

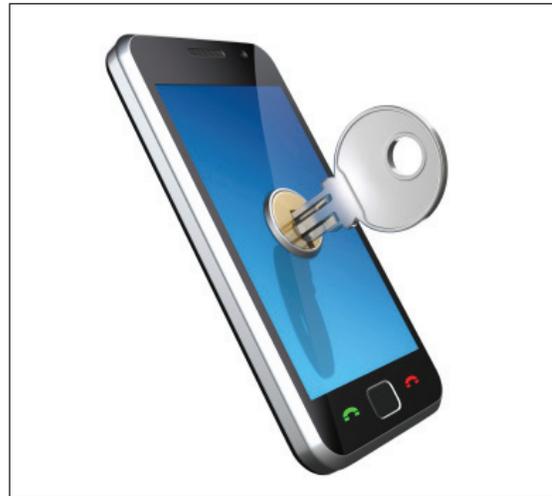
Automation: Key to the ComOS

By Jesse Cryderman

Philosopher Karl Popper defined the difference between open and closed societies in terms of how much or how little bloodshed is required to overthrow their leaders. From an OSS/BSS perspective, we can't examine how open standards enable interoperability without first looking at the past.

Rewind to the early '90s and you'll remember it was a dark time, where connectivity meant getting your word processing program to recognize your printer. Back then, developers of such applications needed to write separate device drivers for a plethora of different printers. Worse, for consumers, the availability of drivers dictated what products they could use with which printers. In time, Microsoft incorporated printer support into Windows so that only one driver was needed to handle all the different applications associated with the printer. That driver was written by the manufacturer, not the software developer.

Vendors of industrial automation products faced similar problems; developers of Human Machine Interface (HMI) applications had to write drivers for an array of programmable logic controllers (PLCs). A handful of these vendors formed the OLE for Process Control (OPC) Foundation to define the open standard for which it was named. With its OLE protocol, Microsoft laid a groundwork upon which OPC could build. Just like printer manufacturers, automation product vendors began writing their own drivers.



The result: application developers freed up time and resources previously devoted to writing drivers and allocated more of both into the product; and users were afforded the flexibility of being able to choose applications based on features instead of driver availability.

Open standards, as an enabler of automation and self-discovery, have evolved considerably since then; Universal Plug and Play (UPnP) standards have simplified device installation and operation by minimizing the need to search, install and configure drivers. So now, I can plug in a real mouse to bypass the touchpad on my laptop and hook up a full-sized keyboard so I can more accurately, and blissfully, mash buttons. I can even copy image files of my

Not for distribution or reproduction.

Pipeline

Your OSS/BSS Information Source.

KnowledgeCast Webinar

Monetizing 4G Services

November 17, 2011 at 10:00 AM EST

Featuring: **CONVERGYS**
Outthinking Outdoing

REGISTER NOW!

very cute cat to a flash drive and plug that into my television to revel in her cuteness in HD. Important stuff.

Indeed, we've come a long way from the tedium of having to manually manage multiple drivers in our PCs at home, so it would stand to reason that, out of the aggregate billions that CSPs spend on OSS/BSS solutions, said solutions should come with that same plug-and-play functionality. Certainly, the multitude of telecom standards should have the potential to drive change in the OSS/BSS space in terms of application integration, right? For example, a number of developers program CRM solutions using SQL, a language designed for relational database management systems (RDBMS). SQL, however, also serves as a prime example of how an attempt at open standards failed due to self-interest.

What is more compelling is the notion of an overarching Communications Operating System (ComOS) upon which we could bundle a network solution with billing and CRM products into one integrated package, much like a Microsoft Office Suite for telecom. To take this concept a step further, the implication that the purchaser of MS Office at any CSP can also purchase an integrated ComOS suite portends a shift in traditional engineering software from the back office to the IT department.

Caution: Service-Oriented Architecture Ahead

The key to technological and commercial evolution is adaptation. The old model of integrating siloed applications required programmers to write complicated, custom utilities—a tedious, time consuming endeavor—to read and decode data

What is more compelling is the notion of an overarching Communications Operating System (ComOS).

before it can be shared with other applications, and that simply cannot keep up. On the flip-side, the emergence of service-oriented architecture (SOA) is not so much revolution as it is evolution. The promise of SOA lies in its ability to deliver interoperable, independent, modular and reusable software in the form of components or "services." This affords businesses the nimbleness they need to adapt quickly but, more importantly, it's all made possible by open standards.

