

A high-angle, close-up photograph of a large, turbulent ocean wave. The water is a deep, vibrant blue, and the crest of the wave is breaking into white, frothy foam. The lighting is bright, creating a shimmering effect on the water's surface.

SEA CHANGE IN TELECOM INDUSTRY

**Nine Trends Impacting Sourcing
and Savings Strategies**



Introduction

Telecommunications is a complex category that is impacted by government regulations, market movements, technology and industry changes, and frequent shifts in user preferences. Navigating your way through these rapid changes won't be easy. An understanding of the major issues can help you set your compass on a course and direction that will provide the best options under these stormy conditions.

The trends for 2014 described in this report originate in both consumer and business markets. Some, like network security, will impact both. These challenges also create new opportunities that can be met by existing suppliers or entrepreneurial individuals who will create the next Apple, Google or FaceBook type capability that meets the unmet demands.

We have also made recommendations ("compass settings") for each of these changes to help you develop plans and strategies for your organization. They may not exactly fit your requirements but could be a starting point for discussion with your business leaders, IT and procurement organizations.

Sea Change in Telecom Industry

Nine Trends Impacting Sourcing and Savings Strategies



Regulations

FCC Deregulation of DSL & POTS: The new Federal Communications Commission Chairman and former lobbyist for the Cable and Wireless industry, Tom Wheeler, is launching “a diverse set of experiments” that will begin the process of decommissioning copper-based services for the nation's leading service providers, AT&T and Verizon. In 2014, the FCC will consider rewriting the legal, policy and technical issues that govern telephone services. Circuit-based technology or Plain Old Telephone Service (POTS), is becoming increasingly difficult to sustain as the supporting technology is technically outdated and expensive to maintain, with parts becoming scarce as technology partners transition to the newer IP. AT&T and Verizon's investments should be in the newer technologies to ensure future telecommunications leadership.

Organizations with many small locations, such as the retail industry, will be compelled to migrate from the century-old circuit switched technology to IP-based services or cable/wireless alternatives. Users of copper-based services can expect to experience long repair intervals or be forced to migrate to alternative services. Costs for DSL and POTS are likely to increase two to three times that of IP-based services in the future.

Compass Setting: Pursue Secure Session Initiation Protocol (SIPS IP) options with traditional service providers and explore cable alternatives.



Industry Changes

Evolution of Globalized Wireless Suppliers: Despite denials, AT&T is likely to make a pre-emptive \$100 billion-plus move on Vodafone to expand its footprint into Europe. This could be the biggest acquisition ever, following on the footsteps of Verizon's \$130 billion buyback of Vodafone's 45 percent equity ownership in Verizon Wireless. The non-European properties are likely to be sold to other wireless super carriers. With over 400 million subscribers in play, AT&T could triple the number of subscribers through this transaction and be in an enviable, leverage position with its suppliers.

Other examples include SoftBank which has made a bold move to expand outside its Asian footprint with the acquisition of Sprint. The ink is hardly dry on the deal and there's already talk of SoftBank acquiring T-Mobile USA, which would bring them closer to AT&T Mobility and Verizon Wireless in the US. Another industry mover is America Movil which dominates Mexico and Latin America with its 300 million subscribers but has its sight set on other geographies such as the Netherlands as well.

In each case, market share leapfrogging has come via the acquisition route versus organic growth. These acquisitions are likely to take more than a year to receive all the US and EU regulatory approvals and it'll be several years before true integration of networks, services and billing systems occurs. However, enterprise businesses have been clamoring for global wireless support from a single supplier for years and we are witnessing big steps in that direction which will influence the future wireless infrastructure and handset sourcing decisions.

Compass Setting: If your organization has a significant international wireless requirement, retain the right to renegotiate the contract if your service provider acquires or merges with an overseas entity.

Content Rules Cable and DSB but Subscribers Balk at Higher Rates: Cable companies and Direct Satellite Broadcasters (DSB) are faced with the inevitable need to increase rates as content providers demand higher rates for their offerings. Cable has lost over 1,200,000 subscribers between Q3 2012 and Q3 2013. DSB has barely stayed even during the same period. If the trend continues, subscriber losses will be in the millions in the not-too-distant future.

