STRATEGIC WHITE PAPER

Freeing Up Cash Flow by Changing Cost Structures

Moving to OPEX reductions of more than 10 percent

The rapid pace of change in the telecommunications industry can put a strain on a service provider's balance sheet. Reducing total cost of ownership (TCO) to support double-digit or non-linear operating expenditures (OPEX) reductions per year is required to defend service provider margins now and in the future. Many service providers have been able to reduce OPEX by three to five percent year over year. However, to achieve non-linear OPEX reductions they will need top executive direction and a trusted partner that has done it before and has the experience and expertise to translate the technical, financial, and operational risks and issues into business alternatives with associated benefits.

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Increasing Complexity and High Cost Structures

> *"For every dollar of revenue I add to the top line, I add at least a dollar of cost to the bottom line."*
>
> **CHIEF FINANCIAL OFFICER (CFO) OF A GLOBAL TIER 1 SERVICE PROVIDER**

Increasing network and IT complexity, driven by the need to implement new sources of revenue and coupled with increasing competitive intensity, can put a strain on a service provider's balance sheet:

- Voice revenue continues to steadily decline as a result of the economy, pressure from wireless, the demise of long distance, and the increasing adoption of voice over IP (VoIP).
- Exponential data growth continues to exceed the rate of revenue growth and drive ever-increasing capital intensity levels.
- The marginal cost of running multiple legacy networks is contributing to higher cost structures and exposing service provider organizations to growing workforce staffing risks. Training new hires on legacy technology is not a good business decision.
- The traditional approach of increasing revenue and earnings by adding new services through additional overlay networks, is contributing to increasing complexity and costs, and driving earnings before interest, taxes and amortization (EBITA) in the wrong direction.

What can service providers do to change this situation?

To continue to attract and retain subscribers with advanced services and remain competitive, service providers need a way to change their cost structure.

Taking the Right Steps to Address Business Challenges

Reducing total cost of ownership (TCO) to support double digit operating expenditures (OPEX) reductions per year is required to defend service provider margins in the future. And a tough competitive environment punctuated by heavy pressure on average revenue per user (ARPU) is accelerating the adoption of a variety of methods to identify and pursue unrealized value in the network. Three alternatives are usually considered to address the growing cost and EBITA challenges:

- *Add an overlay network to support new services and grow revenue*. This alternative does not address the additional complexity around provisioning systems, skill sets and the marginal cost of adding a subscriber. The earnings problem still remains.
- *Optimize the existing network and maintain existing services*. The "sweat the assets" option is usually limited to five percent to 10 percent OPEX reductions per year with most of the low hanging fruit already gone. It does not address the marginal cost of adding a subscriber and the challenges associated with increasing earnings still remain.
- *Modify the cost structure to generate more cash from operations*. This approach includes outsourcing maintenance and management of legacy networks, and migrating from legacy networks to a single, converged network based on IP/Multi-protocol Label Switching (IP/MPLS). By migrating services from legacy data networks, service providers can eliminate duplicate cost structures, lower the cost per transported bit, and regain economies of scale to support new service introductions.

In some respects, the telecommunications industry is like any other industry — improving the customer experience and providing new services can translate into more customers, more satisfied customers and higher revenues. But with all of the economic challenges service providers are facing, how can they justify the major expense of migrating from an existing asset base? On the other hand, how long can they limit their opportunities by stranding capital in legacy networks, especially if their competitors are already planning to migrate from their legacy networks?

