Alcatel·Lucent

Managed Services Demystified —

An Overview for Telecom Service Providers

The evolution to a converged world has put Service Providers under increasing market and competitive pressure. Responding to these market pressures requires solutions that enable a decreased time to market for newer, differentiated multi-media services while increasing customer service and focus. At the same time costs must be lowered and shareholder demands for increased value must be met. This combination can be very difficult to resolve.

These requirements are impacting traditional business models and challenging carriers to ask themselves: What are our core areas? What is of strategic importance? It was once thought that the answer was the network. But convergence is shifting this strategic importance to the actual services provided in today's dynamic market and to being proactive to market demands. This shift in strategy now includes an area once thought impossible to consider – Outsourcing of the network. The possibilities of outsourcing partnerships are exciting and have proven to be an important tool for business transformation.

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Executive Summary

Facing increasing competition and commoditization from traditional telecom products, service providers are either in the process of or planning for the move to next generation, converged, network infrastructures in order to offer new, revenue-generating services.

Making this transformation can be complex and difficult. However, if done correctly, working with a managed services provider and outsourcing all or part of the next generation network planning, implementation and management, the transition to the new infrastructure can occur quickly and efficiently and with reduced risk.

This white paper discusses a number of options available to service providers ranging from network outsourcing to network management and operations to hosted applications — and the benefits associated with these options.

Changing Telecommunications Marketplace

In today's rapidly changing telecommunications marketplace, service providers face a number of unique challenges. The very foundation of their business is shifting. For more than a hundred years, new technology has been the primary driver for network transformation and the creation of new customer services. But today this push model has given way to a pull model — technological advances still play an important role, but in the new world of telecommunications, it is end-user demand for new service offerings that is driving the move to next generation networks. Both enterprises and consumers are demanding a more personalized, content-rich, blended lifestyle multimedia experience. For example, users now want and expect their selected content, such as music and video, to be universally accessible and portable. This true convergence of new services and applications is the sweet spot for the future growth of subscriber-based revenues and growth.

While this customer-driven marketplace presents service providers with enormous opportunity, it also provides some daunting challenges.

Traditional legacy revenue sources are eroding and operators are feeling increased pressure to reduce Capex and Opex and add new sources of revenue. Because of intense competition (especially from new competitors in the form of mobile virtual network operators [MVNOs] and wild cards like Skype and Google), and cut-rate pricing of services, operators are finding that adding more end-users of inexpensive access and bundled voice, data and video does not necessarily mean increased profits.

The strategy of leveraging existing infrastructure to meet customer demand and deploy next generation networks is no longer sufficient — service providers are faced with the challenge of a major transformation and a move from their traditional comfort zone of selling bandwidth. Carriers must transition from legacy telecom technology, networks and services to next generation IP-based networks that support convergence and blended, personalized, enhanced applications and services.

Although this transformation opens new sources of revenue, deploying, operating and maintaining these next generation networks, systems, devices and services is a complex and costly proposition. In this new environment, service providers need to determine how to efficiently and rapidly add new services and applications and predict scalability as they attempt to respond to rapidly changing end-user demands. Further complicating matters are issues around reliability and security in an IP-based world, and the fact that people with networking, security and systems management skills are currently in short supply.

In addition to these technology issues there are other barriers to convergence that need to be addressed, such as business issues surrounding marketing skills, sales force ability, acquiring captivating content, and refining interconnect agreements. To cope with these issues requires considerable time and effort. However, the organization's scarce resources are increasingly being asked to support networks that continue to grow in complexity. As a result, the company's ability to focus on these business issues is compromised.

The bottom line is that network transformation to accommodate convergence is not just a technology issue — it is also a business issue. In order to take advantage of end user demand and willingness to pay for converged, blended services there are innovative business models available to help compete in this environment.

