

# Integrated Communications Strategies for Vertical Industries

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How integrated communications can reduce costs and spur business process innovation using examples from the transportation, healthcare and power utility industries.

By M. Madden

**Enterprises need to react strategically – not just tactically – to fully understand their new business issues and take stock of deficiencies.**

New business models and process innovations present new challenges to business telecommunications infrastructure. Enterprise communications services are struggling to keep pace with the increasing demands of users and the tempo of change in their business environments. Meanwhile, consumers increasingly expect faster and higher levels of service at reduced costs.

In the transportation sector, companies are looking to provide Internet access to passengers in high-speed trains and at rest stops on motorways; to cost-effectively monitor and manage thousands of miles of signaling and conditions on roadways and railroad tracks; and to have real-time telemetric management of trucks and locomotives.

In the utility sector, changes in industry regulations and financial pressures are driving consolidation and adoption of new, more efficient business processes. The utility industry is looking to replace 20-year-old voice and data equipment so it can centrally manage field service operations and remotely monitor utility meters – rather than sending employees into the field – and provide broadband Internet access over power lines.

In the healthcare industry, physicians demand smaller and fewer integrated devices that seamlessly combine voice and data capabilities over cellular telephone and private hospital WiFi networks.

These business process innovations require connections between multiple, historically incompatible communications networks. Historically, integrating disparate vertical systems increased costs and complexity. However, the trend toward IP-based transport infrastructures for all real-time and non-real-time applications opens the door for a new paradigm in integrated voice and data communications.

Richer, integrated applications with increased functionality can be introduced to automate business processes. Enterprises can now expect to shift from older, disparate networks, to new, unified systems that harmoniously integrate systems and operational services.

## Case Study: The Electric Utility Industry

A close look at the electric utility industry reveals an industry undergoing significant change. The utility industry is consolidating, and institutional investors along with shareholders in these markets are putting intense pressure on these companies to improve financial performance. Government regulations are also forcing utilities to innovate and rapidly transform their businesses. Environmental, safety and reliability concerns are prompting utilities to upgrade or replace aging infrastructure. Most importantly, they must find ways to streamline and improve current business models and approaches. This provides a significant opportunity to integrate systems and reduce communications costs.

Current communications and data processing systems in the industry are often isolated from other enterprise systems that carry critical business information. For example, a utility enterprise may have deployed disparate but duplicate voice systems, such as land mobile radio (LMR), cellular/PCS, POTS, VoIP, microwave and satellite systems. These disconnected systems support common enterprise data traffic, SCADA telemetry and analog video security. These individual systems were originally fielded to satisfy specific business processes, such as power transmission and distribution, finance, workforce management or asset control, before integrated systems were feasible.

If shared or unlocked, these separate information streams could increase productivity and reduce complexity to serve the enterprise's overall business needs better. Integrated voice and data communications will enable cross-organizational access to communications infrastructure, key applications and improved business processes – all vital to transforming the utility industry to meet its new business challenges.

To respond to this host of new demands and achieve visibility and control over core business processes, utility enterprises are deploying next-generation systems like IP video security, mobile workforce automation tools, automated meter reading systems and Internet-based Supervisory Control and Data Acquisition (iSCADA). Each of these systems requires unprecedented communications resources, therefore suppliers are rushing to provide communications solutions that support these emerging requirements. However, one size does not fit all. Overall communications

requirements differ according to challenges unique to each business. As a result, utilities are struggling to define a specific telecommunications investment strategy that best addresses short-term and long-term initiatives, rather than a hodge-podge of point solutions. That is why a growing number of utilities recognize the need to adopt different approaches to their communications infrastructure in order to realize the full benefit of new applications.

Utilities are learning that an integrated, unified network approach (Figure 1) provides significant cost improvements and other benefits.