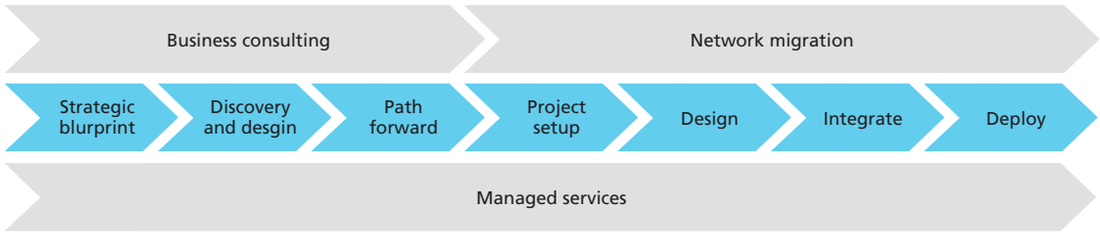
Any approach must be scalable to accommodate new customers and current subscribers, as well as being reliable and secure to ensure earnings growth. Managed and planned properly, modifying the cost structure will not simply improve a service provider's business, it will provide sustaining OPEX reductions and free up more cash from operations to invest in other aspects of a competitive business plan.

Approaches to Changing Cost Structures

It's often difficult for a service provider to identify the key cost drivers inside the organization. Usually it's a case of many people making a unique contribution to the overall network functions.

A business transformation partner can help translate the technical, financial, operational risks and issues into business alternatives, associated benefits and a realizable plan. An experienced business partner will have a proven track record and bring an integrated approach to changing the cost structure, which includes business consulting to make it easier to initiate and launch the new project (Figure 1).

Figure 1. Integrated approach to changing the cost structure



The initial questions most organizations begin with include:

- Are the earnings targets for the next three years achievable?
- Are capital intensity targets for the next three years achievable?
- How many legacy specialists are retiring in the next five years?
- What is the number of service contracts and Service Level Agreements (SLAs)?
- How many overlay networks and IT systems are operational in the legacy networks?
- How many resources are specializing on legacy networks?
- Can the operation afford any business disruptions if "business as usual IT systems and resources" are used for cost structure reduction programs?
- Is there a timetable for migration from legacy networks? Is it achievable with current tools, automation and processes?
- Will all legacy services be migrated?

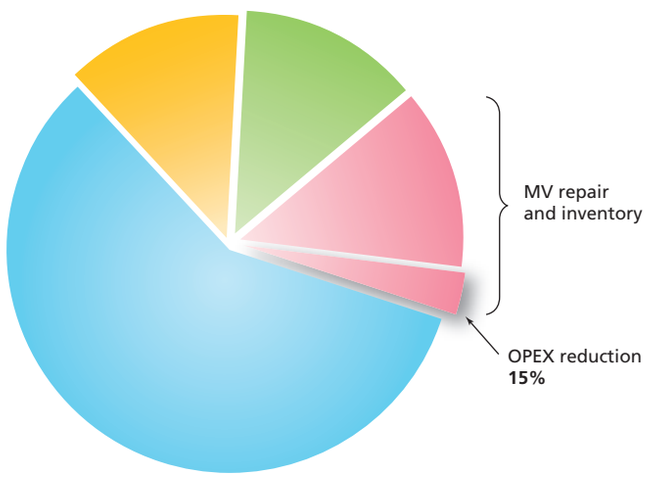
Most organizations do not want to attract the risks associated with being a first mover. In the business consulting phase, the partner will be able to recommend transformation priorities tailored to the service provider's business environment and objectives, and actually demonstrate how the solutions will work

and how much savings can be realized. That partner will offer comprehensive end-to-end services to cover all business, human resource and financial transformation requirements, as well as the technology risks for the entire operation.

The next step in a non-linear cost reduction program is usually to move from multiple maintenance vendors with multiple contracts with multiple SLA's to a single contract with a single SLA with the business transformation partner. This step allows the business relationship to evolve and trust to develop between the service provider and business transformation partner to enable the next steps, namely outsourcing operations management and migration from legacy networks.

