Forward Date Testing with Time Machine® Ensures On-Time Deployment of Governmental Change Program Management System

About the Customer

The customer is the principal revenue collection agency for the Australian Government, in charge of administering the Australian taxation system, and operates as an entity within the Treasurer of the Commonwealth of Australia. As such, the customer is responsible for managing Australia's revenue through collections systems, which include income tax, Goods & Services Tax (GST), superannuation and excise. In addition to managing collection systems, they also administer various benefits and refunds, including income tax and GST refunds, the superannuation guarantee, higher education loans and the baby bonus.

About HP Enterprise Services

HP Enterprise Services, also known as EDS, provides a broad portfolio of business and technology solutions to help its clients worldwide improve their business performance. Their core portfolio comprises information-technology, applications and business process services, as well as information-technology transformation services.

Challenge:

The customer has a critical application deployment project called the Change Program Management System (CPMS). It is designed to aid with the management of all application changes. The CPMS is updated and modified regularly based on ongoing business requirements and these changes must be tested using future dates to verify the system will work as expected in the future. In order to accomplish this testing all dates used on the Web Servers, Application Servers and Mainframe need to run in the same simulated date.

As part of this complex CPM deployment, they run tests with application code against dates in the future, such as quarterly processing. The application is developed in-house and runs across three platforms: a Windows based Web Server running .NET services and a Windows Application Server running .NET services, each running under unique Active Directory Service Accounts. Both of these applications exchange data with a Mainframe system running COBOL code. Client access to the system is via a web front from end-user desktops. The back-end consists of Wintel application servers connecting to Microsoft SQL Server databases and UNIX mainframes. There are a combination of dedicated single servers and Microsoft cluster servers within the applications critical path.

Contact

Time Machine Solution

Although the team can do the test scenarios that involve setting the date on the mainframe; the challenge is the need to synchronize the dates on all platforms as the date set on the mainframe to create a virtual clock for the Service Accounts running on the web and application servers. Users connect to the website from their Windows workstations. They can't simply change the server dates because Windows Active Directory has implemented Kerberos security authentication which specifies if a server date is changed it is locked out of the network by the domain controller. Under the guidance of HP/EDS, which knew of Time Machine and had deployed it to many previous client projects; the customer performed a brief evaluation. This team had a working proof of concept demonstrating that SolutionSoft Systems' Time Machine would allow their development & testing team to easily set simulated future test dates as requested on the fly. Not only does this minimize assistance requirement from their System, Application, & Database administration teams; more importantly, they are able to run the tests in their Active Directory environment without risking system crashes. Time Machine provides a reliable solution for them to run multiple testing concurrently on the same environment, which results in on-time project delivery and tremendous cost savings!

"Time Machine is invaluable for our on-time deployment of the Change Program Management System for our client. I really appreciate the quick turn-around time from Solution-Soft team on this requirement. This is indicative of the professional and consistent service that Solution-Soft has been providing us on an on-going basis, which in turn has helped us to deliver and meet our clients' requirements in a timely manner," said Rahul Joshi, Information Analyst, EDS Australia.