

# Putting Analytics in Perspective for the Telecom Industry – Part 2

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## Executive Summary

What better way to explain the importance of Analytics in Telecom other than with the most complex problem the industry is facing – Access Transformation.

Analytics is used to its fullest capabilities in solving the planning, the financial impact assessment of the plan, the needs analysis of the revenue over the plan and finally operationalizing the plan to meet the strategy.

The final question is – how can you do this methodically? You can take DTS's help along with using tools such as Jibe ([www.fpinno.com/jibe](http://www.fpinno.com/jibe)) to assist you in navigating through this complex analysis.

## Recap from Analytics Part 1

As discussed in part 1 of this white paper (refer to [Analytics in Telecom](#)) the client's perception (Figure 1)



Figure 1 The customer perception acts as a rudder to the problem we are solving

and the complexity (Figure 2) are the two important dimensions to classify analytics problems in Telecom.

Let me use a real-world problem faced by the Telecommunications industry to illustrate how these complex analytical problems are inter related and how we at DTS can address some of them.

## Telecom Transformation Analytics

The telecommunications industry goes through transformation in a cyclical fashion (Refer to [Telecom Transformation](#)). If you have not heard from us until now already here it is again – you, as an operator, are spending more than 85% of your yearly CapEx on Access

Network upgrades (aka Access Transformation). In this transformation three forces come together (Figure 3) – *The demand, the strategy and the control.*

- The demand – The Telecom customer's insatiable appetite for bandwidth needs are growing at an exponential rate.
- The strategy – The world of Telecom is going through next generation fiber deep fever.
- The control – Yes – the boss is not opening the checkbook

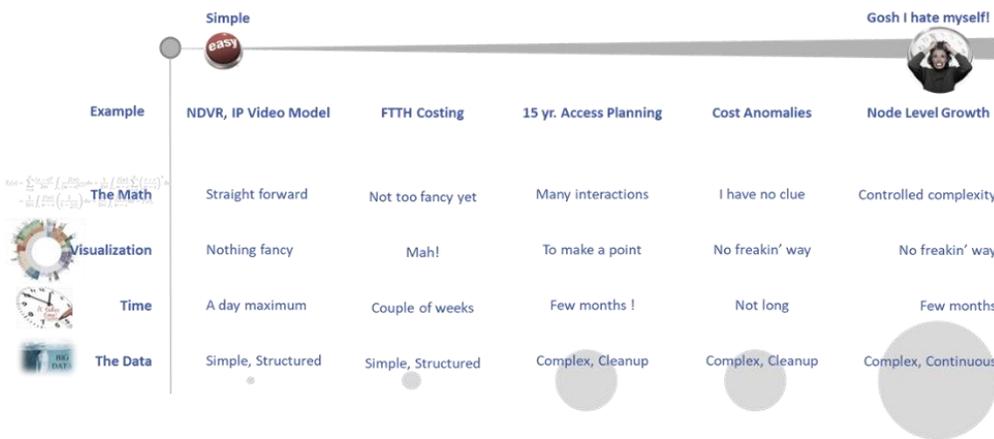


Figure 2 The complexity of the problem can be seen from four different dimensions

completely. There is a restriction on how much can they spend (also known as Capital Intensity Ratio – Refer to the [white paper](#) will ya!).

Let’s be honest – how much do you do this using ad hoc fashion? Do you have a clear process and tools set up to solve these complex problems?

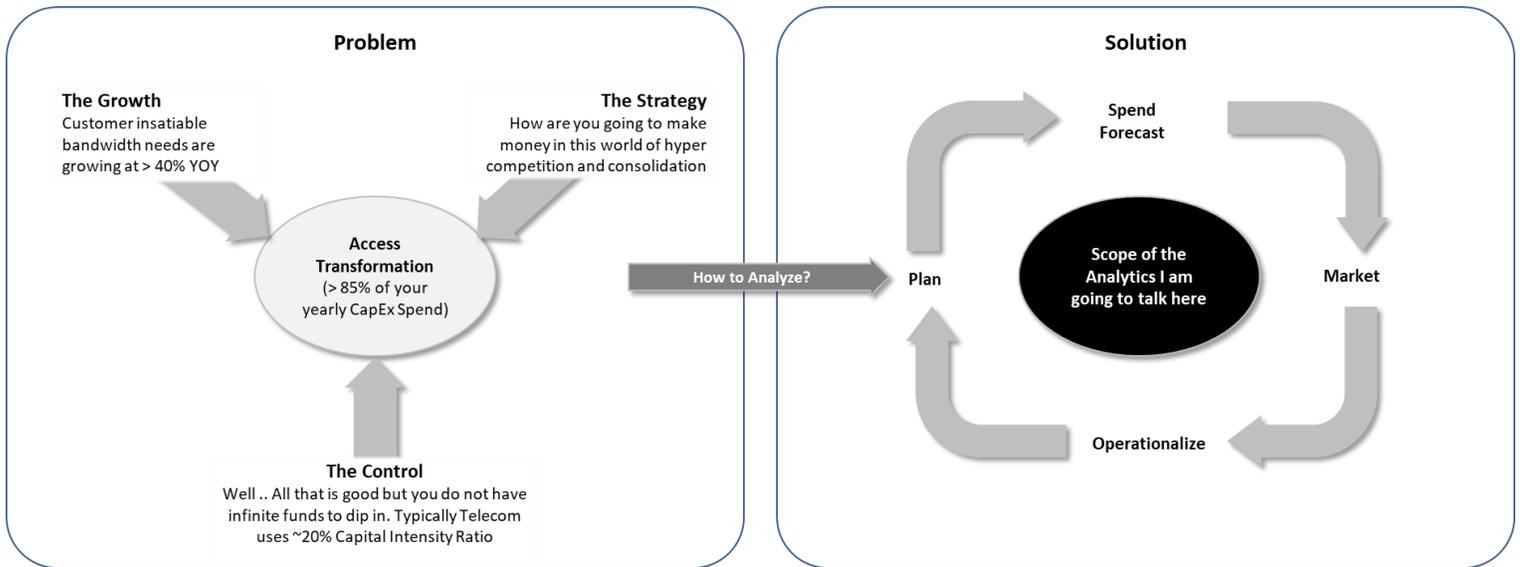


Figure 3 Access transformation is a staggering Telecom problem - we would like to use this problem to demonstrate how analytics is used in Telecom

In this complex world of transformation – you may wonder how our little analytics corner (Figure 3) can help you? Let me walk you through step by step on how.

