It's 2011. Does the Network Matter?
We examine the evidence for and against the continued primacy of the network in the business strategy of the telecoms operators.

How to WAC a Home Run
The Wholesale Applications Community (WAC) can help provide a truly customer-centric platform for CSPs.
TelecomIQ

This blog, led by Erwan Ménard, Vice President & General Manager, Communications & Media Solutions, Enterprise Services, HP, features open discussion of topics that are shaping our communication industry today. Conversations focus on challenges CSPs are facing in transforming their businesses; monetizing opportunities presented by over-the-top providers; and expanding their markets through Cloud technology.

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Welcome to the Spring 2011 issue of INSIGHTS.

Over the last couple of issues we focused on transformation in the communications industry and made the case for a business-focused approach to it, moving beyond the cost cutting and technology-oriented transformations of the past.

In this edition we continue to look at business transformation but from different angles, even going as far as to ask “Does the network matter in 2011?” New services areas such as machine-to-machine (M2M), application stores, the business value of the mobile Cloud, and mobile payment are also put under the spotlight.

Elsewhere we examine new ways to measure ourselves against our peers via benchmarking and how to profit from the vast amount of profile, network and service data to which the Communication Service Provider (CSP) has easy access.

Finally, we broaden the outlook by featuring an industry perspective from Brian Partridge, Vice President of Research, Yankee Group, and an update on an important industry alliance - HP with Alcatel-Lucent.

THE ELEPHANT IN THE ROOM

As far as CSPs are concerned, the cloak of invisibility that wrapped the elephant in the room has fallen away and the beast is now clear for all to see - and, lo and behold, it is the network!

Long the fundamental source of competitive advantage, the network has always been a player’s prime asset but now the ownership and operation of a network is so much more challenging than it used to be and the core business propositions so much more uncertain. The strategic certainty that the network used to confer has gone and a new approach and new actions are needed.

So, this issue of INSIGHT tackles these issues head-on and sets out not only new perspectives and implications for a service-driven organization but also the practical steps and tools that are available to deliver change.

There is broad industry consensus that the current changes in the market are re-writing the rules. There will be few dissenters from the view that “ultimately CSPs need to evolve from being network operators to being service creators.”

However, beguiling as such a clarion call might be, the complexities of delivering change remain, even as the relentless demands of consumers deny CSPs the luxury of taking a ‘wait and see’ approach.

Nonetheless, the communications industry can reinvent itself by innovating new business models, seizing adjacent network-enabled markets and bringing unique value-added services to consumers and enterprises.

This edition of INSIGHTS provides a perspective on the opportunities and how to apply them to your business to transform for growth.

Please, take a look and, as always, join our discussion on www.hptelecomiq.com

ERVAN MENARD IS VICE PRESIDENT AND GENERAL MANAGER, COMMUNICATIONS & MEDIA SOLUTIONS, ENTERPRISE SERVICES, HP
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Surely there is no section of a bookshop more depressing than the area dedicated to ‘management’ where ‘business theory’ is lumped in with ‘self-improvement’. Just wander round the stacks and get a whiff of the desperation as wannabe go-getting movers and shakers feverishly thumb through mountains of expensive publications written in esoteric psychobabble. They are all looking for the magic formula that will somehow transform them into captains of industry and confer on them the trappings of wealth and power that usually go with such exalted rank.

Most though are wasting their time and money. There is no nostrum that can be invoked, no universal specific to be followed that leads automatically to a posh office in the C-suite and a key to the executive washroom. Getting there is mostly a matter of luck and being in the right place at the right time and all the inspirational exhortations trotted out by desiccated academics and megalomaniac billionaires with time on their hands and egos the size of Antarctica won’t alter that basic fact one little jot.

It seems almost everyone in business wants to be a CEO, even though only one in a million or less will actually make it to the top of the greasy pole. Given that the chances are so very slim, and people know it, can this be attributed to natural ambition and aspiration or to the self-deluded chasing of rainbows painted onto the sky by cynical marketers? I’ll leave you to make up your own minds about that.

When you pin people down and ask them why they want to be a CEO, some say, “For the money, the power and the prestige.” Most say, “For the money.” A few say, “To make the world a better place and to help the fluffy bunnikins.” But few people believe that sort of stuff.

And, if money is the only goal, there’s a school of thought who’d have us believe that anyone who really wants to make a million bucks or more can do so - just by focusing exclusively on that goal to the exclusion of everything else. Save every penny, don’t spend, work all the time, don’t take holidays, invest wisely, wheel and deal to make a dollar and save a cent and by the time you are 30, 40, 50, 60, 70 or whatever, you’ll be a multi-millionaire, my boy.
Amdocs is dedicated to helping service providers realize their potential in the connected world. Using your existing assets – your subscriber data, your network and your infrastructure – Amdocs can create new value for your company.

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Leadership meant that to do better, individuals must set out ruthlessly to maximize profits at all costs - and those costs can be severe and traumatic. But now the pendulum has swung the other way and now the management gurus are telling us that life in business is too complex and uncertain for us to be able to predict and follow the most direct perceived route to success.

Our knowledge is always imperfect, and events that surround and shape us are influenced by the unpredictability of other people and organizations. Instead, it seems our objectives are best achieved by a more meandering approach that enables us to adapt strategy to changing situations. And we learn about the nature of our objectives and the means of achieving them through a process of experiment and discovery, trial and error.

In our fame-obsessed world even business executives have now become heroes. Thus we hear about the ‘rock star CEO’, the ‘charismatic CEO’, the ‘imperial CEO’, the ‘celebrity CEO’, the ‘omniscient CEO’ and so on. But these fatuous labels cannot disguise the fact that one person cannot be solely responsible for the success - or failure - of an entire corporation.

The main role of a CEO is to communicate what might be described as the ‘essence’ or ‘DNA’ of a company. The CEO, by virtue of the people who report into him and under the gaze of an active board of directors, ought to be better able to see the whole picture of what’s going on and therefore be in a better position to articulate the corporate mission, vision and strategy within and without the organization.

And a CEO is probably best judged by how effectively he or she builds and fosters partnerships with management teams, employees, suppliers and customers. CEOs enjoy some excellent rewards, tangible and intangible, and in return they deserve clear-eyed scrutiny of their actions and egos, criticism for their foibles and mistakes and, yes, praise for their accomplishments.

We are stuck with them because, like the poor, CEOs will always be with us. But the best ones don’t make the mistake of becoming messianic moguls who come to confuse their own identity with the name on the company HQ building.

And, if you still want to be one of this august, but insecure bunch, perhaps the best way to go about reaching your goal is to come at it from an angle - in much the same way as quantum physicists do. And in that bizarre world things can exist in two places at the same time, for as long as you are not looking directly at them. If you do, they disappear into the ether just like an aspiration to become a chief executive officer. Now you see it, now you don’t.
For the CSP sector, a new game-changing technology - Cloud Computing - is set to rewrite market rules and fuel massive new sector growth at levels never seen before. It may be in its infancy now but Cloud Computing is growing up fast. Indeed, estimates suggest that U.S. markets sectors such as Infrastructure as a Service are already worth US$1 billion a year while Software as a Service currently brings in US$8 billion per annum - and is increasing rapidly.

It is evident that, together, mobility and Cloud Computing are disrupting and forcing change upon business models across a plethora of industry sectors. And the applications that will transform businesses out of all recognition are a world away from the tired "hard sell" orientation of old where a company representative has little more to help him than a lead, a bit of customer order information, some patter and a mobile phone or laptop computer. The potential for change is profound and is perhaps best illustrated not in the high-tech financial markets or their ilk but by the huge changes sweeping through primary industries such as agriculture, fishing, forestry and mining. It is the those that till the land, fish the deep, fell the trees and dig for ore that have so much to gain from a changing world.

The fishermen of Kerala in southern India have become a classic case study on the impact of a more immediate flow of information. By sharing the latest market data and figures relayed to them by mobile devices, both the fishermen themselves, and their customers, benefit enormously. The fishermen consistently get much improved prices for their catch because they know where the greatest demand is, while customers have greater predictability of supply and pricing. A great deal of waste is also eliminated - a massively important factor in managing sustainable resources.

In other words, information sent and received reduces the incidence of 'excess buyers' who can't buy because of a lack of availability in a given geographical market, and 'excess sellers' with a glut of product they, literally in this case, have to offload by dumping dead fish back into the sea; a practice that is economic madness as well as being ecologically unsustainable.

But this example from Kerala simply demonstrates the power of better flows of information – the real transformation of business processes flows from adding analytics to these better flows of information. Providing sophisticated analytics to seemingly innocuous decisions can be transformational.

Shinpuku Seika is a farm in Japan composed of 300 individual lots spanning 247 acres producing high value crops in multiple rotations each year. It is a US$18 million enterprise where outputs and revenues are sensitive to changes in micro-climates. Such an enterprise poses a challenge: how to manage such a far-flung, manually intensive operation, where crop yields, and thus profitability, is sensitive to so many conditions. The farm owner is experimenting with a new system using temperature and humidity sensors and video cameras connected to a central monitoring station. Farm workers use GPS-enabled mobile handsets to photograph problematical or potentially problematical crop areas. The information obtained is uploaded to the Cloud for business analytics and for examination by other farmers who can then examine symptoms, diagnose and provide remedies and actions.
A Hybrid Delivery architecture, such as that offered by HP, combines the best of both worlds - private Clouds and public Clouds - to generate the lowest possible total cost.

What these examples demonstrate is that beyond the simple but vital imperative of cost avoidance, technologies such as mobility and the Cloud can also drive dramatically improved business results, including better use of manpower and increased labor productivity leading to higher margins and improved profitability.

The examples of the fish market in Kerala and the vegetable growers of the Shinpuku Seika farms demonstrate something even more powerful, for, not only can these and other new technologies improve the lot and increase the revenues of individuals they can also promote the better functioning of markets and increase personal, corporate, regional and national economic development.

Joe Weinman leads Communications, Media, and Entertainment Industry Solutions, HP

“Internet Infrastructure Market Overview: Spring 2010,” Tier1 Research
Life used to be a lot easier for a telco: one service, one network, limited competition. How times have changed. Today, telecoms operators in mature markets are under tremendous pressure to find new sources of revenue. This is particularly true in mature markets where mobile penetration is either nearing, at, or above 100 per cent and competition is relentless.

Pressure is also exerted by non-traditional competitors that have encroached on traditional telco revenue streams by offering services over-the-top (OTT) of expensive telco networks, relegating the network operator to the dreaded role of “bit pipe.”

Before the advent of the Internet, facilities-based telecoms operators made no distinction between access and services. The access network was used to deliver a single service (PSTN telephony), and therefore such a distinction made no sense. Pre-Internet data services were largely delivered using a separate network of leased lines.

In the 1990s, the spread of Internet connectivity and the advent of broadband shook that model to its core, but the implications were not necessarily understood (or felt) by telcos until the middle of the first decade of the 21st century.

Broadband Internet was long regarded as a boon by facilities-based operators because it was perceived as an additional access revenue source - until IP telephony hit the mainstream and customers started wondering why they would pay for two separate access subscriptions. That’s when providers started to realize the content and services that customers could access through the Internet were threatening their single historical service, telephony.

In the second half of the decade, this trend amplified, and it now constitutes a serious threat to the continuation of broadband providers as we know them. Ironically, the wireless broadband providers that have pushed hard for mobile broadband to emerge and be adopted by customers now face similar issues, with in-home services at risk.

Telcos are now largely aware of the threat, even though they may have a hard time anticipating its amplitude. Essentially, there are two strategic responses to this threat: slowing capacity upgrade or attempting to break-up network neutrality.

Two Main Roads to Take
In our assessment, neither of these strategies has worked or is likely to work because they don’t imply a fundamental rethink of who the broadband provider is. In times of radical change, however, the legacy businesses that make it are those that manage to reinvent themselves. Strategies designed to maintain the status quo are doomed to fail. What is needed is a fundamental rethink and redesign.

