

Topic: Mobile**Issue:** Who are the mobile ecosystem providers and how will they navigate a crowded market?Authors: Jim Lundy, Mike Anderson

Firefox Mobile OS Faces Huge Enterprise Hurdles

Summary: On February 24th, Mozilla announced it had secured 18 carriers as partners for the launch of its open-source mobile operating system, Firefox OS.

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Analysis: Despite the fact that Mozilla has convinced over 18 different carriers to offer its open-source mobile Firefox operating system (Firefox OS), it faces huge hurdles to gain a foothold in the already crowded mobile ecosystem market currently dominated by Apple's iOS and Google's Android. This duopoly is built on a model that favors the OS provider, and carriers have significant interest in another option to open up the app revenue model and fuel competition.

Our view is that this OS will target the consumer market, and it will begin on low-end devices, mainly for emerging economies. Indeed, Firefox OS devices aren't expected in the US until an undefined date in 2014. There is opportunity for an open platform that opens the value chain, but the short-term hurdles beyond the consumer segments are substantial. However, given continued struggles by other mobile OS providers and the tremendous growth potential in developing markets, there is room in the low-end

consumer market to expose the benefits of an open web.

The desire to profit from phone sales is driving carriers. Once in control of the mobile value chain in the new era of mobile, ecosystems around Apple, Google, and Amazon are the beneficiaries of exploding mobile apps and commerce. LG Electronics, ZTE and Alcatel One Touch will ship Firefox phones in the second half of 2013. Huawei is also on the list but no details were provided.

A Splintered Market at Launch

One of the significant challenges for Mozilla is the degree that carriers choose to fork or otherwise customize the OS. The initial focus is on developing countries where the life of a phone is more than 12 months and much of the volume is prepaid, minimizing this in the short term. As the focus moves to more mature markets where longer phone contracts are the norm, users may not get the upgrades they desire.

As has been proven with Android, the flexibility that comes with the ability to fork the operating system also results in a fragmented market for building apps. While the web-app model addresses this issue, the ability to create a differentiable and sustainable ecosystem with this new open approach needs to be proven. Where Firefox OS seeks to succeed where Android has struggled is in pushing upgrades to current versions through a more open value chain.

The Mobile Ecosystem is More Than An OS

While there are lots of HTML developers, the challenge with apps is commonality of the operating system. The pace of change in mobile puts Firefox OS at risk. While Android has had a difficult time with its OEMs, Mozilla may find working directly with the carriers and handset manufacturers will better keep pace with the mobile industry as long as it can get the carriers to play nice. However, with the ability for the carriers to directly participate in and potentially control more of the revenues since app and in-app purchases are independent of Mozilla will be a great attractor.

The hope for carriers and manufacturers is that all the apps offered on top of this OS will work together. A weakness of the mobile ecosystems around iOS and Android is the inability to have inter-app sharing and communication. While there will be performance differences with the native capabilities of the other OSs, Mozilla's trading some performance for the ability to connect across apps may win out.

Lastly, while this OS initially targets phones, users' desire to consume music, news and video content is growing at a pace no one predicted. This challenge is big enough to threaten Microsoft and BlackBerry; it could be insurmountable for this open-source OS. Mozilla aims to change this by enabling the massive quantity of content on the open web to be its content ecosystem.

Implications for Enterprises

We expect that the economics of this OS might be attractive in some countries. Although Firefox OS will be more lightweight in its performance impact on phones, the primary driver will be the opportunity for carriers and OEM's to participate in revenue streams where only Google can monetize with Android.

Aragon Advisory

- Enterprises should take a wait and see approach to this announcement. Apple and Android remain the top picks for Mobile OS.
- Security issues should be enough of a threat to enterprises to wait for security certifications before allowing them to work on the enterprise network. Firefox OS has the potential to get fixes faster due to its open development model.
- The mobile OS battle is heading up, and enterprises need to monitor Firefox OS along with the Tizen and Ubuntu efforts to create mobile OS contenders.

Bottom Line: After the excitement at Mobile World Congress fades, enterprises will realize the challenges that Mozilla faces as a mobile newcomer. We see room in the consumer space for a new mobile OS, and expect multiple offerings to begin staking out segments largely in low-end and emerging consumer markets. Although these do not have immediate enterprise implications, success with consumers has the power to warrant attention.

Note 1: Firefox OS Carrier Support

The following vendors announced support for Firefox OS: America Movil, China Unicom, Deutsche Telekom, Etisalat, Hutchison Three Group, KDDI, KT, MegaFon, Qtel, SingTel, Smart Communications, Sprint, Telecom Italia Group, Telefonica, Telenor, Telstra, TMN, and VimpelCom.

Note 2: Firefox OS Handset Makers

Handset manufacturers that announced support for Firefox OS: Alcatel, ZTE, LG Electronics, and Huawei.