

Monetizing Communication IT Standards

By Jesse Cryderman

Consumers have shown a willingness to pay more for goods and services that adhere to standards of quality, interoperability, safety, and social responsibility in industries outside of telecommunications, such as consumer electronics, automotive, food service, and home appliances. These customers rely on certain industry standards to make their choices, as they may not understand or have the time to understand all the attendant operations for the good or service they are purchasing. In fact the chances that you will buy a product today based on a standard that has been effectively monetized are very high. Whether it's picking a certified organic product, a new USB 3.0 flash drive, recycled notebook paper, or a type of gas, standards that are reflected as logos make purchasing decisions easier for consumers.

The computer hardware industry, which brushes up against communications IT, has very effectively monetized its standards for the Build Your Own Computer (BYOC) segment, for example, turning hardware capabilities and standardized specifications into the flashy logo badges that plaster motherboard boxes. Other standards that are leveraged as part of the value proposition are membership in the Better Business Bureau (BBB Accredited Business), a BIOS-less next-gen firmware interface (UEFI) and guaranteed Windows Hardware Quality Labs (WHQL) certification.

The telecommunications industry, on the other hand, has been quite ineffective at monetizing standards in a similar manner. In a race that no one wants to win 4G is probably the best example of a "standard" that is blurrier than HD, sewing confusion among Luddites and the moderately tech savvy alike. For example, if I am a small business owner who invested in 4G through Sprint, how could I possibly know that my mobile M2M hardware would soon be obsolete? Didn't I buy



the latest greatest? Can't I just buy a 4G device from a third party? Won't my hardware work on another carrier?

Perhaps as an outgrowth of a traditionally engineering-based mindset, standards and frameworks in

telecommunications have far too often been imagined as either punitive enforcers or technical insignia, and developed wholly separate from the market and greater business strategy within which they operate. Today a new perspective is being embraced by the industry, focused more on the customer experience and the monetization of valuable services, not capabilities. Alongside this evolution standards themselves can play a new role, and it's already happening to a degree. However, both the industry and its consumers stand to gain if standards can consistently be codified and reflected to purchasers, standards that touch everything from service tiers to quality, compatibility, sustainability, and more.

Bad Examples

As previously mentioned, 4G hasn't exactly been leveraged in the best way as a standard (despite the ITU-T definition), and as a result the market has suffered. Since 4G has been used to describe WiMAX,

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HSPA+, TD-LTE, and FDD-LTE, it's no wonder an air of confusion floats around the standard. It's different from, say, USB 3.0 or SATA III, which are demonstrably faster transfer protocols than previous iterations and guarantee interoperability.

Is 4G capable of delivering a noticeably snappier service? In a lab, absolutely. But as a whole, are the numerous 4G technologies appreciably faster than 3G in all areas? Sometimes, but many factors influence this, and if you take coverage into account the answer is oftentimes no. Is 4G able to function on its own for voice transmission? In almost all cases the answer is no, and 4G is only used for data, while voice is transmitted and received on legacy networks.

It's no wonder that 4G, until now, hasn't felt like fourth-generation wireless technology that delivers a more compelling user experience than 3G. Today LTE infrastructure buildouts and device portfolios are finally catching up to the 4G hype, which is why Apple, the first king of mobility, waited until the 4G fracas died down to release a horse in the race with the LTE-enabled iPhone 5. Even still, can a new iPhone use 4G for simultaneous voice and data? Not if it's on a CDMA network (Verizon, Sprint), yet this functionality is possible on a bevy of 3G phones running on GSM and CDMA networks.

Another bad example is the Android ecosystem. Whereas the Apple logo communicates stability, ease of use and a well-defined user experience, the Android logo communicates one or two things consistently: less expensive and more hackable than Apple. Since the Android development and device manufacturing communities haven't standardized things like an experience index or stability rating, the Android experience can mean many different things. For consumers with a lower-end Android device, that experience can be terribly frustrating and drive churn and negative social messaging. Unlike an MPG or horsepower rating for a car, there is no way for customers to know if device X will allow function Y unless they spend a lot of time reading technical literature and smartphone forums. As a result the value wireless operators place on membership in the Apple club is in the billions.

Movement in the right direction

Movement in a positive direction has begun, whether prompted by an innate desire for innovation or a response to pressure from over-the-top (OTT) competition. This year several communications service providers (CSPs) announced a collaboration to drive an enhanced mobile messaging platform intended to compete with OTT social messaging options. Combining the strengths of both SMS/MMS and social messaging, the platform is called joyn,

Passpoint certification is a competitive advantage for CSPs who manage Wi-Fi assets.

and is the public-facing brand of the GSMA's Rich Communications Suite-enhanced (RCS-e) framework. CSP partners who have signed on to leverage joyn include Vodafone, Telefonica and Deutsche Telekom.

The GSMA sees RCS-e as a compelling business proposition that offers "new ways to use existing assets and capabilities to deliver high quality and innovative communications services." By monetizing the framework with the joyn logo, CSPs "will be strengthening their relationship with their customers and harnessing further revenue opportunities from advanced personal communications," says the association.

Like SMS or voice, joyn communicates an important message about enhanced communication: "It's just there, it just works." This represents an important shift, because it monetizes a standard in the right way: wrapped around service experience, not technical capability. On the joyn homepage this point is reiterated: "Mobile network operators all over the world are inspired by the great communication potential that joyn offers their customers. As a result they're working together to establish interoperability—in other words, to ensure 'it's just there and it just works' for everyone, no matter what network they use."