True, new housing stagnation has impacted new subscriptions for cable and DSB, and telcos like Verizon and AT&T are attracting users away from the traditional pay TV providers. Switching has always been an economic phenomenon, not a technological one. Rapidly rising prices are squeezing lower-income consumers out of the ecosystem.

With content representing 40 to 45 percent of total costs and increasing at the rate of eight to 10 percent per year, it is understandable why cable and DSB providers are forced to increase rates at least three percent a year to break even. The average cable increase is approximately six percent, which is about 400 percent of the current annual inflation rate of 1.5 percent. Additionally, over-the-air broadcasters are pushing a \$2 retransmission fee per broadcaster to transmit local stations over cable and DSB services. Broadcasters and content owners are demanding more per subscriber and are playing hardball when they don't get it. In 2013, there were 127 blackouts. The American Television Alliance says there were 51 nationwide blackouts in 2011, 91 in 2012. Nationwide, the average pay TV bill (excluding internet and phone service) was \$86 in 2011 and is expected to reach \$123 by 2015, based on estimates by the NPD Group.

With consumer income and spending remaining relatively flat, industry analysts agree that the current business model is not sustainable in the long term. Cable companies have been reducing their external costs and cutting costs in their customer service capabilities by offering online chats and knowledge bases. They are also

Sea Change in Telecom Industry

Nine Trends Impacting Sourcing and Savings Strategies



seeking alternative content sources — as DirectTV did — to replace The Weather Channel with WeatherNation. Industry consolidation will continue and will bring greater scale for the top three or four cable/DSB providers to the content negotiations table. But these efforts can only go so far, especially in a market where growth is flat. So, where will subscribers turn if the economics of pay TV become too much to bear?

Many will turn to the internet and stream shows and videos over their home internet to their wireless devices. Others will transition to their local Telco only to be frustrated by the same higher prices once the promotional discounts expire. Ultimately, a significant number of subscribers will simply disconnect their pay TV altogether and utilize devices that can play only what they are willing to pay for from downloadable application stores and other retail outlets.

Compass Setting: Service providers will need to double down on cost reduction efforts to offset the eight to 10 percent increases in content. Network equipment, construction and installation services and the traditional SG&A expenditures should be aggressively attacked.

Lenovo and Microsoft, all betting heavily in the device area, BlackBerry is probably better off playing a supporting infrastructure role as the integrator of all devices with a secure, cost effective technology where enterprises can leverage the investments they have already made.

Compass Setting: Leverage investments made with BlackBerry's Enterprise Server technology and establish an enterprise policy for BYOD.

Declining Appeal of Social Media Due to Privacy

Issues: As Facebook achieves its 10th anniversary, reaching over a billion viewers, it would appear that the future of social media is bright and limitless.

Certainly, Facebook, Twitter and other social media platforms have made it easier to stay connected and reach out to just about anyone. However, social media has also unleashed a new set of problems that might ultimately cause people to retreat from the insatiable demand that Facebook and other broad-based social media networks have created.

Marketers are trying to harness the social media technology to predict purchases, movement and trends at an accelerated pace. Governments want to track constituent positions on issues, behavior and movement. Social media networks make it easy for them to get this information.

Government requests, marketing infringements and unwanted personal contacts could reverse the desire for more information, more communications and the ability to reach mass audiences.

Recent research by Pew states that 57 percent of the US adult population uses Facebook and 64 percent of it uses it daily. However, about 12 percent of US users have asked someone to "unfriend" a person in their network, which seems to be an early sign that users are choosing whom they want to share information with — possibly a first step towards relooking their social media presence.

Users are pushing back on how much personal information they want to share. Weekly reporting of large scale hacking is raising concerns about just how much information people want to share on the large broad-based social networks. The latest big push has been towards real-time social networks like Twitter that do not reveal as much personal information. Experts are betting on more private networks like Nextt that focus on connecting around future activity.

Compass Setting: Carefully assess enterprise participation in social media networks as they can be an employee distraction, open the door for liability issues, and may be difficult to eliminate if they prove to be a passing trend. The ROI of social media engagement for CRM, sales and marketing, must also be re-evaluated in the wake of these emerging trends.



