Time Machine® helps City West Water save countless hours on their Gentrack Billing System deployment

About City West Water

City West Water is one of three retail water businesses in metropolitan Melbourne owned by the Victorian Government. They provide drinking water, sewerage, trade waste and recycled water services to approximately 284,000 residential and 32,000 non-residential (industrial and commercial) customers in Melbourne’s Central Business District and inner and western suburbs.

About Logica

With over thirty years of experience in the Australian market, Logica is a business and technology service company employing nearly 1,000 IT specialists and consultants, over 41,000 globally. Logica focuses on providing end-to-end solutions and advice across all facets of IT, using deep industry knowledge and a proven track record for successful delivery.

Challenge

City West Water uses the Gentrack billing system as a highly integrated billing, collections and CRM solution that has been tailored to their specific needs. Their testing environment runs on a Solaris Container server using a backend Oracle database. End users access the system via a front end GUI running on their Windows workstations.

As part of its deployment and ongoing maintenance processes, City West Water needs to test the Gentrack billing system using past, present and future dates to ensure the software system properly handles all time-based billing processes.

However, as the testing system is shared by many users and other projects, they could not simply change the system’s real time without impacting other applications and users working in the same environment. And even if City West Water could move their system clock on the server, the resulting date change to critical system files would have enormously negative effects on the operating system and database stability, which could require a complete restore of the system, database, or both after each test iteration.

Quote

"The Time Machine software has significantly increased our testing productivity for changes we make to our billing system. It’s saved us countless hours. What Time Machine does, it does very, very well.”

Jackson Wong,
Customer Systems Business Analyst at City West Water
Why is this an issue?

In all cases where date testing of applications is needed, the only way to date test without Time Machine is to physically change the system clock. On many servers this can be a long and involved process. All server applications need to be stopped and all users need to log off; only then is it safe for a system administrator to reset the system clock. After the date has been changed to whatever is required for the test-case (Month-end, Quarter-end, 30 day billing cycle, etc…), then the database and application servers need to be restarted before the test can begin. In some cases this could be a good deal of time as many environments have separate groups in charge of each of these required functions and time is lost just waiting for one group to finish their part of the process before the next step can be taken. This is not an efficient method. Further, when a system has its actual date moved off of real time, then any other user that is not part of the testing process would want to avoid using the computer as their own processes will be corrupted by bogus dates. This essentially means that in a shared user environment, all these other non-testing users would not be able to do their needed work until whenever the machine has its time reset.

Time Machine Solution

Logica has been providing outsourced IT facilities management services for City West Water for approximately nine years and coincidentally also has a long history of success in implementing Time Machine with many of their other customers faced with the same temporal testing issues. Knowing that Time Machine worked well with those other customers, they suggested to City West Water that it could resolve the testing issues they were confronting.

Once Time Machine was installed on the Solaris 10 machine running the Gentrack system, City West Water was able to provide simulated dates for either individual users or groups of test users across multiple Solaris Containers. Whenever users perform an application transaction, the Gentrack billing application gets the simulated time provided by Time Machine rather than the actual system time, allowing them to perform testing using past or future dates without impacting other users on the same system.

According to Jackson Wong, Customer Systems Business Analyst at City West Water, “The Time Machine software has significantly increased our testing productivity for changes we make to our billing system. It’s saved us countless hours. What Time Machine does, it does very, very well.”