There are two broad strategies that can pull legacy service providers into the 21st century with a viable long-term business: the broadband utility strategy and the revenue transformation strategy. Neither is easy to undertake, and both are extremely disruptive.

The Broadband Utility Strategy
The broadband utility strategy is, in a sense, a jump back as well as a jump forward. The idea is to refocus the company on its core competency, as it was back in the days when there was no perceived separation between access and services. The core competency of a broadband service provider is to allow its customers to access the Internet and benefit from the wealth of services available there. In other words, this would mean a fundamental shift in business model and structure, and it would imply that services would become either a secondary revenue stream or a means of acquiring new broadband customers.

There are many virtues to such a model: Offerings are, by definition, very simple, and so is the network technology itself. As a consequence, the company can be extremely lean (limited marketing and billing resources needed). It would be a business with a very different focus, much closer to that of infrastructure (e.g. highways and real estate) or utility companies (e.g. electricity and water) in that initial investments would be high, ROI would be long-term and revenue flow would be extremely steady and predictable.

It is widely acknowledged now that broadband has become a utility - at least in as far as the ways consumers purchase it (as evidenced by the low levels of disconnections during the recent economic crisis), so it’s far from absurd to imagine that it could
be provided as such. Another virtue of this model is the ability of broadband providers to tap into long-term funding, something that is very hard to do for legacy telcos as their expectations for ROI are too low and their revenue too unstable to guarantee such long-term investment funds.

However, while this is a viable strategy, it’s more likely that we’ll see broadband providers embrace a strategy that keeps them away from becoming bit-pipe providers and enables them to remain in both the access and the service businesses. In other words, many should consider the revenue transformation strategy.

THE REVENUE TRANSFORMATION STRATEGY

The revenue transformation strategy relies on three revenue sources, legacy retail income, Internet-layer service empowerment revenue (such as bundling and distributing Internet-layer services) and what we term “wider-economy” service empowerment revenue. Here we focus primarily on wider-economy services, because it is there we predict explosive growth in the coming years.

Wider-economy services are powered by and delivered over telecoms networks, but offered by an existing (or future) economic player in a non-telecoms vertical. Despite 15 years of global economics in a connected world, we haven’t yet undergone a massive transformation in the way that most economic sectors operate. This transformation is only starting to happen, and broadband providers, as those who can ensure the ubiquitous interconnectedness of things and people, are key enablers of that economic and societal transformation.

To tap into the revenue potential of this massive transformation, however, existing telecoms players must accept that their role in the value chain of these wider-economy services will be different from the role they currently play. For the most part, legacy broadband providers derive their business from services sold directly to end-users. There are two key components to that world view: control over the customer relationship and reliance on internally built and designed solutions. Neither of these philosophies is suited to address wider-economy opportunities.

For a broadband provider to empower services in health care, home management and other sectors, it must allow players in these verticals to build services using components from the broadband provider’s network and also accept that it will not necessarily know who the end-user is or have a consolidated view of the customer base for every service.

WIDER-ECONOMY SERVICE OPPORTUNITIES

Some of the most promising wider-economy services areas for telcos are in health care and home management services.

HEALTH CARE

There is tremendous pressure for the health care sector to become more widespread, more efficient and less costly. Extending the reach of health care is a crucial challenge for emerging markets while better and cheaper health care is the key target in developed markets. Ubiquitous communications can ease the transition into a more efficient health care system through the following:

Digitized medical records: A digitized patient medical record could be accessed by medical professionals anywhere, whenever necessary. It would also save considerable money and resources by preventing redundant medical interventions, acts, procedures and prescriptions.

Remote home monitoring systems: based on the notion that elderly people requiring monitoring should be able to stay in their own homes as long as they are equipped with systems that can send for medical help if an incident occurs are effective, relatively inexpensive and work just as quickly and efficiently as can a care home.

Integrated, reach-extended GP: In most countries, there is a very strict separation between the general practitioner and a variety of specialist doctors and consultants. When the general practitioner is unsure, or the patient requires specialist diagnostics and advice, it means a second consultation (and sometimes many more). This service would, through high-quality telepresence, allow for an integrated consultation so that specialists could be called in when needed and multiple consultations could be avoided unless absolutely necessary.
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Home management is yet another opportunity. A number of service concepts have begun to flesh-out this new way of thinking about the home environment, including:

**Smart metering:** Smart metering shows strong promise for both customers and utilities. Customers would reduce their energy usage and, through it, both their carbon footprint and their energy spend. Utilities would have real-time information on consumption and could therefore better anticipate demand, plan production and avoid costly outages. Broadband providers are key players in carrying the real-time information, but they could also play a key role in managing the smart meters and the aggregation of data.

**Remote home control:** If your house is reliably connected to the network with comfortable bandwidth in both directions, you become capable of real-time control of a number of in-home functions, such as heating and management of various appliances. While the value for such services is still not entirely clear for many end-customers, there is a lot of innovation around it, and it’s likely that a number of attractive applications will emerge in the coming years.

**Improved home security:** Home security is a legacy business that relies mostly on traditional PSTN telephony. IP, especially at high bandwidth levels, allows for the introduction of video into the mix of home surveillance, thus reinforcing the level of security and optimizing the business model of security companies.

**The First Step**

To capture the new opportunities afforded by the wider-economy services, operators need first to take stock of what they currently provide as key assets, services and enablers. Network operators should be asking themselves what they can offer that adds significant value or is differentiated in such a way that an Internet (OTT) competitor could not easily deliver the service without the operator’s direct participation in the value chain. A good example of this would be location-based advertising combined with user demographics, or home energy management services that use location technology to trigger in-home actions when passing a geofence (e.g. turning on the heat when the consumer is five miles from home).

They should also ask what they can offer that provides a key asset or capability that a third party could leverage to build an offering that is either differentiated or more cost-effective than a service provider going directly to a consumer or enterprise. An example of this would be a home health care provider that wishes to combine automated messaging or event triggers, home-area network-attached medical devices and monitors, quality-guaranteed video services, and automated call routing together as a solution for home elderly care. Without the active participation of the telco, such a sophisticated offering would be impossible or unwieldy.

**The Time is Now**

The pressures on the traditional telco business model are now so acute that it is no longer a question of whether the model needs changing, but rather which new model telcos will go for, when and how. One strategy, the status-quo approach of devolving into a broadband utility pipe, is not an acceptable outcome for most service providers and their stakeholders. A second approach - implementing a revenue transformation strategy - holds much promise, but it is challenging and requires significant change to be successful.

No matter which strategic option is chosen, the necessary transformation is considerable and should not be understated. These strategies require considerable shifts in focus and corporate culture if they are to be successful. The time to act is now.

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THE RISE OF THE MACHINE

Machine-to-machine communication, or M2M as it is more commonly known, is not new but its exact origin is obscure - largely as a result of many different technologies that have heritage from the ancestors of today’s M2M - telemetry, Smart Metering, telematics, and RFID, for example. M2M can easily be traced back to the year 2000 when cellular technology was first connected directly to other computer systems. A good early example of M2M in practice is OnStar’s in-vehicle communications and telemetry system. Thereafter, 2009 was a particularly important year in the development of M2M technology. It was then that AT&T and Jasper Wireless first partnered to support the creation of M2M devices and, to this day, the two companies continue to work together to foster further connections between consumer electronic devices and M2M wireless networks. And that was just the beginning. Early in 2010, AT&T, KPN, Rogers, Telcel / America Movil and Jasper Wireless began to work together on the creation of a M2M web presence to serve as a hub for developers of M2M communication electronics. Then, in February last year, Vodafone, Verizon Wireless and nPhase announced a strategic alliance to provide global M2M solutions providing their customers with a quick and easy way to roll-out M2M solutions across Europe and the North America. According to the independent analyst company, Berg Insight, the number of cellular network connections worldwide used for machine-to-machine communication back in 2008 was 47.7 million. It forecasts that this figure will rise to 187 million by 2014 as sensor applications and networks proliferate.

Given all this activity, one could be forgiven for wondering why M2M has not yet been transformed into a standardized set of business and consumer solutions with revenues to match. Well, a partial answer is to be found in the average consumer’s access (or lack of it) to M2M technology, the perceived need for it and confusion about the benefits that will accrue.

MARKET ACCEPTANCE

For a technology and its service to be a popular success, end users must have a quid pro quo and gain real value from them and the M2M market is no exception. Thus if it is to progress beyond being simply a convenience for utility companies whereby they can more easily and cheaply read electricity, gas and water meters and bill for the consumption, then end users too must gain a perceived advantage. If there’s nothing in it for them, why would they sign-up? However, at the moment there are barriers preventing consumers gaining benefit from, or taking advantage of, the emerging M2M ecosystem. The fact is that comparatively few utility companies have so far opened their SmartMeter systems either to end users or other organizations and agencies that might benefit. Meanwhile, other vendors, independent of the utility companies, (The Energy Detective, or TED, being a good example here), are selling products such as home energy monitoring and reporting solutions end users can install to understand and monitor their personal energy usage in advance of receiving their monthly bills.

Interesting and valid though such applications and services are they have so far failed to attract mass take-up by consumers and so are not yet the basis of major new revenue streams. What’s more this is not a niche problem pertinent only to home energy monitoring and management solutions but is prevalent across the entire M2M ecosystem.

ENTER THE SOCIAL NETWORK

Some would argue that social networking, Internet-style, has been with us since TheGlobe.com back in 1994 with Geocities and Tripod.com following closely behind in 1995, the modern generation of social networking sites began to appear in 2002 with Friendster. MySpace and LinkedIn followed a year later. Thereafter the popularity of social networking sites boomed and by 2005
“When is an accelerometer more than just a fun gadget for your phone?”

When it is CeNSE (Central Nervous System for the Earth)

Machines can not only be put to work reporting how much electricity you have used at home, they can also improve our lives:

• What if you could send an electrocardiogram to your physician by laying your hand on a small tabletop sensor at home?

• What if your home knew when someone was in a room without having security detectors in all rooms?

• What if we could find oil without drilling holes as our primary method of exploration?

• What if we could know of structural problems well ahead of a bridge or building failure?

All of these things and more are possible today with the application of HP Lab’s CeNSE-ing technology and HP Communications & Media Solutions (CMS) Real Time Data Acquisition and Mediation products.

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Check us out at the 11th annual HP CMS CTO Summit on M2M this May in Venice:  
MySpace was getting more page hits than Google. Facebook launched in 2004 and is now the largest social networking site in the world with more than half a billion adherents. It is no exaggeration to say that social networks are a new standard via which humans connect, relate, question, recommend and interact with each other when they are not face-to-face. Web-based social network services make it possible to connect people who share interests and activities across political, economic, and geographic borders. And, of course, Facebook and other social networking tools are increasingly the object of business as well as academic research. Scholars in many fields have begun to investigate the impact of social networking sites, investigating how they affect issues of identity, privacy, society and education.

Now, several business models are beginning to tap into the power of the social networking model in attempts monetize the knowledge that can be derived from social interactions. These models are a relatively economically inexpensive means of connecting otherwise fragmented industries and organizations and enabling them to reach the right audience with interested users.

**THE OPPORTUNITY TO INTEGRATE MACHINE COMMUNICATIONS TO A HUMAN**

Social networks and collaboration technologies have grown exponentially and are entering the commercial realm. Many businesses are faced with the challenge of moving into social networking for business development purposes or run the risk of missing out on a vital new communications opportunity. Many senior executives still regard open collaboration and social networking with suspicion, and subscribe to the view that it might even jeopardize the business itself if not controlled in just the same way as any other enterprise IT process. Every business entity participating in the Internet economy is grappling with the challenge of turning Twitter, Facebook and other social networking property into a commercially profitable enterprise. At the same time M2M is now with us and together with social networking has the potential of developing a new and integrated ecosystem not seen before in the history of technology and commerce. The next phase of social networking and the integration of M2M content will present the opportunity for user’s devices not only to communicate with other machines, but to also become a “friend” in the social context, to the user. In this way, devices will be enabled to share information in a context whereby users receive interactive communications from those within their social circle.

