VERITAS™

The truth in information.

Data protection is smooth sailing with Veritas.

OVERVIEW

Appliances Make Data Protection Faster and More Efficient

Porto Itapoá is one of Brazil's busiest ports, and it is expanding. Its goal is to be able to handle two million twenty-foot equivalent units (TEUs) annually, a capacity that would rank the port among the largest in Latin America. Reaching that target will require continuous operations, 24 hours a day, 365 days a year, so system downtime is unacceptable. Moving data protection to NetBackup Appliances, with replication between two data centers, minimized the port's risk of downtime, while substantially accelerating both backups and data restores.

24X7 LOGISTICS ALLOWS FOR NO DOWNTIME

Since opening in 2011, Porto Itapoá has gained a reputation as one of the most agile and efficient shipping terminals in Latin America. "Our prices are similar to those of other nearby ports," says CIO Sandro Martins. "Customers will use us only if we provide the best service. Our mission and vision focus on innovation and modernity. Technology is one of the ways we set ourselves apart from the competition."

In fact, technology solutions have become so crucial to port business that any downtime—day or night—threatens both shipping activities and the port's reputation as a leader in maritime cargo transport. "We have several applications that cannot afford any downtime at all," says João Alberto Korb Junior, IT infrastructure analyst/datacenter for Porto Itapoá. "They are tightly integrated, so losing access to one could bring our operations to a halt. We might have ships unable to unload or huge lines of trucks waiting on the road."

VMs NEEDED BETTER PROTECTION

Porto Itapoá's business-critical applications run on approximately 150 VMware virtual machines (VMs). A year ago, these systems had no place in the port's tape-based data protection environment. The data protection software could back up VMs, but not efficiently: Each VM required its own manually crafted policy. Moreover, backing up just one-third of Porto Itapoá's data consumed its entire 12-hour nightly backup window. Anything that did not fit in the window was not protected.

ORGANIZATION PROFILE
Industry: Transportation & Logistics
Website: portoitapoa.com.br
Headquarters: Itapoá, Santa Catarina, Brazil

KEY CHALLENGES
Porto Itapoá could not afford system downtime. Yet slow backups and lack of coverage for key applications left large gaps in its data protection.

SOLUTION
The port worked with Veritas™ Professional Services to deploy a Veritas NetBackup™ Appliance in each of its two data centers. They used Veritas Information Map software to visualize their network and the Veritas Smart Meter service to size the solution.

BENEFITS
- More than 90% of systems now backed up, vs. approx. 30% previously
- 3 times as many systems backed up in the same 12-hour window
- Virtual machine (VM) protection now feasible with streamlined backup processes
- SAP data now included in backups
- 100% success rate in data restore testing
- Individual email restore: 5 minutes vs. 10 hours previously
- Single file restore: 3 minutes vs. 2 hours previously

Even those applications and data that were included in backups were not easily recoverable. "In a data center failure, we would have had to restore from LTO tapes," Korb Jr. says. "It would have taken many hours, if not several days. A disaster scenario would have severely impacted our ability to do business."

Another protection setback occurred when Porto Itapoá decided to deploy an SAP enterprise resource planning (ERP) system and discovered that its legacy data protection solution could not back up SAP HANA databases. The time was right to upgrade data protection and disaster recovery.

Decision-makers considered solutions from Veeam and Commvault, but ultimately selected Veritas NetBackup. One reason was the tight NetBackup integration with SAP and VMware. Another was the solution's all-in-one appliance option. "We wanted to have hardware and software all in one solution," Martins says. "That way, if there's a problem, we would not end up with the software vendor blaming the hardware and the hardware vendor blaming the software."

They used the Veritas Information Map software to visualize their network and used the Veritas Smart Meter service to size their solution appropriately. The Information Map tool helped Porto Itapoá understand where different types of data reside in the organization. Meanwhile, the Smart Meter service helped the port determine which NetBackup license would be most appropriate and how much storage space the appliances would require.

> "In the previous scenario, we were protecting about 30 percent of [our] data. We have been using NetBackup for about six weeks, and we are already backing up more than 90 percent of our data. I sleep much better at night knowing our critical data is protected."
>
> *— João Alberto Korb Junior, IT Infrastructure Analyst/Datacenter, Porto Itapoá*

3 TIMES MORE DATA PROTECTED IN THE SAME BACKUP WINDOW

Porto Itapoá has two data centers, each of which houses VMware, SAP, and Microsoft Exchange servers. With the help of Veritas Professional Services, the port deployed a Veritas NetBackup Appliance in each data center to perform nightly backups. They also set up NetBackup Auto Image Replication (AIR) to replicate data between the appliances. "Everything backed up on media server 1 is replicated to media server 2, and vice versa," Martins explains.

