STREAMLINE YOUR BUSINESS AND NETWORKS TO COMPETE IN THE NEW TELECOM REALITY

Telecom operators are transforming their current networks, operations and businesses to dominate their competitors and prosper in the ICT race. Simplification, harmonization, and customer focus are key new elements of transformation, yet the path to such transformation needs to change according to each operator’s specific business goals. A network transformation success case of an operator in Latin America is shared.
WHY TELECOM BUSINESS TRANSFORMATION?

Recent changes in the telecommunications arena are bringing a new reality to all industry players, with the result that communication service providers must face new challenges in a unique way.

At the heart of every transformation program, operators need to define today where to invest in order to be ready for the new services and business demands of tomorrow. One way to allocate additional capacity and increase profitability is by simplifying, harmonizing and focusing on customers. To do this, operators need a plan to modify the business base in order to capture new revenue streams and increase levels of operational efficiency. This is the heart of what transformation is about: becoming simpler in order to reduce capital expenses in the long run, and providing the baseline for a more efficient, cost effective operation.

What should be transformed? The answer comes after reviewing the operator’s business strategy, and by using the three-dimension roadmap. Of course, each dimension should be addressed differently from one operator to another, in order to match the operator’s unique competitive position.

A telecom business transformation program needs a standardized process environment to guarantee that all key objectives are achieved. This implies taking into consideration the company’s vision and objectives with a proper level of detail and follow-up. To accomplish this, action points must be broken down, arranged into work groups, scheduled, and assigned to specific individuals and/or organizations, based on operator requirements.

This document is aimed at establishing a holistic approach in an innovative framework for telecom business transformation in response to recent market trends and consumer demands.
WHY IS TRANSFORMATION IMPERATIVE?

Over the past decades, networks were built using a variety of technologies, platforms and standards, making their operation a real challenge. Maintaining those networks is very complex and costly, affecting operators’ ability to generate profits aligned with financial markets’ expectations.

As boundaries between communications technology and information technology have almost disappeared, new and existing players have entered the telecommunications market with a wide array of innovative services based on broadband connectivity. The success of these services has generated an explosive growth in fixed and mobile data traffic. In parallel, consumers’ expectations of connectivity speed, storage capacity, convenience and availability have changed radically, creating demand for a much higher threshold of service quality. This has put additional pressure on operators in terms of new infrastructure, systems, staff and skills required to satisfy consumer demands. And this has often translated to lower financial results as a result of increasing capex and opex.

In addition, when markets are reaching maturity, and growth in mobile phone penetration is coming to an end, where will new revenues come from? Many operators have started expanding their business and planning for growth in neighboring industries, such as digital media, pay TV, health and transportation. This can be accomplished in a more efficient way once transformation has taken place.

This evolution is forcing operators to rethink their strategy and recognize customer experience as one of the major drivers of business success. This idea has profound implications for operators, who now need to reconsider and redesign their strategy, networks, operations, product portfolio, IT systems and, of course, network infrastructure. Operators need to embrace change in order to dominate competition.

Without a doubt, over the past few years the term “network business transformation” (or simply “transformation”) has become one of the hottest buzzwords in the telecoms industry, as it promises not only to expand delivery capabilities, but also to improve efficiencies and to reduce costs in order to improve profitability.

In short, operators must be ready to meet demand for new services and increased customer expectations.
WHAT MUST BE TRANSFORMED?

As networks have evolved using a variety of technologies, platforms, vendors, standards, and patches, their operation now requires a variety of capabilities, expertise, knowledge and skills. This is both complex and expensive, driving operators’ needs for simpler networks to reduce capex and the necessary agility to deploy a leaner operation (reduced opex). In real terms, what must be transformed?

Classification of Operators

Defining what to transform and how much effort is required depends on the operator’s business strategies, which are usually defined according to the company stage (size and maturity of the business) and market characteristics. We propose a classification that includes four categories: Incumbent, Innovative Challenger, Emergent, and Niche Operator, each one of them with particular issues.

• An Incumbent Operator is normally more interested in improving operational efficiency and capacity, and in boosting the business to improve market share. An operator in this stage is usually recognized as a market leader in terms of customers, revenue and coverage.

• An Innovative Challenger Operator is often more open than the Incumbent Operator to exploring new models for improving customer experience and quality of service, and to deploying an innovative strategy for new services to improve market penetration.

• The Emergent Operator is looking for market penetration strategies, fast network rollout and expansion. An operator in this category is often willing to take additional commercial risks in order to achieve increased market share and top-line growth, and as a result, is often driven to “change the competitive field” with aggressive service bundles and/or pricing strategies.

• A Niche Operator is interested in improving market share. It has a smaller customer base compared to other players, but is normally achieving a higher ARPU and handling customer retention better than others. Besides market share, cost reduction and network evolution are two other important goals.
This classification applies to any communication service provider regardless of industry, segment or core business of origin (e.g., TV, satellite TV, internet, cellular).

