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IT infrastructure ensures availability and business continuity in Health

Construction of a data center based on Intel® technology takes Central Nacional Unimed to a new level of continuity and performance

Unimed National Central is the national operator of Unimed health plans.

Fifth largest operator in the country , the company commercializes health plans for corporations whose portfolio of beneficiaries is equal or greater than 300 lives and is present in at least three states.

The growth of the operator made it necessary to build a new data center. Opted by Intel® technology, which helped to create a private cloud , responsible for ensuring the continuity of the company business.

Challenges

• Improve service availability

• Ensure more safety to customers

• Expand continuity of business affairs

Solution

• Build a private cloud and create a backup site using Intel technology

Impact

• Ensure continuous availability

• Improve environment stability and performance

• Simplify the IT supply process

• Reduce maintenance expenses

"The fact that provisioning virtual computers is easier thanks to Intel technology, helps increase agility in terms of services and delivering requests originating from our business areas."

Mohamad Akl – president of Central Nacional Unimed

Private cloud built with Intel® technology. Agility in provisioning, control, security, modularity, and a quicker return over investment.

"CNU's main databanks and applications were hosted in RISC servers, but we needed a technology that had greater performance, scalability, availability and excellent cost-benefit."

"CNU's choice falls back on Intel's platform, which made it possible to create a new site that would not only take on the processes in case of emergency, but would also work together with the first one."

Walter Shimabukuro, IT manager of Central Nacional Unimed

Rapid growth

Central Nacional Unimed has more than 1.6 million beneficiaries, whose data is centralized in the company's data center, on Alameda Santos, in São Paulo. According to the president of the operator, Mohamad Akl, the increasing of storage data led them to decide to build a new data center.

"The decision was made in order to ensure the continuity of the company's business affairs, even when facing possible accidents in our structure or physical facilities, ensuring full service to beneficiaries," he explains. In addition, with the new structure, the operator creates conditions to follow with the Business Continuity Plan.

The new data center eliminated prolonged unavailability risks in the services that are essential to clients and the operation. For this, carried out a planning process that lasted months, resulting in the migration of the platform. The operator's IT manager, Walter Shimabukuro, says that main databanks and applications were hosted in RISC servers. "We needed a technology that had greater performance, scalability, availability and excellent cost-benefit," he states.

Distributed data center

Operator's choice for Intel's platform made possible to create a new site that, besides to take on the processes in case of emergency, works together with the

first one. SK Tecnologia carried out the project. "The site backup we designed creates a distributed data center, allowing both environments to work as one, and, in case of error, one of the two can take over entirely," says Luciano Crespo, responsible for the project.

Also, the data centers were built like a private cloud. According to Crespo, this was only possible thanks to Intel technology, present in the HP ProLiant server blades and HP 3PAR StoreServ storages. Shimabukuro recalls that the Intel platform was also chosen for the virtualization servers because of its stability and existing compatibility between HP, Intel® and VMware. "The private cloud built with Intel technology will provide us practicality, agility in provisioning, control, security, modularity, and it ensures a quicker return over investment," says the IT manager.

According to the executive, the density of the server and storage system is increasingly important for corporate applications due to energy, space and budget restrictions. "With Intel® Xeon® processors, the HP servers and storages gained more performance, scalability and greater efficiency to provide services to the business areas," says Crespo.

Now, the data of the more than 1.6 million beneficiaries of Central Nacional Unimed are shared on a private cloud. Part of the information is in

the operator's data center in Alameda Santos and the other part is in the Pamplona Unit. The replication of the data centers takes place through dedicated, redundant and exclusive CNU links that take different routes. "In addition, we have the links of two telecom operators, where there is data and voice trafficking, providing access to systems and telephony", Shimabukuro explains.

The executive recalls that innovations in the new data center were developed by the operator's team. For example, total isolation of the cold aisle between servers. This optimizes the air conditioner and avoids extra energy demands. Another innovation, which makes it easier to transport heavy equipment, such as servers and UPS', is an automatic platform that transforms into an escalator or elevator.

The system is also protected against sudden or scheduled shutdowns of one of the sources, from the origin (Primary Substation), without interfering in the data center's operation, with more energy availability and facility safety. Several equipment is modular and may be replaced or installed without needing to shut down.

In total, R$ 5.75 million were invested in the project, including construction of the data center in the Pamplona Unit, acquisition of network infrastructure and resources (equipment, software and services) for replication/redundancy of the environments.

Ongoing availability and increasing performance

The new environment began operating in March 2014 and, since then, has been registering ongoing improvement in its processes. According to Akl, besides ongoing availability – one of the main project goals -, the environment is more stable and has greater performance. "The fact that provisioning virtual computers is easier thanks to Intel technology, helps increase agility in terms of services and delivering requests originating from our business areas," he says.

CNU's president also highlights that infrastructure maintenance today no longer requires moving the IT team and interrupting processes. With the possibility to switch production, one environment can take on processes while the other one is repaired. According to the IT manager, tranquility is the key word of the new environment. "Specific problems no longer have an impact on the work of our employees. The high availability passes on this feeling to the company, to our clients and partners," says Shimabukuro.

According to the IT manager, before implementing the project the company had an infrastructure contingency solution (servers, network equipment, software and services) which required time if it were necessary to put into effect. "If there was an accident in the physical facilities of the data center or company, we ran the risk of taking days to reestablish our operation," he says.

Shimabukuro says that with the new availability solution, CNU committed to ensure the continuity of the operation and businesses in case of failure of one of the company's data centers or facilities. Also, the IT area can monitor and handle the business growth, providing full services to: beneficiaries, service providers and other Unimeds.

About Central Nacional Unimed

The fifth largest operator in Brazil, Central Nacional Unimed has over 1.6 million clients. It's the national operator for the Unimed business health insurance plans and was created to guarantee the competitive edge of Sistema Unimed due to market demands and the regulation of health care providers in 1998.

The companies that hire the national operator work in three or more states, with at least 300 lives insured. However, in some situations, Central Nacional Unimed also provides services to individuals, small and medium companies, together with Sistema Unimed in Salvador, São Luis and Brasília.

About SK Tecnologia Ltda.

Present in the technology market since 1992, SK TECNOLOGIA develops projects based on corporate servers, data storage, communication networks, software and services that range from department tasks to complex environments that demand features with high-availability, performance, reliability and security.

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Luciano Crespo, SK technology, responsible for the project

According to Akl, the investment prepared the IT area for business growth, and it now has the necessary agility and flexibility to have server resources and storage systems ready to meet new demands. "We also improved governance with the implementation of the cooperative's business continuity plan, which gives us more peace of mind," he says.

This peace of mind allows CNU to plan the development of the environment.

The next step is to automate processes in the cloud, improving production and using time and resources better. CNU is also studying the possibility of providing services with the cloud to clients and partners. "Our plan is to always evolve, grow and innovate. We are on the watch for technological solutions that sustain the growth and improvement of our operations and business affairs," says Akl.