TELECOMMUNICATIONS
And
CONVERGENCE
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>3</td>
</tr>
<tr>
<td>Web-Telecom convergence for next-gen devices and services</td>
<td>5</td>
</tr>
<tr>
<td>Telecom-only NGN services are not enough</td>
<td>5</td>
</tr>
<tr>
<td>Emergence of Communications – Entertainment devices and services</td>
<td>5</td>
</tr>
<tr>
<td>Web and Telecom convergence – Service Delivery Platforms (SDP)</td>
<td>6</td>
</tr>
<tr>
<td>Profiting from convergence</td>
<td>7</td>
</tr>
<tr>
<td>On the verge of opportunity</td>
<td>7</td>
</tr>
<tr>
<td>Customer focus</td>
<td>10</td>
</tr>
<tr>
<td>New service creation</td>
<td>12</td>
</tr>
<tr>
<td>Devices</td>
<td>12</td>
</tr>
<tr>
<td>NGNs – (OSS/BSS)</td>
<td>13</td>
</tr>
<tr>
<td>Building converged business models</td>
<td>15</td>
</tr>
<tr>
<td>Fixed network operators and (ICT) providers</td>
<td>16</td>
</tr>
<tr>
<td>Broadband providers</td>
<td>17</td>
</tr>
<tr>
<td>Mobile network operators</td>
<td>17</td>
</tr>
<tr>
<td>Integrated operators</td>
<td>18</td>
</tr>
<tr>
<td>Partnering to create value</td>
<td>18</td>
</tr>
<tr>
<td>Conclusion</td>
<td>20</td>
</tr>
<tr>
<td>References</td>
<td>20</td>
</tr>
<tr>
<td>Author and Contributor</td>
<td>20</td>
</tr>
</tbody>
</table>
Overview

Traditionally, communications media were separate and their services were distinct. Broadcasting, voice telephony and on-line computer services were different and operated on different platforms: TV and radio, telephones and computer. Each of these was regulated differently by different regulators. Convergence is the combination of all these different media into one operating platform. It is the merger of telecom, data processing and imaging technologies. This convergence is ushering in a new epoch of multimedia, in which voice, data and images are combined to render services to the users.

Traditional convergence is noted in the combination of the personal computer and the internet technology. This combination provides a convergence of data processing, images and audio services. Recent examples of new, convergent services include:

- Internet services delivered to TV sets via systems like Web TV
- E-mail and World Wide Web access via digital TV decoders and mobile phones
- Web casting of radio and TV programming on the Internet
- Using the Internet for voice telephony

There are five forms of convergence, these forms are not totalities, however they cover, to a large extent, the noticeable forms of convergence:

- Functional convergence
- Technological convergence
- Economic convergence
- Political convergence
- Geographical convergence

**Functional** convergence implies that technology today offers more functions and services more that they were initially designed to. Convergence is when, for instance, radio and television and other communication systems simultaneously provide service to the consumers. It provides multi-services, it is the coming together of broadcasting; telecom and computing, with a single channel of distribution through which the individual consumer will receive a wide variety of existing functions and services accessed via single screen. Convergence actually implies moving towards one point or moving towards one another. It is the upgrading and merger of the previously separated communication sectors through the advancement of computer technology and digital technology.

Convergence makes it possible for one element to provide multi-service. An illustrated example of this is in the mobile phone, which was initially designed for voice communications. These days cell phones offer more functions: They offer print and text media as in the Short Message Service (SMS); they provide reception links to radio stations and access to broadcast information, they provide links to access the web, they capture, send and receive pictures and so forth. New generation of mobile phones are designed to capture video images.
Technological convergence points to the way technologies are increasingly converging into one. The availability of carrier technology with high bandwidth means that, transmission is not limited to voice only, now data, picture and other multimedia and interactive media can be transported in one single carrier technology like the fibre optic cable and satellite technology. One other noticeable technology that perhaps is the epitome of convergence technology is the Computer technology. This technology provides the most striking convergent service: Internet. The Internet combines all know communication media into one single service on a computer screen.

Economic convergence occurs when an industry becomes dominated by oligopoly. When the individuality of organization yields to a more collective forms due to networking relationship. There is also a blurring of industrial lines. For instance telecom companies are converging through series of mergers and acquisition deals, telecom companies are moving into new telecom market in addition to their traditional markets. For example, a telephone company converging Internet service provision into its operation.