**SOCIAL MACHINE COMMUNICATIONS**

Social Machine Communications (SMC) allows devices either acquiring data or controlling things and processes to connect and communicate in social networking systems. It is beginning to happen and today many blog conversations are based around the notion of “Collaborative Device Communities” (CDC). In such a community, devices themselves can blog, send and receive messages, report status, share files and interact with humans through existing social networking applications. For example, a device might “chat” with a SmartMeter in a home to request current energy usage, consumption status for the month and so on. The SmartMeter will write its status proactively to the users wall or send updates as a message feed for additional privacy. What’s more, the ability to establish direct communications to the SmartMeter for remote access for more sophisticated diagnostics and control will easily be enabled through hyperlinks contained within the information feed.

The potential applications for machines to interact with humans via already-established social networking channels are myriad. Technologists are already experimenting with devices and building simple interfaces that will allow interaction with a social network. It’s early days, but the importance of the proper, secure, private, operational support and integration required to scale the solutions and transform them into business is self-evident.

**EMBRACING THE OPPORTUNITY**

HP CMS has a strong position in the industry and a reputation for enabling business and technology transformations. The competition will be fierce and others will claim similar solutions and expertise. However, our customers know that we are different from the rest because of the depth and breadth of the products, solutions, support and services that can be brought together across all of HP. HP CMS is on a mission to transform the way that communications connects with our everyday lives. Communications is not just something we “do”. We are social creatures and as such communication is integral to our existence and our humanity. Today’s communications are always on, available anywhere and work with technologies to reflect the ways that users already communicate. As M2M matures to become part of human interaction through social interfaces, it will transmute from its present role as an enabler of opportunity into a vital revenue-producing business that positively impacts people’s lives.

**JEFF EDLUND IS CHIEF TECHNOLOGIST, COMMUNICATIONS & MEDIA SOLUTIONS, ENTERPRISE SERVICES, HP**
The fundamental changes now taking place in the industry are rapidly and drastically terra-forming the competitive landscape. On one hand, the number of mobile users around the world continues to skyrocket together with the data traffic that communications service providers have to handle. On the other hand the emergence of what is known as over-the-top (OTT) providers and their services have bent the traditional and conventional communications eco-system completely out of shape.

Additionally, consumer behavior and demands are always changing and operators have to adapt fast and anticipate the next move. In the past, consumers tended to be loyal to a communications service provider but now loyalty is often to no more than a particular application or a specific make of handset. So, one of the most urgent problems for service providers is to foster customer loyalty and minimize subscriber churn.

And, as if that’s not enough, they also have to find ways to monetize OTT services and create a new market landscape where they can parlay maneuver themselves back into a powerful position and that can be easier said than done.

THE UNIQUE CSP ASSET: DEEP KNOWLEDGE OF THE INDIVIDUAL CONSUMER

CSPs have a unique asset and mighty competitive weapon that the others in the value chain don’t have: deep, deep, knowledge of the customer. CSPs know about all of a subscriber’s activity and could leverage that knowledge to provide more and better targeted services and promotions both directly to their own subscriber base and indirectly to others in the value chain who, in their turn, also want better to target their customers. By proper management of this unique asset operators will be in a much better position to transform the insight they have on their customers to bring about tangible and ongoing business benefits.

The customer data CSPs hold is a treasure trove of information that can be used and applied to increase subscriber satisfaction, prevent churn and grow revenues. The unique ability to be able to see a complete 360 degree picture of customers - in the moment and over time - can help operators better to respond to current demands and anticipate future requirements. By offering promotions and packages attuned to real usage trends, service providers increase the likelihood that their customers will remain loyal and not churn away to the competition.

THE WAY OUT OF THE UTILITY-PLAY TRAP

To avoid the possibility of being reduced to the status of a connectivity-only bit-pipe utility, operators need to become providers of personalized experience by mapping specific services and applications directly to consumer needs.

To do so they first have to construct a single, easily-accessed, easily-viewed, highly-secure sets of customer profiles. Then they must analyze the information they hold by the use of trend and predictive analytics to create smart profiles that provide a true, up-to-the-minute understanding of each customer. The third task is to transform the database of smart customer profiles into an enhanced policy management regime whereby targeted promotions can reduce churn and increase customer ‘stickiness’. This is what HP does via Actionable Customer Intelligence.

BRIDGING THE GAP BETWEEN IT AND THE NETWORK

In the service provider world, IT and the network historically operated quite independently of one another. But times have changed and modern solutions must to bridge the two areas to allow operators to converge all customer data in real-time. Ingredients of such integration include network type, network state, service usage (time, volume, and events), speed, QoS, device type, time windows (weekends, weekdays etc.), location, subscriber information, application type or any combination of these.
By knowing what it is that users want at any given moment, operators can gain great flexibility in customizing plans and rates for different markets and providing subscribers with packaged service plans based on classes of services and service options.

Imagine a user who is watching sport on an HDTV who has to leave the house and transition the match and context to a mobile device. With HP Actionable Customer Intelligence, CSPs can build a unique customer profile to manage a policy control to switch between features and authorize the transfer of data between devices. They can analyze information, such as the user is chatting with friends about the event, to understand user preferences in a specific instant. Thus service providers will be able to propose new services in real time, such as access to the latest sports news or directions to the nearest bar where team supporters meet. Finally, CSPs will also be able to suggest promotions for more matches per month, buy tickets of upcoming games from an operators’ marketplace portal or third parties and send to the user’s chat community other sports-related information.

HP is in a leading position in the actionable customer intelligence market and by utilizing and applying HP Actionable Customer Intelligence, operators can take complete control of their customer intelligence and let it work for them to monetize enriched services, conduct targeted promotions and campaigns, control congestion and offer virtual profile exchange, virtual identification and obfuscated subscriber and billing profile data with third-parties to enhance an operators’ position in the value chain. These outcomes, in real-time, allow service providers to act in the moment to smartly support their customers’ demands.

These days customers aren’t buying basic functionality anymore, that’s a given. But they are willing to pay for unique services that are of obvious and evident value to them. Operators have the tools and data at hand to tailor and deliver valuable bespoke offers to each customer and that opens up a whole range of new, money-making opportunities.

**TAKING THE INITIATIVE**
The ability to manage deep subscriber data instantly confers on service providers the opportunity to strengthen customer relationships, better monetize their assets and gain a competitive advantage in comparison with the upstart with OTT providers.

MIGUEL CARRERO IS DIRECTOR WW ACTIONABLE CUSTOMER INTELLIGENCE, COMMUNICATIONS & MEDIA SOLUTIONS, ENTERPRISE SERVICES, HP
“IT’S 2011. DOES THE NETWORK REALLY MATTER?”

To quote from Hamlet, could 2011 finally be the year that operators finally cast aside the "mortal coil" that is the network to become true service providers? As telecoms operators continue to try to define their roles on the Internet stage dominated by brat-pack stars such as Apple, Facebook, Google and other non-traditional telecoms and emergent OTT players let’s examine the evidence for and against the continued primacy of network in the business strategy of the telecoms operators.

Back in the 1990s, the Enterprise (no, not that one) was the engine of demand. Internet traffic roared ahead as everyone but everyone screamed for faster and better corporate connectivity. The rise of the B2B and B2C markets also created massive traffic demand and web traffic surged and network assets were critical to business success.

In the 2000s, it was the turn of the consumer to drive astonishing, new levels of demand – for faster broadband, more mobile, more apps, more content and so on, and peer-
to-peer (P2P) became the dominant type of traffic. Indeed, Cisco’s Global IP Traffic Forecast showed that by 2006, 62 per cent of Internet traffic was peer-to-peer.

But now that there are comparatively few new-to-the-world prospects out there to be signed-up to service and as the developed telecoms’ arenas become super-saturated, markets and companies operating within them are going have to get used to a rather more sedate rate of growth that underpins the primary importance of network assets.

The fact of the matter is, as demonstrated in Parks Associates Mobile Services Global Outlook 2010, mobile ARPU is flat, with stagnation now evident in the developed countries and even some decline either looming or already taking place.

As Parks Associates point out too, fixed broadband [growth rates] also slowing as are enterprise services growth rates. They are down by one to two per cent in developed markets and are stuck in somewhat higher but nonetheless single digit growth territory elsewhere.

However, mobile and fixed traffic growth is not slowing. In fact, traffic growth is steady but its profile is changing dramatically. These days, mobile users are not only routinely surfing the web from their smartphone handsets, they are also generating both in-app traffic and real-time traffic.

Sandvine usage reports show that real-time entertainment is now close behind Web browsing on mobile networks in terms of user popularity.

Both applications and service each account for some 30** per cent of data traffic - and the share is rising. Sandvine’s figures also show that on fixed broadband networks 43 per cent of traffic is real-time audio and video entertainment, while peer-to-peer is no longer the dominant type of traffic. And yet, despite the huge increases in traffic, it is generating almost no incremental telecom operator revenue.

So how are telecoms operators and other CSPs reacting to these disquieting trends? Well, they are taking steps to transform themselves into truly customer-focused business exchanges/service providers with a significantly lower cost base.

These reductions in cost structure are being addressed in various ways. For example, outside of the U.S., mergers designed to maximize economies of scale continue apace. Here structural changes are also in hand that could result, sooner rather than later, in the oft-anticipated break-down of the telco’s traditional vertically-integrated model.

The end of 2010 was marked by a flurry of network sharing announcements leading service providers, including France Telecom, Hutchison and SFR. Network outsourcing continues with some interesting new approaches, such as that of Lightsquared, a company with ambitions to be a wholesale service provider with a completely outsourced network. Another new approach stems from reluctance to create a high cost infrastructure. The business case for fiber to the home is sufficiently weak at present that many countries are going for public/private partnerships to ensure roll-out. This has already been done in South Korea and Sweden and is underway in Australia and New Zealand.

Meanwhile over on the applications side, CSPs are moving into Cloud services as they recognize the tremendous potential the Cloud brings, as they aim to become complete ICT suppliers to enterprises. Indeed, HP has recently helped a number of operators adapt to become both IT and communications Cloud services suppliers (i.e. BT’s wholesale IVR as a service, and SFR/Vodafone France Infrastructure as a service offer). On the consumer side, CSPs are reacting against the rise of off-network app stores with their own Wireless Application Consortium and other approaches. HP has also helped operators launch both Android-based and WAC-based storefronts. So we can see it happening.
**“AYE, THERE’S THE RUB”**

This is not the first time the rise of the “Service Provider” has been predicted. At least as far back as the early 1990s, right after the passing of the U.S. Telecom Act and the early evidence of the results of deregulation, predictions of a new vertically disintegrated structure were made at trade shows around the world. And, in regard to applications and Cloud services, in the year 2000, the Application Service Provider (ASP) market was much hyped but failed to materialize for CSPs. That year, IDC predicted the market would grow from US$300 million to US$16 billion by 2002. But by 2002 it was measured as only US$1.8 billion.

And there’s also the more recent, but equally cautionary tale of MVNOs, with a host of MVNO failures such as Blyk, Virgin, Disney, and ESPN.

**TAKING “ARMS AGAINST A SEA OF TROUBLES”**

So refuting these individually; firstly, the CSP industry has been somewhat insulated by virtue of constant growth. When the dot com bubble finally burst, leaving a lot of people with egg on their faces, mobile was in the middle stages of its astonishing upturn and practically unscathed by the future.

Thus, telcos have been in the fortunate position of not really having to make the hard choices and/or changes that will be required if they are to remain vital, relevant and healthy in the brave new world they find themselves in.

