

Capex Marks the Spot: Zeroing in on the Telecoms Cash Flow Challenge

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As revenue growth stagnates, cash flow has begun to slow for many telecoms operators. Zero-based budgeting and better frontline engineering performance together can help quickly reverse this trend.

Telecoms operators are facing major challenges. A competitive pressure stronger than ever requires them to make major investments in next-generation networks. At the same time, many operators are scrambling to reduce their capital expenditure (capex) budgets because reducing capex spending is the only quick way for a telco to generate sufficient free cash flow (EBITDA - capex) in an era of low revenue growth and flat EBITDA margins.

This new pressure on capex requires managers to gain even tighter control of their investments. This is no simple task, as telcos often have limited capex transparency due to the lack of a standardized network design approach, highly complex capex decisions, distributed decision making across engineers, limited fact bases, and less senior management involvement than needed.

To help industry players work through these cash flow challenges, McKinsey has developed two complementary approaches that optimize capex: zero-based budgeting (ZBB) and frontline engineering performance improvement. ZBB is a process of analysis and evaluation that enables telco managers to select the best investment portfolio possible. The focus of frontline engineering performance improvement is standardization, with the objective of reducing network deployment costs.



Both approaches are highly impactful. ZBB typically achieves 20 to 30 percent savings on the entire capex budget within two to three months. Furthermore, it helps introduce cross-department and cross-BU investment prioritization on an ongoing basis; this improves the quality of top management decision making and increases the focus on each investment's business benefits. Frontline engineering performance improvement, on the other hand, can achieve 10 to 15 percent savings on network deployment budget within twelve months. More importantly, it builds capabilities in the organization: engineers work with their management to determine whether an engineering project should move forward and how to execute the project in the most efficient and effective way, ultimately improving the yield on capex invested.

Zero-based budgeting

A long-standing methodology, ZBB requires managers to justify every dollar or euro in their budgets – not just increases. Our version of ZBB has two further advantages: it helps structure investments so that benefits are clear and comparable, and it provides an effective prioritization process. Managers analyze the entire capex budget and re-rank investments based on shared prioritization criteria. They keep higher-priority investments and cut the ones deemed least critical. ZBB increases effectiveness by aligning an operator's capital spending with top management priorities, while providing a capex reduction of 20 to 30 percent. ZBB also enables top managers to make fact-based capex decisions and avoid conflicts among “spend” owners.

Companies can follow a structured process for rolling out ZBB. This process begins with capex target setting and does not end until the organization has fully mastered and taken complete ownership of the approach (Exhibit 1).

Break capex into its component parts.

Managers split the capex budget into “decision units” that represent discrete investments that are independent of each other, so the company can modify one unit without affecting the others. As an example, a company might divide a USD 2 billion budget into 30 to 40 independent decision units; units might include 3G network, Fiber To The Curb footprint expansion, core network reliability improvement, or development of new consumer products.



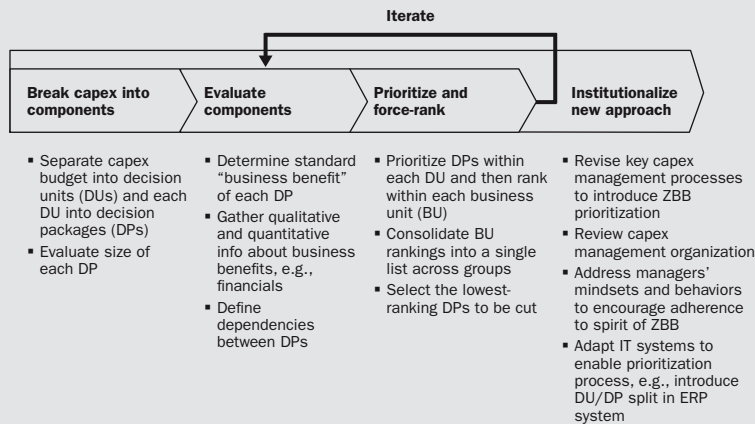
Decision units are further split into “decision packages,” which represent the incremental investment goals contained in a given decision unit (e.g., achieving the minimum regulator-mandated 3G coverage in a market or extending coverage to the next 10 or 20 percent of the population).

Each decision package has a single clear “business benefit.” Examples of benefits include revenue increase, opex reduction, and meeting regulatory requirements.

Evaluate the components.

Teams then gather crucial financial information – investment amounts, anticipated revenues and savings, and net present value – along with nonfinancial information, such as a qualitative description of the benefits and structured analysis of the risks avoided by the investment. The exact type of information to be gathered depends on the type of business benefit.

