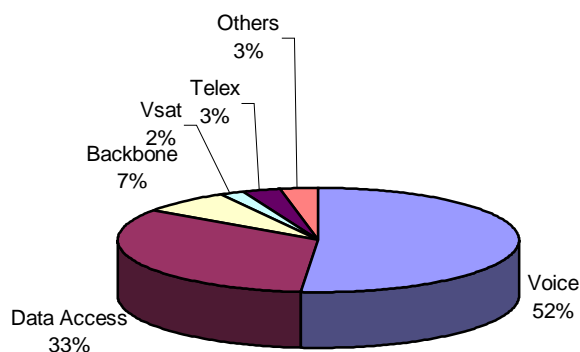


A MAJOR BRAZILIAN BANK REEVALUATES IT'S CURRENT DATA AND VOICE WIDE AREA NETWORK

This organization is a Brazilian financial services firm. It is a national leader in personal banking services, credit cards, financial planning, investment products, insurance, accounting and foreign exchange.

The company employs about 80,000 Brazilians in 7972 points of presence (3026 branches). It covers all Brazilian territory, providing services to more than 13,400,000 clients. The company had 3 telecommunications main hubs and spent **USD13.860.000** monthly with telecommunications. The company is also a leading provider of business-related financial services in Brazil and assists companies in all segments of the economy. The telecommunications costs were distributed as follows:



Telecommunications costs

The company had a SNA data processing structure based on three mainframes located at its three main operational hubs. The corporation did have some voice and data integration, but for the most part both media had completely different transport strategies. The data network had a centralized topology (Three stars) and voice was mostly transported through the PSTNs. The data circuits hired were dedicated point-to-point circuits.

The company was going through a complete IT rearrangement with massive deployment of ATM machines and implementation of a whole set of new applications to be used directly by the branches. This new context imposed the need for a new telecommunications infrastructure.

The interconnection alternatives were three nationwide carriers (IXCs) and three regional RBOCs. Nevertheless, by law, then, only the nationwide carriers could provide the interconnection between states outside of their regions. The carriers included:

Nationwide	EMBRATEL
	EQUANT
	COMSAT
Regional Carriers	TELEMAR
	TELEFONICA
	BRASIL TELECOM

Results achieved

The analysis showed that the ideal topological structure would have forty-six nodes with 80% of the 7792 sites located less than 50 Km from them.

Analyzing the traffic and interconnection costs available, and assuming a complete hardware renovation, Ariete® quickly identified the possibility of saving **USD 4,720,000.00** monthly. This corresponded to almost **31%** of the value currently paid for the network. Besides being less expensive, the proposed structure was much more resilient (having back-up for all main nodes), had almost three times the bandwidth availability. Therefore, we quickly and precisely identified the possibility of paying less for a much better structure.

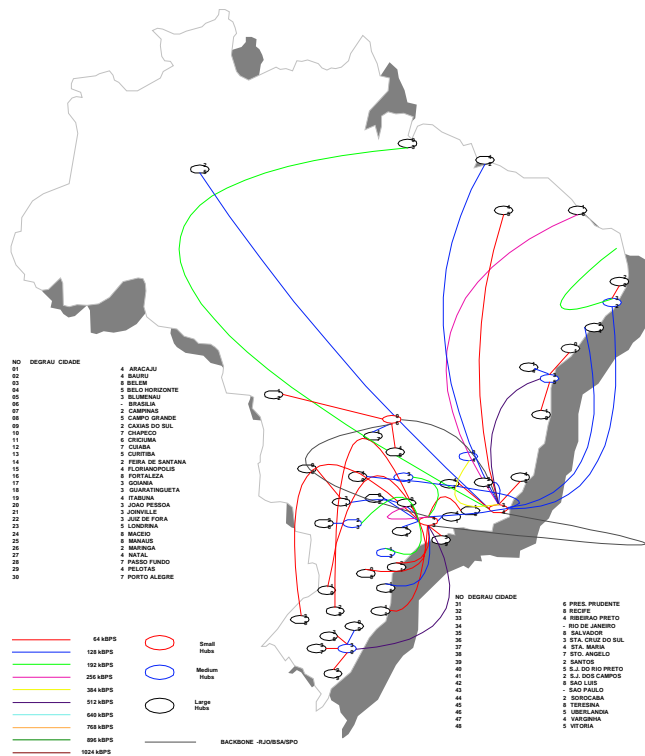
By analyzing the alternatives, the tool found that through topological re-arrangement we could manage to reduce the data access costs by **USD 2,220,000.00** monthly (44% over the actual expenditures), and through voice and data integration we could manage to reduce the long distance calls cost by **USD 2,500,000.00** monthly (35% over the actual voice expenditures). In total, it would be possible to reduce costs from **USD 13,860,000** to **USD 9.580.000**.