And, as far as the Application Service Provider model is concerned, the current ASP vendors (i.e. Google apps, Salesforce, Concur for travel and so on) are all now riding high in terms of user numbers or revenues. For example, Salesforce has reported revenues of more than US$1.3 billion for the financial year 2010. Further, Communications as a Service (CaaS) and Cloud infrastructure services are being launched in many markets.

However, MVNOs are another case because they will always be an arbitrage play. The MVNOs are essentially betting they can beat operators and attract subscribers through better marketing while playing-off the margins on call rates. In 2009, Sunil Mittal, the Chairman of Bharti Airtel, was reported as saying, “MVNOs are arbitrage seekers. The whole idea of MVNOs in India would have made sense when the call rates were four rupees or higher and not when they are at half a rupee.” So, as call rates move towards the real cost of transmitting them, the role of MVNO naturally shrinks.

**“ALL’S WELL THAT ENDS WELL?”**

There is still good money to be made in the network, but revenue per bit is in freefall. Indeed, Analysys Mason predicts that revenue per gigabit in the mobile network will fall from US$23 now to US$24 by 2015.

However, while it is not clear what the real market value of network traffic is, it is certain that as there is a cost to transmitting bits and bytes, someone will pay it and someone will make a return on core network assets. New traffic profiles are skewed towards real-time traffic and are not suitable for best-effort service, so if the industry can work through some thorny issues, for example, net neutrality, there could be new value to shaped network traffic for the CSP. Meanwhile, trying to stem the tide of real-time traffic through tiered pricing does not look like a recipe for happy customers.

The trends are clear: CSP cost structures have to come down and so exercises in cost reduction via economies of scale and investment in new technologies, network sharing, and corporate restructuring (i.e. wholesale/ retail split) are continually being tried out.

CSPs must also learn how better to profit from new service trends, whether by partnering with OTT suppliers, or competing in the space themselves. Finally, in either a stable or a declining market, market share becomes all important. Many CSPs have already announced transformation towards better customer focus to drive customer loyalty, customer lifetime value and share of wallet.

But, if they are not to “suffer the slings and arrows of outrageous fortune”, CSPs need to transform along multiple lines, not just one. Transformation also accelerates the trend to the point when the network simply won’t matter or be of any real relevance to many ‘service providers’, who will be quite happy to buy network capacity from external wholesale suppliers.

**ERWAN MENARD IS VICE PRESIDENT AND GENERAL MANAGER, COMMUNICATIONS & MEDIA SOLUTIONS, ENTERPRISE SERVICES, HP**

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**Footnotes**

* “Shuffle off this mortal coil” is from Shakespeare’s “To be or not to be”, Soliloquy in Hamlet. In one of the most famous pieces of English literature ever written Hamlet discourses with himself on the nature of ‘the self’. “There’s the rub” comes further on in Hamlet’s musings and means “There’s the catch”, or “that’s the problem.” The phrase originates from lawn bowling, a pastime that Shakespeare greatly enjoyed.

* “To suffer the slings and arrows of outrageous fortune or to take arms against a sea of troubles and by opposing end them” is another quote from Hamlet’s soliloquy and refers to the choice of giving up and fatalistically taking on the chin all the vicissitudes that life can deliver, or fighting against fate and events in the hope of beating and banishing the bad times.

* “All’s well that ends well” is the title of one of Shakespeare’s late plays and the meaning is self-explanatory.
CSPs NEED TO TRANSFORM ALONG MULTIPLE LINES, NOT JUST ONE. TRANSFORMATION CAN ACCELERATE THE TREND TO THE POINT WHEN THE NETWORK SIMPLY WON’T MATTER OR BE OF ANY REAL RELEVANCE TO MANY ‘SERVICE PROVIDERS’, WHO WILL BE QUITE HAPPY TO BUY NETWORK CAPACITY FROM EXTERNAL WHOLESALE SUPPLIERS.

ERWAN MENARD, VICE PRESIDENT AND GENERAL MANAGER, COMMUNICATIONS & MEDIA SOLUTIONS, ENTERPRISE SERVICES, HP
Insight

Marie-Paule Odin, Chief Technologist, Communications & Media Solutions, Enterprise Services, HP
Do you fancy the idea of life free of the festoons of all those plastic credit and debit cards? An increasing number of people do and such an opportunity would be an attractive alternative for the world’s 5 billion mobile phone users, a billion of whom - 20 per cent - do not have a bank account. Much has been learnt from one of the leading examples of mobile payment systems, M-PESA in Kenya. What is clear from M-PESA is that where the basic business proposition, regulation and technology meet the needs of the market mobile, payment systems can be transformational.

Mobile payments would doubtless also find favor with the financial institutions - especially with credit card fraud now costing the banks and card companies somewhere between US$5 and US$8 billion a year and rising! However the reality is that the uptake of mobile payment solutions has been pretty limited. Back in 2001, Nokia, in partnership with Visa and Nordea, launched the first mobile payment system. It was based on a dual chip concept and design, combining a telecom SIM card with a Visa card on the same phone. Since then, there have been many other attempts to get the public to fall in love with the notion (and reality) of mobile payments, and experiments have been made with a variety of technologies and business models. However, most of these propositions have yet to make it through the court of public opinion – especially in OECD markets.

It didn’t matter if the mobile systems were proprietary and closed and so failed to achieve critical mass, or that Bluetooth solutions were a bit slow to connect properly and simply did not meet the security levels required by banks, merchants and users alike; mobile payment has remained the Cinderella of the telecoms world.

Even in 2011, mobile payment remains a seductive concept, dogged by the persistent inability to translate into mass market uptake. But times are changing at last, with five or six major mobile payment offerings positively impacting new consumer purchasing behavior, providing alternatives to traditional credit card usage.

REMOTE MOBILE PAYMENT
The most common of these, especially in sophisticated, developed markets where e-commerce is an established part of daily life, is remote mobile payment. Such systems leverage SMS, browser or mobile apps and enable the purchase of goods or services via a cellular handset with the cost of purchase later appearing on the consumer’s monthly mobile phone bill. Other payment alternatives include PayPal and other mechanisms. In developed markets, e-commerce is growing at double-digit rates.

PEER-TO-PEER
Peer-to-peer systems are becoming very popular in emerging economies where the mobile handset is used as a sort of cash machine able to transfer money from person to person and account to account.

Here the primary use is cashless payment or money transfer with the mobile handset operating as a simple and trusted mechanism to do business. Most users have prepaid accounts, and leverage ‘mobile top-up’ facilities to add money to a mobile account via a scratch card.

According to the GSMA, peer-to-peer is a rapidly growing phenomenon that will have 100 million users by 2013. This is good news for mobile operators as they usually take a percentage of the transactions.

CONTACTLESS PAYMENT
Elsewhere, ‘contactless’ payment has emerged as one of the most innovative solutions targeted especially at transportation services and retail outlets. Contactless payment systems are already very popular in Japan and are widely used. Sony’s Felica technology was first used to enable the concept of the mobile-wallet by NTT Docomo back in 2004.

Contactless mobile payment is also available via 2D-barcode readers deployed in stores. The coffee house chain Starbucks launched the service in the middle of last year and it has proven to be very effective and popular.
NFC contactless payments involve several interested parties to make it work. They are:

1. Financial institutions including banks and credit card companies
2. Mobile network operators providing wireless communications
3. Trusted Service Providers that manage the dispatch of a request from an end-user’s mobile device to the appropriate financial institution
4. Other players include NFC chip manufacturers and vendors, SIM card makers and vendors and companies providing specialist applications such as mobile coupons etc.

**FUTURE DEVELOPMENTS AND DEPLOYMENT**

However, the real growth in contactless payment systems is to come as Near Field Communications (NFC) are standardized. Trials of NFC technologies and systems are underway around the world and it is expected that several device vendors will announce and/or introduce NFC handsets in 2011 as competition hots up.

Analysts estimate that 15 per cent of mobile handsets sold in Europe and North America will be NFC-enabled by 2012. Consequently, it seems that robust, secure, easy to use and compelling mobile payment systems may now be just around the corner.

In the past few months the number of trials and deployments of contactless NFC mobile payment have increased dramatically all over the world.

One of particular note is the ‘citizi’ pilot system (www.citizi.fr) wherein French mobile operators co-operated and provided NFC mobile handsets and NFC readers to a number of merchants, such as transportation hubs and retail shops.

In Europe, mobile operators have conducted several pilot implementations including a major trial in the city of Nice on the Cote d’Azur. Mobile network operator Orange plans to equip 500,000 subscribers with NFC-enabled mobile handsets and high-security SIM cards. Orange says that in the near future at least half of the mobile handsets they sell will support NFC capability.

The service provides a combination of classical payment capabilities (in essence very similar to the ‘traditional’ use of credit cards) together with other value added services, such as loyalty points, context sensitive information, mobile banking and so on. Some services are provided free of charge, others are the price of an SMS or fee-based. Users are enabled to check the price of a transaction by holding the mobile handset close to the NFC reader.

The promise of mobile payments systems is beginning to be realized throughout the world – emerging markets have shown the potential and new technologies, most notably NFC, hold out the promise of mass market mobile payment services in all markets within a few years. Certainly by the end of 2011 many handsets will be enabled with NFC laying the foundation for the rapid diffusion of mobile payment services.

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Data charging needs to evolve beyond flat-rate data plans while policy management needs to go beyond the network in order for operators to maximize their data potential.

Go Beyond With

Comverse ONE™
Billing & Active Customer Management

for Smart Charging & Multi-Dimensional Policy Management

Comverse ONE ties together all aspects of the customer relationship, network traffic management, and monetization when defining and enforcing policies and pricing schemes to deliver premium customer experiences while maximizing data monetization potential.
Communication Service Providers face challenges to their traditional business model from falling voice margins, new competitors, IT and Internet companies. They must also balance the costs of new investments against measureable returns. Cloud is a highly flexible, on-demand model with the potential to help transform communication service providers by leveraging their existing assets.

The Cloud enables new services, new connections and new business value by allowing everything to be delivered as a service—from computing power though to business processes and on to personal interactions—whenever and however it may be needed. By provisioning IT and network resources and applications “elastically”, costs can be reduced, deployment of services accelerated, management simplified, and service portfolios transformed to drive revenue generation.

The HP and Alcatel-Lucent alliance leverages the network as a resource in the Cloud to automate and more effectively manage and distribute resources for better performance. The alliance will help service providers differentiate themselves by delivering a responsive and distributed Cloud-based services that take advantage of their inherent strength in their real-estate footprint, their brand, their culture of customer experience management, and their access networks.

**HP AND ALCATEL-LUCENT CLOUD SOLUTIONS**

The alliance’s telco-grade Cloud solution, the “Cloud Reference Platform” integrates best-in-class solutions and network capabilities to improve application and network responsiveness. This “distributed Cloud” also moves high-bandwidth or latency-sensitive applications closer to the user, utilizing existing real estate profile advantages. By leveraging the unique service management, assurance and provisioning capabilities of the alliance, we help service providers automate the complex management of Cloud services across the full IT stack from network to applications. This makes for a solution uniquely competitive and cost-effective to deliver, while improving the customer experience.

The HP and Alcatel-Lucent alliance offers the full set of capabilities to jump-start the service provider Cloud business.

- HP Alcatel-Lucent Cloud solutions will offer immediate revenue growth and create
- Architecture based on proven products, combined with end-to-end services backed by SLA’s from business case development through alliance operations
- HP and Alcatel-Lucent transformation services enable service providers to leverage and transform internal networks and data centers as well as multi-vendor revenue generating infrastructure

**WHY HP AND ALCATEL-LUCENT?**

By providing the broadest set of capabilities of any single vendor, the alliance creates the conditions necessary for a rapid return on investment. Service Providers seeking to enter the Cloud market and expand their offerings beyond that of a traditional telco need look no further than the HP and Alcatel-Lucent alliance.
HP and Alcatel-Lucent: Leading the convergence of IT and Communications to help you transform your business.