User Preferences

BlackBerry's Loss of the Enterprise Battle: For the quarter ending 31 October 2013, BlackBerry's worldwide market share of the 244 million smartphone business collapsed to under 1.5 percent. In China, it was zero percent.

The reality is, Blackberry failed to see the changes that were underway in the wireless handset market in 2007. Apple, and later Samsung, were quick enough to realize that users want user-friendly applications. The network security associated with BlackBerry's secure e-mail began to wane, especially on the consumer side of the business, where BlackBerry never dominated.

App store applications became the new "stickiness" that would ensure future user purchases would remain with the same supplier. Executives began requesting support for the new, application-loaded devices and IT organizations were compelled to support non-Blackberry technology. BlackBerry tried to recover with its BlackBerry 10, which brought it closer to Apple and Samsung's functionality but lacked the extensive application library available to iPhone and Android users.

BlackBerry has experienced several network outages around the world which is causing some organizations to rethink their device requirements. Also, as more organizations migrate to bring-your-own-device (BYOD) strategies, fewer users will want to invest in BlackBerry and miss out on the growing list of iPhone and Android applications. Government, IT and Financial Services users will be the last to abandon ship, but they will.

The new management at BlackBerry has taken several bold and radical actions to revive BlackBerry but it is still unclear as to whether handsets will remain the key pillar in the company's strategy going forward. With Apple, Samsung,



Technology

Increase in Machine-to-Machine Wireless

Usage: Estimates vary greatly, but in 2013, there were an estimated 165 million machine-to-machine (M2M) connections that generated approximately \$80 billion in service revenues with another \$150 billion in devices and installation revenues. China and the US each have about 20 percent of the worldwide market share, with Russia, Japan and Germany representing the next largest markets.

China Mobile, Vodafone, AT&T and Verizon are the largest service providers. By 2018 there will be an estimated 500 million connections, with more than 300 percent increase in usage. Revenues will grow at a CAGR of more than 30 percent to almost \$150 billion.

M2M has the ability to dramatically increase productivity in the same way the PC has over the past two decades. Information can be acted upon across micro data cells or across huge mega data files in real time. For example, different tracks of land on a large farm can be uniquely irrigated based upon weather conditions and type of crop which will increase the yield.

Another example is the automobile industry. Manufacturers will be able to detect a faulty part sooner and easily to contain future recalls. Significant benefits will also be realized across a broad range of industries including:

- a) Utilities
- b) Automotive
- c) Security
- d) Agriculture
- e) Retail
- f) Healthcare
- g) Government / Military
- h) Financial Services

Despite a lack of industry-adopted standards, competitive advantage and overwhelming cost and new service benefits will drive accelerated deployments. Intelligent buildings and the gold rush envisioned with the integration of M2M functionality into home appliances, security, comfort and entertainment systems won't wait on global or even national standards groups.

In 2014, we will see continuous reductions in M2M rates and a consolidation of hardware and software suppliers as larger players like Google move in to take over the device segment. The market will also see more service provider alliances to serve the evolving international requirements. With the rapid deployment of LTE technology, M2M network utilization will remain in the low single digits despite the anticipated growth in M2M usage. Low costs, enhanced devices and supporting software, combined with global deployment capabilities will fuel the rapid growth of M2M for the rest of the decade.

Compass Setting: Assess future M2M requirements for the next two to three years and incorporate into any telecom RFP/negotiations with service providers.

Increase in Network Security Investments Due to New Threats:

In 2013, network security investments increased by almost nine percent to \$67 billion and are expected to reach \$86 billion by 2016, according to Gartner. The shift to Bring Your Own Device (BYOD), new healthcare regulations on personal privacy, and the recent network attacks at the NSA, Target, Neiman Marcus and others, are likely to increase the investments significantly.

BYOD is a mega shift that will require companies to implement more network security technology and policy changes to accommodate the widespread consumerization trend as smartphones, tablets and other personal devices permeate the enterprise space. New healthcare regulations required by HIPAA and the Affordable Health Care Act will require changes to existing applications and modifications to how they are developed, tested and maintained. The security breach at NSA demonstrates how even national security can be impacted as more and more data is collected and stored or requested by the government.

In 2013, Verizon reported receiving nearly 320,000 requests or inquiries from US federal, state and local authorities. Hackers are targeting not just government data but also national financial systems and utilities. Major breaches to any of them could cripple the US economy for years.