Native deduplication within NetBackup shrinks the backups. Then, NetBackup Accelerator accelerates the backups of this smaller data volume. "NetBackup Accelerator plus deduplication is fantastic," Korb Jr. says. "We have a 1.7 TB file server. Deduplication makes the file server's backups 90 percent smaller. Still, without Accelerator, the server would take about eight hours for a full backup. With Accelerator, full backups complete in two hours or less."

The tight integration with VMware gives NetBackup Accelerator an even more pronounced impact on the speed of VM backups, Korb Jr. says: "With NetBackup Accelerator, a full backup of a VM takes two minutes. Without NetBackup Accelerator, the same process takes at least half an hour. We are very happy with this functionality."

Now, the vast majority of Porto Itapoá systems can be backed up within the 12-hour nightly backup window. "In the previous scenario, we were protecting about 30 percent of the data coming out of our terminal," Korb Jr. says. "We have been using the NetBackup solution for only about six weeks, and we are already backing up more than 90 percent of our data. I sleep much better at night knowing that all our critical data is protected."

RESTORES IN MINUTES, NOT HOURS

The port has not faced a disaster since deploying the Veritas solution, but extensive testing indicates that when it needs to recover data, it will be able to do so without a hitch. "Our tests have been 100 percent successful, and they are much faster with NetBackup," Korb Jr. says. He cites one test in which his team deleted and then restored a production VM: "We had it back up in 10 minutes."

Porto Itapoá is using NetBackup Granular Recovery Technology (GRT) to further accelerate restores of individual VM files or emails. "NetBackup GRT works very well," Korb Jr. says. "We can extract just one file or email, rather than restoring the entire VM or Exchange database. Restoring a single email takes five minutes, whereas in our previous environment, it would have taken around 10 hours because we would have had to restore the entire Exchange server."

These benefits are not isolated to testing. "Yesterday, I restored a file for an internal client," Korb Jr. says. "In our legacy scenario, I would have had to go down to the data center and move tapes around. I estimate it would have taken me two hours to get the file to the client. Instead, with the NetBackup Appliance and NetBackup GRT, I restored the file in about three minutes."

WHEN REDUCING RISK IS MOST IMPORTANT

Porto Itapoá is saving a considerable amount of money annually because it is purchasing and storing far fewer tapes. It has also dramatically reduced the staff time required to manage data protection. "The interface and workflows in Veritas NetBackup simplify the management of data protection," Korb Jr. says. "In fact, Veritas has a VMware plug-in that enables us to initiate backups and restores of VMs from within vCenter. For basic functions, we don't even have to go into the Veritas console."

Adds Martins: "We are a very lean IT team. It's significant that we no longer have to move tapes from one place to another, refresh the tapes, or test them to be sure they are still working. The Veritas environment enables our staff to focus on more strategic issues."

Porto Itapoá is considering moving long-term retention of backups to the cloud. Storage in the cloud would be reliable and would require little staff time. Most important, it would help the port comply with Brazilian regulations that require retention of certain types of documents for up to seven years.

For Martins, peace of mind may be the most transformative benefit of the entire NetBackup rollout. "When we started with Veritas, we immediately reduced the risks to our business," he says. "Sometimes this is even better than monetary savings."

FOR MORE INFORMATION

Please contact your local Veritas Sales Representative or Business Partner, or visit:
Veritas NetBackup Veritas NetBackup Appliances Veritas Information Map

ABOUT VERITAS TECHNOLOGIES LLC

Veritas Technologies is a global leader in enterprise data management – our software and solutions help organizations protect their mission-critical data. Tens of thousands of businesses, including 97% of Fortune 100 companies, rely on us every day to back up and recover their data, keep it secure and available, to guard against failure and achieve regulatory compliance. In today's digital economy, Veritas delivers technology that helps organizations reduce risks and capitalize on their most important digital asset – their data. Learn more at www.veritas.com or follow us on Twitter at @veritastechllc

VERITAS™

The truth in information.

V0938 08/19