The convergence of telecommunications and information technology has also led to a geographical convergence. This has led to the practical realization that the world is a global enterprise, where interactions and communication are no longer hindered by distance. Satellite helps facilitate communication irrespective of geographical location. Information sent from Iceland could be received instantaneously in Burundi via telecommunications link up.

Due to the convergence of economic and communication activities, nations around the world are gradually converging into regional blocs, driven by the ambition of pragmatic economic and social concerns. The tendency towards a globalized society is a typical instance of a political convergence. National regulators are gradually converging into regional authority to manage the ICT in the region. Decisions affecting the ICT sector worldwide are being made from a single entity/organization. The WTO’s reference paper on Telecom gives guidelines for transactions and operations in the telecom sector. Many countries around the world have accepted the WTO’s guidelines in their telecom sector.

Convergence is not limited to technology. In fact the convergence of technology has resulted in the convergence of other social phenomenon of in the communication sector. It has led to the convergence of different regulatory institutions. For example, in South Africa the Independent Broadcasting Authority (IBA) was the broadcasting sector regulator, while South African Telecommunications Regulatory Authority (SATRA) regulated telecommunications. The increasing convergence of broadcasting and telecommunications led to the merging of these authorities. The two authorities eventually became merged as Independent Communications Authority of South Africa (ICASA), to regulate the entire communications sector.

Convergence has also raised several debates about classification of certain telecommunications services. As the lines between data transmission, audio cast and voice transmission are eroded, regulators are faced with the task of how best to classify the converging segments of the telecommunication sector. Example of this is Voice over IP (VoIP). The debate is whether to consider this as part of Internet services and if so, it resides in the domain of Internet Service Providers or as a voice transmission which is the market domain of the local telephone operator. This is also problematic as VoIP transcends local exchange, it could be a long distance voice exchange or an international voice exchange.
Web-Telecom convergence for next-gen devices and services

Network operators and service providers need to evolve their current generation of Service Delivery Platforms (SDP) to converge Web and Telecom domains in order to adequately address the booming demand for communication entertainment devices and services from Internet and Web savvy end users.

Telecom-only NGN services are not enough

Satellnet supports its customers, and partners in their evaluations, and implementations of next-generation services layer infrastructure in their SDP and NGN architectures. Most, if not all, major network operators, whether they operate fixed, mobile or cable networks, have started to make significant investments towards evolving their existing SDPs to a next-generation architecture, which is primarily based on IP technologies and standards such as SIP, SOA and increasingly, Web.

We see that operators are continuing to make significant investments in building-out next-generation networks, based on IMS, or in some cases, just SIP. We have seen first-hand the continued operator demand worldwide, with some rolling out initial commercial deployments, of NGN services based on IMS and SIP, to realize that the market for NGN, and NGN-based services, are very real. These investments in SDP and NGN are tightly-coupled with operator demand for associated SDP/NGN middleware infrastructures, to allow for rapid service creation and execution, efficient service integration, orchestration and management, and flexible service exposure capabilities.

Telecom-only services, whether they are VoIP telephony or conferencing, or whether they are SIP/IMS-based messaging or video telephony services, are not resulting in wide-scale consumer adoption of these services, and thereby the desired increases in ARPU and ROI. Whether the operator is in APAC or EMEA or Americas, the current portfolio of NGN services are focused on IM/presence, video telephony/sharing, VoIP, conferencing, group lists, or a combination of these features. For mobile operators, the lack of SIP/IMS-enabled handsets, or 3G/WiFi handsets, are delaying service launches.

Emergence of Communications – Entertainment devices and services

At the same time, consumer end-users are flocking by the millions to Web based Internet social networks and communities, and to user-friendly consumer Communications and Entertainment devices, such as the Apple iPhone.