What if life moved at the speed of ideas?
**Services Experience** - HP and Alcatel-Lucent’s experience in professional services for service providers is unparalleled. Alcatel-Lucent’s history in the service provider market stretches back more than 100 years and today the company has presence in 24 of the top 25 global service providers while HP maintains a position in the majority of global 1000 enterprises through an in-depth understanding of IT needs.

**Automation of Operations** - The HP and Alcatel-Lucent Cloud solution enables an operational model that automates management of the complete Cloud, including the network, across the full stack from network to applications.

**Migration** - The alliance is a leader in migration tools and practices and this capability enables service providers to leverage their existing installed base.

**High Leverage Network (HLN)** - HP and Alcatel-Lucent’s Cloud solutions leverage the Alcatel-Lucent HLN architecture offering converged service and application-aware infrastructure that delivers services to all end users optimized for the lowest total cost of ownership.

**Scalability** - From a central office to massive data centers hosting tens of thousands of servers and handling millions of services, HP and Alcatel-Lucent provide industry leading compute and storage scalability for Cloud Computing environments with 100 Gigabit Ethernet and WDM technology to meet increasing bandwidth demand.

**ALIGNING ALLIANCE AND SERVICE PROVIDER MARKET POSITIONS FOR CLOUD SUCCESS**

Service providers looking to leverage hardware, software, and network assets to generate new revenue find themselves in a unique position to compete in Cloud services. New delivery models represent a real growth opportunity and are a natural evolution from existing hosting and network solutions. The alliance is working with service providers to leverage their internal Cloud optimization to create new revenue opportunities by using the resources released to support entry into public and hybrid Cloud services. And HP and Alcatel-Lucent are investing both jointly and individually in a variety of capabilities to support this broader transformation for service providers.

ABOUT THE HP AND ALCATEL-LUCENT ALLIANCE

The HP and Alcatel-Lucent global alliance helps service providers and mid to large enterprises evolve toward converged IT and telecom infrastructures that are more efficient, flexible, and adapted to the needs of fast-changing markets. Together, HP and Alcatel-Lucent bring to the market the world’s broadest set of capabilities to support our customers’ business transformation.

**CHRISTEL HEYDEMANN LEADS THE HP AND ALCATEL-LUCENT STRATEGIC ALLIANCE FOR ALCATEL-LUCENT**

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**Figure 1**: How the HP and Alcatel-Lucent Alliance is investing to provide you with a head start on your Cloud business transformation.
Communications services providers (CSPs) today are facing a critical need to enable new business models, and need to leverage third parties to bring new innovative services and applications to market. CSPs need to meet the combined challenges of demand from users for a rich portfolio of applications, the need to increase their value, and control and solidify their role in the changing wireless value chain. CSPs’ control of user experience is being diluted as the “walled garden” strategy is being eclipsed by third party apps store.

However, CSPs have begun to respond to these challenges and have been quite successful in opening up their network and IT assets using SDPs to expose service enablers to 3rd party developer ecosystems. They can compete in the market by introducing a large set of end-user applications to customers, and provide differentiation by enabling the applications to easily integrate with their network and IT enablers, thus bringing richer converged applications to the end customers.

WHAT IS THE MARKET SAYING?
According to research house Gartner, the mobile applications download revenue from online stores will be a US$58 billion worldwide business by 2014 based on almost 18 billion downloads. This figure marks a huge increase on the US$5.2 billion spent and 8.2 billion downloads of mobile applications in 2010. By the end of 2014, Gartner forecast that over 185 billion applications will have been downloaded since 2008.

According to a survey from the Moriana Group commissioned by HP, [Bridging the GAP – November 2010], most of the CSPs surveyed—90 per cent, to be exact—believe that within five years they’ll not only be delivering the data traffic generated by applications but will also be wholesaling network/service enablers via standardized APIs. More than half think they’ll be competing directly with device vendors. Seventy per cent want to build an application store, and half of them are already putting processes in place to manage developer communities and provide professional support. They see billing and charging, user profile data, location, and messaging capabilities as key advantages that network-centric applications can offer over device-centric applications, and they’re also aware that having their own application stores can increase usage of and revenue from their core services. They see standards as an important factor in attracting developers.

Based on the results of the survey and on our own experience as a solution supplier to CSPs, HP has identified three pillars of a strategic response by the CSPs, namely:

- CSPs can play a much bigger role in the mobile applications market than simply providing data-network connectivity; by extending the SDP value proposition to support ‘two-sided’ application store business models and introducing a large set of end-user applications to subscribers and other potential customers, CSPs can deliver value to their subscribers, reduce churn and increase stickiness, the applications become more important than the device
- CSPs must attract and maintain a vibrant developer ecosystem, and more importantly enable developers to generate viable revenue-streams
- A SDP can be the key to entering the mobile applications market both with their own offerings and with third-party applications, enabling developers quickly and efficiently to develop, test, and launch new applications and forming the basis for mutually profitable revenue-sharing
“OUR GOAL IS TO MAKE SURE THAT KOREANS CONTINUE TO HAVE THE BEST POSSIBLE MOBILE EXPERIENCE. THROUGH COOPERATION, BOTH GLOBALLY AND IN KOREA, WE CAN REACH THAT GOAL. THE PAN-COUNTRY APPROACH OF KOREA-WAC IS UNIQUE, AND AGAIN DEMONSTRATES KOREAN LEADERSHIP. WE LOOK FORWARD TO CONTINUED PROGRESS WITH HP.”

“SAID DONGJIN CHOI, DIRECTOR, MOIBA.”

BUILDING AN OPEN ECO-SYSTEM
The practical answer to these challenges was addressed in February 2010 with the establishment of the Wholesale Applications Community (WAC). The main rationale behind WAC is to provide a consumer-centric platform that enables CSPs to more effectively address their subscribers demand for apps. As a consequence CSPs will be better able to respond to the challenge of app stores that are depriving operators of new revenue streams and pushing them further away from the customer– leaving them with the cost burden of supporting users in the post-sales phase and having to deliver faster network connections (bit pipes) to bigger, fatter bit pipes to carry the app-generated traffic.

The aim of WAC is to build an open platform for mobile phone users – to create a “wholesale” app ecosystem for deployment across all carriers and devices, based on a vision of unifying apps registration, packaging, approval and download, rather than the fragmented ecosystem of today. In essence, the value to consumers stems from the main features of WAC, including:

- A common development ecosystem, Network & IT API exposure and application pricing and settlement platform
- A driver of web technology for mobile (widget technology)
- A community which is open to all, but governed by leading operators
- A world-wide community for developers
- An opportunity to enable a true cross-platform and cross-retail store ecosystem for applications

Originally the WAC consortium constituted 24 operators, including AT&T, NTT, Deutsche Telekom, Orange, and many others, combined with device manufacturers LG Electronics, Samsung, and Sony Ericsson. From this initial base, WAC has grown to include more than 50 of the world’s communications service providers (CSPs), NEP, SIs and solution providers, as illustrated below:

The early success of WAC is demonstrated by the increasingly widespread recognition that:

1. WAC is the defining Standards Organization (SDO) driving a common, worldwide app store business model across disparate CSP networks;
2. WAC has become the de-facto SDO defining app store transaction and settlement models, and delivering app/widget standards into other SDOs, e.g. WAC widgets with the W3C;
3. By joining WAC, HP will support CSPs’ App Store roll-out plans through the HP SDP Storefront Portal solution, a major component of our Application and Cloud Enablement strategy.
Delivering the Benefits of WAC

HP is providing systems integration services to the Mobile Internet Business Association (MOIBA) and is working with three Korean telecoms companies in their joint effort to vastly expand the number and quality of services for their mobile customers.

SK Telecom, Korean Telecom and LG U+ are co-operating, through a consortium, to create a single, Korea-specific clearing house that will link to a global application development system called the Korea-Wholesale Applications Community (KWAC).

The Korea-WAC platform will function as an intermediary, handling transactions and processing, to ensure that global WAC applications are available and optimized for use by the three Korean CSPs and their mobile customers.

In addition, a Korea-WAC application can enrich the mobile experience for all users by integrating key network enablers from the three different CSPs. For example, an application that depends on a user’s location or availability can share that information automatically among all users, even if they are on different CSP networks.

The Korea-WAC platform will function as an intermediary, handling transactions and processing, to ensure that global WAC applications are available and optimized for use by the three Korean CSPs and their mobile customers.

In addition, a Korea-WAC application can enrich the mobile experience for all users by integrating key network enablers from the three different CSPs. For example, an application that depends on a user’s location or availability can share that information automatically among all users, even if they are on different CSP networks.

The Korea-WAC platform is being implemented by MOIBA, a consortium of the three Korean CSPs supported by the Republic of Korea.

“Our goal is to make sure that Koreans continue to have the best possible mobile experience,” said Dongjin Choi, Director, MOIBA. “Through co-operation, both globally and in Korea, we can reach that goal. The pan-country approach of Korea-WAC is unique, and again demonstrates Korean leadership. We look forward to continued progress with HP.”

To build the Korea-WAC platform, HP is drawing on its experience with Service Delivery Platform and large-scale complex projects that require both telecommunication and IT expertise, as well as its capabilities in consulting and integration, architectural guidance and overall project management.

“The innovative Korea-WAC approach creates growth opportunities for CSPs and application developers, and will ultimately enhance the mobile experience for millions of users,” said Erwan Menard, Vice President and General Manager, Communications and Media Solutions business unit, HP. “HP believes WAC can be a catalyst for re-shaping the global landscape, and Korea-WAC might well be a model for other countries.”

The Korea-WAC platform is expected to be fully operational later this year (2011). At that time, the three Korean CSPs intend to start incorporating new, enriched applications into their respective app stores.

In short

It is generally agreed that the CSPs face considerable new challenges from non-CSP app store operators but that they can make many strategic responses. Open systems, fuelling a new apps eco-system that delivers sustainable advantages to consumers, regardless of their choice of devices and networks is the core feature of these strategic responses. Moreover, collaborative working through the WAC has provided a practical platform on which to build the strategic response to the apps stores. Vanguard applications are being created now and the collaborative model being implemented in Korea between the CSPs, device vendors and HP is setting a new industry norm.

Alain Decartes is WW Senior Solution Marketing Manager, Applications and Cloud Enablement, Communications & Media Solutions, Enterprise Services, HP

Gerry Winsor is Chief Technologist, Applications & Cloud Enablement, Communications & Media Solutions, Enterprise Services, HP; HP – WAC Technical Representative
Physician heal thyself? Take your own medicine before prescribing it for others? Isn’t it better to learn to swim with someone who already knows how? Would you try to pilot a helicopter without having had flying lessons?

Questions like this should be at the forefront of our minds as we turn to others for advice. In this brave new world where business challenges are profound and the risks and ramifications of failure so high, the choices that companies make are of enormous significance - and sometimes even a matter of corporate life or death.

CSPs and media companies are embarking on business transformations that will determine their future role in an evolving ecosystem. The process is complex and support and guidance is vital throughout it - at both the macro level of fundamental strategic decisions as well as the micro level of operational decision-making and practical outcomes. And the ability to translate and adapt its own advice, experience and expertise into a transformational activity on behalf of others is exactly what Solution Consulting Services Practice (SCS) at HP is now doing. The results are remarkable and the additional experience gained from several successful transformations effected for major clients has helped further to hone HP’s abilities and offerings.

Guy Daniels (GD): What role does SCS play within HP and on a wider industry level? And what value does SCS add to HP CMS?

Teresa Schlegelmann (TS): Basically, the Worldwide Solution Consulting Services Practice acts as a trusted advisor and a business consultant to our customers embarking on transformation. We provide value to our customers by helping them solve business critical issues, pursue opportunities, and invest intelligently. In addition, we collaborate with the entire HP ecosystem to create consensus around the HP portfolio.