As shown in Figure 3, any transformation involves four phases. These are –

- The planning phase: Where you lay the basic long-term plan to meet your current customer needs. But you cannot do this without fiscal responsibility. So ...
- The spend forecast: Where you lay the ground rules of how much to invest in the company versus pocket the profits. Well this is not enough if you want to be competitive and grow your company right. There comes ...
- The strategy phase: Where you look around what is happening and use the pricing and offerings as differentiators. That is all good ... but you cannot do this without proper execution plan of course.
- The operational phase: Where you look into bringing the plan to reality.

### The Core of the Problem – Planning



Your network capacity planning team who monitors the network status and decides when to upgrade a network element – is under lot of pressure lately. They are faced with:

- Exponential bandwidth demand growth
- Too many technology options to choose from



High Complexity



High importance

The analysis includes -

- Capturing the current network status
- Modeling the available technology choices
- Modeling customers bandwidth growth trends
- Come up with a detailed plan

The complexity comes in when the planning team is asked to -

- Trigger certain choices based on

- Technology availability
  - Market level needs
  - Or other strategic triggers
- Restraint from using certain choices based on
    - Technology
    - Market
    - Facility or
    - Node level details

Not sure how you are doing your planning, but this is a pretty involved process and is core to your multi-billion yearly access investments.



### How Much does it Cost? – Financial Analysis

A plan without a financial analysis is doomed to fail. Getting good financial projections for a long-term plan is of paramount importance to convince your leadership of your long-term planning proposal. The financial team is faced with:

- Complex technological cost-benefit analysis
- Strategic what-if analysis



Medium Complexity



High importance

The financial analysis typically includes:

- The overall cost projections
- Modeling CapEx and OpEx breakdown
- Considering YOY growth projections
- Assist with leadership what-if questions

The finance team is faced with the challenge to analyze

- Different deployment strategies
- Different operational strategies

Yes, Excel is a good god given tool. But you need to set it up properly for a thorough analysis. A clear end goal in mind mentality is essential for the financial analysis.



### How to Make More Money? – Marketing Plan

Why do you want to spend money if you do not have a strategy to make more money – right? Sort of. Even to be competitive with the current offering, you have to plan your pricing and new speed tier offerings. Hence the product/marketing team is faced with analyzing:

- How pricing impacts customer take rate
- What technologies satisfies your speed appetite



High Complexity



High importance

The marketing analysis typically includes:

- The take rate impacts along with utilization
- The benefit of introducing a new technology
- Assistance in maximizing the revenue

The marketing team faces the challenge to analyze

- Technology choices to meet product needs
- Price elasticity modeling
- Targeting customer base
- Deterring competition

The marketing team opens up challenges based on a different dimension – namely the overprovisioning (how much can we oversell). This is not the same as the utilization-based planning (this topic is for some other white paper).

### How Can We Operationalize? – Operational Plan



Talk to your execution team, they will tell that you can come up with a strategic plan all day long at the center – if you cannot operationalize it – it is not a PLAN! The operational team is faced with:

- Do we have the team to mobilize the plan?
- Is the plan ~ risk-free to run the show?

- o Competition’s strategy, or
- o Customer demand growth.



Medium Complexity



High importance

The operational analysis typically includes:

- Estimating and aligning the resource needs
- Forecasting the material needs, and
- Aligning the forecasts back to finances

The complexity of operational analysis comes from –

- Mapping strategy to reality and turning it back to an agreeable strategy 😊
- Create an operational plan that is flexible and granular enough to be useful

Yup, you got to integrate the operational plan back into the circle of planning to find an optimal solution. Now – do not assume that you are doing an optimization exercise here!

### Planning versus Optimization

People keep asking me why not optimize the plan for minimal spend. Sorry my good sir/madam – it is not a strategy.



**Planning** is a process (like elaborated in this white paper), in which you methodically work through a deployment strategy that meets the customer needs, the product team strategy, and the financial restrictions. **Optimization** on the other hand is a mathematical way to drive a set of min-max constraints to optimize the deployment strategy.



The unfortunate truth is - you do not have control over:



You may wonder – how in the world am I going to get through this multi-billion-dollar planning in a methodical way. We have an answer for you ...

Jibe (yes – it is the maneuvering of your access boat when the tail winds are strong!) toolset from FPI (First Principles Innovations) can help you with your planning in a step-by-step fashion. Refer to their advertisement in our magazine before this article.

This product offers different tools for your planning, financial analysis, operational optimization etc. needs. More over your favorite strategy consulting partner DTS 😊 can help you get started with this product.

### How can DTS help you with your transformation?

The question is how are you navigating through your complex analytical problems. We at DTS have had the privilege to assist our customers through hundreds of analytical problems with different levels of complexities over the last few years.



We also partner with First Principles Innovations ([www.fpinno.com](http://www.fpinno.com)) to assist you in solving your access transformation issues using their **Jibe Access Transformation** toolset. We also developed different processes to assist our clients with their analytical needs. Give us a call to see how we can help you.

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