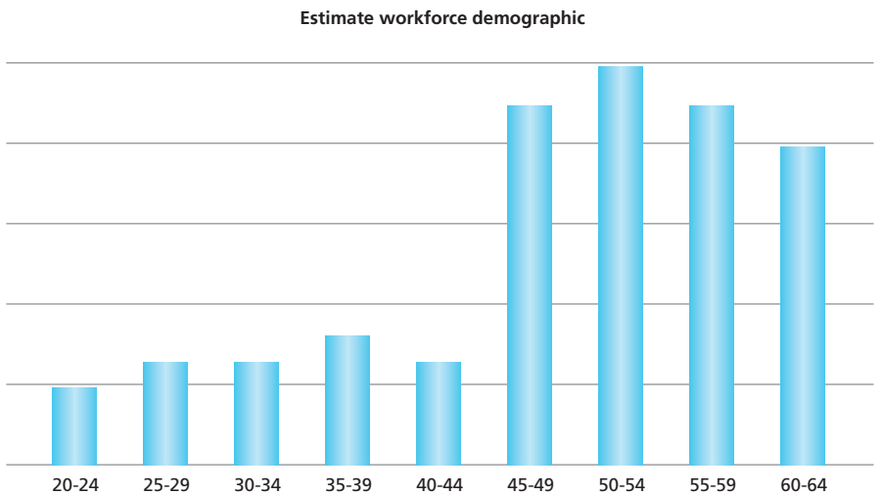
Figure 2 shows the results experienced by a Tier 1 service provider who moved to a single maintenance contract and SLA for repair and inventory management, technical support and field maintenance. With this approach, the service provider was able to reduce this segment of its OPEX costs by 15 percent, or $.9 million a year.

Figure 2. Maintenance OPEX case study[1]



Outsourcing operations of legacy networks allows service providers to re-focus staff on newer technologies required to drive revenue growth, reduce OPEX by double digits, and mitigate legacy network staffing risks. Recruiting and retraining staff for Public Switched Telephone Network (PSTN), Asynchronous Transfer Mode (ATM) and Frame Relay (FR) legacy technologies is not a good business decision. As shown in Figure 3, the bulk of a Tier 1 service provider's workforce will be eligible for retirement within the next five years.

Figure 3. Service provider workforce sample demographic[2]



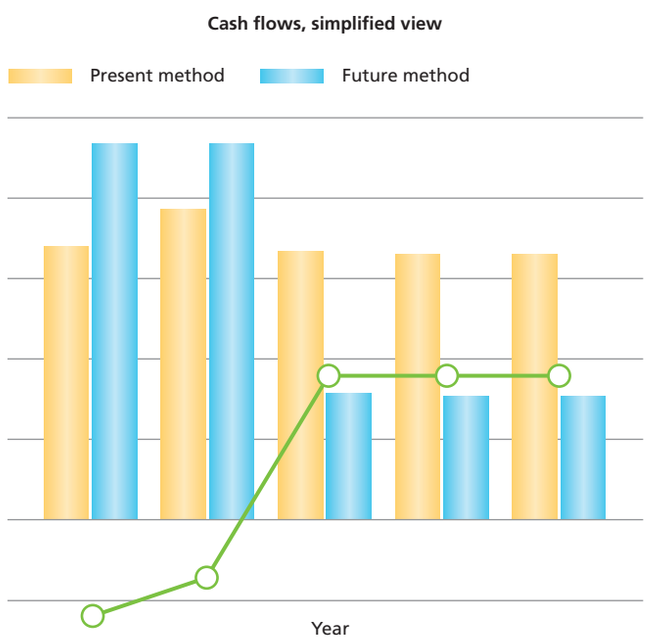
[1] Alcatel-Lucent business modeling.
[2] Alcatel-Lucent business modeling.

Legacy networks with different service technologies force higher capital expenditure (CAPEX) and OPEX ratios, and limit opportunities. This makes migration from legacy networks to IP/MPLS a highly desirable goal. However, an effective migration must go beyond simply modernizing the network. To really elevate the migration goals to the next level service providers must look beyond transforming the technology to transforming the business as well.

For example, if the service provider portfolio roadmap is not clearly defined and modeled prior to the start of investment and equipment deployment, the migration schedule and new service rollout will slip, increasing migration costs and pushing out incremental revenue. In a recent example, a migration project driven by a service provider's engineering team was delayed by six months when, midway through deployment, the marketing teams became involved for the first time and began to change the portfolio with the intent of increasing ARPU.

