Estudo de caso

A MEXICAN FINANCIAL ORGANIZATION LOOKING FOR ALTERNATIVES OF TELECOMMUNICATIONS COST REDUCTIONS

The company is a financial service provider and employs around 4.200 people in its 165 Mexican branches. A series of problems related to the network reliability, performance and cost, convinced management to re-evaluate the situation. The first step was to map the current situation identifying where optimizations were attainable. The current cost distribution was as follows:

Vendor	Montly value
TELMEX	USD 633,575.95
TELCEL	USD 51,141.00
ATT	USD 177,951.68
AVAYA (Most)	USD 134,059.60
GNS International links	USD 24,583.56
Other operational expenses	USD 125,447.00
Total telecom operations Mexico	**USD 1,146,758.79**

The deployment of design tools was what made possible the analysis and simulations, which gave the management a clear view, what had to be done and why, allowing the identification of which economical benefit was associated with each initiative.

As can be seen in the picture bellow, the data network had a star topology with Mexico City as its center. There was some voice integration among the five main sites – three of them within the Mexico City itself and the other two at Monterrey and Guadalajara.

Analyzing thoroughly the traffic, the interconnection costs available and the other associated costs (Hardware, maintenance and operation), the ARIETE® Software identified that the network could be costing around USD 920,000.00 Monthly. It was almost 20% less than the current expenditures.

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The analysis followed the steps of our methodology (Wide area network methodology®) and was conducted detailing the following traffics:

- Intra-organization traffic;
- 0800 voice traffic (48% of all voice expenditures);
- Fixed traffic (local, long distance and international) – 25% of all voice expenditures;
- Fixed to mobile traffic – 27% of all voice traffic;
- Data network structure (traffic Interest, profile and volumes);

In each item analyzed we found potential for optimization, together they produced the savings described.

Initially it was verified all long distance calls taken between the organization own trunks (intra-org traffic). That analysis consisted of crossing the organization trunks file with the calls log file (1200 trunks x 1.500.000 calls). Doing that we managed to extract all intra-org calls identifying the volume and the cost. This cost is the cost which would be absorbed by an integrate voice and data network (and it is the reference for any cost benefit analysis).

Such verification showed that 16% of all calls were intra-organization. Interestingly, these calls were taking place also between the sites where a voice and data network was in place (Where the public network don't suppose to be used by intra-org calls).

The verification of the 0800 traffic aimed the mapping of calls origin such mapping allowed the simulation of a scenario where local numbers were used (Instead 0800) and the traffic would be transported to the attendance site though a data network. Such simulation showed that if local numbers were implemented in two cities (Mexico city and Monterrey) almost half of all 0800 cost would be transferred to the callers. This information was crucial when negotiating discounts with the provider.

Analyzing the mobile traffic, it was verified that 30% of it was overflowing the existent TELCEL trunk group flowing through the regular TELMEX public voice network (paying a tariff almost 50% higher per spoken minute). The increase of the number of TELCEL trunks would bring the fixed – mobile cost down almost 50% overnight. (Half of 27% - 13.5% of all telecom costs).

Analyzing the international traffic, showed that 90% of all calls were to countries covered by the existent voice and data network and therefore suppose to go through this network not through the Telco's public network. It was verified that the PBXs were not properly configured and didn't redirect the calls through the existent voice and data network. The simple and easy procedure of configuring the PBXs properly would bring the international cost almost to zero.

Analyzing the data network it was verified that the network had 240 circuits connecting 165 sites. 100 of them were clear channels and 140 frame relay accesses. Regards the data network it was identified the following optimization possibilities:

- Some addresses had redundant circuits (Some with more than nine), such was due the fact that each business unit had autonomy to contract its own circuits (The organization had five business units operating in Mexico).
- The overbook in México City gateway (Frame relay network) was 1 to 10.
- High costs associated to managing and maintaining the telecom hardware (paying two times the usual value).

The deployment of design tools was what made possible the analysis and simulations, which gave the management a clear view, what had to be done and why, allowing the identification of which economical benefit was associated with each initiative. All mapping and analytical work took two months.