Samsung and LG have recently publicly launched similar touch-based, consumer-friendly devices which provide Communications and Entertainment capabilities. What social networking communities and Communications and Entertainment devices have in common is the ability to easily create and share multi-media user-created content (MM-UCC), and the ability to communicate and discuss with their social networks.
In order for operators and service providers to meet this largely unmet consumer demand, it is clear that offering mobile devices which cannot converge the Web and Telecom experiences into a single application/service is going to be a significant challenge to capturing this next-gen Communications and Entertainment end-user. Not only do fixed-mobile devices need to transform, but a fundamental evolution in the SDPs which support NGN-fixed-mobile-broadband access networks is required as well. The key to this evolution towards a next-gen SDP is the integration of Web and SOA middleware together with Telecom middleware, thereby creating a converged Web-Telecom services layer.

Web and Telecom convergence – Service Delivery Platforms (SDP)

Operators and service providers must now think of new services, and the associated business models, in the context of Web and Telecom, and not just Telecom and NGN. IMS and NGN services need to integrate fully and comprehensively with Web-based services, thereby embedding Telecom capabilities to Web based Internet social networks and communities. Likewise, Internet social networks and communities need to extend their large user bases with high value-add Telecom and NGN features, such as IM, presence, conferencing, group lists, location, etc.

Communications and Entertainment devices, whether they are fixed or mobile, can also better serve their end-users when the device's Internet, Web and RIA (Rich Internet Application) capabilities can be tightly integrated and combined with the device's inherent 3G/WiFi communication capabilities. And as the telecom and Internet networks evolve to 4G and WiMAX, the benefits of the converged Web and Telecom will become even more pronounced.

Mobile communication device manufacturers need to begin realizing that the definition of "mobile" and "communication device" is also transforming. High-end gaming devices, televisions, automobiles, audio/video entertainment devices, and much more, will increasingly be connected to fixed and mobile broadband Internet services, combined with IP communication capabilities. The concept of Communications and Entertainment is being realized by many non-telecom "device" manufacturers.

We strongly believe that network operators and service providers have an enormous business and market opportunity to provide the best "SDP" to as many Communications and Entertainment devices worldwide, where the consumer end-users are not looking for a single best application, but rather, a collection of best services and features, which brings together the best of the Web domain with the Telecom domain, into the simplest, most friendly, user experience possible, regardless of whether the access was over fixed, mobile, broadband or satellite networks.
Profiting from convergence

Internal and external forces of convergence are taking hold of the telecommunications industry. Convergence of local and national voice services dramatically changed the telecom landscape, as competition flourished. Now, voice and data services are converging rapidly. Soon, customers will be able to access any content or application seamlessly from a multitude of networks, using any device of their choosing.

Industry players are gearing up to harness the potential of converging technology, networks, devices and content to develop multimedia services and solutions of ever-increasing sophistication on a single Internet Protocol (IP). Evolving customer demands for content from an increasing variety of sources will require telecom providers to engage in a complex web of collaboration with the media and entertainment, IT and consumer electronics industries.

Convergence offers telecom companies a world of opportunities. But before they can profit, telecom providers must make tough strategic and technical choices. Success will depend not only on making the right decisions about where to play in a converged environment, but on transforming business models and capabilities to make the most of these new opportunities. Most importantly, service providers must align their strategic choices and capabilities to the specific needs of the customer segments they intend to serve.

On the verge of opportunity

Several market factors are reshaping the telecom industry over the next decade:

Intense competition is driving voice prices down: between 2007 and 2010, revenue growth for mobile providers could decline by more than half, while current growth for many fixed line businesses is flat or even negative.

- Consumer spending on broadband is expected to rise 37 percent, to over US$200 billion by 2010.
- Music and gaming content will explode – consumer spend in these areas is anticipated to increase 185 percent and 78 percent, respectively, over the same time frame.
- Device and IP network proliferation continues – the last four years have seen a 100 percent increase in smart phone sales and international Voice over IP (VoIP) minutes.
- Rapid emergence of new points of high-speed Internet access – global WiFi hotspots totaled 89,700 in 2009 and are expected to total 290,000 by 2010.
Together, these factors are driving the convergence of telecommunications with other industries, and creating unprecedented change and growth potential for telecom providers as traditional "product markets" decline and new service opportunities arise.

This growth in supply and demand for new technologies and services facilitated by IP technology will blur the traditional boundaries of service, device and network – giving rise to a new "converged ecosystem" where telecom companies must partner to create value. As the single-product, voice-only world of telecom evolves into a multifaceted services industry; simple connectivity will be increasingly commoditized. Value will be created by providing services and solutions to consumer, enterprise and public sector customers.