Niek Jan van Damme, Deutsche Telekom Board Member, wrote of his belief in the standard and its benefits at the end of August: "Joyn is especially easy to use. Customers don't have to worry which of their contacts uses what service and who can be reached how. 'joyn' makes the cellphone's phone book smarter and, above all, the services function across carrier boundaries. Without any installation, without a login and without the need to move between different applications."

New World Wi-Fi

Another developing standard that offers similar functionality but affects a different transfer protocol is Passpoint, the outward-facing brand of Next-Generation Hotspot (NGH). Passpoint is a joint effort of the Wireless Broadband Alliance (WBA) and the Wi-Fi Alliance; the WBA defines the NGH standard,

and the Wi-Fi Alliance certifies devices for Passpoint compliance. “The aim of the WBA’s Next Generation Hotspot (NGH) program is to deliver a public Wi-Fi experience that is as easy and secure as that experienced on cellular networks,” writes the WBA.

Passpoint certification offers several huge benefits over traditional Wi-Fi:

- guaranteed interoperability regarding service provisioning;
- seamless network discovery and selection;
- carrier-grade WPA2-Enterprise security.

As next-gen hotspots proliferate, Passpoint enables another benefit for service providers: national and international Wi-Fi roaming. “Service providers are working together to define mechanisms for subscribers to ‘roam’ to one another’s hotspots—meaning that you’ll be able to connect using Wi-Fi in more locations than ever,” writes the Wi-Fi Alliance.

What kind of results might Passpoint deliver? Recent polling of smartphone and tablet users in the United States, United Kingdom, France, Japan, China, and Korea suggests the incentives are huge:

- **Wi-Fi drives usage:** On average, 74 percent of respondents stated they would use “a little” or “a lot” more data if they had unlimited data usage via easy-to-use Wi-Fi hotspots.
- **Most would switch:** On average, 77 percent of respondents also stated they would be likely to switch service providers, either immediately or at contract end, in order to access a Passpoint-like Wi-Fi offering, with 65 percent indicating a willingness to pay more per month for such an offering.
- **Passpoint drives loyalty:** Conversely, an average of 87 percent of respondents said they would definitely/probably stay with their current provider if a Passpoint-like offering were included in their plan.

Avenues for future monetization

Beyond interoperability in the service and transport layers, there are many other opportunities for the telecommunications industry to monetize standards and frameworks. These include:

- **Sustainability:** Is this device (consumer or commercial) produced in a sustainable way, or does its production wreak havoc on the environment? AT&T, among others, is using “green language” to sell new products, such as post-consumer, and while there are unilateral

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efforts under way there isn’t an overarching industry standard in place.

- **Energy Use:** Unlike home appliances, energy use in the mobile device sector is not expressed in an easily understood or standardized manner. For this reason many consumers who pick up flashy new 4G phones are disappointed when the battery life turns out to be horrendous. A simple multi-color logo could signal the power usage rating while creating additional revenue opportunities for carriers.
- **Performance Index:** Smartphones are essentially small computers, but comparing their capabilities is very difficult. All companies in the value chain, as well as consumers, would stand to benefit from a performance index rating system similar to the Windows Experience Rating.
- **Security:** If the telecommunications and IT security industries could work closely together, security certification could become very popular. Currently, consumers are mostly unaware of the security risks they face and are unable to interpret them. Furthermore, operators could monetize security solutions if they could be easily understood by both consumer and enterprise customers.

The Role of OSS/BSS

In addition to the benefits for CSPs and consumers, there are numerous ways for the vendors that enable communications IT to profit from standards. Some of this work is being done by groups like the TM Forum, who, for instance, showcased a standardized CSR interface at this year’s Management World that distilled 18 separate CSR systems into one. Something is wrong with the market, however, if there are 18 systems doing the same thing that aren’t compatible.

As in other markets, software companies, especially those on the cutting edge, stand to benefit from working together and advancing a standard that solves market needs in market time, i.e., quickly. In anticipation of

Wi-Fi-enabled global roaming via Passpoint, billing systems should be tweaked, standardized and marketed to accommodate this soon-to-be reality; Alcatel-Lucent is currently collaborating with BT in this regard. And as the numerous pieces of the connectivity mesh come online (cellular, Wi-Fi, small cell), advanced policy control becomes a necessity. Tekelec has been very active, both in policy control and diameter signalling, as it relates to these market developments.

Cloud and data-center business will also drive the need for standardized and interoperable software. What started as IT virtualization has extended to service and infrastructure virtualization. Enabling this future in the broad sense requires a broad approach, not a walled approach. If changing billing systems is a mammoth undertaking for a CSP, imagine a global data center or cloud operator attempting a similar upgrade. **Open Cloud** is probably the biggest story in this arena, as it “delivers open, standards-based network service layer transformation solutions to the telecommunications industry.”

Participating in market-driven standards development accelerates the revenue potential of new technologies.

Finally, additional standardization opportunities exist in M2M, healthcare, mobile banking, and next-generation 9-1-1 (NG911). These four categories are particularly important because they involve a very high level of security, regulation and stability. This is the perfect mix for the type of standardization that also drives revenue.