Business Driven Transformation

The strategic approach is to take all previously discussed elements to a next level called a “business driven transformation,” where business, networks and operations are reshaped. This table provides a clear picture of the value elements and typical value ranges required to address the most important measurement units (key performance indicators, or KPIs) at an early stage of this journey.

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value Elements</th>
<th>Examples</th>
<th>Typical value range</th>
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<tbody>
<tr>
<td><strong>BUSINESS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenues</td>
<td>Reduced churn</td>
<td>Introduction of bundled services (e.g., IPTV) increases customer loyalty</td>
<td>2-3 p. p.</td>
</tr>
<tr>
<td>ARPU</td>
<td>New source of revenue</td>
<td>E.g., Mobile Broadband</td>
<td>5-10% of total revenue</td>
</tr>
<tr>
<td>Churn</td>
<td>Increased ARPU</td>
<td>Differentiated service levels</td>
<td>€2-4</td>
</tr>
<tr>
<td>Uptake</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>NETWORKS</strong></td>
<td>Lower recurring capex</td>
<td>Phase out of legacy network layers decreases recurring capex</td>
<td>20-35%</td>
</tr>
<tr>
<td>CapEx</td>
<td>Lower cost for capacity growth</td>
<td>Cost of providing services over ethernet is significantly lower</td>
<td>50-80%</td>
</tr>
<tr>
<td>Recurring capex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capex/Sales</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost/unit (MB)</td>
<td></td>
<td></td>
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<tr>
<td><strong>OPERATIONS</strong></td>
<td>Reduced infrastructure size</td>
<td>Site reduction, footprint reduction, network consolidation</td>
<td>10-40% site reduction</td>
</tr>
<tr>
<td>Opex</td>
<td>Reduced energy cost</td>
<td>Fewer nodes and newer generations consume less energy</td>
<td>40-60%</td>
</tr>
<tr>
<td>Network opex</td>
<td>Reduced process cost</td>
<td>Simplification leads to less load on processes, higher degree of automation</td>
<td>20-30%</td>
</tr>
<tr>
<td>Opex/Sales</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unit cost</td>
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</table>

Fig. 1 - Classification of Operators

Fig. 2 - Key Performance Indicators

* Illustrative examples
In short, every operator has different goals and requirements according to the company category it belongs to. A comprehensive approach is necessary to make sure that all transformation needs are properly addressed, from network architecture and processes to systems and organization. These are the drivers for telecom transformation that will ensure that current and future business demands are proactively taken into consideration.

The Levers of Transformation

There are three main levers (dimensions) that must be addressed when running a transformation program: simplification, harmonization, and customer-centric organization. Collectively, these three focus areas will enable a successful program.

The Simplification Lever – In an industry where growth has begun to slow down, operators need to find ways to make voice minutes or data generation the most efficient possible. We have seen that the variety of required capabilities, expertise, knowledge and skills makes operations both complex and expensive. Therefore, simplification is required to lower, in scope and complexity, the number of elements or platforms across the network, operations and business to enable an efficient “production” of voice minutes and GB of data. This means transforming the business into a “GB factory,” which includes:

- Network: strategy, planning, and maintenance.
- Operations: network operations, inventory, logistics, customer care, billing, channels, processes, systems, reporting and business continuity.
- Business: marketing, sales and customer management, strategy and finance.

The Harmonization Lever – Most fixed-line telecom companies have seen their underlying assets evolve from analog telephony to fiber broadband access technologies of today. The accretion process has created the siloed approach we see currently, deteriorating collaborative and effective interaction between the network and business areas.

The goal of harmonization is to ensure seamless service delivery over both fixed and wireless networks. This can be done by mapping all elements and looking for major technical differences to be harmonized.

The Customer-Centric Lever – Customer acquisition and retention is the end goal of operators in mature and saturated markets. Indeed, what they need to do is manage the end user lifecycle and improve interaction with these customers. A true customer-centric organization is constantly thinking how to satisfy current and future customer preferences and reap the benefits of changing needs.

Customer experiences are created by multiple elements, or touch points, from the moment a customer selects a device, activates a service, makes a call or downloads an application, to the time he or she wants to switch to a different plan. The experience is being reshaped by numerous direct and indirect interactions covering retail, service set-up, quality of service, customer care, support, etc. A successful transformation program takes a “deep dive” at customer touch points and how they can be enhanced at every stage to generate higher customer satisfaction.

By using the three-lever roadmap elements – simplification, harmonization and focus on the customer – operators can offer new services and applications in a more efficient, profitable, and agile way.
Drivers and Barriers in Telecom Transformation

It is important to recognize the different forces fostering and preventing Telecom Business Transformation (TBT) from happening. Recognizing them at an early stage will allow the operator to maximize outcomes by aligning efforts and removing barriers to the transformation objectives. The following chart shows the key drivers and barriers behind TBT.