Figure 4 shows the composite results for large Tier 2 service providers migrating from legacy ATM/FR/ Ethernet networks to a single IP/ MPLS infrastructure. The scope of the project includes business consulting, migration services, network operations management, hardware and software, as well as, end to end program management. With this approach, the service providers will be able to achieve double digit OPEX reductions per year and realize positive cash flows in year three.

Figure 4. Operations migration cash flows[3]



To enable a predictable and reliable migration, a transformation partner will also bring:

- Processes that have been developed, tested, used, and re-tested to make activities or workflow efficient with a high degree of repeatability.
- Heavy investments in research and development to automate the migration process shorten project durations, reduce service provider costs, and improve migration quality.
- Specialized migration engineering centers with a global reach that can demonstrate how risks are mitigated, act as a migrations operations control centre to maintain control of the migration process, and improve first pass migration yields.

"We need geometric or non-linear OPEX reductions."

SENIOR VICE-PRESIDENT OF A GLOBAL TIER 1 SERVICE PROVIDER

[3] Alcatel-Lucent business modeling.

Conclusion

To continue to attract and retain subscribers with advanced services and remain competitive, service providers need a way to transform their businesses by changing their cost structure. Service providers can achieve double-digit OPEX cost reductions by moving to a single maintenance contract, outsourcing operations for legacy networks, and through a successful migration to a converged IP/MPLS network while managing the risks and planning for future growth.

Acronyms

ARPU	average revenue per user
ATM	Asynchronous Transfer Mode
CAPEX	capital expenditures
CFO	Chief Financial Officer
EBITA	earnings before the deduction of interest, tax and amortization
FR	Frame Relay
MPLS	Multi-protocol Label Switching
OPEX	operating expenditures
PSTN	Public Switched Telephone Network
SLA	Service Level Agreement
TCO	total cost of ownership
VoIP	voice over IP

Authors

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Tim Broschuk is a Business Development Director at Alcatel-Lucent where he is responsible for helping service providers transform their networks and their business. Mr. Broschuk uses a broad range of experiences from marketing, product line management, business operations, project management, R&D and manufacturing operations to assist service providers in developing business forecasts, future network plans, migration alternatives, and in providing guidance on the most effective path forward.

Mr. Broschuk holds a Bachelor of Science degree in engineering and a Masters of Business Administration from the University of Manitoba. In his spare time, Mr. Broschuk has contributed to the community as a professor at the University of Ottawa in Canada, teaching High Technology Marketing and New Product Introduction.

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Patricia M. Doane is a services marketing manager for Alcatel-Lucent in Naperville, IL. Patricia's areas of expertise include software and services sales and marketing, sales training and digital media. She has a B.S. degree in Communications & Secondary Education from the University of Illinois at Urbana-Champaign, and M.S. degrees in Communications and Clinical Psychology from Northwestern University in Evanston, IL and Benedictine University in Lisle, IL respectively.

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Márcio Nespatti works in Alcatel-Lucent Corporate Strategic Marketing team as a director for the Cost Transformation Marketing Program. Márcio's background includes senior roles in marketing, sales and product management both in the consumer as well as the infrastructure side of the telecommunications business in Latin America, Europe, Asia and now North America. He currently oversees global program execution to position Alcatel-Lucent as a leader in the practice of identifying customer's main cost drivers and proposing solutions that help transform hidden costs in additional free cash flow.

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John Bernard is a manager within the Alcatel-Lucent Service Group supporting global services strategy and solution development. John has 20 plus years experience within the telecom industry and has held a number of senior positions at PictureTel, 3COM, Lucent, and Alcatel-Lucent creating global telecom solutions. He is currently supporting Alcatel-Lucent strategy and development efforts toward eco-sustainability, cost transformation and overall business transformation solutions.

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