> *"Carriers will be able to increase ARPU by 40% annually over the next five years by offering blended IMS-enabled "lifestyle services."*
>
> **Equity Research Report***
>
> * "IMS – The Move to Software" Equity Research (Cannacord Capital Corporation) report:, January 2006

Figure 1. Network Complexity and Resource Allocation
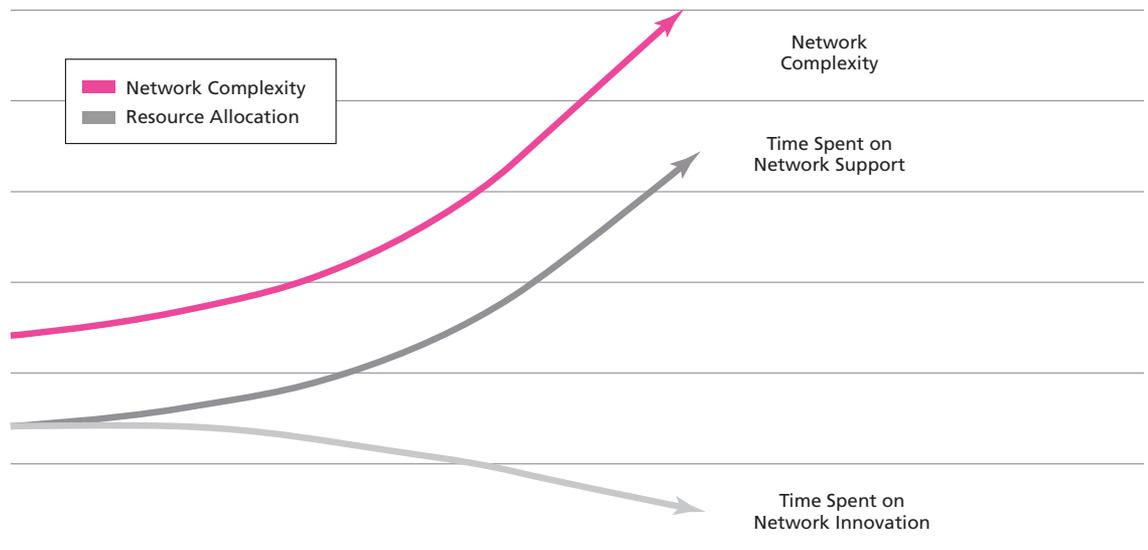
Managed Services Business Models

In order to meet the competitive, technological and business challenges associated with network transformation, traditional business models may need to be radically revised. Service providers require a strategy that finds the best, most profitable way to offer these new converged services as quickly and efficiently as possible while providing the highest levels of quality and security.

Outsourcing is increasingly becoming a strategy of choice among service providers, a choice that can help balance competing business priorities. IDC, the research house based in Framingham, MA, estimates that 25 percent of the service providers in the North American region (NAR) will outsource network operations by 2009. And, based on a steadily increasing number of publicly announced contracts, the trend toward outsourcing in Europe and Asia has already outpaced NAR.

Managed services can provide tailored solutions that meet the requirements of your complex networking environment. By partnering with a managed services provider that is qualified to handle all aspects of planning, designing, deploying and operating a next generation network, you are able to concentrate on building your business, rather than dealing with the day-to-day complexities of network support and management.

When working with the right managed services provider, you can expect:

- A single-sourced solution that provides clear accountability and a focus on achieving highest quality
- A well-planned and well-executed transition to next generation networks in order to realize your long term financial objectives
- A technology partnership that provides seamless migration planning
- Alignment of your next generation network with your business processes, cost structure, and planned growth
- World-class network operations outsourcing experience and expertise
- Global 24x7 presence and capabilities
- A strategic relationship focused on future innovation

"All types of carriers across geographic regions will consider managed services in support of their business requirements."*

* Managed Services Migration: Vendors and Communications Service Providers Making the Move, Stratecast, July 2007

Managed Services Business Model Options

There are innovative business model options available as a strategic tool to address the need for network transformation and include:

- Strategic Outsourcing – A comprehensive relationship that includes business and network consulting, network planning and design, implementation and integration, and on-going network maintenance and management.
- Selective Out-Tasking – Your managed services partner manages specified parts of the network.
- Managed and Hosted Applications – Network-based services and applications that typically reside either at the customer premises or at the hosting partner's facilities

Managed Services Business Models – A Closer Look

Strategic Outsourcing

This approach features a strategic relationship for network transformation and seamless migration to next generation converged services to realize long-term financial and business objectives. This is a comprehensive end-to-end solution to support all aspects of the full lifecycle of your network. It is more than just a relationship between a supplier and vendor — it is a relationship between business allies.