<table>
<thead>
<tr>
<th>TBT Drivers</th>
<th>TBT Barriers</th>
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</table>
| **Market growth and competition**  
  – New data services demanded (50 billion connected devices vision)  
  – New IP-based services replace the need of legacy services (e.g., voice plans)  
| **Complex ecosystem**  
  – Many different players involved  
  – Vertical business solutions generate high reliability and performance requirements |
| **Customer experience improvement**  
  – Enriched services and ease of use are key to recovering perception and satisfaction  
| **Legacy systems**  
  – Existing voice networks still generate considerable revenue for operators |
| **Need to capture new revenue streams**  
  – Outside traditional services  
  – Need to manage data traffic from over-the-top television (OTT) services  
| **Profitability**  
  – Additional investment required before savings realization  
  – Recent investments not yet depreciated |
| **Leveraging scale and assets**  
  – Migrating to all-IP Network, an opportunity to monetize mobile network and operational assets  
  – Network and operations savings to preserve margins  
| **Legal and regulatory framework**  
  – Legal and regulatory framework behind new services and technologies often preventing services from being deployed on time |
| **Networks convergence**  
  – Fixed/wireless networks being “merged”  
| **Vendors**  
  – Difficult to integrate multi-vendor support |

Fig. 3 - TBT Drivers  
Fig. 4 - TBT Barriers

Standardization is fundamental to ensuring that a broad scope of the company operations is effectively transformed and modernized. The “standardization” concept is relatively new in the industry, and its main purpose is to help operators rebuild their networks in a simpler way by reducing the number of technologies and platforms. The use of one predominant standard that is compatible with most of the network/business is ideal. A good standardization practice ensures that most of the network keeps working under a common layer. This will help operators to reduce their capex, and have resources to invest in opex.
HOW TO TRANSFORM?

The parts that need to be transformed have been identified already. Before deciding on a strategy to perform a TBT, the operator needs to understand the company’s vision and business goals in the mid and long terms, as they will establish the guidelines (the plan) across the entire process. Unfortunately, some transformation efforts have shown limited benefits due to poor understanding and planning efforts. Once the operator’s vision has been thoroughly reviewed, a stage assessment is performed according to the operator’s business maturity level.

There are three phases to TBT:

1. **Analysis and Scope Definition** - Based on identification and prioritization of KPIs
2. **Execution** – Transformation implementation
3. **Continuous Improvement** – Make sure objectives are reached, refined and improved

THE OPERATOR NEEDS TO UNDERSTAND THE COMPANY’S VISION AND BUSINESS GOALS IN THE MID AND LONG TERMS
Analysis and Scope Definition: Identifying pain points and challenges

Any analysis must start from a deep understanding of current “pain points” and challenges. The identification process must address all the different business components of the company, as illustrated in figure 5.

Following that, a diagnostic takes place to understand the operator’s present status in OSS/BSS, organization and processes, and user services/experience, among others (As-Is), charting the relevant KPIs in order to set a starting point. Once the issues have been properly highlighted, they are weighted and prioritized according to business, operational and technical criteria.

Then a gap analysis is performed and a list of action points is established in order for the operator to reach the expected level of evolution (To-Be).

At this stage, once all relevant transformation dimensions have been mapped and measured, key pain points can be mapped against them. It is possible to identify action items/initiatives that will help the operator come up with a program plan, as illustrated in figure 6.

Execution: Planning and implementing the solutions

The action/program plan will be broken down into the necessary steps to reach the desired end state. These steps should be grouped into work-packages, and scheduled and assigned to specific individuals and/or teams as part of the program.

There are eight work packages defined for the transformation path:

- **Market**: competitors, customer segmentation lifecycle and products
- **Services**: offering analysis
- **Technology strategy**: technology/standards, network and maintenance
- **Network operations**: resources inventory, network monitoring, logistics and processes
- **Operations and performance**: customer experience, churn management, outsourcing
- **OSS/BSS**: business enterprise applications, customer relationship management, billing, other systems
- **Finance**: assets utilization, investment usage, revenue leakages
- **Transformation program**: transformation path and levers
Given the complexity and length of most transformation programs, a thorough program management structure and philosophy are critical. After all information has been gathered, each work package listed above must be mapped into the transformation path. The transformation strategy program will necessarily have to be modified many times during this journey, due to a dynamically changing environment.

The transformation path will pack all information into three drivers for network transformation, cost efficiency, customer experience, and business innovation (See figure 7).

