

A BRAZILIAN REGIONAL BANK REARRANGES ITS WIDE AREA NETWORK

General overview

In this case, the company is a Brazilian regional bank operating in the south east of Brazil.

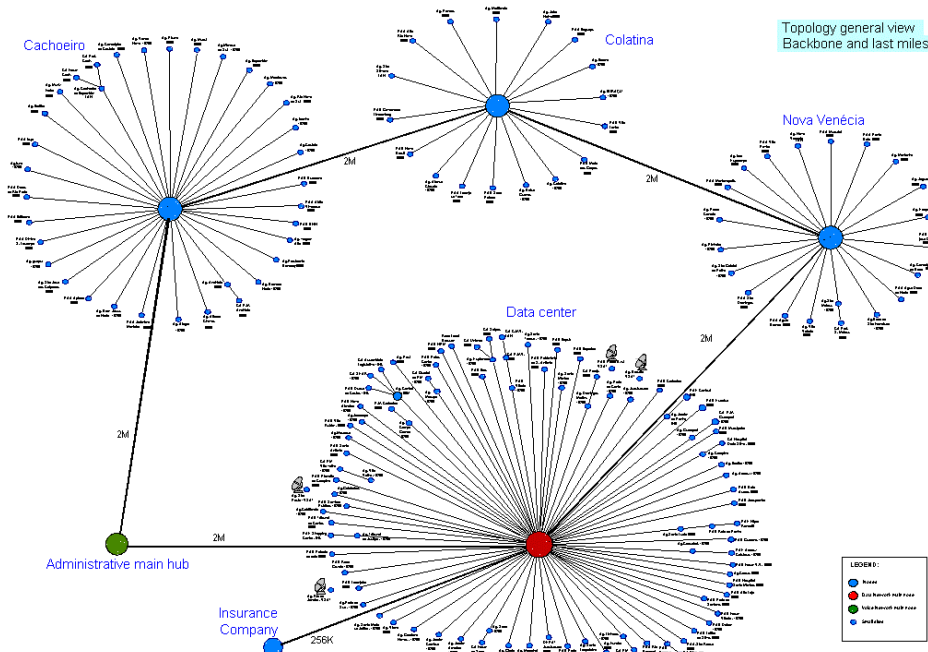
The company employs about 3,700 Brazilians in its 267 branches. It is also a leading provider of financial services in its home state and assists the state government to manage its financial operations (payroll, investments and payments).

The organization's network was outdated and internally operated. The implementation of new services (And new applications) along with the perception that operational and economical gains could be achieved, convinced the management that it was time to re-evaluate the situation.

The first step was to map the current infrastructure identifying properly the voice and data demand. The second step was to identify the ideal structure to support this demand and calculate how much it would cost. The company wanted to know how much the new network would cost, including installation and operation (using internal and external personnel). This information would allow the company to prepare the cost benefit study to justify the necessary investment to renew the structure, identify where the savings can be achieved and decide whether or not keep the infrastructure in house.

Results achieved

The analysis showed that the ideal topological structure would have six nodes with 97% of the 267 branches located less than 100 Km from them.



The ideal physical distribution was identified as follows:

Location	Number of sites	LOCAL	<50Km	50Km<=X<100	100Km<=X<200Km	200Km<=X<300Km	300Km<=X<500Km	500Km<=X<700Km	700Km<=X<900Km	X>900Km
VITORIA	164	114	41	4		3		1	1	
LINHARES	15	6	2	7						
CACHOEIRO DO ITAPE.	25	7	16	2						
GUAÇUI	16	1	11	4						
COLATINA	24	10	8	6						
NOVA VENÉCIA	23	2	8	13						
TOTAL	267	140	86	36		3		1	1	

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VITORIA	61.42%	42.70%	15.36%	1.50%	0.00%	1.12%	0.00%	0.37%	0.37%	0.00%
LINHARES	5.62%	2.25%	0.75%	2.62%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
CACHOEIRO DO ITAPE.	9.36%	2.62%	5.99%	0.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
GUAÇUI	5.99%	0.37%	4.12%	1.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
COLATINA	8.99%	3.75%	3.00%	2.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
NOVA VENÉCIA	8.61%	0.75%	3.00%	4.87%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
TOTAL	100.00%	52.43%	32.21%	13.48%	0.00%	1.12%	0.00%	0.37%	0.37%	0.00%

Analyzing the traffic and interconnection costs available, and assuming a complete hardware renovation, Ariete® identified a possibility of saving **US\$ 62,372.12** monthly. This corresponded to almost 20% 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 two times the bandwidth availability and would reach all company's points of presence (the former structure reached only 70% of the sites). 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 and voice integration, it would be possible to reduce costs from **US\$ 323,142.20** to **US\$260,770.08**.

Current situation

Type of Service	Cost USD
data lines	USD 160,325.24
Maintenance	USD 1,500.00
Alarms	USD 16,004.36
Long distance calls	USD 89,876.10
Telex	USD 55,436.50
Total	USD 323,142.20

Proposed situation

Type of Service	Cost USD
data lines	USD 158,789.58
Hardware rent and maintenance	USD 16,500.00
Long distance calls	USD 30,044.00
Telex	USD 55,436.50
Total	USD 260,770.08

Case



The company management lost no time to implement the proposed solution, and with six months the new WAN was in place providing the planned benefits. The cost to migrate the structure was as follows:

Type	Value
Simultaneous operations	USD 260,000.00
Penalties	USD 33,000.00
Instalations fees	USD 130,000.00
Professional services	USD 70,000.00
TOTAL	USD 493,000.00

Therefore, the pay back of the project was eight months, although if we limited ourselves to the economical aspects we probably will be missing the point. The new network not only allowed a much better quality to the services provided by the organization but also eliminated a critical bottle neck which was limiting the capacity of the company to provide new services to its costumers.

WANOPT

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