GD: Can you break down what it is that SCS actually does?

TS: The global practice provides a worldwide service whereby consultants are, at any time, able to travel wherever necessary to address complex business consulting initiatives and transformation programs. This works in conjunction with our regional practices, where we work seamlessly to supply key consultant capabilities to our customers for transformation programs. The bottom line is we help our customers achieve their strategic objectives by guiding them through successful operational transformation.
“WE’VE TRANSFORMED OURSELVES. WE’VE HELPED TRANSFORM SOME OF OUR LEADING SERVICE PROVIDER CUSTOMERS. WE’VE PROVEN THAT ANYTHING IS POSSIBLE.”

TERESA SCHLEGELMANN, WORLDWIDE MANAGING PRINCIPAL, SOLUTION CONSULTING SERVICES PRACTICE, COMMUNICATIONS & MEDIA SOLUTIONS, ENTERPRISE SERVICES, HP
GD: And what is new in SCS?

TS: HP SCS is recognized for leading our customer’s transformations. We are striving to continually improve through new organizational models, new team members, and new offerings to position HP as a trusted advisor and consulting partner.

GD: OK, so what is Transformation and why is it so important to HP and the wider industry?

TS: These days everyone is looking to grow revenue in existing markets, reduce time to market, reduce OPEX, and implement new business models.

Transformation is particularly important to HP and the industry because, at this very moment, we are at a time when the industry in general and the communications and media sector in particular is in a state of flux. Companies and organizations seeking to transform and translate that requirement into reality need strategy, process, technology, organization and the ability to govern the entire process - and that’s what HP has and brings.

GD: And what are some of SCS’s achievements to date?

TS: Our achievements focus on delivering on our customer commitments and growing our business. HP SCS business is up by 438 per cent over last year! That is significant because we actually had first to transform our own practice, really from being a start-up company inside HP, to much more of an operational organization. Ironically, whilst focused on helping our customers transform, we have also managed to transform ourselves into a very powerful business practice and are achieving excellent financial returns as a result.

GD: Right, so what is unique about HP SCS?

TS: Well, there are several key elements to the business - portfolio and assets, proven methodology, deep best practices in terms of deploying transformation and solving complex problems, and a world-class consulting team. No business in consulting can claim to be capable without having the best, brightest and most talented people on hand to provide that capability.

GD: Finally then, can you sum up HP SCS and its key values?

TS: We’ve transformed ourselves. We’ve helped transform some of our leading Service Provider customers. We’ve proven that anything is possible.
The next decade will be characterized as an era of unlimited customer choice – all customers will be looking for end-to-end services and quality of service guarantees for all their requirements across all markets. Meeting such demands require changes in the way telecoms and media companies operate; not just a ‘reshuffling of the deckchairs’ but deep and game-changing transformations that delivery sustained competitive brand value.

But transformational change programs are fraught with danger and the corporate landscape is littered with failures. In fact, McKinsey research shows that about 70 per cent of operational transformations programs (OTPs) fail to achieve the desired results – so why should we expect the telecoms and media sector to outperform others? The challenge is not about defining the scope and rationale for change but improving the odds of success – and here benchmarking is, and will increasingly be, used for identifying, quantifying and prioritizing where telecoms and media companies should invest to optimize their transformation efforts.
## BENCHMARKING AND TRANSFORMATION PROJECT EXAMPLES

<table>
<thead>
<tr>
<th>Business Driver</th>
<th>Benchmark contribution</th>
<th>Resulting Transformation</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Asian wireless operator needed leaner cost structure, improvement in customer satisfaction, and OSS agility deploying new services</td>
<td><strong>Operational efficiency</strong> benchmark indicated high operational costs compared to the industry. Served as transformation catalyst</td>
<td>70 per cent first call resolution and increase in service levels improved customer satisfaction, reduced churn, significant OPEX reduction, new found Operations Intelligence</td>
</tr>
<tr>
<td>An Eastern European wireless startup lacked accountability, standardized communication, process maturity</td>
<td><strong>Business process and operational efficiency benchmark</strong> compared existing processes and metrics to eTOM Standards, and industry best practices</td>
<td>Processes ensures a consistent comparison with industry. New KPIs and Balanced Scorecard defined and implemented</td>
</tr>
<tr>
<td>A Middle Eastern quad play operator required improvement in flexibility, time to market and customer excellence</td>
<td><strong>Business process benchmark</strong> identified gaps, overlaps and inefficiencies in the end-to-end operational processes, and critical success factors related to existing problems, goals and measures</td>
<td>Redesigned end-to-end process framework, qualified market leading COTS applications and crafted a comprehensive to-be application architecture blueprint for the next 5 years</td>
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BENCHMARKING IS, AND WILL INCREASINGLY BE, AN IMPORTANT TOOL FOR IDENTIFYING, QUANTIFYING AND PRIORITIZING WHERE TELECOMS AND MEDIA COMPANIES SHOULD INVEST TO OPTIMIZE THEIR TRANSFORMATION INVESTMENT.

DESIGNING BENCHMARKS
There are many choices when designing benchmarks and many methodologies that can be used. At their core, all benchmarks, whether based on strategic assessments, comparison of business processes or financial performance, allow a company to review its activities against its peers in an objective manner and allow an organization to map out the changes needed to achieve ‘best in class’ status.

The practical outcomes from benchmarking are startling – companies are able to reposition themselves and deliver transformational change projects in a focused and success driven manner. Some examples are shown in the table opposite.

BENCHMARKING AT HP
HP Solution Consulting Services (SCS) stands out with a unique combination of network and IT experience, proven methodologies, and a model-based approach that attacks problems in a systematic way. For 2011, the SCS portfolio is being extended with additional benchmarking capabilities. The benchmarking capability helps customers understand where they are and where they should go by comparing their business measures with relevant scores from peers/competitors in the industry.

MAKING IT HAPPEN – HP AND THE TM FORUM BENCHMARKING INITIATIVE
In addition, HP differentiates its capabilities by way of strategic relationships with industry associations, including the TeleManagement Forum (TMF).

TM Forum brings together the world’s largest communications, technology and media companies, providing an innovative, industry-leading approach to collaborative R&D, along with a wide range of support services including benchmarking, training and certification. The TM Forum produces the renowned international Management World conference series, as well as thought-leading industry research and publications.

The TMF Benchmarking program provides comparative data for the purpose of improving business effectiveness for Service Providers and enablers. This data is potentially valuable in identifying leading companies and best practices.

By contributing to the study, service providers will be both gaining insights into their organization’s operational business performance and assisting the communication industry at large.

HP has the opportunity to leverage TMF benchmarking data to enhance HP SCS Capabilities. The customer benefits of this relationship are twofold:

- The cost of benchmarking is substantially reduced through utilizing Internet resources
- The TMF database of industry metrics and data points provide access to data that otherwise would not be readily available

As visits to competing companies are difficult, the combination of TMF data, coupled with HP Solution Consulting capabilities is particularly attractive.

CONCLUSION
Transformation programs are too often a hit-or-miss series of disparate initiatives that fail to deliver a sound return on investment – a major risk for telecoms and media companies facing an era of unlimited customer choice. Benchmarking is, and will increasingly be, an important tool for identifying, quantifying and prioritizing where telecoms and media companies should invest to optimize their transformation investment.

Benchmarking provides crucial input to the business case at a strategic and tactical level by comparing your business and operational performance versus your peers/competitors. Getting it right enables you to prioritize your investments, to optimize return on transformation investments, and win in today’s highly competitive marketplace. Using the HP SCS methodology gives you the tools to deliver operational transformations programs.

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A NEW GAME WITH NEW RULES
The telecommunications marketplace continues to mature, and Communications Service Providers (CSPs) are feeling intense pressure on profit margins. New players such as Google and Apple have changed the game. Growing consumer appetite for more and better services and a seamless, high-quality “anytime, anywhere” service experience is putting new urgency on successfully transforming from technology-focused operating procedures to business-focused operating procedures.

Commissioned by HP and performed in collaboration with Frost and Sullivan, the Hewlett-Packard Global Transformation Study 2010 surveyed executives from over 30 CSPs worldwide on the state of business transformation within their organizations. The results document the dramatic shift from evolutionary technology updates towards transformations that fundamentally change the way business requirements are met across the full enterprise.

The research reveals that revenue growth and reduced time to market are now driving most of today’s enterprise-wide business transformation projects, unseating cost control as the primary driver. Recent efforts aimed at consolidating IT and network infrastructure and at breaking down siloed operations are paying dividends. Now, prepared CSPs are aggressively capitalizing on emerging opportunities by becoming business exchanges through well-planned and well-executed transformation programs.

HIGH-OCTANE CHANGE ACROSS THE BUSINESS
Over the past decade, many CSPs engaged in technological optimization and cost cutting. While technology is a chief enabler, it alone cannot power an effective business transformation initiative. It requires a plan of action that creatively orchestrates people, processes, and technology across the organization. Companies participating in the survey cited network infrastructure, operations, and customer care and billing as key areas of focus for transformation, followed by finance and marketing.

By definition, business transformation impacts structure and culture across the full spectrum of the business. Successful preparation includes securing buy-in from key stakeholders, from C-level executives and corporate transformation officers to the various directors and department heads. A well-reasoned plan of action, must include governance and be based on ambitious but achievable goals, in order to have is the best chance for getting that critical support.

Effective business transformation plans address the new realities of today’s complex communications landscape, including:

• Heightened complexities all along the content creation delivery value chain
• The massive increases in data volume and the consumer insight that data represents
• New business models that reflect the need for better customer segmentation and greater granularity
• Enabling the exploitation of new business models, such as machine-to-machine and Cloud delivery


GENERAL MANAGER AT A EUROPEAN SERVICE PROVIDER
In short, business transformation is about creating deep, high, and wide change throughout organizations. This high-octane brand of change ripples across people, processes, and technologies, leveraging existing assets and applying them in new ways to support new business models and service requirements. The ultimate goal? Enabling CSPs to transform from traditional operators to business exchanges by capitalizing upon two-sided business models.

As a business exchange, a CSP focuses on two important areas:

- Customer experience, by acting as a sophisticated provider of communications services that become an integral part of customers’ lives
- Content provision, by monetizing over-the-top services using service-provider assets and trusted relationships enhance bottom-line margin, proactively manage the customer experience, and dynamically compete and thrive

**TOP EXECUTIVES ARE ON BOARD**

Survey data shows that industry is crystal clear in understanding the need to transform:

- 96 per cent of those surveyed reported that business transformation is required for their organizations to continue to compete
- 90 per cent said that their companies are already dedicating resources toward this initiative
- More than 80 per cent said that their CEO is the primary stakeholder for the initiative

This top-level executive buy-in clearly indicates the vital importance of business transformation as the means for turning business strategy into action.

**THE EXECUTION CHALLENGE**

What’s less clear is how to most efficiently plan, design, and execute business transformation initiatives. Lack of ability to execute is the leading cause of transformation initiatives being perceived as failures, with more than half of the respondents noting that execution is their biggest weakness, causing them to look for outside expertise. Specifically, implementation, delivery, and consulting was called out as the most important capability when looking for external support to drive transformation, with 35 per cent calling it “critical” for successful execution.

