Algar Telecom gives its growing business a signal boost

With a reliable, secure IBM platform that supports growth and better service delivery

Overview

The need

To meet increased demand from a growing customer base, Algar Telecom needs strong, flexible IT systems that deliver high availability and reliability for a diverse range of telecommunications services.

The solution

Algar Telecom consolidated more than 90 standalone servers to Linux virtual servers running on IBM® z/VM® on a single IBM zEnterprise® 196 server, featuring the IBM zEnterprise BladeCenter® Extension.

The benefit

Provides a reliable, flexible platform for core business systems that has cut data center costs by 70 percent, reduced maintenance effort by 65 percent and boosted operational efficiency by 30 percent.

Algar Telecom is a telecommunications company headquartered in Uberlândia, Brazil. A division of the Algar Group, Algar Telecom operates the CTBC brand and maintains a strong presence in 87 municipalities. The company provides more than 800,000 customers with mobile and fixed voice telephone and broadband, as well as corporate communication and pay-tv services.

Tapping into a growing market

Following its deregulation more than a decade ago, the telecoms industry in Brazil has been marked by strong growth. With more providers contending to win over a flourishing market of customers, Algar Telecom must work hard to set itself apart from the competition. To deliver greater value to customers, the company is constantly looking to enhance its portfolio with new services and build a better network infrastructure.

This strategy is proving to be a winning one, with revenues and customer numbers showing healthy growth, but it has not been without its challenges. Expansion has occurred against a backdrop of rising operational costs and increasing competition to attract and retain customers. As its customer base grew, Algar Telecom was concerned that its existing IT infrastructure would not be able to keep up with the increasing demand for its services.

Rogério Okada, IT Manager of Algar Telecom explains: "In the past, we did not take a very strategic approach when it came to expanding our IT infrastructure—we just added new servers as demand increased.

> *"We have completely transformed our infrastructure and the way in which we manage it with the IBM zEnterprise System... With our core business applications running on the most reliable and secure platform in the marketplace, we can deliver better service to more customers and focus on growing a better business."*
>
> —Rogério Okada, IT Manager, Algar Telecom

"The result was an environment that was not efficient or sustainable: we suffered from poor performance, with frequent service interruptions, and the complexity and cost of maintaining everything was starting to get out of control."

Integrated IBM solution

Algar Telecom looked to upgrade its infrastructure and move to a new solution that offered simpler maintenance, lower total cost of ownership, and greater reliability and flexibility.

"We invited a number of technology vendors to make proposals, and IBM's offering stood out as the only solution that gave us everything we wanted in one integrated package," notes Okada. "The IBM technology was completely new to us, but we clearly recognized the huge value that it could bring to our operations. Even as a first-time customer, we had confidence that the solution would be the right fit for our needs."

With support from IBM Systems and Technology Group Lab Services, Algar Telecom worked to consolidate more than 90 existing Intel processor-based servers to one IBM zEnterprise 196 (z196) server. The solution delivers top levels of performance, stability and scalability for the company's core business applications, including CRM and ERP systems, and associated databases.

For maximum flexibility, Algar Telecom configured the z196 with an IBM zEnterprise BladeCenter Extension (zBX), extending the mainframe environment across an integrated IBM BladeCenter HX5 server. The company also uses an IBM Power® 780 server, running the IBM AIX® operating system, to host its customer billing system.

Simplified management and greater flexibility

Managing this hybrid environment is easy for IT staff, thanks to the IBM zEnterprise Unified Resource Manager, which integrates multi-architecture resources in a single virtualized system and enables them to work effectively together, unifying management across the entire IT infrastructure.

To further simplify and reduce its hardware infrastructure's complexity, Algar Telecom deployed 24 Integrated Facility for Linux (IFL) engines on its z196 to run virtualized Red Hat Enterprise Linux servers on IBM z/VM® technology.

Solution components

Hardware
- IBM® zEnterprise® 196
- IBM zEnterprise BladeCenter® Extension
- IBM zEnterprise Unified Resource Manager
- IBM BladeCenter HX5
- IBM Power® 780
- IBM Storwize® V7000

Software
- IBM AIX® 6.1
- IBM z/VM® 6.2
- Red Hat Enterprise Linux

Services
- IBM STG Lab Services

The ability of z/VM to dynamically allocate computing resources, and quickly configure new virtual environments, helps Algar Telecom to confidently remain on top of new business opportunity and growth and improve time-to-market for new services. Virtualization also enables the company to maximize hardware utilization, and reduce the expense and effort of maintaining multiple workloads.

"Our overall maintenance and support effort has been reduced by at least 65 percent," says Okada. "We needed six people to maintain our old infrastructure, and now we have just two people looking after the new IBM environment. We have reallocated the surplus staff to more strategic roles, where they can focus on higher-value work that helps drive the business forward."

To complement its virtualized server environment, Algar Telecom has deployed IBM Storwize® V7000 as its strategic data storage platform. The Storwize V7000 enables much more efficient utilization of disk space, and allows the company to virtualize and re-use existing disk storage systems.

Impressive benefits

By consolidating to the IBM z196, Algar Telecom has massively simplified its IT infrastructure. The company has seen impressive cost savings, thanks to a huge reduction in data center floor space, and a 70 percent cut in energy and cooling expenses.

Operational risk has been reduced—fewer servers and physical connections means fewer potential single points of failure, helping to boost resilience and availability for vital business applications and customer data. Recovery times have also improved. In the event of downtime, systems can be recovered up to 90 percent faster, in a matter of minutes rather than hours.

Rogério Okada concludes: "We have completely transformed our infrastructure and the way in which we manage it with the IBM zEnterprise System. We estimate that our operational efficiency has increased by at least 30 percent as a result. With our core business applications running on the most reliable and secure platform in the marketplace, we can deliver better service to more customers and focus on growing a better business."

For more information

Contact your IBM sales representative or IBM Business Partner, or visit us at: **ibm.com**/systems/zEnterprise

IBM