

Case Study: TCY

Critical Issue

TCY serves four leading shipping companies, including the world's largest. For each shipping line, TCY must keep precise track of each and every container; its exact location in the port; its shipping movement records; and the days it is held at the terminal. All that information is managed by TCY, who must provide its customers with 24/7 continuous online information availability, 365 days a year, in spite of being in a hurricane zone.

Results

- Assured 24/7 terminal operations and guaranteed accurate records.
- Continuous protection and immediate availability of its customers' critical information.
- Systems online and continuously updated, even under extreme conditions, such as a hurricane.
- Immediate productivity after emergency evacuation.
- Ability to maintain and continually upgrade compliance with ISO 9001:2000 Quality Management requirements by minimizing freight damage and loss, accidents, and work stoppages due to information system failures.
- Improved information security and systems productivity through elimination of downtime during backup, upgrade and maintenance processes.

Technologies

- Assure iTERA HA
- IBM i production and remote backup servers
- Applications developed by TCY

Company Name:

Terminal de Contenedores de Yucatán (Yucatan Containers Terminal), of TCB (Barcelona Containers Terminal) Maritime Group.

Headquarters:

Barcelona, Spain

Industry:

Port Operations

General Manager:

Captain Pedro Ferreras Iñigo

Employees:

90 permanent and 40 contract workers

Revenue:

Over € 69 million company-wide, in 2006

Business Environment:

- TCY's facilities cover over 28 acres (11,5 hectares) with options to expand by another 6 acres (2,4 hectares)
- Freight handled by TCY impacts over 10 million people, nearly 10% of Mexico's total population.
- TCY's parent company, TCB Group, has 11 port terminals: 2 in Barcelona, 2 in the Canary Islands, as well as terminals in Valencia, Gijón, Cuba, Brazil, Mexico, Turkey and Colombia.

Implementation Team:

XopanTech, Mexico

Precisely Products:

Assure iTERA HA

Business challenge

TCY is located in Puerto de Altura, in Progreso Yucatan, Mexico. From this strategic location, ships can reach the most important markets in the US, the Caribbean and Central America, with connections to South America and Europe, in only 36 hours.

TCY's services include container stowage and unstowage, and load and unload over ships or trucks. Its facilities can store up to 84 refrigerated containers at any time. TCY's expertise, sophisticated information systems and modern facilities allow these services to be provided within each ship's scheduled in-port time, while ensuring merchandise integrity and fully accomplishing the load and unload plan.

Since the port is a secure and highly inspected area, TCY has 15 security cameras connected online with the Customs House, 8 of them monitoring its dock platform areas and 7 more inside its warehouse, resulting in continuous visual monitoring of all freight. This is a huge advantage for TCY, as the Customs Authority can control the cameras from its own facilities.

These complex operations continue around the clock, 365 days a year, with just a few highly qualified employees as a result of highly automated operations and online control via advanced custom software and electronic information transfer (EDI), carried out under international data interchange standards.

Solution

"At one time, before we had Assure iTERA HA, our IBM i server failed catastrophically. Even with direct support from IBM, it took a week to get the server back online, during which time we had to perform all record keeping operations manually. It was very hard for us" says Engineer José Antonio Islas, Head of Systems Department of TCY, "Because of this situation, we acquired an additional IBM i server, to have as a backup system."

"As part of that decision, our corporate Systems Department asked us to implement a replication solution able to replicate continuously between both servers, just as TCB Group does in each of its other terminals worldwide. They suggested talking to Precisely since it was their vendor of choice. After evaluating our needs, Precisely recommended Assure iTERA HA. Using Assure iTERA, we would achieve HA replication and switching capability in keeping with the Group's global standard," he indicated.

When a hurricane strikes the port, there is no practical possibility to continue the physical operations of loading and unloading ships. The port must be secured and everyone must evacuate. But once the threat is past, the shipping lines cannot afford to wait for the port to slowly return to full operation.

Previously, TCY required up to 24 hours after an emergency to be fully operational, because its systems, data and connections had to be checked in detail for accuracy and readiness by its IT team. Now, because Assure iTERA HA maintains a fully accurate and current secondary system, TCY can immediately resume full operations, with full confidence that it is working with current and accurate information.

In addition to this HA protection, TCY's data centers are hardened facilities that are built to withstand hurricanes. The data centers each include an 11 kilowatt UPS that delivers more than one hour of electric energy from its batteries, to protect against short outages, as well as an electricity generation substation that allows them to keep on working after that, without trouble. To further ensure against even the tiniest risk that one of its data centers might be seriously damaged, the two IBM i servers are located in different offices, providing true disaster recovery capability as well as high availability.

"The Assure iTERA implementation was really quick. It took us two weeks to analyze and prepare the environment and one week to complete installation. Just days after that, Hurricane Dean hit. It was calming to know we had already provided for 100% availability before this emergency.

"Since Assure iTERA HA is designed to integrate tightly with the IBM iSeries server's operating system, it is very easy to manage. It takes you right to the desired screen by just pushing an option number, without having to navigate through a whole series of other screens. The menus clearly present the whole picture. Monitoring the system and data is quite easy", added Engineer Islas.

"Only a week after implementing Assure iTERA HA, we were forced to evacuate the terminal because of Hurricane Dean. When we were able to come back to work with our systems immediately fully operational and with no loss of data, our confidence level increased a 100%."

— José Antonio Islas Dolores
Head of Systems Department,
Yucatan Containers Terminal