Figure 1: New Unified, Integrated Network Designed for Utility Companies

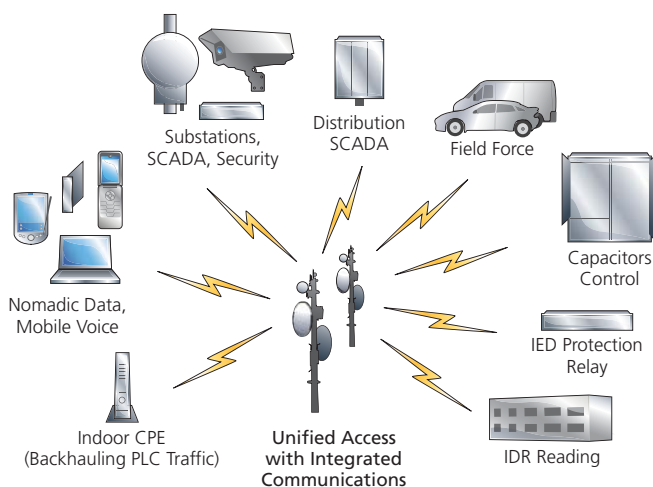
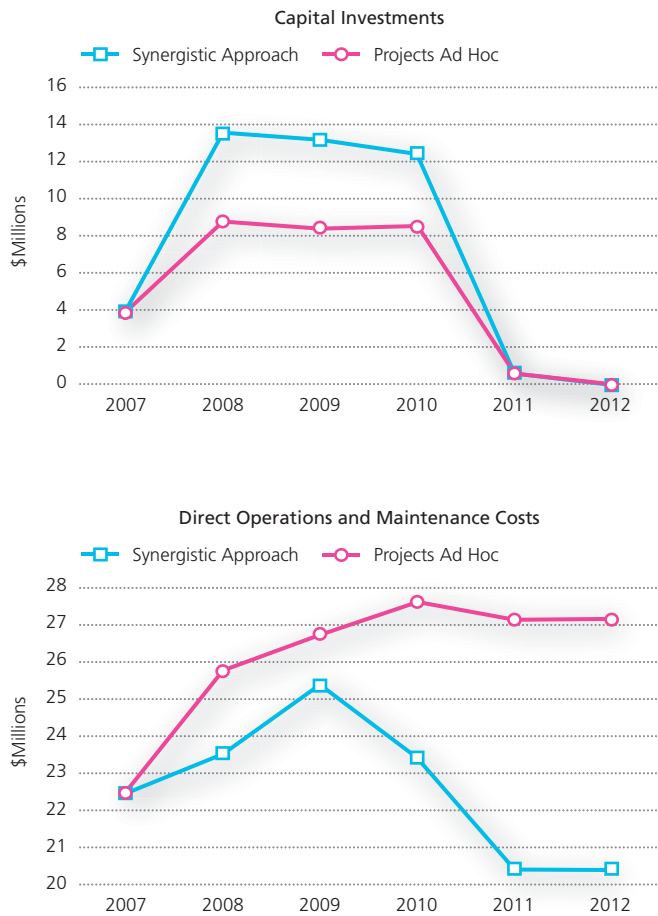


Figure 2: Long-term planning minimizes both OPEX and CAPEX



The new network can more easily consolidate disparate systems to meet increased regulatory compliance goals. It can drive operational and financial improvements across the enterprise's business processes, with shared solutions to increase productivity and performance while eliminating duplication.

What is common to all enterprise telecommunication environments is that, once deployed, that enterprise network infrastructure will be around for a long time. Ad hoc decisions to get systems up and running quickly have long-term effects on costs, growth and the ability to evolve to meet future service demands. Communications investment decisions often analyze initial deployment costs that are spread over two or three years. However, such short-term figures rarely tell the whole total cost of operation story. In fact, as shown in Figure 2, initial capital costs will usually be far less significant than the long-term costs of operations, maintenance and provisioning.

Strategically prudent communications decisions that incorporate integrated support for subordinate systems make significant differences to the true cost of communications investments. Given the wide variety of communications and data technology alternatives available today, as well as wide variations in deployment and management costs, such decisions should include detailed evaluation of life-cycle costs.

When evaluating how to apply new technologies to meet business critical problems, telecom managers in the utility industry should consider the following factors:

- Services to be provided and best-fit technologies.
- Operational impact of new services and technologies.
- Impact of these services on network performance, availability, scalability and reliability.
- Business requirements and cross-enterprise synergies.
- Existing assets that must be integrated to meet cross-enterprise needs.
- Quick fix vs. strategic management initiative.
- Identification and prioritization of strategic options for investment and implementation.
- Life-cycle cost of new services vs. hardware/software acquisition costs.
- Estimated overall return on investment.
- Metrics for success.

**In the end, the goal of the enterprise should be to:**

- Create, validate and prioritize options that effectively manage the uncertainty surrounding these business decisions, including the capital and operational investments; the operational impacts of combining service areas or extending into new ones; and protecting investments and controlling costs.
- Develop communications integration business plans that enable the enterprise to be more competitive, grow and improve financial performance.

