



Rapidly Expanding Service Provider Gains Measureable Network Performance Improvements

THE CHALLENGE

▶ Compañía Anónima Nacional de Teléfonos de Venezuela (CANTV) offers a wide variety of mobile, broadband, and voice telephony services, all of which enjoy strong growth. In just one year, its mobile customer base grew over 25 percent to 11 million customers. During the same period, its fixed telephony base also grew 25 percent, while broadband dramatically increased close to 42 percent.

But with growth comes challenges. A major one is driving measureable improvements in network infrastructure performance — network that was deployed to support more customers and more services. That's a challenge for any service provider, but even more so for one that's expanding as aggressively as CANTV. For example, in the first half of 2008, CANTV's capital expenditure was Bs.F. 388.8 million (US\$ 188.1 M) for an array of projects that included expanding both its GSM network throughout Venezuela and its fixed network to support sustained growth in ADSL service.

The High Cost of Guessing

The influx of new network infrastructure and the management of that infrastructure directly affect CANTV's five strategic objectives, particularly the goal of "excelling in operational efficiency and customer satisfaction." When a service provider doesn't have a reasonable understanding of what its capabilities are at particular locations, it inevitably winds up buying more spare equipment than it needs, as well as overbuilding capacity into the network. This excessive spend ties up capital that could be put to more effective use, such as developing innovative services to drive new revenue.

An inaccurate view of network capability also hinders the service provider's ability to leverage its embedded investment to increase ARPU. If the marketing or engineering departments can't query a single, highly accurate, continually updated database reflecting current network build-out, it's difficult to determine whether a new service or promotion can be launched quickly and cost effectively, or whether it first requires additional infrastructure.

That uncertainty has a ripple effect. For example, if a new service demands more than what the network can handle, service quality will suffer and customer churn will increase, hurting the operator's competitive position and its profit margin. An inaccurate database also makes it difficult for service providers to comply with regulatory requirements and accounting rules.

CANTV faced many of these challenges.

"One location had seven different names and different attributes," says Dejeke Castellanos Adel Basilio, who works in CANTV's Access Node Unit. "This made it very difficult to know if there was too much equipment in place or if any capacity was already built to a particular location. As a result, there was significant additional investment made to the network. Without a single meaningful model for information, it was very difficult to understand what equipment was in our network, where it was really located and how it was all connected to enable services."

As a result, CANTV was effectively flying blind.

"We had lost confidence in our knowledge of our own network," says William Lee, CANTV's GGCP Manager, Process Modeling for Operations Applications. "We knew that in order to manage our business in a cost-effective manner, we needed to keep better track of what services could be implemented at a specified location and what services were currently implemented and installed. Without good data, our systems would be handicapped. The systems alone could not address the issue of data sufficiently, so we looked at the alternatives."

THE TELCORDIA RESPONSE

► To enhance both its competitive position and bottom line, CANTV turned to Telcordia. Thanks to its deep domain expertise, understanding of the network intricacies and the ability to assess and address complex business issues that needed to be resolved, Telcordia provided CANTV with a clear solution — Telcordia® Common Language® Information Services.

► "Common Language was initially implemented in parallel with a new provisioning system," Lee says. "To be most effective, Common Language was implemented across many other systems and has been a great success in providing a unified view across our company."

Common Language Information Services is a suite of solutions that — for more than 30 years — has provided the communications industry with a single, managed, and constantly evolving implementation of key network and service related data. Common Language Information Services leverages industry standards and is referenced by nearly all of the relevant international standards organizations, including ANSI, ATIS, ETSI, IETF, ISO, ITU and the TM Forum.

In 2002, CANTV began deploying two components of the Common Language Information Services suite: Telcordia® Common Language® Connections Information Service, which provides operators with a way to represent physical and logical connections, and Telcordia® Common Language® Location Information Service, which serves as a single source of network location information that helps provide efficient, seamless collaboration with trading partners.

“The motive to buy Common Language was to establish one way to identify and describe all network locations, as well as network connections,” Lee says. “We believed that one well-defined and well-managed model would provide better knowledge and control in our implementation of data services.”

Telcordia deployed the two services beginning with an on-site team in 2002. “Common Language was initially implemented in parallel with a new provisioning system,” Lee says. “To be most effective, Common Language was implemented across many other systems and has been a great success in providing a unified view across our company.”

THE RESULTS

- ▶ Common Language immediately began helping CANTV meet its strategic goals. Some examples include:
 - CANTV has achieved at least a five percent reduction in network capacity build-out. With Common Language complementing CANTV’s provisioning platform, the improvement is on the order of 50-60 percent in the access network.
 - CANTV now has deeper, more accurate insights into where its equipment is deployed. The company estimates that with Common Language, its accuracy is now up to 90 percent, with significant reduction in overbuilds and faster time to place a customer in service.
 - Network capacity utilization for SDH had improved by 7.5 percent, as well as significant savings for PDH.
 - Common Language freed up to 90 percent of the resources once used to administer location and connections reference data in the network inventory system. These resources can be redeployed to perform higher priority work.
 - With consistent and accurate information, engineering time was reduced 12.5 percent on average.
 - Data conversion efforts were reduced 7.5 percent and the streamlined conversion approach has led to increased information accuracy.

▶ “People here know the value that Common Language brings to them,” Lee says. “Today at CANTV, when people hear about new technology or systems being deployed, they immediately ask, “How will Common Language be used to support them?”

CANTV also believes that Common Language will play a key role in identifying and reducing fraud because it provides the clear, granular visibility necessary to draw out those problems.

Wide Adoption

The perceived benefits of Common Language aren't limited to just a few CANTV departments. "People here know the value that Common Language brings to them," Lee says. "Today at CANTV, when people hear about new technology or systems being deployed, they immediately ask, 'How will Common Language be used to support them?'"

Another benefit is consistency.

"We would not have had the same success and control if we implemented systems without the enforcement of a standard information solution," Lee says. "The provisioning system itself would not be as effective, as the information it is using would be vague in definition and inconsistent in its level of granularity. Recently we purchased a new OSS and found that it supported Common Language out of the box. This is an added advantage when you select an approach so broadly adopted by the industry."

Common Language also has lived up to its name in more ways than one.

"Common Language gives CANTV one way to communicate," Lee says. "We find many local slang-terms or colloquialisms that infiltrate the Spanish language. So language is not always a simple thing to interpret. Common Language goes further than spoken languages like Spanish. It assures that there are no local 'dialects' which means that nothing is lost in translation and our business gains from productivity increases, cost efficiencies, and better service to our customers."

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For more information about Telcordia Technologies, contact your local account executive, or you can reach us at:

+1 800.521.2673 (U.S. and Canada)

+44 (0)20 7632 4450 (Europe)

+1 732.699.5800 (all other countries)

info@telcordia.com

www.telcordia.com

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