Where telecom network operators have historically controlled all elements of the value chain, the introduction of new players in more complex value systems is making it increasingly difficult to build lasting relationships with customers. In this environment, telecom providers must make clear decisions about what kind of businesses they want to be. There will be both winners and losers in all major telecom provider categories. Success will depend on each player’s ability to combine its own differentiating strengths (network assets, customer management, service creation, etc.) with the capabilities of partners to create seamless communications services that meet the needs of targeted customer segments.

To understand just how much impact convergence will have on the telecom industry, Satellnet outlines the key challenges for telecom companies as convergence begins to take hold.

Eighty percent of the telecommunications sector agree that it is essential to embrace convergence within the next three years as a source of long-term revenue growth. Moreover, there is a clear correlation between the perceived importance and the likely timing of different types of convergence.

The telecommunications sector view voice and data as the most important type of convergence (see Figure 1), as evidenced by the strong growth in VoIP in all geographic markets today. Service providers are able to offer VoIP at highly competitive prices, without owning network assets and avoiding all the traditional constraints of distance, location and unit pricing models.

Most incumbent fixed network operators have overcome their initial fears of revenue loss. Many are launching their own VoIP services, bundled with DSL broadband subscriptions as a value-added service.
The telecom sector perceives convergence between fixed line and wireless access technologies to be the next most important type of convergence to impact their business.

As customers grow accustomed to the increased bandwidths of their fixed home, office and vehicular networks – and the ever-presence of their mobile (cellular) networks – combining the two will become increasingly attractive. Fixed line service providers are targeting this opportunity by bundling WiFi access with DSL subscriptions, while mobile service providers are offering integrated 2.5G/3G/WiFi PC data cards to accomplish the same.

The key to this area of convergence is wireless (but not mobile) technologies that can "bridge" fixed line and mobile networks: hence the success of WiFi (802.11x) and Bluetooth, and the interest in the evolution of wireless technologies such as WiMax (802.16x), ultrawideband (UWB), Near Field Communications (NFC) and Zigbee. Eventually, this type of convergence is expected to involve accessing fixed, wireless and mobile networks seamlessly with a single device to create a truly converged service, as envisioned by BT’s Project Bluephone and others.

The forces of convergence are primarily internal to the telecommunications industry, and it is not surprising that the telecom sector today regards them as more important, since telecom providers are still able to retain a relatively high degree of control over their development. However, the real challenges for the telecom industry are external, emanating from the impact of convergence with the IT services, media and entertainment, and consumer electronics industries.

Some players in these industries – with well-established brands, customer bases, distribution channels and competencies – see telecommunications as the next logical extension of their businesses. For telecom providers, this poses unique challenges in terms of customer relationships, service development, next generation network (NGN) development and the systems and processes required to deliver working solutions to customers.
Customer focus

Forty-six percent of the telecom sector responding to the EIU state that their medium-term growth strategies center on core markets and customers. In a converging environment, the ways in which consumers live, work and communicate at home, in the business world and even in cars, are changing rapidly.

Developing greater customer intimacy can help telecom service providers differentiate the customer experience, as well as stimulate usage and loyalty. Implementing needs-based segmentation, investing in skills, capabilities and systems, and enhancing market research can help operators make strides in this area. Improving the customer experience requires attention across all stages, including awareness, acquisition; growth and retention (see Figure 2).

Figure 2. Managing the customer lifecycle.

Customer segments are quickly evolving as customer needs become more distinct. Service provider offerings must match the connectivity needs of customer lifestyles.
For instance, consumers of different age groups interact and communicate for different reasons (see Figure 3). Understanding not only how these consumer groups value, access and use content and applications, but how to build new propositions that target these users, will be critical to competitiveness. Consumer propositions should also reflect key differences in the needs of fixed-broadband based home users (leveraging DSL/CATV and WiFi home networks) and mobile personal users that require seamless roaming between cellular and fixed wireless networks whether they are at home, at the office, in the car or simply walking down the street.

Small and medium-sized enterprises (SMEs) represent a lucrative opportunity for telecom companies. However, the disparity of SME size, revenue potential and technical expertise make it more difficult for large telecom providers to sell directly to this segment than to large enterprises. SMEs require reliability, flexibility of service and responsiveness to their business needs. Value for money is more important than simple low costs. Above all, SME customers want to be treated in a manner that reflects the reliance they have on telecom services for their own businesses to succeed.