**PARTNERING FOR SUCCESS**

Inability to execute is the number one reason business transformation initiatives fail - not a lack of vision, will, or even investment. This underscores the vital importance of choosing the right technology partner to help define, build and drive the initiative forward. Survey findings indicate that:

- CSPs are looking to external partners to address implementation pace, executive alignment, and business change
- More than 60 per cent report that IT/Technology expertise is a key factor in choosing an external partner
- CSPs are prepared to pay to guarantee transformation quality and expertise
- One-third of CSPs look for strong cultural alignment with a partner that can create long-term relationships

**PUTTING YOUR BEST FOOT FORWARD**

The first-hand insight revealed by the survey offers invaluable changes CSPs can make in their operating procedures, including:

- Securing key executive involvement, starting with the CEO and CFO
- Clearly defining and communicating goals, including financial metrics, organizational change, process improvement, architecture optimization, and governance
- Collaborating with external partners for change management and acceleration of go-to-market

Based on insights like these, and on decades of experience in helping CSPs produce business outcomes, HP takes a services-led approach to transformation through HP Solutions Consulting Services (SCS), which delivers upfront business issue consulting, enterprise architecture, benchmarking, and best practices. The SCS practice provides an operations blueprint that includes all the relationships between people, processes, and technology—and how these elements must be transformed. Proven transformation governance capabilities drive the execution of the transformation according to specific business needs.

This approach helps HP to consistently deliver successful transformation initiatives.
“THE PARTNER NEEDS FULLY TO UNDERSTAND THE COMPLEXITY OF THE COMPANY, AND THEY NEED TO BUILD THAT UNDERSTANDING FROM THE BOTTOM-UP. MANY CONSULTANTS HAVE A TENDENCY TO DO THE EXACT OPPOSITE.”
DIRECTOR OF GROUP TRANSFORMATION AT A GLOBAL SERVICE PROVIDER

MEASURING SUCCESS AND DEMONSTRATING IT TO KEY STAKEHOLDERS

Key stakeholders will ask, “Is this effort worth it? How will it help me? How will we measure return on our investment?” Finding answers to these questions isn’t always straightforward. The impact of transformational changes can be unexpected and far-reaching, and metrics such as change in shareholder value are notoriously difficult to capture.

Based on long experience with transformational processes, HP has found that the ability to accurately measure return must be built in to the initiative through solutions that simplify infrastructure and help to improve transparency. Businesses demand this critical visibility of return.

The survey probed CSPs on the most important financial and non-financial key performance indicators (KPIs) for their business transformation initiatives. The top metrics listed as the most critical issues for respondents include:

**Financial metrics**
- Bottom-line margin
- Shareholder value (stock price)
- Top-line revenue

A full 97 per cent of respondents said that their organizations use non-financial metrics—and typically more than one—to judge the effectiveness of their initiative. Among non-financials, customer satisfaction was identified as the most important metric. This isn’t surprising, since customer experience management initiatives are often intertwined with business transformation efforts.

**Non-financial metrics**
- Customer satisfaction
- Productivity
- Employee satisfaction
- Time to market

IS IT TIME FOR YOU TO TRANSFORM?

As the industry itself transforms, it’s time to reinvent yourself: refocus your cost-cutting efforts on growth and improving customer satisfaction through business transformation. You’re competing with new market players head-on, and the ability to develop new business models, expand service offerings, and provide a far more satisfying service experience is within reach. The building blocks are largely in place. A new standard operating procedure has emerged.

IT’S TIME TO ACT

In addition to HP Solution Consulting Services, HP Communications & Media Solutions (CMS) Services provide a complete set of services to enable rapid and cost-effective solution delivery while minimizing business risk:

- HP Solution Implementation Services (SIS) include Solution Design, Application Development and Customization, System and Network Integration
- HP Solution Outsourcing Services (SOS) include Business Process Outsourcing, Application Management, IT and Infrastructure Outsourcing
- HP Solution Management Services (SMS) include Reactive Support, Proactive Support, Operational Support, Enhancement Services, Educational Services

RICHARD ARTHUR LEADS BUSINESS TRANSFORMATION SOLUTIONS MARKETING, COMMUNICATIONS & MEDIA SOLUTIONS, ENTERPRISE SERVICES, HP
Disruption rules the telecoms industry today. It’s everywhere you turn: heart monitors use smart phones to alert doctors to trouble. Insurance rates can be tied to your driving abilities, not your age. And that’s just the start. So what will customers be asking for tomorrow? And how many new competitors are lurking just around the corner?

IT’S ALL COMING TOGETHER... AND IT’S COMING SOON
The evolution of mobile and Cloud Computing is changing the role of IT in the enterprise. Experts predict that within the next few years more than 2 trillion devices will be connected to the Internet[1]. Meanwhile Communications Service Providers (CSPs) expect that very soon more machines will be connected to their networks than will people.

This interconnection of things and people in virtual environments will build new industries that deliver new classes of services globally. It will enable new relationships with customers and citizens, shifting expectations from mass markets to a market of one. With these nearly limitless connections - a world of unlimited customer choice - the service opportunities are just as vast.

Simultaneously, this evolution is bringing new competitors - IT and Internet companies such as Apple, Google and Skype - to a marketplace already under severe pressure from falling voice comms margins.

Revenues streams are being diluted and stemmed as over-the-top (OTT) players capture a share of the subscriber wallet. CSPs have to weigh these threats against the costs of new investments and must also leverage their unique position in the services ecosystem and move quickly to enable transformation.

THERE’S NO TIME TO WASTE IN GIVING CUSTOMERS WHAT THEY WANT
The world is mobile, connected, interactive, immediate and fluid. Consumers, citizens and workers expect their requirements to be met instantly. The young people entering the workforce will have greatly different expectations than those of their predecessors. Social media, consumerization of IT and demographics are fundamentally changing how work gets done in enterprises.

The introduction of social media facilitates instant connections to ideas and collaboration within and outside the workplace and we expect the tools we use in our personal lives to be available in our work lives. That expectation changes the role of tool selection in the enterprise. No longer does “one size fit all”.

And the changing workforce brings with it a new way of looking at problems. This generation sees technology as just service delivery platform and technology is the key to meeting changing user demand... but not in the same ways that we used technology over the last 40 years.

IN AN “ANYTHING, ANYWHERE, RIGHT NOW” WORLD, THE EXPERIENCE WILL MAKE THE DIFFERENCE
Customer loyalty is the lifeblood of business and that applies to the CSP industry just as much as it does to anything else. However, what has changed is the ease with which customers can leave one provider to get a better deal or more of what they want from another. So, to keep customers happy and loyal, CSPs must orchestrate devices, networks and services to deliver a consistently satisfying consumer experience.
Tomorrow’s CSP industry leaders will be those that capitalize on technology to drive the time factor out of the equation. These organizations will:

1) Continually explore better ways to run the shop by changing the traditional business model to be able to react quicker to falling voice margins, new competitors and balance the costs of new investments.
2) Design new processes and methods to meet changing customer and constituent demands to survive in the world of unlimited customer choice and declining voice margins.
3) Build flexible systems that meet ever-broadening requirements.
4) Improve customer experience and interact with customers, employees and partners more quickly, with greater personalization and via multiple channels.
5) Transact efficiently, effectively, and securely
6) Govern the organization and partners to meet legal, environmental and ethical goals and responsibilities.

To compete, an enterprise must be able to deliver more-or-less instant gratification: whatever; wherever; whenever, through any device and platform. To do so, CSPs will have to reinvent how they use technology. In a recent survey, 85 per cent of global executives said that to be successful, technology must be embedded in the business12).

THE INSTANT-ON ENTERPRISE
HP has a vision for these organizations and we call it the Instant-On Enterprise. To prepare for the Instant-On future it is necessary first to recognize (and capitalize) on the forces that are in play.

CSPs have honestly to assess their ability to meet new demands and to analyze and determine how to connect and interact with customers, partners and employees to gain competitive advantage. Then, when the goals are clear and agreed it is time for a CSP to choose a technology partner to help it to get where it wants to go.

At HP, we believe there are four requirements to such success:

- Innovation to produce higher-quality products and services that will drive growth
- Agility to accelerate time-to-market and meet changing customer demand
- Optimization to reduce operating costs while streamlining processes
- The ability advantageously to manage risk

These requirements come together in the Instant-On Enterprise. As envisioned by HP, the Instant-On Enterprise streamlines everything required to deliver a service. Technology is used to integrate and automate the value chain, to enable the enterprise to adapt more easily to changing realities, to manage risk and environmental responsibilities and innovate more rapidly and consistently. These results are affected by streamlining the processes and technologies that are required to deliver a service.

Enterprise IT plays the starring role here in delivering the 5 critical success factors:

**Flexibility:** The Instant-On Enterprise runs services and applications that are always available and can easily adapt to new opportunities.

**Automation:** The Instant-On Enterprise must rapidly and reliably scale technology resources both up and down to meet changing needs. It neither over- nor under-provisions, but instead instantly responds to and meets enterprise demands.
Security: In the Instant-On Enterprise, assets, resources, and information are closely guarded to manage risk and protect innovation. They are highly secure and protected against failure. **Insight:** The Instant-On Enterprise harnesses the power of information to help people make better decisions. It protects information and delivers it in accordance with enterprise needs.

Speed: The Instant-On Enterprise selects the best delivery model for the solution—the delivery model that provides the right outcome, in the right time frame, at the right price.

**PARTNERING TO SUCCEED**
The right technology partner is critical to the strategy and HP has the expertise, portfolio and vision to help CSPs meet the challenges ahead. Our Application Transformation, Converged Infrastructure, Enterprise Security, Information Optimization and HP Hybrid Delivery solutions help CSP customers and partners capitalize on technology and to take the time factor out of the equation.

What’s more, the Instant-On Enterprise is everywhere. Whether it lives in the Cloud, in the data center down the hall or across the entire value chain, it responds to the real-time needs of the organization in a way not seen before. The Instant-On Enterprise is here, and it has arrived not a moment too soon.

**SYBILLE SCHIEG-HEIMANN, WW INDUSTRY MARKETING MANAGER, COMMUNICATIONS SERVICE PROVIDERS, ENTERPRISE BUSINESS, HP**

**Footnotes**
2 October 2010, HP survey
AH, BUSINESS TRANSFORMATION

There are many technological components for a communications carrier to consider, but what may really render the process successful or not depends on the people inside the process. “You have to be all over the people dimension, or that will be the most likely thing to kill you,” says Marcus Harwood, Managing Partner at OND LLC (www.ondonline.com), which consults on business transformation. “If you ask the engineers to think back on the last big failure they’ve had and ask if it was technology, process or people, 90 per cent of the hands will be raised when you get to people.” The things that can drive a stake through the heart of transformation vary widely and include territorialism, lack of buy-in, lack of consensus, various emotional barriers and obstructionism from certain personae inside the organization that are “kings of their world and don’t want it to change,” Marcus notes.

THE FOUR INTELLECTS

Successfully navigating the cultural shift at the heart of any business transformation requires a realistic look at the strengths and skills needed to execute the project. And according to Harwood, those skills can be boiled down to four distinct intellectual profiles: Strategists, project directors (PDs), networkers and external qualifiers (EQ).
The adoption of an innovation follows an S-curve when plotted over a length of time; it essentially maps the market penetration of a new product or technology, from early adoption to mainstream popularity. At the top of the S-curve is saturation, often seen as the point when a business must innovate a new technology, reinvent itself or otherwise transform in order to avoid stagnation and irrelevance. The four intellects have varying roles at each step of this cycle. The strategists are the big idea people, the visionaries that have the creativity and the innovation to set strategic direction for a company. They’re not detailed thinkers that execute that direction, but rather the ones that are responsible for creating new ideas during the start-up and transformation phases. But that role diminishes between those two poles. “When you start a company or start a business line and you realize, wow, we’ve got a great hit product and a long life cycle ahead, the strategist’s role tends to lessen and it’s all about scaling the business,” says Harwood. “Often they’ve been jettisoned because they’re kind of weird and odd, being creative people, and they’re not needed on the team to ride the S-curve up.” For telecoms companies, the team responsible for moving the business along the S-curve tends to be made up of technologists and engineers, the PDs that are oriented toward actually getting work done.

