

Electoral Agency Goes Digital

Cisco data center vision helps Brazil's Tribunal Superior Eleitoral extend electronic voting and build for future

Customer Name: Tribunal Superior Eleitoral

Industry: Government

Location: Brazil

Number of Employees: 1400

Business Impact

- Processed 20 million more votes 40 percent more quickly
- Reduced IT complexity and costs
- Provided scalable and strategic platform



Case Study

Business Challenge

Tribunal Superior Eleitoral (TSE) is responsible for all elections held on Brazilian territory, controlling this entire process for the fifth largest country in the world by geography and population. The voting system is complex, involving large numbers of candidates and an electorate of more than 120 million people. In 1996, TSE started to improve efficiency by replacing ballot papers with an electronic equivalent and by counting votes electronically in some areas. The goal was to make electronic voting available to more than 90 percent of voters by the 2000 general election, and to move to a completely paperless system by 2010.

To support this goal, TSE introduced new data servers, applications such as SADPWeb, which was developed internally to support the elections, and new modules of the voter registration systems. Consequently, it became necessary to upgrade the computing, storage, and networking resources in TSE's data center to obtain even greater processing power and reliability.

Expanding a data center typically involves adding more and more servers and other devices, an approach that is costly and difficult to manage. TSE wanted to simplify its IT systems, while greatly improving their performance.

Solution and Results

TSE chose the [Cisco Nexus® 5000 Series Switch](#), which, unlike alternative platforms, transmits storage, computing, and telephony traffic on the same network, using a technology called Fibre Channel over Ethernet. This technology avoids the need for duplicate cabling, network switches, and connectors on a separate storage infrastructure.

TSE has reduced its management and operational costs, including energy, by cutting the number of servers and other devices in the data center. Because it is possible to put more virtual servers on a Cisco® Nexus 5000 than other systems, server utilization rates are rising, and TSE is getting better value from its investments. The scalability of the Cisco platform has enabled TSE to consider building out the electoral database to include biometric records, as well as "flat" data.

During the 2010 general election, the Cisco Nexus 5000 helped TSE improve the speed and reliability of the electronic system, while extending it to an additional 20 million voters. After the polls closed at 5 pm, TSE delivered 92 percent of the presidential result by 8 pm, two hours earlier than in the 2006 election.



"We have a system that is more reliable, more scalable, and simpler to manage than before. It copes easily with enormous demands over very short timeframes, and gives us a strategic platform to develop for the future."

Marcelo Carneiro
Data Center and Networking Coordinator
Tribunal Superior Eleitoral

For More Information

To find out more about the Cisco data center vision, architecture, and portfolio, please go [here](#)

Further details of Cisco Nexus 5000 Series Switches are available [here](#)

For more information on unified fabric, using Fibre Channel over Ethernet, please go [here](#)