

CASE STUDY

SOLOGIC HELPS WEB ARUBA
PREVENT CUSTOMER
COMPLAINTS



WEB ARUBA

For more than 70 years, WATER- EN ENERGIEBEDRIJF ARUBA N.V. (WEB) has been responsible for the production of Aruba's drinking water and power. Aruba does not have a natural source of fresh water, and rainfall is limited. Aruba's population of 100,000 inhabitants, plus the more than 700,000 tourists who visit annually, have access to a sufficient supply of high-quality drinking water.

W.E.B. Aruba N.V. generates electricity, and produces drinking and industrial water through an integrated process utilizing steam. The cornerstone of this process is the desalination of seawater, which Aruba has in abundance from the Caribbean Sea.

During the last decade, W.E.B. Aruba N.V. has invested approximately \$250 million to upgrade, modernize, and expand its water production and electricity generation by installing Reciprocating Diesel Engines (converted to use Heavy Fuel Oil) for electricity generation, two Seawater Reverse Osmosis units to produce drinking water, and modern automated control systems.

The Problem

WEB Aruba received multiple complaints from customers who tried to pay their bills, but were unable to because of problems with WEB Aruba's billing system and customer service. During this time, WEB Aruba was unable to collect on unpaid bills, an obvious concern to management.

More specifically, computer system delays and outages slowed customer service's ability to accept payments from customers, eliminated the ability of customers to look up billing statements through webcare, and ultimately closed customer service for two business days.

Action Taken

WEB Aruba called in a Sologic investigator to determine the cause-and-effect relationships that contributed to the problem. A cross-functional team consisting of the IT department and ERP representatives came together to complete the RCA.

The investigation revealed that customer service was unable to accept payments from customers -- over the phone, in person or through webcare -- primarily because of an unreliable Customer Information System (CIS).

The CIS is used to look up customer data, including amount due, outstanding amounts, and related customer information required to obtain payment for utilities. The CIS failed on several occasions due to hardware failure, the inability to function efficiently on a virtual environment, and the lack of a back-up system.

The problem was prolonged when WEB Aruba needed to shut the CIS down for two days in order to trouble shoot and test new VM server backups. Additional roadblocks to resolution were uncovered during that time.

Ultimately, the CIS failure was caused by a lack of upgrades or back-ups because the CIS was not viewed as a critical system.

Solutions Implemented

Upon completion of the root cause analysis, solutions to limit and/or eliminate specific causes that contributed to the CIS outage were identified and implemented. These include, but are not limited to:

- Implementation of a new database appliance -- to upgrade and replace the existing software and hardware environment
- Development of critical systems analyses where appropriate
- Consistent and clear communication to employees

Benefits

Beyond solutions that will fix the immediate problem, the investigation revealed opportunities to help prevent similar problems in the future, and to address systemic and cultural issues.

- WEB Aruba realized a needed shift in mindset -- CIS is a critical system that should be a priority in terms of upgrades and back-ups.
- WEB Aruba now recognizes the risks and impacts associated with CIS problems, delays and outages. The organization will be more proactive in heeding early warning signs, and will be more prepared with back-up systems.
- WEB Aruba is implementing new communication links between IT and management.
- WEB Aruba now plans to upgrade and replace servers per vendor and IT recommendations, and to limit the number of custom modifications that can complicate interdependencies, trouble shooting and repair.



Sologic provides root cause analysis (RCA) training, software and services to help companies solve challenging problems and prevent them from recurring. With offices on five continents, staffed with experienced trainers and investigators, our RCA solutions are built on over 20 years of field experience with clients worldwide. We work with disciplines such as quality, safety, IT, reliability, maintenance, operations, logistics, and legal.

For more information on Sologic's industry-leading RCA training and investigation services and their benefits

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