Open infrastructure enables cloud modernization and breaks the flexibility and on-demand paradigm

Intel supports TIVIT in cloud development based on the OpenStack platform with SSD storage

Present in seven Latin American countries, from which it provides services to 35 countries around the world, TIVIT is recognized for managing critical operations with agility, security, and flexibility. For this purpose, the company relies on a new cloud model developed with support from Intel.

Based on the OpenStack platform, TIVIT’s new cloud meets all the security requirements used by the company and, at the same time, the market’s demand for flexibility and availability.

**Challenges**
- Developing a cloud that met the demand for private clouds in the corporate market;
- Identifying a platform that met security requirements;
- Breaking paradigms of availability and flexibility in delivery.

**Solution**
- Cloud environment based on OpenStack and SSD technologies.

**Impact**
- Greater flexibility to use the cloud;
- On-demand service supply;
- Possibility of employing orchestration software to control the cloud;
- Greater cost effectiveness.
“We did extensive research and chose OpenStack because it was the platform that offered the most openness to our needs”

Armando Amaral, CTO da TIVIT

Expanding the leadership in offering integrated services in Brazil and Latin America

TIVIT is currently recognized for managing critical operations with agility, security, and flexibility. In the market for 18 years and with a unique solutions portfolio, the company now has three service lines: IT Services, Cloud Solutions, and Digital Business.

According to Armando Amaral, TIVIT’s CTO (Chief Technology Officer), these three lines are the result of a new approach the company started to adopt in the last two years and which has resulted in the assembly of this portfolio. The IT Services area concentrates traditional IT services, while the Cloud Solutions area consolidates all cloud computing businesses. “Digital Business is where are new technologies that will make use of the cloud to generate new solutions for customers, such as IoT, Analytics, and Big Data,” says the executive, noting that the latter two areas have helping the company’s customers with transition to using the cloud and shared environments, thus, reducing costs, as their main focus.

It is no coincidence that TIVIT has many clients among the 500 largest Brazilian companies. More than that, the company processes more than 25 billion financial transactions per year in its nine data centers in Latin America. To continue to grow, TIVIT needed a cloud service that could meet the requirements the corporate market expects from a private cloud: high security with flexibility and availability.

The open platform ensures greater flexibility and lower cost to the end customer.

For this new demand, TIVIT developed a new cloud using the OpenStack platform. Armando Amaral, CTO, TIVIT recalls that many customers had reservations on storing information in shared clouds and, therefore, were looking for specific features in private clouds. “OpenStack has these features, enabling on-demand payment and use, as well as greater customer control and management,” he explains.

The CTO notes that the platform was chosen because one of the premises of the project was to meet requirements without abandoning TIVIT’s traditional privacy and security policies. “We did extensive research and chose OpenStack because it was the platform that offered the most openness to our needs.”

Along with the platform, TIVIT chose Intel as its partner in the project. According to Amaral, contacts were made between Intel teams in Brazil and the United States to understand how the platform worked and, especially, how the open software fit the corporate world, which requires certifications, compliance, and auditable, controllable features.

Regarding the choice for Intel, Amaral notes that the company is a technology leader and longtime partner of TIVIT’s. More than that, their participation was fundamental to the success of the project. According to the CTO, Intel guaranteed technical support both in Brazil and abroad. “We got some test equipment and, at a certain point, they set up remote laboratories in the United States and China,” he recalls. Moreover, Intel presented case studies and other implementation cases, making TIVIT’s studies and the development of its platform feasible.

“Intel has brought cutting-edge technology and strong support in
developing this solution, with the support of engineers who have helped us to better understand this technology,” says Amaral.

“We did a support and consulting work, starting some discussions about which technologies would be best for the cloud service. After some proofs of concept, TIVIT opted for OpenStack/Ceph,” says Aylton Teti, Intel’s business development manager, noting that the idea was to use an open platform, independent from the vendor.

More use and cost flexibility for TIVIT’s cloud customers

With the solution validated, TIVIT set up an internal team who took over the development of the new cloud. According to Amaral, despite the open source, much of the core of the OpenStack platform was preserved. The executive also recalls that the project had a number of hardware and software partners who collaborated in assembling the solution.

In addition to the open platform, the structure also featured SSD technology-based drives for data storage. The choice was due to the performance and durability of the equipment. “The stability of the technology in the Brazilian market, and its availability here in Chile and in Colombia also weighed in the decision for the SSD technology.”

The project started in late 2015 and was completed approximately a year later.

Today, the new TIVIT cloud has more than 200 OpenStack nodes and over 2 PB of Intel SSDs. In all, the structure features over 1.3 thousand SSDs and 600 Xeon CPUs. With this, TIVIT offers more flexibility to its customers, who may hire cloud services on demand and pay per use. “The open platform also allows the client to use orchestration software to control the operation of the machines at different times. This type of programming did not exist and makes the cloud more cost-effective,” he says.

Thus, TIVIT offers a more modern technology, more tuned into the current needs of its customers. So far, the new cloud is operational, and with users, on the company’s sites in São Paulo, Bogotá (Colombia), and Santiago (Chile) and it should soon start operating in another data center in Brazil.

Teti, from Intel, notes that TIVIT offers considerable flexibility to the market. “It is always a competitive solution at the market level, where it is possible to establish high-performance storage architectures, with intensive use of SSDs and HDs coupled in the same solution,” he points out. More than that, Teti emphasizes TIVIT’s freedom to build customizable solutions for medium and large customers.

For Amaral, TIVIT’s current goal is growth. “Our objective has been to show this to our customers and start planning the transformation of their traditional environments into this cloud environment,” he says. Furthermore, the company continues to develop technologies that can work on the new platform, such as IoT (internet of things) and document management, which benefit from the ability to allocate resources on demand, thanks to the new service.

“We already have success cases in all these fronts,” he reveals, noting that there are a number of technologies employed by TIVIT’s team of professionals. Because of the success obtained here, Amaral foresees new projects with Intel in this field. “It is a

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Armando Amaral, CTO, TIVIT
About TIVIT

TIVIT is a leader in Integrated Technology Services in Latin America. Present in seven countries in the region, from where it provides services to 35 countries around the world, the company is recognized for managing critical operations with agility, security, and flexibility. TIVIT has a deep understanding of the challenges face by its customer’s businesses. Moreover, the company manages strategic and vital operations of its customers, ensuring high availability and security of the information.

In the market for 18 years and with a unique solutions portfolio, TIVIT transforms the dynamism and complexity of technology through its three service lines: IT Services, Cloud Solutions, and Digital Business. To fulfill its mission of leveraging the success of its clients, generating value to shareholders, and developing its employees, TIVIT offers innovative solutions that generate more competitiveness to companies.

TIVIT has always used market awareness as a strategy to stimulate the advancement of new technology solutions, and has made good use of its leadership in the region to become a reference also in the transition to new services, such as Cloud Computing and Digital Services.

The company supports more than 2,200 companies in Latin America, including many clients among the 500 largest companies in Brazil and in the most varied segments, such as large banks, insurance companies, credit card companies, industries, and utility and retail concessionaires.

For more information on TIVIT, visit https://tivit.com/