Simply stated, an outsourcing partner manages your network so you can manage your business. Strategic outsourcing components typically include professional consulting, planning, design, deployment, integration, ongoing maintenance and management and network evolution.

Selective Network Out-Tasking

In order to provide you with maximum flexibility, your managed services partner also offers selective out-tasking. In these out-tasking arrangements the focus can be around a specific management function, or task, that a third-party has the expertise and experience to perform more economically and effectively. Your partner can often help to reshape or transform the way the function is performed. The primary reasons for selective out-tasking are to address specific areas where immediate resources are not available. These could be access to skilled talent and/or financial resources. Operating and managing such areas as your LAN or WAN, or conducting performance monitoring in accordance with SLAs, are some common out-tasking scenarios.

The managed services partner handles many of the tasks of running a network, allowing you to focus on strategic network planning and evaluating new technology. You can scale your levels and terms of service to meet your changing needs. Comfort with out-tasking initiatives that have delivered clear cost benefits and improved service is often a precursor to the establishment of larger outsourcing relationships. Many service providers view the transition from out-tasking to outsourcing as a phased approach — what can be called an "evolution of trust".

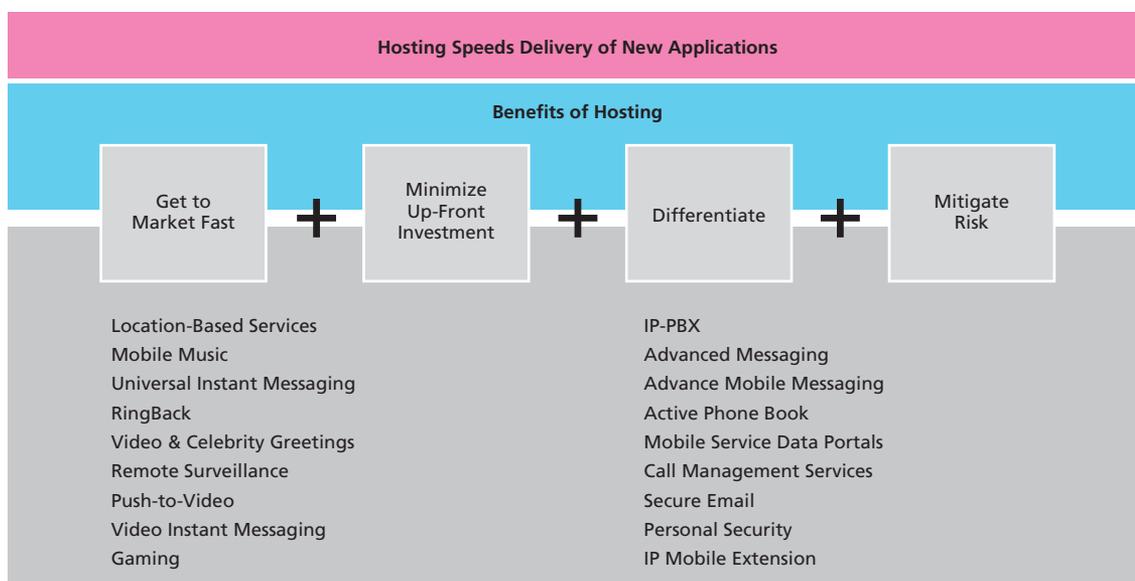### Managed and Hosted Applications

Managed and Hosted Applications are network-based services that typically reside either at the hosting partner's data center or sometimes on the customer premises.

Like the overall telecommunications marketplace, the applications marketplace is changing rapidly. Yesterday's applications, such as voice mail and text messaging, are becoming today's application enablers.

A major factor driving the acceptance of the hosted services approach is the service providers' need to increase revenue from new sources. However, before offering these new applications there are a number of issues that need to be addressed. You must evaluate hundreds of new application opportunities and create a differentiated portfolio of end-user services that minimizes churn and boosts revenues. These new applications must have carrier-grade performance and reliability, and provide a consistent end-user experience across new and legacy systems and devices. Once rationalized, getting the new applications to market quickly is imperative.

For example, hosted applications solutions allow you to quickly provision carrier-class VoIP services for your enterprise customers, while limiting your financial and technical exposure. This can be accomplished using a hosted IP PBX that is either located remotely at your partner's data center or on your premises. The hosted IP PBX is a completely outsourced, network-based IP PBX service that supports SIP-based calls and connections. It includes standard office PBX features, such as a shared phone number for desk and mobile phone, four-digit extension dialing, and single voice mailboxes. Other examples of hosted applications are shown in Figure 2.

