



About Vivo

Vivo, the trademark of Telefônica Brasil, is Brazil's leading telecommunications company, delivering more than 90 million wired and wireless connections every day. The company provides telecommunications services throughout Brazil, including mobile data service to more than 74 million subscribers. Vivo is at the heart of its region's digital transformation, which extends the autonomy, personalization and real-time choices of its customers, putting them in charge of their digital life safely and reliably.

The Challenge – Security and Interoperability For Expanded VoIP Access and Peering

Vivo was seeing increasing demand for IP-based communications services in both their access and peering domains. Vivo needed to scale their Session Border Controller (SBC) capacity to guarantee secure and reliable interconnection and ensure quality of service to their customers and peering partners. Vivo also wanted to evolve its network away from traditional hardware, instead embracing virtualization for their new SBC capacity, including a desire to leverage the latest technology for softwarebased transcoding.



"Deploying Ribbon's SBCs in a virtual environment enables us to grow our offering, optimize our investment, and increase the operational efficiency of our VoIP services"

"Expanding our trusted relationship with Ribbon continues to help us serve our subscribers with secure, advanced services."

Átila Branco *Vivo Planning Director*

The Solution – Ribbon's SBC Software Edition (SBC SWe) with GPU-based Transcoding

Ribbon's cloud-native SBC SWe was the perfect match for Vivo's requirements. Vivo is deploying 60 high-availability (HA) pairs of SBC SWe to secure residential VoIP, enterprise SIP trunking, and SIP interconnect with its peering partners. Ribbon's Professional Services team is managing the multiyear implementation including deployment of Ribbon's Element Management Systems (EMS).

Given Vivo's leading position in Brazil, it has IP interconnections with many of the country and region's service providers, both wired and wireless. That diversity of interconnect partners inherently raised the importance of having a cost-efficient solution for transcoding. To address their transcoding requirements, Vivo wanted to leverage the latest technology for software-based media transcoding as part of a virtualized architectural model. Ribbon's SBC SWe met this requirement by providing the most cost-efficient transcoding based on NVIDIA Graphical Processing Units (GPUs). GPUs deliver substantial scale for media processing and in turn significantly lower costs versus traditional CPUs. Vivo is one of the largest customers to deploy GPUs for transcoding.



Vivo Deployment of Ribbon SBCs

Vivo and Ribbon Partnership

Ribbon is a long-time Vivo supplier, and has maintained this position by consistently delivering innovative products and best-in-class professional services. Vivo's decision to rely on Ribbon's people with a project of this scope, and to count on Ribbon delivering such important new technology is reflection of the trust established in this long-standing relationship.

The biggest factors in winning this opportunity were:

- Optimized capital investment based on instantiating SBC capacity on-demand. Vivo can avoid having stranded investments in unused capacity on appliance-based solution.
- Ribbon's GPU-based transcoding eliminated any potential compromise in scale or performance when moving to a fully virtual solution
- Increased operational efficiency

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