Current and proposed situation

Cost factors	Actual situation	%	Proposed situation	%	Difference
Voice	USD 7.140.000,00	51,52%	USD 4.640.000,00	48,43%	USD 2.500.000,00
Data Access	USD 4.620.000,00	33,33%	USD 2.400.000,00	25,05%	USD 2.220.000,00
Backbone	USD 980.000,00	7,07%	USD 1.100.000,00	11,48%	USD 120.000,00
Vsat	USD 280.000,00	2,02%	USD 600.000,00	6,26%	USD 320.000,00
Telex	USD 420.000,00	3,03%	USD 420.000,00	4,38%	USD 0,00
Others	USD 420.000,00	3,03%	USD 420.000,00	4,38%	USD 0,00
Total	USD 13.860.000,00	100,00%	USD 9.580.000,00	100,00%	USD 4.280.000,00

Location	Number of sites	LOCAL	<50Km	50Km<=X<100m	100Km<=X<200Km	200Km<=X<300Km	300Km<=X<500Km	500Km<=X<700Km	700Km<=X<900Km	X>900Km
ARACAJU	1.45%	0.67%	0.38%	0.34%	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%
BAURU	1.59%	0.53%	0.43%	0.58%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
BELEM	2.41%	2.12%	0.00%	0.00%	0.00%	0.00%	0.23%	0.00%	0.00%	0.00%
BELO HORIZONTE	5.59%	3.57%	1.30%	0.53%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%
BLUMENAU	0.87%	0.34%	0.34%	0.00%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%
BRASILIA	7.42%	7.04%	0.00%	0.29%	0.05%	0.00%	0.05%	0.00%	0.00%	0.00%
CAMPINAS	2.22%	1.16%	0.82%	0.19%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
CAMPO GRANDE	0.87%	0.72%	0.00%	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%
CHAPECO	0.67%	0.19%	0.05%	0.39%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
CRICIUMA	0.96%	0.19%	0.67%	0.05%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
CUIABA	1.20%	1.11%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SAO JOSE DOS PINHAIS	3.13%	2.51%	0.58%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
FEIRA DE SANTANA	2.31%	0.29%	0.82%	0.63%	0.24%	0.24%	0.10%	0.00%	0.00%	0.00%
FLORIANOPOLIS	1.69%	1.30%	0.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
FORTALEZA	2.99%	2.41%	0.29%	0.00%	0.05%	0.24%	0.00%	0.00%	0.00%	0.00%
GOIANIA	2.51%	2.02%	0.24%	0.00%	0.10%	0.14%	0.00%	0.00%	0.00%	0.00%
ITABUNA	0.72%	0.29%	0.19%	0.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
JOAO PESSOA	3.95%	0.87%	0.34%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.75%
JOVILE	0.72%	0.34%	0.39%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
JUIZ DE FORA	1.78%	1.01%	0.53%	0.10%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%
LONDRINA	1.49%	0.58%	0.58%	0.29%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
MACEIO	1.45%	1.45%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MANAUS	1.59%	0.92%	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%	0.05%	0.48%
MARINGA	2.02%	0.19%	0.58%	0.77%	0.48%	0.00%	0.00%	0.00%	0.00%	0.00%
NATAL	2.36%	2.02%	0.24%	0.05%	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%
PASSO FUNDO	1.54%	0.10%	0.53%	0.87%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
PELOTAS	0.53%	0.29%	0.19%	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
PORTO ALEGRE	4.77%	3.37%	1.20%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
PRESIDENTE PRUDENTE	1.54%	0.24%	0.39%	0.82%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%
RECIFE	3.28%	2.60%	0.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
RIBEIRAO PRETO	2.70%	0.87%	0.48%	1.16%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%
RIO DE JANEIRO	7.18%	6.89%	0.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SALVADOR	3.28%	2.80%	0.29%	0.19%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SANTA CRUZ DO SUL	0.87%	0.34%	0.29%	0.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SANTA MARIA	0.67%	0.14%	0.29%	0.19%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
SANTO ANGELO	1.45%	0.05%	0.58%	0.82%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SAO JOSE DO RIO PRETO	2.22%	0.39%	0.58%	1.11%	0.14%	0.00%	0.00%	0.00%	0.00%	0.00%
SAO JOSE DOS CAMPOS	1.69%	0.48%	0.53%	0.67%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SAO LUIS	0.77%	0.77%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SAO PAULO	8.92%	7.42%	1.49%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
SOROCABA	1.20%	0.53%	0.58%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TERESINA	1.06%	0.82%	0.05%	0.05%	0.00%	0.14%	0.00%	0.00%	0.00%	0.00%
UBERLANDIA	0.29%	0.24%	0.00%	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
VARGINIA	1.16%	0.00%	0.29%	0.77%	0.10%	0.00%	0.00%	0.00%	0.00%	0.00%
VITORIA	0.92%	0.63%	0.19%	0.05%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%
Total	100.00%	62.89%	18.17%	11.86%	2.60%	0.87%	0.43%	0.00%	0.05%	3.23%

We can see it better through a map:



WANOPT

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Case



The company took a year to implement all the necessary rearrangements (Including contracting, canceling and installing circuits and equipment) and the pay back of the project was two months. Nevertheless, if we limit ourselves to the economical aspects we probably will not be able to understand the whole issue. The new network not only allowed a huge cost reduction but it did that providing a much better quality of services and eliminated a critical bottle neck which was limiting the capacity of the company to provide new services to its costumers.

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