**Fig. 7 - Transformation Path**

- **COST EFFICIENCY**
  - Run a financial analysis and make decisions on reorganization
  - Implement PLM/GTM to launch new P/S efficiently
  - Network redesign (core, transport, access, NOC)
  - Systems optimization, convergence, migration

- **CUSTOMER EXPERIENCE**
  - Network upgrade/modernization
  - Customer experience model implementation
  - Loyalty and churn
  - Operational excellence

- **BUSINESS INNOVATION**
  - Develop new business models/marketing strategy product catalog
  - Implement data mart, analyze usage information, implement up-selling, cross-selling, and customized marketing actions and promotions
  - Simplify network and operations, enhancing flexibility, scalability and reducing technology dependency
Continuous Improvement: Measuring and optimizing performance

Progress will be measured using the transformation scorecard (see figure 8) using a selection of critical KPI benchmarking to monitor the level of progress toward the desired outcome and to take corrective actions if necessary. Continual monitoring of KPIs will ensure that the benefits of the transformation program are stable and permanent.

Fig. 8 - Measuring and optimizing performance
A major operator in Latin America requested Ericsson’s assistance in transforming its fixed and mobile telephony business. The objective was to develop the best assessment on how to defend the current customer base, optimize operations and grow revenues through the development and launch of new services.

The collaboration focused initially on the identification and assessment of the available options for transformation. It started with describing the initial case and agreeing upon a market development framework. Then, the transformation team created scenarios to evaluate KPIs, which were agreed upon and defined during the first phase of the project.

Strategic options were evaluated, with the best scenario selected in order to start planning the transformation process. This has to be aligned with other ongoing change projects. A business case was developed, taking into consideration the target network (access, core and transport) and a segmentation model built for the project.

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**OPERATOR CHALLENGES AND STRATEGY**

<table>
<thead>
<tr>
<th>Identified Issues</th>
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<tr>
<td>Declining fixed revenue</td>
</tr>
<tr>
<td>Very strong competitive environment</td>
</tr>
<tr>
<td>Poor customer experience</td>
</tr>
</tbody>
</table>

- Successful operator already planning to transform itself
- Need to improve CUSTOMER EXPERIENCE

**OUR APPROACH**

1. Pre-study project scoped and agreed from the beginning
2. WP structure extensively used
3. Workshops structured professionally
4. Certified consultants delivering workshops
5. (Bi-)Weekly reports keeping heart-beat
6. Internal collaboration site and extranet for customer interface
7. Weekly phone conferences
8. Contact Points:
   • Workshops
   • One to one meetings
   • SC presentations/(bi-)Weekly reports

**WHAT THE NT TEAM DELIVERED**

- The NT team developed a three-prong strategy to defend present business, grow new revenue and optimize business operations
- A list of transformation levers was identified to support the overall strategy with financial implications for each strategic lever and the impact on the customer business objectives.
- A network strategy plan that clearly maps the “wanted architecture” in five years for the customer
- A high-level business case was built, focusing on customer’s most important financial KPIs
- Cross-consulting efforts (involving OC, SC and TC) with support from international and regional experts

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Fig. 9 - Grow and defend at once
A Telecom Business Transformation program implies complex challenges, which call for a strict focus on prioritization and execution based on projected impact. Such a program can take three to seven years before the network has actually been transformed. While it may be quicker to swap certain parts of the network assets, the benefits of transformation are further reaching, forming the foundation for a more highly competitive basis.

The challenge is to “paint” exactly where the operator is (As-Is) and where it is going (To-Be), making sure to include not only platforms and technology, but also processes, organizational setup, competences (people) and customer care, all with identified steps to reach an improved competitive position, reduce capex/opex, and increase revenues. Transformation must address voice and data, but also applications (physical or “in the cloud”), traditional call centers, and sophisticated customer-driven acquisition/retention programs. It’s the business as a whole that calls for transformation.

In summary, a transformation program might come across as an arduous challenge, therefore having the experience, knowledge and tools to establish the roadmap is fundamental. It is no longer an option. It is time to establish the foundation for sustained growth, to increase value and to improve consumer experience.

What is Your Transformation Path?

- Where are you in your transformation?
  - Long term vision vs. immediate needs?

- What is your goal?
  - Scale vs. local agility

- Can you simultaneously innovate and reduce opex?
  - Example:
    - 50% lower cost
    - 50% lower TTM
    - 50% higher returns

Fig. 10 - The Transformation Path
GLOSSARY

ARPU  average revenue per user
BSS  business support system
CAPEX  capital expenditures
GT M  go-to-market
ICT  information and communication technologies
KPI  key performance indicator
KPP  key pain point
NOC  network operation center
OC  operational consulting
OPEX  operational expenditures
OSS  operations support system
OTT  over-the-top
PLM  product line maintenance
ROI  return on investment
SC  strategy consulting
SLA  service level agreement
TBT  telecom business transformation
TC  technology consulting
TTM  time to market

REFERENCES