The FCC has recognized the increasing importance of network security to national policy and is working on enhancing its organizational capabilities to counter these threats.

Sea Change in Telecom Industry

Nine Trends Impacting Sourcing and Savings Strategies



Large corporate enterprises, such as JP Morgan Chase, are also recruiting senior executives to oversee their security systems and policies.

Compass Setting: It's the right time to conduct a comprehensive network security assessment for your organization. Recent events and new regulations demand vigilance to protect the enterprise brand and prevent breaches that could lead to significant compensatory awards.



Market Shift

Investments and Exits by Industry Leaders: On December 31, 2013 Google had cash reserves of nearly \$60 billion dollars. It is certainly a huge war chest that only the likes of Apple and Microsoft can match. The question Google faces is where to invest, what will be the next cash generator for the company that derives 90 percent of its profits from the advertising that flows from its products. Its products include Android that controls more than 50 percent of all smart phones, YouTube which is the leading social video platform, and numerous other popular applications such as Google Search, Google Maps, Google Earth and Google Finance. Google's continued, spectacular growth will demand new products that consumers can't do without.

Recently, Google acquired eight robotics companies. It also acquired Nest Labs, a \$300 million maker of thermostats and smoke detectors, for \$3.2 billion in cash. But do these investments imply a shift in the internet and software company's focus toward devices? No one can say for sure.

The \$12.5 billion Motorola acquisition by Google in 2011 is a case in point. In January 2014, less than three years after the purchase, Google sold off Motorola's Mobility unit to Lenovo. As it turned out, Google was keen on acquiring Motorola's patents, more than anything else through the deal to give it an edge over competitors such as Apple.

Cisco's purchase of Scientific Atlanta for \$6.9 billion is another example. The company is facing pressure from investors to sell off its television set-top box business due to declining revenues. Currently, the ailing unit helps Cisco to generate other business by leveraging its relationships with TV service providers.

Compass Setting: Procurement organizations need to be especially diligent in their risk assessments when

acquiring new technology, even from industry leaders. Ensure contracts have exit provisions and financial recourse provisions if the supplier exits the business, decommissions the product or significantly reduces its future investments

Microsoft's Aggressive Move into Hardware:

While it still is the operating system of choice for the traditional PC, less than 15 percent of new devices sold today utilize the Microsoft operating system. Despite announcing "going forward, it's a mobile-first, cloud-first world", Microsoft cannot ignore the importance of hardware to the success of this strategy.

The Xbox, Nokia phones and Surface tablets will utilize cloud services, and given the huge demand for mobility, it's easy to understand that Microsoft will continue to invest heavily in hardware technology despite the lower, nine percent margin derived from device sales. The devices serve as a "test bed" for applications and functionality that other device innovators, like Apple, introduce on competing platforms. It avoids the complex and costly need to establish joint development agreements to obtain access to product roadmaps and advanced technology.

Indeed, Market Realist, based on unconfirmed reports, revealed that Microsoft — via a project code named "Threshold" — is planning a series of updates to Xbox One, Windows, and Windows Phone, aimed at sharing common elements across the three operating systems.

Vertical integration is only attainable if you control the underlying platform, application software and the device technology. A unified ecosystem, as demonstrated clearly by Apple, creates stickiness with consumers, and navigational conveniences for both consumer and enterprise users who are demanding common device access across their business systems and consumer applications for PCs, mobile phones and entertainment devices.

Compass Setting: Microsoft should not be viewed only as an enterprise software supplier. Assess Microsoft's full service and product portfolio and negotiate the full suite of capabilities that match your company's needs.

Sea Change in Telecom Industry

Nine Trends Impacting Sourcing and Savings Strategies



Conclusion

Sea change in any industry can be disruptive and costly, especially for procurement organizations. From shifts in user preferences to changes in technology, the telecom industry is witnessing a lot of action that can have significant impact on enterprises with a substantial telecom spend.

Advanced planning and course setting can mitigate the negative impacts and help leverage the evolving opportunities. Business leaders, IT and procurement organizations need to collaborate as a team to offset the marketing strategies and tactics of the mega suppliers that dominate the technology, services and applications in the telecom industry.



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