To develop the SME market opportunity successfully, telecom providers need to keep offerings simple and streamlined, with end-to-end customer service and experiences tailored to SME needs. Stripped-down large enterprise solutions and repackaged offerings will no longer suffice. SMEs are very close to their own customers, and want the same from their suppliers: telecom marketing, sales and service must all connect with SMEs in ways that reflect how SMEs do business.
In contrast, many big businesses look to telecommunications as a necessary business tool, but also as an opportunity for reducing cost. In this context, the telecom industry must shift the focus from cost reduction to productivity improvement in order to succeed.

Convergence between telecom and IT services offers a very significant opportunity to develop applications targeted to the large enterprise that use converged products and services to increase efficiency and generate savings. Indeed, value from converged services must be created from the business impact of the service itself, not just the simple act of transferring voice or data from one device to another.

Finally, service providers are likely to use converged services themselves in interactions with their customers. Significant increases in self-service and speech-enabled technologies are forecast in contact center environments, combining voice and data to give customers greater choice in how they request and receive care, billing and other information from service providers. Trials to date have delivered substantial cost savings and significant increases in customer satisfaction.

**New service creation**

Convergence enables growth through new services that benefit from converged technologies, increased customer intimacy and third-party content. The Telecom sector overwhelmingly sees new products and services and expansion in wireless access technology as key sources of medium-term revenue growth. But bringing complex converged services to market quickly depends on dramatically enhancing new product development processes. New services need to be innovative, customer-centric and priced to drive adoption.

Telecom providers must look for ways to utilize core capabilities to enter new markets and service areas. Using existing customer footholds, they can expand product and service propositions to better target particular customer segments.

**Devices**

Contrary to what might be expected, the telecom providers do not currently view device convergence as particularly important to creating value, in comparison to other industry developments. This is because many of them have a traditional view that maps service rollout to device capability, and also because devices are often an area of the telecom value chain over which service providers do not have the level of control they would like. Yet the success of new devices such as the Apple iPhone is undeniable evidence that device developments can not only make the difference, but can actually be the primary driver of new service penetration – and can change the game quickly.
The development of emerging devices, software and distribution systems will be a lucrative business. A tight ecosystem of content providers, hardware, software and telecom partners will transform the current complexity into a simple user experience. Several have led the way for mobile operators in seizing control over device specifications while working with manufacturing partners. It is anticipated that this trend will continue, as the device becomes increasingly important in service delivery and adoption.

As multimode cellular voice over WiFi handsets have appeared, multimodal functionality has become more complex. Converged devices are expected to prosper as short-term issues, such as WiMax spectrum licensing, are resolved.

Device convergence within vehicles is underway as well. An increasing proportion of high-end cars now feature wireless solutions that allow drivers to talk hands-free using a Bluetooth connection. In the future, cars may "talk" to one another using radio technologies, including WiFi. For instance, BMW has announced its "ConnectedDrive" solution, which could help alleviate long drive times through the use of WiFi. If caught in a traffic jam, the car can relay information to similarly equipped vehicles in the area, which then plot alternative routes to avoid the gridlock.

**NGNs – (OSS/BSS)**

As access and network technologies multiply, it becomes increasingly important for telecom companies to invest in networks that are access-technology agnostic. In a converged environment, success comes from an IP core that can interact with any sort of access technology to provide customers with "anytime, anywhere" access to content, while allowing service providers to view and manage all customer information. An IP Multimedia Subsystem (IMS) enables operators to increase EBITDA performance, by driving revenue from converged voice and data services across multiple access technologies as well as by reducing cost (see Figure 4).
Internally, telecommunications providers must move away from vertical product silos to a horizontal focus that cuts across silos to include network, applications and customer management. Addressing the demand for simple, converged services requires enterprises to align around customer needs and avoid disjointed operations. Displaced operations and redundant capabilities can result in inefficient cost structures and inconsistent customer experiences. NGNs provide a framework that enables service providers to migrate to an enhanced service delivery capability (including OSS/BSS billing support services, seamless roaming across cellular and FWA networks and device management) and remove duplicate activities.