Figure 2. Hosted Applications

Hosting Speeds Delivery of New Applications

Benefits of Hosting

| Get to Market Fast | + | Minimize Up-Front Investment | + | Differentiate | + | Mitigate Risk |

Location-Based Services
Mobile Music
Universal Instant Messaging
RingBack
Video & Celebrity Greetings
Remote Surveillance
Push-to-Video
Video Instant Messaging
Gaming

IP-PBX
Advanced Messaging
Advance Mobile Messaging
Active Phone Book
Mobile Service Data Portals
Call Management Services
Secure Email
Personal Security
IP Mobile Extension

Building Your Business

Each of the managed service models discussed can provide significant business benefits. With the correct managed services partner, you will be free to grow your business and efficiently transform your infrastructure to accommodate next generation converged services. You can concentrate on your customers and your business development rather than day-to-day network operations.

Your Capex and Opex can become more predictable and your total cost of ownership can drop.

In the short term, Opex reduction can result from potential economies of scale associated with your managed services partner's operations center, infrastructure and personnel investment. Over the long-term, you enjoy Opex control by outsourcing all or part of your network operations to a qualified managed services organization. You are able to more accurately control and forecast the costs related to managing the network, new service deployment, and network expansion.

At the same time you realize long-term Capex reduction by minimizing or eliminating certain investments in development and maintenance, and operations center expenditures.

The managed services provider's capabilities can assure top performance while you maintain control of your network through rigorous SLA management. The collaboration between you and your partner provides a degree of control over quality of service (QoS) levels and time-to-provision that ensures superior customer service and satisfaction, helping to retain higher ARPU clients.
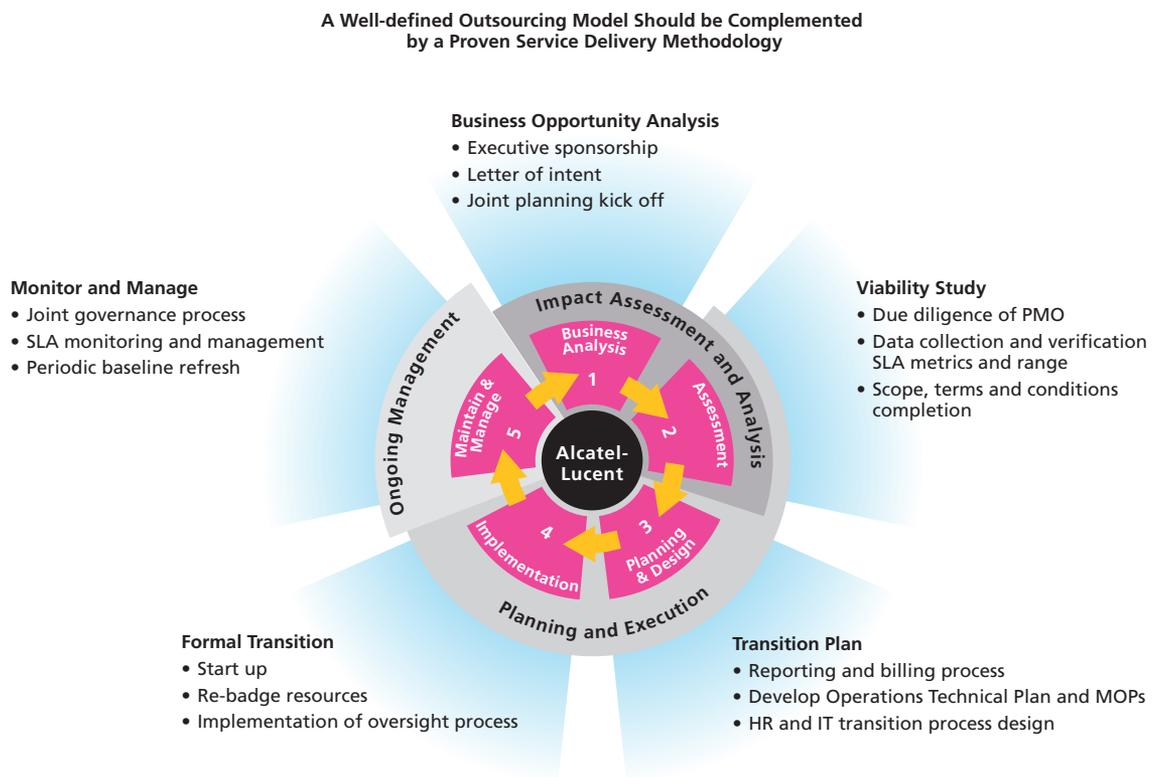
Choosing a Managed Services Provider

