Mobile as the Foundation for Enterprise Innovation

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The impact of smartphones on consumers, from individuals to global enterprises, has been unprecedented. When coupled with mobile networks for ubiquitous coverage and capacity, smartphones have the ability to commoditize innovation.

What is commoditized innovation? Very simply, it's a concept that can be developed, at a relatively low cost, into an application and be shared globally in a rapid manner. Commoditized innovation shares these common factors:

- **Low-cost mobile devices:** Manufacturing volume drives down unit costs.

- **Apple iOS and Google Android platforms:** Devices and associated app stores reach all corners of the globe.

- **Mobile software developers and open development environments:** The pool of global talent that can build apps is very large and diverse.

- **Mobile services:** These low-cost services are embedded in the mobile operator's network and have uses in both personal and business app roles.

- **Mobile networks:** Mobile operators reach all corners of the globe with their networks, meeting their subscribers indoor and outdoor coverage and capacity needs.

The Sun Is Setting For Proprietary Communications Services

In many industrial and commercial environments, there can be numerous layers of communications technology. Examples include VHF/UHF walkie-talkies, pagers, VoIP handsets or badges, laptops, smartphones, tablets, and other purpose-built technology. Plus, each technology has an RF transmission medium that has its own coverage footprint within the facility it is used in, each footprint may cover all or part of the facility,

and all may be owned and managed by different departments. This mix of communications technologies is an impairment to innovation and, when the employees look at their smartphones, they believe that their existing communications technologies fall short of what they use in their personal lives. The impairments to innovation are numerous, but all of them revolve around failing to achieve economies of scale such that innovation is either impossible or too expensive to accomplish.

Innovation impairments include things such as:

- High unit costs for the personal technology because the supplier makes tens of thousands, where a mobile handset supplier makes hundreds of millions.

- Many of the personal technologies are single function. Just voice, paging, or data. And there is no market demand for a higher function device at the price point that has to be charged to recover manufacturing costs.

- With multiple RF mediums in-house, there is no easy way to improve indoor signals for all employee devices. Each one has to be uniquely dealt with, if at all.

- There may be significant personnel overhead in "shadow IT." Shadow IT are people who are performing an IT role (in this case, telecom) who report to and are funded by a department.

- Software developers, SDKs, and other tools to do software innovation and integrate these proprietary systems into the back-office IT systems that operate the business are either not available or prohibitively expensive.

Mobile Platforms To The Rescue

Envision these same industrial and commercial environments with an RF environment that, in addition to global coverage, reach every part of the facility (bring on the cellular technology!). Then add in common handset families (iOS and Android) that have a huge pool of off-the-shelf apps, software developers, and developer tools. It's a recipe for innovation because these ecosystems conquer the economies of scale problem as they were always conceived — to scale to billions of mobile devices.

Mobile innovation is fueled by:

- Low cost, high-functioning personal technology in the form of smartphones and tablets.

- The incumbent smartphone features, public apps, and privately developed apps with back-office integration enable all employees to have much more power and information at their fingertips, along with fast access to any employee that they have to contact.

- With a single RF medium in-house combined with robust indoor networks, there IS a more effective way to improve indoor signals for all employee devices.

- All the funding allocated to "shadow IT" can be put to more productive use for the business.

- Software developers, SDKs, and other tools to do software innovation and integration into the back-office IT systems that operate the business are easily available and competitively priced.

The mobile platform approach, as it has evolved, has become a competitive advantage for the enterprises that effectively embrace and exploit it.

Enterprise IT can best serve their employees and business units by consciously establishing a long-term innovation platform on mobile technology that enables the elimination of other legacy technologies that have inherent limitations that an individual enterprise cannot solve. The mobile platform approach, as it has evolved, has become a competitive advantage for the enterprises that effectively embrace and exploit it.

Mobility is the foundation for enterprise innovation, if you let it be.

Exciting times.

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