With that said, it is not enough to simply embrace the technology. More important to the full realization of the benefits of open standards and SOA is the need for companies to embrace change on a cultural level and to step away from the silo, in terms of both IT and thinking. Herein lies the rub; as any anthropologist will tell you, culture evolves at a snail's pace.

The elder Moltke gave us the military maxim, "No plan survives contact with the enemy." A real world variant translates this into the notion that any plan, idea or concept is only as good as the humans who implement it. The New and Improved Partner Ecosystem

There is hope, though. Microsoft has come full circle

The image shows the cover of a report from Frost & Sullivan. At the top, the company name 'FROST & SULLIVAN' is displayed in a serif font. Below this, there are two orange horizontal bars with white text. The first bar contains the headline 'From the core of the network to the customer.' The second bar contains the subtitle 'How OSS ensures a seamless customer experience.' At the bottom left, it says 'Report commissioned by COMARCH'. At the bottom right, there is a 'DOWNLOAD THE FREE REPORT' button with a download icon.

from the days when OLE was a springboard for open standards innovation. In the years since, the company's predilection toward proprietary APIs had made it a usual suspect in the vendor lock-in lineup, however, in the last five years, Microsoft has softened toward open standards and shifted to a stance more friendly to open source.

In fact, Microsoft might be at the forefront of a completely new conceptualization of OSS/BSS. Instead of pursuing an acquisitions strategy to accumulate a "best-of-suite" OSS/BSS offering to compete with the Oracles of the world, Microsoft has embraced partnering. "The strategy is to build a vibrant partner ecosystem," said Dmitri Lozdernik, Communications Sector Industry Director at Microsoft. This approach leverages Microsoft's Dynamic CRM and enables a multi-vendor environment, Lozdernik explained in a meeting with Pipeline at Mobile World Congress in Barcelona.

Earlier this year at Mobile World Congress, Microsoft unveiled it had partnered with Ericsson to pre-integrate Ericsson's billing solution into the latest version of Dynamic CRM. Similarly, the Redknee-Microsoft alliance, "brings about a transformation in the telecom billing space by providing an expanded and pre-integrated software solution to communication service providers." says Microsoft.

As Microsoft sees it, why build or buy when you can interoperate?

The ComOS Evolution

Says John Bratten at Microsoft Global Industry Solutions, Worldwide Communications and Media:

"What we're seeing in the industry is that the explosion in connectivity, the personalization of services and devices and the increasing need to provide end-to-end management of those services and infrastructure in creative ways—all at a faster and faster pace—complicate business models and place tremendous pressure on our service providers. We think future success belongs to those companies who temper their legacy business support and customer care systems with new, agile technologies delivered by a diverse, next generation partner ecosystem. That's why we are driving innovation in this space by focusing on nimble solutions with our partners that stand alone or easily augment legacy systems with powerful new capabilities."

This amounts to BSS purchasing trends shifting almost exclusively to IT. This fundamental shift shows how corporate, business and—soon to come—operational support systems are converging. This trend will continue to emerge and become prevalent as ecosystems, like Microsoft's, and interoperability standards, like SOA, continue to evolve.

A ComOS populated with innovative solutions from multiple vendors would enable versatility, agility and scalability.

A ComOS populated with innovative solutions from multiple vendors would enable versatility, agility and scalability to allow a CSP to tailor solutions to meet specific needs at specific times. It would also eliminate vendor lock-in, function with real-time modification and solve the best-of-breed versus best-of-class dilemma by enabling a common platform for both. Examination of open standards shows how they can provide a platform upon which applications can interoperate—both with equipment and other applications—and affords us glimpses of a future where BSS/OSS solutions can be bundled like Word and Excel, possibly, in the same package.

According to analyst Alan Quayle, today's CIOs are well aware that the agility required of modern networks won't come from frameworks comprised of traditionally closed standards. As a result, they are leaning more and more toward open frameworks like the Open Group Architecture Framework (TOGAF) and IT Infrastructure Library (ITIL). Open standards plus interoperability will make for adaptable CSPs, but what is not a given in the equation is vendor compliance.

As with every revolution throughout history, it is up to those most affected to take a stand and demand change. Open standards only provide CSPs the potential to lead the revolution. CSPs need to remember that the vendors and SDOs are there to service them and, as such, are entitled to hold vendors and SDOs accountable to meeting their needs. Present vendors with one simple Darwinian choice: adapt or die. How they react will speak volumes to whether telecom society is an open or closed one. In the end, the question is not whether open standards can revolutionize the industry, nor even if they will ultimately prevail, but how bloody, or bloodless, will the revolution be.