An effective outsourcing business model provides solutions tailored to your organization's needs and environment. Outsourcing can bring you tremendous benefits if you choose the right partner. When evaluating potential partners you will want to consider the following factors:

- **People and Experience** – Your prospective partner's staff should include a large complement of managed service experts with years of end-to-end solution experience. They should be certified engineers and technicians who are familiar with a wide range of multivendor systems and have an extensive track record of designing and building service provider networks quickly and efficiently.

Look for professional change management capabilities and a proven methodology for network transformation. A managed services provider with these qualifications can provide you with world-class network quality based on aggressive SLAs that drive customer satisfaction and retention.

- **Knowledge Assets** – Your managed services partner should be backed by research and development capabilities that provide the latest in business modeling and analysis tools to speed up successful implementation. Also essential are global network operating centers to provide a wide range of services.

- **Proven Methodology** – The managed services provider should work with proven outsourcing methodology and governance models, and use best in class tools, processes and metrics. Progress and process implementation should be measurable. A superior methodology spans all dimensions of next generation network planning, design, implementation and management. Also, by leveraging a shared capital model you optimize your return on investment and minimize risk. This type of proven outsourcing approach goes beyond contract management and focuses on driving value from the strategic relationship and enhancing overall business contributions.

Figure 3. Outsourcing Model

A Well-defined Outsourcing Model Should be Complemented by a Proven Service Delivery Methodology

Business Opportunity Analysis
- Executive sponsorship
- Letter of intent
- Joint planning kick off

Monitor and Manage
- Joint governance process
- SLA monitoring and management
- Periodic baseline refresh

Viability Study
- Due diligence of PMO
- Data collection and verification SLA metrics and range
- Scope, terms and conditions completion

Formal Transition
- Start up
- Re-badge resources
- Implementation of oversight process

Transition Plan
- Reporting and billing process
- Develop Operations Technical Plan and MOPs
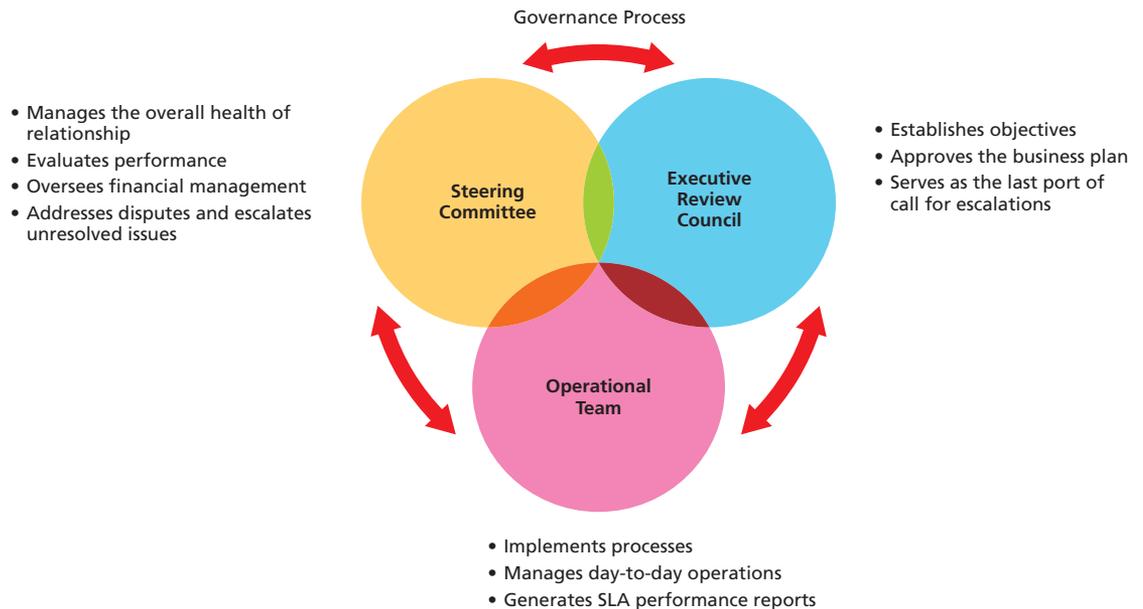- HR and IT transition process design