Forty-one percent of telecom sector agree that providing reliable and affordable services will be a key characteristic of their growth strategy over the next few years. However, most telecom providers are currently squeezed between pricing their offerings competitively and the high cost of non-integrated business processes. These pressures are compounded by multiplying product and service categories and increased customer volume. To top it all off, billing inaccuracies breed customer dissatisfaction and can result in lost revenues.

Typically, telecom providers have attempted to solve these problems by consolidating applications within individual functions or working to address IT costs rather than end-to-end business process costs. To date, initiatives to improve the customer experience have had limited success: high project failure rates, cost overruns, customer dissatisfaction and high churn rates plague many telecom providers.
Most telecom providers are still vertically aligned when it comes to billing – they have different billing systems for different services. Cutting through the resulting complexity of the different system types and layers is time consuming, delays time-to-market and makes service bundling more difficult. Meanwhile, increasing complexity accelerates cost as companies struggle to keep pace with the market and offer new products and services.

To become truly converged and reduce costs, telecom providers need to build one integrated, unified and automated billing system that supports all billing processes regardless of the product or service.

**Building converged business models**

As the various forms of convergence take hold, established industry players face increasing competition, from each other as well as from insurgent business models such as virtual operators (e.g., mobile virtual network operators, VoIP service providers) and access utility players (e.g., FWA providers). Today’s major players fall into four categories:

- Fixed network operators with information, communications and technology (ICT) competencies
- Home broadband providers
- Integrated operators
- Mobile network operators.

Each category must deal with their own challenges in building viable business models for the converged environment.

Convergence winners will be those companies within each category that leverage external reservoirs of rich content and applications in delivering well-packaged, focused propositions to customer segments, while embracing NGNs to streamline internal operations. When compared with business-as-usual, successful execution of convergence initiatives can drive significant EBITDA margin improvements (see Figure 5).
Fixed network operators and (ICT) providers

Telecom companies have targeted the ICT market to create value beyond simple connectivity for enterprise customers, in addition to driving traffic over their high-capacity networks. It is expected that many of these players will seek to provide full-service managed solutions, including mobility services, through wholesale capacity from other network owners.

To focus on providing “total solutions” to customers, these companies will need to:

- Work to develop NGNs that dynamically support new value-added services that improve the customer experience.
- Form partnerships with companies that have strong system integration skills and assets.
- Develop more and varied retail distribution channels to target different industry verticals.
• Build a wide geographic presence, potentially with partners, to provide global service to large corporations and multinational corporations (MNCs)

**Broadband providers**

Cable companies and DSL providers dominate this space, delivering voice, Internet and entertainment (possibly enriched by mobile services). These companies pose a significant threat to incumbent fixed network operators (DSL providers). Both cable and DSL providers face competition from new content providers such as Google, Microsoft, and Yahoo!, with the result that most have either bought or developed capability in this area or allied with a major player.

To drive further success, broadband providers will need to:

• Use their anchor points in the residential market to deploy home gateway solutions
• Build and nurture their content relationships to drive service bundles
• Transition to all-digital broadband networks from narrowband
• Improve the customer experience by providing a simple and easy-to-use content navigation interface and seamless transfer to digital content between different devices
• Investigate the benefits of a mobility play and fixed-mobile converged services

**Mobile network operators**

The mobile pure-play is currently characterized by consolidation of competitive position, continued growth in mobile voice usage and revenues, and a strong desire to succeed in the more challenging area of mobile data. These companies have strong positions in the consumer market, focused in particular on individuals (as opposed to households), but are struggling to address the growing opportunity of enterprise mobile data services.

As they aim to offer ubiquitous bandwidth, these companies should:

• Build a flexible, open network platform designed to integrate new technologies more easily as they become available
• Create new pricing models to drive 3G/data penetration and service adoption
• Continue to develop and create a roadmap for 4G technologies
• Differentiate with an end-to-end customer experience that drives customer loyalty and revenue
Integrated operators

This term is applied to those companies owning both fixed and mobile networks, although most such companies have not yet fully integrated the diverse parts of their businesses. These companies will be afforded perhaps the greatest opportunities from convergence, but also face the biggest hurdles to unlocking value, namely operational, regulatory and cultural challenges. To succeed, these operators will need to fully integrate not only their customer-facing processes, but also their network and their back office as well. They should:

- Drive the integration of fixed and mobile businesses and processes to reduce capital and operating expense (e.g., OSS/BSS, NGN)
- Deliver integrated customer experiences and services
- Develop integrated propositions to target the combined needs of both the individual and the household as a single customer
- Investigate the outsourcing of network operations and maintenance

Partnering to create value

Forty-six percent of the telecom sector states that new products and services will primarily be developed in-house. However, Satellnet believes that in a converged marketplace, telecom companies will increasingly need to look outside the enterprise to create differentiating products and services. Once telecom providers decide which business model and capabilities will help them make the most of convergence, they need to choose the strategic partners that can best help them deliver cutting-edge products and services (see Figure 6).

Though building partnerships has not traditionally been a key focus for telecom companies, in a converged future, many may find that partnering is necessary to create value. Successful partnerships are an essential ingredient in allowing telecom providers to help satisfy customer needs and deliver a seamless customer experience.
Figure 6. Telecom providers must determine where they will play a full or partial role, and which non-core activities should be outsourced to third parties.

1. **Fixed ICT operator**
   - Content and applications
   - Portal and enabling infrastructure
   - Fixed network
   - Wireless network
   - (ICT) Service innovation
   - Customer management
   - Device
   - Enterprise management

2. **Home broadband service provider**
   - Content and applications
   - Portal and enabling infrastructure
   - Fixed network
   - Service innovation
   - Customer management
   - Device
   - Enterprise management

3. **Integrated operator**
   - Content and applications
   - Portal and enabling infrastructure
   - Network
   - Service innovation
   - Customer management
   - Device
   - Enterprise management

4. **Wireless network operator**
   - Content and applications
   - Portal and enabling infrastructure
   - Fixed network
   - Wireless network
   - Service innovation
   - Customer management
   - Device
   - Enterprise management

5. **Network utility** *(fixed line or wireless)*
   - Content and applications
   - Portal and enabling infrastructure
   - Network
   - Service innovation
   - (Wholesale) Customer management
   - Device
   - Enterprise management

6. **Virtual operator** *(fixed line or wireless)*
   - Content and applications
   - Portal and enabling infrastructure
   - Network
   - Service innovation
   - Customer management
   - Device
   - Enterprise management
   - Full role
   - Partial role
   - Third party
## Conclusion

For telecom providers, convergence means doing business differently. To provide products and services with the functionality and reliability customers expect, telecom companies must pick where they will play and then team up – leveraging what they do best and looking to partners and third parties to round out their offerings.

Understanding how convergence will impact customers, technology requirements, new service creation and current business models is essential for telecom companies to position themselves to differentiate from the competition. For those companies that are able to streamline their organization internally and tailor services externally to quickly evolving and increasingly distinct customer segments, the era of convergence can be one of profitable growth.

Convergence is moving quickly, leaving the unprepared in its wake. To explore the ways we might assist you in planning how your company can profit in the converged future, please contact us at info@satellnet.com.

To browse other resources for business executives, visit our Web site: www.satellnet.com.

## References

Economist Intelligence Unit, Global Telecom Survey.

## Author and Contributor

Mr. Stacey is President of Satellnet, Inc. with over 28 years of experience specializing in telecommunications, global outsourcing and offshoring, and business transformation. Mr. Stacey’s focus is in development of telecommunications and convergence; which includes financial and operational performance improvement and value creation services to support clients in identifying, quantifying, planning, and realizing improvement opportunities to drive performance excellence across the life cycle of engagements. John has advised clients across a wide range of areas including business process redesign, outsourcing business processes and IT infrastructure, strategic and operational realignment, utility computing and related managed services, technology implementations, and business process re-engineering.

Mr. Stacey has provided strategic services to a number of the world's largest telecoms companies including AT&T, Avaya, Bell Canada, BT Group, plc, China Telecom, Cisco, KPN, Maroc Telecom, Nortel, Sprint, Telekom Malaysia, Telefonica, Verizon, and VSNL. He has led matters involving contract negotiations, multi-vendor management for global capacity expansion, and other value creation initiatives. Mr. Stacey has also assisted companies in evaluating performance improvement opportunities across the organization including go-to-market operations, and corporate support functions.