

Analysis - U.S. Serves as Crucible for Advancements in Mobile

By Keith Mallinson Sunday, September 25, 2011 Get daily wireless industry top stories and headlines - Sign up now!

The U.S. leads with innovation, consumer adoption and patent litigation in smartphones.

For decades, Silicon Valley has been the leading location globally for the most innovative and disruptive information technology companies. Frontrunners based there, including Apple and Google, were hardly associated with mobile communications until the launch of the iPhone and the announcement of Android mobile operating system distribution in 2007. Until then, mobile communications technology developments had no global epicenter, with technology leaders Ericsson in networks, Nokia in handsets, Qualcomm in chipsets and Research In Motion (RIM) in enterprise mobility based in different nations.

Smartphones have revolutionized and significantly expanded the mobile ecosystem. Facebook, YouTube, Adobe and a plethora of other mobilized-applications developers are also based in Silicon Valley or elsewhere out west. Tech talent from San Diego to Seattle is leading the charge to dream up new ways of using smartphones, including cool Web 2.0 capabilities, while also placing ever greater demands on the networks and devices provided mostly by old-guard mobile technology vendors and wireless carriers.



Keith Mallinson

Smartphones such as the iPhone can deliver a delightful user experience, but they take a heavy toll on the networks as AT&T rapidly discovered. The iPhone's appeal and initial success was in its simplicity. In some ways, it behaved rather like a PC – loading standard web pages and

providing developers with unfettered access to device and network resources. But capacity shortages and congestion problems are becoming more severe as smartphone adoption and usage levels increase. The solution is not simply a matter adding ever-more raw network capacity.

Devices and the applications running on them need to become more efficient and provide a better managed experience for end users. Video must be made to guzzle less bandwidth, while providing a stall-free experience, and "chatty" applications such as location-based services and social networking have to be more respectful of signaling and battery demands. Participants from various parts of the ecosystem must work more closely to educate and incentivize each other in the quest to develop the best and most cost effective end-to-end solutions.

Silicon Valley, in particular, is the focal point for these new collaborative developments and is drawing in the old guard. Ericsson has grown to 1,200 employees, including its CTO based there. Its facility is being used as a development center for emerging technologies and a demo showcase for customers. It puts this Swedish company close to mobile application and Web 2.0 startups. At a North American industry analyst event there recently, executives explained to me and others how it is working with other ecosystem members, including software partners in the locality, to make mobile applications more pleasing to consumers, while making more efficient use of scarce bandwidth and signaling resources.

Carriers also recognize the need to be present in the heart of the software and developer community. In August 2011, Verizon opened its Application Innovation Center(AIC) in San Francisco, near Silicon Valley and close to a growing

nexus of developers. Developers large and small will be invited to use the AIC to create and optimize their ideas and turn them into viable applications.

Even foreign carriers see the benefit of being in Silicon Valley. In September 2011, multinational mobile operator Vodafone opened its Xone R&D center there. With a staff of 20, it provides a test lab for local technology companies wanting to conduct product trials on its network before taking them to market. It will also act as an incubator, providing advice to entrepreneurs on various technical and commercial issues. Vodafone Ventures, the company's venture capital arm, is also relocating there.

SMARTPHONE ADOPTION AND REPLACEMENT

The U.S. is the most important and largest national market for smartphones, associated applications and services.

Until the middle of last decade, the U.S. was in many respects a developed-world laggard in adoption of new mobile technologies including text messaging, WCDMA and smartphones. It is now at the forefront of technology deployment and consumer uptake with major new initiatives including LTE services from market leaders Verizon Wireless, since December 2010, and AT&T more recently.

Around 40 percent of U.S. mobile users now have smartphones. Uptake and upgrades occur most rapidly here because handset replacement with upgrades follow an average of only 20 months usage, versus, for example, 34 months in Western Europe. Whereas some estimates indicate as many as 50 percent of European smartphone users have no 3G data contract (i.e., using only Wi-Fi for data connectivity), the high proportion of subsidized smartphones under contract (including data plans) stateside ensures the vast majority of smartphone users are actually using the truly mobile Internet.

LITIGATION

The U.S. is also the major theater for intellectual property infringement disputes in smartphones and tablets. Troublesome though this might appear, it is a sign of the robust patent system that has helped spur extensive investment and developments across the entire ecosystem from silicon to software and networks to devices and services.

Allegations that patent infringement disputes – for example, between Apple and Android licensees Samsung and HTC . are stifling innovation, impeding competition and choice – a standard refrain from those who would like to expropriate intellectual property . are inconsistent with the facts. With ever-quicker processors, faster networks, richer software and services, there is no sign of any slowdown.

On the contrary, the market is vibrant, very innovative, highly competitive and developing most rapidly here in America. For example, according to the FCC's 15th Annual Commercial Mobile Radio Service Competition Report: "from 2006 to 2010, the number of mobile wireless handset manufacturers that distribute in the U.S. market increased from eight to 21." The report also observes that 10 handset manufacturers offered a total of 144 smartphones in June 2010 compared to 56 in June 2009.

While U.S. consumers are served by the widest variety of products and services, Silicon Valley has also become the Promised Land for investors and entrepreneurs in mobile communications technologies.

Mallinson is founder of WiseHarbor, solving commercial problems in wireless and mobile communications, <u>www.wiseharbor.com</u>. He can be reached at <u>kmallinson@wiseharbor.com</u> and on Twitter: <u>http://twitter.com/WiseHarbor</u>.

Rate Article:

Discontext of the second secon

Advantage ©2010 Advantage Business Media - All Rights Reserved