Of particular importance, a strategic outsourcing model must have a clearly defined governance structure. A high-performance governance process can transform a typical outsourcing agreement into a strategic relationship that is focused squarely on adding value. A governance model should be designed to:

- Set expectations, goals, and measurement methodologies
- Form peer-to-peer teams to closely monitor performance of services
- Establish clear accountability and provide an escalation path for dispute resolution
- Provide an appropriate process to change the scope and terms of the contract
- Offer a vehicle that can strengthen R&D capabilities and leverage new technologies to help customers solve complex problems in novel ways.

A well-defined governance process to allow for clear accountability is illustrated in Figure 4.

A circular flow of information between the three entities — the executive review council, steering committee and operation team members — ensures partnership objectives are met on time and on target.

Figure 4. Outsourcing Model Governance Process

Governance Process

- Manages the overall health of relationship
- Evaluates performance
- Oversees financial management
- Addresses disputes and escalates unresolved issues

Steering Committee

Executive Review Council

- Establishes objectives
- Approves the business plan
- Serves as the last port of call for escalations

Operational Team

- Implements processes
- Manages day-to-day operations
- Generates SLA performance reports

Managed Services Demystified – How You Benefit

By undertaking outsourcing with a qualified managed services provider, you can focus on developing new revenue generating services and often bring them to market six to 12 months faster than previously possible. This allows you to accelerate revenue growth and helps you take the lead in your industry segment through innovation and rapid service deployment.

Outsourcing helps minimize your Capex and Opex and can significantly lower your cost of ownership. Risk can be mitigated, and working with your networking infrastructure becomes a far simpler process due to the round-the-clock presence of your managed services partner. And, by leveraging your outsourcing partner's expertise through knowledge transfer, you and your staff remain up-to-date on the latest technologies and trends that can impact your business.

"IDC research shows that operators worldwide are making the difficult transition from network-centric operators to become customer centric organizations even as they continually combat the decline of traditional voice and rise of competition in the wireless, new media, and video segments. Operators that have developed well-governed managed network services contract with a trusted partner have reported immediate benefits in operating cost reduction, improved time to market with new service launches, and expects to increase their competitive agility over the long term as both internal and partner resources are optimally engaged to serve customer needs."

Source: Worldwide Managed Services for Telecommunications Operators, 2007-2011 Forecast and Analysis, IDC document # 205156

By creatively employing an outsourcing business model, you are able to focus you attention on meeting the challenges and grasp the opportunities that make up today's complex, customer-driven telecommunications marketplace. By transforming and outsourcing your next generation network, you are able to offer the advanced, blended lifestyle services that your customers want. And the willingness to embrace new operational model can be a primary source of competitive differentiation.

Outsourcing provides the innovative business model that allows you to transform your business to address rapid market changes, enhance earnings, enter new markets, launch new services, and increase focus on end-user value. These drivers are the catalyst behind the increase in telecom network outsourcing. It is a proven, time-tested strategy for success.

About The Author

John Ramirez, Vice-President Carrier Network Operations – Alcatel-Lucent's Network Operations Division

John Ramirez heads the Carrier/Enterprise Network Operations Business Unit within Alcatel-Lucent's Network Operations Division. In this role, Mr. Ramirez has the worldwide responsibility for network operation projects in the segments of telecom carriers and enterprise verticals.

Previous to his current role, John served as General Manager for the Global Network Operations Centers (1999 – 2004). Mr. Ramirez developed and implemented the Distributed Delivery model that is a key value proposition within Alcatel-Lucent's service offerings.

John's career has been almost exclusively in the services industry, holding numerous positions within the former Lucent both building and managing several technical support centers, billing & order entry centers, as well as several professional services practices. His career spans over 25 years of experience in the service industry.

Mr. Ramirez received a Master of Business Administration from University of Phoenix in Denver Colorado.