



# Telecommunication Networks Structural Analysis

## Our telecommunications practice

We provide exclusive services, analyzing structurally telecommunications networks.

By using high capacity servers, processing scientific applications based on mathematical models, statistical techniques, network algorithms and mass data analysis, we are able to identify the optimal correlation between the organization's geographical dispersion, its traffic (Volume/flow), tariff system and the wide area network structure.

By using computers, we can compare all possible ways to transport the data and voice flows between the traffic's sources and destinations. Through these analysis, we identify what can be improved in the current structure.

## Applicability

Besides identifying the optimized network structure the analysis process also solves several other problems associated with a large wide area network. These include:

- Evaluate service providers' bids, comparing fairly, different kinds of services, technologies and pricing strategies;

- Evaluate how much would be fair to pay to outsource a network;

- Compare the current network with all available interconnections alternatives (benchmarking);

- Evaluate the deployment of technologies such as VSAT, MPLS, Frame-relay and VPN;

- Evaluate voice and data integration using different strategies and technologies (Integration total or partial using VoIP, Voframe, VoATM);

- Analyze traffic and check if the number of trunks, the bandwidth allocation and CIR definitions are adequate;

Establish the correlation between traffic and telecommunications' expenditures (this is particularly useful when analyzing call centers, given the possibility of establishing the correlation between each service, its traffic and its costs helping to decide which service is cost effective to provide);

Simulate future needs and verify how the network's cost will behave with the increase in the traffic (assisting in strategic planning, anticipating needs and problems);

Negotiate telecommunications budgets, establishing a clear correlation between traffic, services provided and the costs incurred with a high level of accuracy.

## Our methodology

Our operational methodology (Wide Area network analysis methodology®) allows us to simplify the data gathering, execute easily and rapidly the comparison between the new design and the current one and implement the necessary rearrangements.

## Our tools

Our analytical software (Ariete®) allows us to execute several comparisons, verifying all possible combinations of topologies, routes, services providers, technologies and pricing strategies.

## Benefits

Our services usually generate significant savings, not being uncommon the identification of savings above 30% over the current operational costs. Our services produce effective and lasting savings.

Besides the direct economical benefits , our analysis help our clients to have a complete view about the trade offs between volume, cost, performance and reliability.

## Who can take advantage of our services

- Large organizations with large geographical dispersion;
- Venture capitalists which finance telecommunication companies;
- Users (companies) and providers of call center services;
- Companies specialized in outsourcing telecommunication infrastructures;
- Hardware vendors and integrated solutions providers.

## Situations where our services become particularly useful

- When an organization is going through reevaluations of its telecommunication cost factors;
- When an organization is implementing new corporate systems with high telecommunication demands;
- When an organization is deciding whether or not outsource its telecommunication infrastructure;
- When a call center service provider is analyzing the feasibility of implementing a new service (pricing a new service);
- When an organization is re-evaluating its call-center structure and trying to minimize its costs and establish a clear correlation between services/volume/cost and revenue;
- When two organizations are merging.

## Additional information

For further information, please do not hesitate to contact us. Our team welcomes new challenges and the opportunity to help you.

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