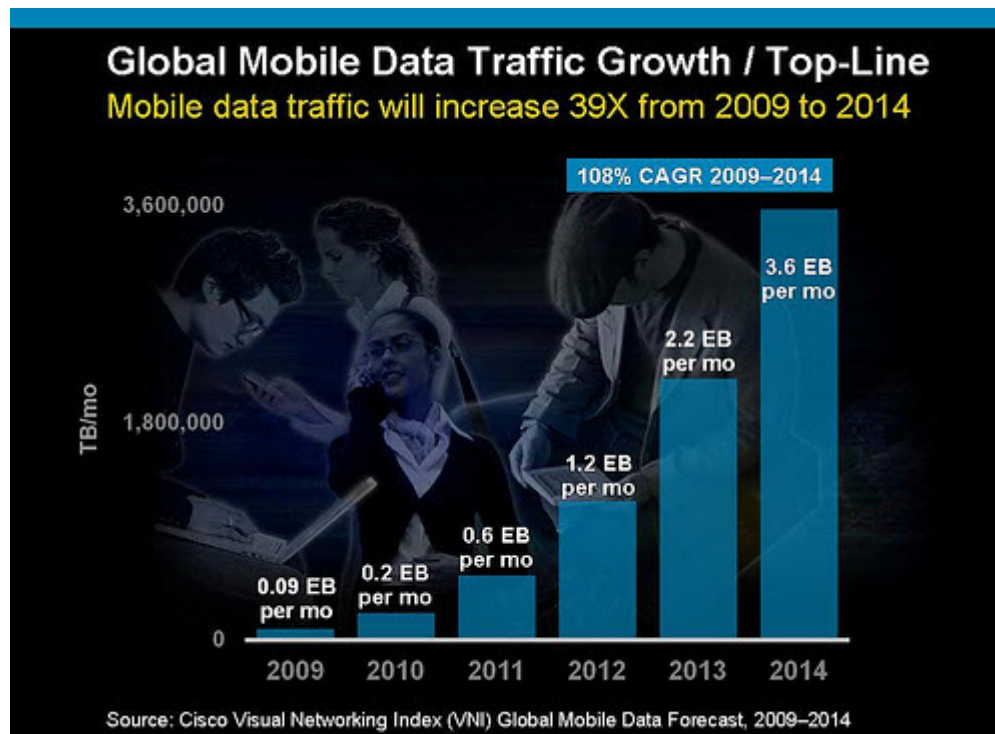


For the next several months, WiMAX.com and Cisco will be featuring weekly topics and perspectives from the WiMAX & wireless broadband industries. This week, we talked with Andy Capener, Director of Service Provider Marketing for mobility at Cisco (formerly with Starent Networks) on the recent acquisition, the growth of the mobile internet and what it means for service providers.

With the enormous opportunities on the horizon for 4G wireless networks, new companies are leveraging their advantages to help service providers better manage their mobile networks. While traditional infrastructure vendors such as Alcatel-Lucent, Ericsson and Huawei have been offering complete, turnkey mobile network platforms, new vendors such as Cisco and Juniper Networks are leveraging their extensive enterprise and IP-core experience and have recently announced competing products.

The driving force behind these solutions is the tidal wave of data forecasted for mobile networks. Last week, Cisco released the results from its Global Mobile Data Forecast for 2009 to 2014. What was interesting was not the conclusions themselves, but the size and magnitude of the growth.

The Internet is becoming mobile. As with mobile phones, more people will be getting online wirelessly than with a fixed broadband connection. While the first 50 years of internet was defined by a "wired" connection, the next five will be defined the wireless internet. By 2014, Cisco predicts that mobile data traffic will increase a staggering 39 fold from 2009 to 3.6 exabytes per month globally (an exabyte, by the way, is equal to one billion gigabytes). Today, the average mobile broadband connection generates 1.3 GB of traffic per month, but by 2014 that number is projected to grow to 7 GB per month.



Cisco Visual Networking Index (VNI) Global Mobile Data Traffic Growth

More video on mobile networks. Following a similar trend with the fixed internet, video content will account for 66% of all data traffic on mobile networks by 2014, a 66-fold increase from 2009 to 2014. While watching video on current generation mobile networks is often slow, faster WiMAX & 4G networks will create a better user experience driving consumption and demand even further. While most video traffic today consists of watching YouTube, faster network uplinks and integrated video cameras on handsets will make true, two-way video conferencing possible for the first time.

More mobile devices & new form factors. According to the report, by 2014 there will be an estimated five billion personal devices connecting to mobile networks, as well as billions of machine-to-machine devices. There will also be new larger, more media-rich types of devices such as tablet PCs as well as the Apple iPad. If the current performance issues of AT&T's network resulting from the iPhone are any indications, operators must manage network resources more efficiently or risk deteriorating network performance and loss of customers.

So what are the implications of this data growth on mobile networks? How are mobile operators going to deal with this tidal wave of data demand and more importantly, how are they going to do so profitably?

One of these companies helping to solve this challenge is Starent Networks which was acquired by Cisco last October. While preserving the organizational structure of the former organization, the company has been quickly integrated into Cisco's new Mobile Internet Technology Group under the leadership of former Starent CEO Ashraf "Ash" Dahod. The group is headquartered in Tewksbury, Massachusetts just north of Boston and has around 1,000 employees.

For the past 10 years the company has focused on the mobile operator infrastructure with its multi-media core and packet-core gateway solutions. The company has racked up an impressive list of more than 100 customers including Vodafone, Verizon, Sprint, KDDI and China Unicom among many others. Verizon announced last year that Starent had been selected as one of the mobile core vendors for its upcoming LTE network.

The company offers mobile gateway solutions that are network agnostic and supports a broad range of access technologies including CDMA, GSM, UMTS, WiMAX, Wi-Fi and LTE among others. In the WiMAX space, the company has developed an ASN gateway that leverages the company's expertise in developing one of the industry's leading packet core network infrastructures and has been deployed by Taiwanese operators FiTEL and Tatung InfoComm.

"With the recent acquisition by Cisco and the integration of Starent's products into Cisco's solutions, we are now able to offer a more comprehensive end-to-end IP solution," says Andy Capener, Director of Service Provider Marketing for mobility at Cisco. "We can offer complete solutions from the cell site, to the mobile-packet core, all the way to the IP core of the network."

Cisco has quickly integrated the new company's mobile data solutions into its own portfolio and has re-packaged Starent's flagship product the ST40 mobile gateway with its own Unified Reporting System platform and renamed it the ASR5000. The combination allows the mobile data core to share subscriber and network information easily with other systems.

According to Capener, operators will need to focus on two attributes of their network: Performance and intelligence. With performance, operators will need to understand how their mobile networks are being used to better design policies to help manage the growth and to ensure that networks are operating efficiently. With network intelligence, operators will be able to gain valuable insight in how their networks are being used and be in a position to target new, differentiated and personalized services based on these opportunities.

"Service providers will be able to keep up with the demand of mobile data and remain profitable, but they cannot do so passively," says Capener. "The intelligence of the network will be crucial and operators will need to understand how their customers are using the network in order to offer them more differentiated and premium types of services."

Cisco will be Mobile World Congress this week in Hall 8, stand 8A70.

© 2010 WiMax.com Broadband Solutions, Inc.

Republished with permission of WiMAX.com