“They hate to be wrong, they’re analytical and they hate risk and ambiguity,” said Harwood. “They’re interested in processes and building scale in the technology and in reliability and management of complex technologies.” When they get to the top of the S-curve, the PDs often feel that transformation can be seen as just one more engineering process and, as good engineers, they can figure out how to jump the S-curve themselves, without having the big idea people in the company anymore to lend the vision necessary for success, Harwood says. Meanwhile, there are the networkers to consider. These are those that are gifted at reading people and at building long-term relationships, and they’re critical when a company is looking for internal sign-off for a new project — they talk to other employees and communicate the vision that the strategists have laid out. They build trust and empathy. “They really are oil that makes the PD people work,” says Harwood. “If a carrier is a car, the engineers, the PDs, are the engine. But an engine is useless without oil.”

He adds that telcos are woefully networker-poor. “These are people who are gifted in the people dimension, the ones that can read the slightest raise of the CEO’s eyebrow and understand the import,” he said. “They tend to be 5-foot deep in content, but know how people tick and how to change people’s minds. But because they’re not technologists, the networkers tend to be barred at the door. So when transformation time comes, you’ve gotten rid of the strategists and never hired networkers, and all you have are PDs.”

The fourth kind of intellect can be seen in EQs. These are most frequently salespeople, but they’re competitive and gifted in articulating the company direction that leads to aspiration in the future — in other words, they can get people fired up. “There are not nearly enough EQs spread among the rank and file, the ones asked to take the hill at all costs,” says Harwood. “So you find yourself doing something in transformation where it needs to be creative and out of the box to put the company in a strategically advantageous position, but there’s no one out there appealing to employees’ competitive spirits.”

So for carriers, the PDs tend to make up the bulk of the employee base when transformation time comes. “For every successful transformation there are three that fail, and failed business transformations are almost always a result of not

"YOU HAVE TO BE ALL OVER THE PEOPLE DIMENSION, OR THAT WILL BE THE MOST LIKELY THING TO KILL YOU."
For instance, ‘who are the broadcasters—networkers and EQs—off successful transformation, then it’s up to identifying who is who. For instance, who are the broadcasters—networkers and EQs—who can get the message out to the rest of the organization? Harwood explains: “Who are the people that can influence 20 other people to get on board with the project? And who are the executers? Who do we have that are take-it-to-the-bank people?” There’s a lot of dysfunction in the four intellects, thanks to their very different skill sets, and they often don’t see eye to eye. “Don’t try to make them best buddies,” Harwood says. “We could care less. A lot of these organizations do team building. But they don’t need to like each other, they just need to have absolute respect for each others’ intellects.” For instance, a creative person can be put in a room for a month to come up with ideas. But if you ask an execution person to sign up for that, “they’ll say ‘no way,’” says Harwood. And if you ask a creative person to work on the same thing every day for 60 hours per week until it’s done, they’ll likely say no. “So once this is explained and understood, they can respect each other’s strengths,” Harwood notes. Bottom line? You can’t transform without people. “It’s a team sport and you have to respect each other’s strengths,” Harwood notes. Bottom line? You can’t learn that. You can’t do it by dint of hard work.”

BUILDING THE RIGHT TEAM
There are good processes that are known when it comes to transformation, so carriers don’t have to invent new ones. And the technology is almost always there. So the hard work comes in putting together a transformation team with the right mix of intellects. It’s also important to establish both a language and a methodology for good teaming. “Usually a transformation team is horrifically put together,” Harwood says. “But these carriers are betting the company on that core team. It’s critical who’s on it. But ask them, do you have a language for teaming? No, they don’t have one. How about a methodology? No, they don’t have one of those either.” Language for teaming has to be very simple. “It’s axiomatic,” says Harwood. “Human beings ready to accept incredible complexity in process and technology want simplicity in people matters. If the language is not simple, they won’t use it every day.” When it comes to methodology, a carrier will need to identify what’s needed to run a company in all phases, including transformation efforts. It needs to establish the right mix of intellects needed for the first stage of transformation, which is positioning, and when it’s time for the second phase, strategy, the mix needs to change. The same is true for subsequent phases: the third phase is establishing the value proposition, the fourth is detail planning and the fifth is execution. “The team needs to change pretty dramatically in each one of those phases,” says Harwood. Once a lingua franca for teaming has been established, and everyone has a base understanding of what a team looks like that can pull off successful transformation, then it’s up to identifying who is who. For instance, who are the broadcasters—networkers and EQs—who can get the message out to the rest of the organization? Harwood explains: “Who are the people that can influence 20 other people to get on board with the project? And who are the executers? Who do we have that are take-it-to-the-bank people?” There’s a lot of dysfunction in the four intellects, thanks to their very different skill sets, and they often don’t see eye to eye. “Don’t try to make them best buddies,” Harwood says. “We could care less. A lot of these organizations do team building. But they don’t need to like each other, they just need to have absolute respect for each others’ intellects.” For instance, a creative person can be put in a room for a month to come up with ideas. But if you ask

**THE HARD WORK COMES IN PUTTING TOGETHER A TRANSFORMATION TEAM WITH THE RIGHT MIX OF INTELLIGENCES.**

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### EQ

**INTELLECT DIMENSION: WHERE**

**CORE STRENGTHS**
- Competitiveness
- Decisiveness
- Versatility
- Independence
- Public speaking
- Sensing Opportunity
- Self Starting

**KEY CHARACTERISTICS**
- Smart and Articulate
- Socially Fearless
- High Rejection Tolerance
- Money Motivated
- Many Contacts (versus Relationships)
- Speed

**DARK SIDE**
- Snap Judgements
- Poor Listeners
- Short Attention Span
- Oversell
- Low Empathy

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### NETWORKER

**INTELLECT DIMENSION: WHO**

**CORE STRENGTHS**
- Highly empathetic
- Influencing
- Relationship
- Development
- Active Listening
- Sensing People, Culture, Situations

**KEY CHARACTERISTICS**
- Trust: both ways
- Gather political capital
- Wide circle of Friends and Relationships
- Rapidly Absorb New Ideas
- Easily Meet Others

**DARK SIDE**
- Manipulative
- Avoid Unpopular Decisions
- Spread Self Too Thin
- Political Intrigue

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### PD

**INTELLECT DIMENSION: HOW**

**CORE STRENGTHS**
- Execution
- Logic and Analysis
- Systematic Thinking
- Organization
- Process Orientation
- Problem Solving
- Depth of Knowledge

**KEY CHARACTERISTICS**
- Practical
- Cautious
- Finish What They Start
- Thrive in Complexity
- Dislike Ambiguity
- Consumed by Tasks

**DARK SIDE**
- Too Much Precision
- Deal with Emotions Factually
- Compulsive
- Nitpickers
- Consumed by Tasks

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### STRATEGIST

**INTELLECT DIMENSION: WHAT**

**CORE STRENGTHS**
- OnPoint/On-Demand
- Creativity
- Vision
- Invention, Innovation
- Strategic
- See the Flaws
- Independence

**KEY CHARACTERISTICS**
- Easily Bored, Dreamers
- Strong at Pattern Recognition
- Visual
- Not Naturally Social
- Gratification Through Acceptance of Ideas

**DARK SIDE**
- Arrogant and Aloof
- Impatient
- Stubborn
- Moody/Prickly
- Negative

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TARA SEALS IS EDITOR-IN-CHIEF OF VISION-TO-MOBILE AND EDITOR OF BILLING AND OSS WORLD MAGAZINE
suppose anyone’s initial reaction to the concept of machine-to-machine communication may depend on whether they subscribe to the optimistic, quirky but helpful and recognisably human antics of the robots R2-D2 and C-3PO in the Star Wars movies as emblematic of the M2M future or whether they incline to the pessimistic and dystopian vision of an all-encompassing artificially intelligent machine network that actually works against humanity, as seen in the Terminator films.

However, and regardless of whichever camp you may be in, the rise of the machines is upon us and both wired and wireless machine-to-machine communications are playing an increasingly role in all our lives.

**THE INTERNET OF THINGS**

Back in 2005, at a United Nations conference, the International Telecommunications Union (ITU), [an agency of the UN] presented a report on the “Internet of Things,” as delegates debated how M2M technology could be used to improve our world.

The report said, “It would seem that science fiction is slowly turning into science fact in an Internet of Things based on ubiquitous network connectivity.”

Getting on for six years later, M2M is now beginning to move to fulfill the promise set out for it at that ITU event as technologies begin to take us from the workaday world of industrial maintenance and telemetry into the futuristic “Internet of Things.” But it is progress at a measured rather than headlong pace.
As my old colleague Ken Cukier wrote in an article in The Economist a couple of years ago, “Expectations [of M2M] are so high because much of the technology exists already. Yet it is being held back by non-technical factors: the lack of integration among different parts of the industry and the need for companies to change the way they operate. In the computing world, the providers of networks, hardware, and software work relatively smoothly together because of common standards... But wireless M2M systems have to start from scratch every time.” And there’s the rub, a perceived lack of developed standards for connecting machines to other machines through common data protocols and interfaces.

**RAISING THE STANDARDS**

To this date (early 2011) the European standards body ETSI has still not published M2M standards although it says it expects to do so “soon.” This presumably means just as soon as its standards committee finalizes the architecture for the service platform that will enable the integration of multiple vertical M2M applications.

Meanwhile, over in the U.S. the Telecommunications Industry Association (TIA), too is brokering M2M standards as it seeks to realize the goal of seamless, interoperable, and secure smart device communications that equally benefit manufacturers, network managers and consumers.

Simultaneously, in Geneva, Switzerland, the ITU is ploughing the same fertile field even as the automobile, transport, logistics, healthcare, gas, oil, electricity, education, security, manufacturing and many other industries and sectors also look to standardize M2M enabling technologies, (IP, RFID, sensor networks, home networks, smart metering and so on) services and applications.

In point of fact, industrial M2M applications and systems such as sensors, telemetry and telematics have been with us for a long time and evangelists of the “Internet of Things” say the transformation of M2M from these important but necessarily limited applications into popular and ubiquitous use in the global consumer sector is key to its mass take-up.

Recent research from Analysys Mason predicts that there will be some 16 billion connected devices by the year 2020 and that, in due course, there will be six M2M devices for every person on the planet! Now that’s what I call a large volume market – but the key issue will be the costs and revenues associated with the immense volumes.

**"THERE WILL BE SOME 16 BILLION CONNECTED DEVICES BY THE YEAR 2020 AND, IN TIME, THERE WILL BE SIX M2M DEVICES FOR EVERY PERSON ON THE PLANET"**

Other analysts too incline to the view that M2M will mirror what happened in the computing market thirty years ago when the arrival of the PC took computing out of the sacred temples of the major corporations, where white-coated acolytes tended the great and mysterious machines, and out to the domestic consumer and into the home where PCs rapidly became one more tool in the panoply of social interaction.

Business needs drive technological innovation, technological innovation drives consumer adoption, consumer adoption drives volume and affordability and volume and affordability bring revolution in their wake. That’s the theory, anyway.

Currently though, most M2M solutions are customized for certain specific vertical markets or applications and there are some major roadblocks to be negotiated before M2M can fully realize its promise. These include the cost of deploying devices, a lack of standardized platforms and software, significant market fragmentation in the supply chain, security issues, the costs of ingredient components (CPU, wireless, device etc.) and an immature market of connected applications and devices.

**A WORK IN PROGRESS**

Furthermore, building wireless connected applications is rather complex in comparison to the Internet and device and network certification hurdles can and do add to development time. Finally, M2M business models are immature and pathways to monetisation are still being developed.

Of course, these hurdles can and will be surmounted and the Internet of Everything is certain to become a reality.

The science fiction phase is over and the science fact era of M2M is beginning. Our evolving ability to interconnect business assets, electronic devices and even everyday personal objects wirelessly thus allowing them to exchange important data and information using cellular communications technology will change all our lives - and perhaps sooner than anyone might imagine or expect.

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