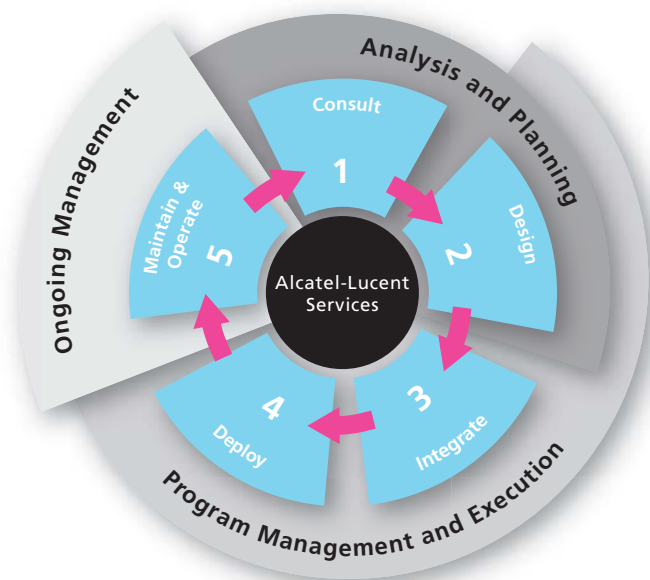
To address these challenges, enterprise telecom managers need a trusted, unbiased adviser who knows the technical and management dimensions of networks needed to help meet tactical and strategic challenges of network deployment.

**A Strategic Solution**

The integration of new technologies has created a brave new world. With a complete understanding of technological options and associated impacts, enterprises can develop strategies for network services and business transformation. Equally important is the enterprise’s ability to apply key technologies to its specific existing business and organization. Important factors for transformation include:

- Analysis of existing network services and business operations, forming a basis for the transition plan to a future mode of operation.
- Migration to IP networks.
- Business-case development that contemplates the real costs/risks of private and/or public communications services in the transformation strategy.
- Process innovations and automation considered as key factors in cost reduction and in improving service and business continuity.

Figure 3: Multi-layered Communications Consultancy Services



- Productivity applications – such as presence-based platforms that take advantage of integrated communications.
- Support systems and processes optimized for new technologies.
- Outsourcing as part of the new strategy.

Consulting services from a trusted adviser can fill the gaps in current knowledge and understanding as well as help in leveraging existing assets.

**Choosing the Right Partner**

When transforming the networks that carry business critical data, it is essential to partner with a telecommunications solutions provider that has broad experience of enterprise-specific services (Figure 3).

Alcatel-Lucent, as an Integrated Communications consultant, has assisted many private enterprises and non-profit and government-sector clients automate business processes. Aside from contributing to the deployment of countless next-generation networks worldwide, the company has broad experience in deploying business critical systems in a variety of industry segments. As enterprises shift from older, disparate networks, to new, unified systems, we can partner to harmoniously integrate systems and operational services, ensuring a smooth transition. ►►

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## Alcatel-Lucent Business Partners Deliver Value For Enterprise, Industry and Government Customers

By C. Dubois

Alcatel-Lucent delivers a wide range of transformation solutions and services to enterprise, industry and government customers through a global network of certified Business Partners. As highly trained consultants, Alcatel-Lucent Business Partners are in an ideal position to guide the evolution of customers' networks, services and business transformations.

Along with the competency and expertise necessary to satisfy the most demanding customer expectations, the quality and reputation of Alcatel-Lucent Business Partners is a key deciding factor in determining whether they are the right choice to lead a customer through the transformation process. By carefully selecting the Business Partners that best meet customer needs, Alcatel-Lucent ensures continuing customer satisfaction.

The network transformation of the City of Calonge in Spain is an excellent example of how Alcatel-Lucent Business Partners add value for customers. For Business Partner BC Sistemas, the challenge was to improve the level of customer service provided to citizens in Calonge by connecting a widely dispersed group of municipal employees through a converged voice and data network. BC Sistemas met the challenge with great success. The new network, with 10-gigabit Ethernet technology capabilities, supports a comprehensive set of applications that provide advanced services to citizens of Calonge. "We can say that both the installation and switch have been flawless," said Santi Solà, City of Calonge IS/IT Manager.

"NextiraOne has been one of our partners for quite sometime. With NextiraOne looking after our network, and delivering as well as installing the Alcatel-Lucent OmniPCX Enterprise Communication servers, it was the obvious first choice for the contact center system. The solution offered jointly by NextiraOne and Alcatel-Lucent was very convincing," said Christopher Lanz, CIO, Visana Group.

The Alcatel-Lucent Global Partner Program provides in-depth training, knowledge sharing, sales resources, marketing support and professional services to ensure that Business Partners deliver the highest level of competency and expertise in network transformation technology.

The combination of Alcatel-Lucent transformation solutions and superior Business Partner service and delivery is a winning combination that enterprise, industry and government customers can count on as they plan their transformation.

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