01 Zero-based budgeting brings capex transparency and forces prioritization



Source: McKinsey

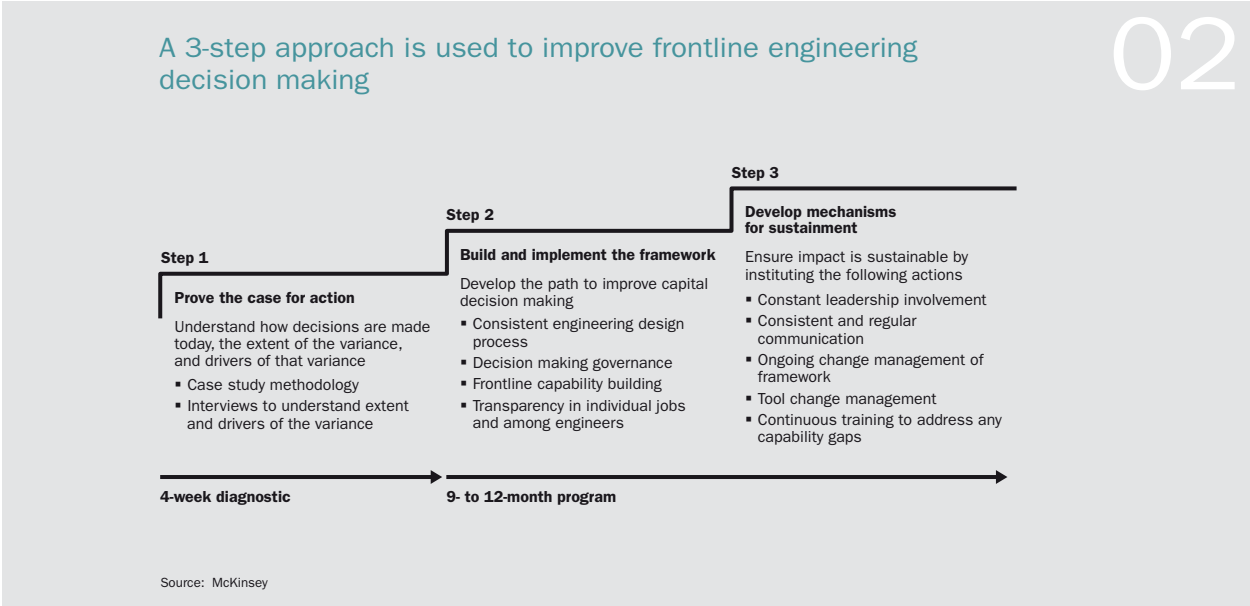
Prioritize, force-rank, and iterate. In this step of the budgeting process, the CFOs of each business unit come together and individually rank the proposed decision packages from first to last (or in quartiles). Changes mandated by regulation would usually have top priority, as would expenditures needed to “keep the lights on.” The CFOs then combine all of their rankings into a single force-ranked list that they discuss and adjust until they can make no further prioritizing decisions based on the information at hand. The group then gathers additional information and meets in a second workshop one week later. These workshops will ultimately produce a force-ranked list of decision packages, making budget-cutting decisions very straightforward – the company simply continues to cut the lowest-ranked packages until it achieves its capex reduction goals.



Question every design assumption. Teams disaggregate big capex units (towers) into their various capex subcomponents and question every design assumption based on minimum technical or regulatory requirements. A detailed study of design specifications is then used to unearth real insights. For example, teams question if air conditioning can be replaced with simple exhaust fan air cooling in selected environments, whether it is possible to have a wall-mounted battery instead of an air-conditioned room, or if all towers really need to be painted when they are already galvanized.

Improving engineering performance

Our frontline engineering performance improvement approach strictly standardizes the decision making pro-



cesses companies use to deploy given network elements, such as 3G base stations. This approach can yield field engineering capex reductions in the 15 to 20 percent range.

We employ three steps that focus on front-line engineering decision making (Exhibit 2).

1. Prove the case for action. Managers need to understand how the company makes decisions today, how much variance exists, and what's causing it. They can use case study methodologies and direct interviews to understand the extent of cost variances and their drivers. Differences can be significant: several telecoms operators used a case study methodology to examine proposed solutions from various engineers for the same projects. Nearly all were startled by the differences in cost across solutions designed to solve the same problem. Across proposed solutions by four engineers working to solve the same problem, the difference in cost is typically 5 to 10x, but we have seen cases where the most expensive solution costs over 80 times more than the cheapest.

Our experience suggests that operators have control over a minimum of five variance drivers:

- **Problem solving approach.** Differences occur because managers optimize for a variety of factors, such as cost, technical quality, or local leader goals.
- **Financial rigor.** Different teams often make cost and quality trade-offs differently (e.g., low-cost versus “gold-plated”).
- **Guidelines.** Teams might also vary in their adherence to company guidelines (e.g., the local versus the “HQ” ways of doing things).

- **Tools.** Individual engineers might use different tools, resulting in different outcomes.
- **Leadership goal clarity.** Companies can lack top-down clarity regarding strategic focus.



2. Build and implement the framework. During this stage, the organization builds its approach to improving capital-related decision making, which rests on four key elements. First, companies develop a consistent engineering design process with rigorous, step-by-step engineering practices for the most common problems. A built-in financial case forces managers to make explicit capex/

opex trade-offs. Second, telcos need to create specific decision making governance policies. For example, teams must submit every spending request for review and approval by a manager and director, and managers need to follow a standard method for prioritizing project spending.

The third element concentrates on frontline capability building and involves the introduction of a new coaching role for peer design reviews as well as periodic, highly specific “poor-good-better-best” evaluations of every job and worker to spur continuous employee performance improvement. Engineers and managers also undergo professional development in the forms of training and structured feedback sessions to achieve the desired proficiency.

Finally, companies need to create transparency in individual jobs and among engineers. A number of solutions present themselves here, but one highly effective approach involves the use of a simple Web-based tool to capture solution designs and serve as a repository of spending requests. Such a tool should provide a description of the problem, its quantification and a suggested diagnostic path, details of the proposed solutions, the effectiveness of the chosen solution, and its financial impact.

3. **Develop ways to sustain the progress.** Once a company has built a solid frontline engineering performance improvement foundation, it can pursue a number of ways to sustain and even ramp up progress. For example, constant leadership involvement sends a clear message to the organization that continued success in this area is important and will be rewarded. Managers can reinforce this “story” through consistent and regular communication and by offering continuous training and coaching to address any capability gaps within the organization.

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Telecoms players need to take what the industry once considered to be extraordinary measures to make sure they have enough cash on hand to survive today and build for tomorrow. The two approaches discussed here –

zero-based budgeting and frontline engineering performance improvement – can quickly release the cash flow telcos need to quench their thirst for capital during the current credit dry spell.



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