



Cressida's ReQuest™ Speeds EDF Energy New CRM Application System Rollout

Background

EDF Energy is one of the largest energy companies in the UK. It employs over 12,000 people, is the largest electricity supplier for London, the south east and the south west of England and supplies energy to around 5.1 million customers. EDF Energy is a wholly owned subsidiary of EDF SA, one of Europe's largest energy groups.

EDF's significant role as the largest private networks operator in the UK is demonstrated by having important contracts with BAA's Heathrow, Gatwick and Stansted airports, the Channel Tunnel Rail Link, the London Underground and Canary Wharf.

The backbone of EDF Energy's multi-platform CRM (Customer Relationship Management) application is Siebel® eBusiness. EDF Energy identified a requirement to upgrade a number of existing customer service related applications to offer added functionality and platform portability to their customers. The core technology employed within the Siebel CRM application utilized the IBM® WebSphere® MQ asynchronous messaging platform that offered the stable and scalable multi-platform porting capability required.

To undertake this new project a team was assigned which worked on the application development for 4 months and performed the initial unit testing of the various components during the development cycle. As the project neared completion it was identified that some large scale performance and volume testing would be required to exercise WMQ driven workflows prior to its final migration to the production environment.

The Requirement

James Hoath, Senior Systems Administrator of the EDF energy project team described the requirements: *'what we would like to do is extract/copy messages from a production Queue Manager and to replay them to another Queue Manager on our acceptance and test system. Our initial aim is for performance and volume testing activity. The production Queue Manager processes about 2.4 million messages that are written out to our Recovery Logs in any given 24 hour period. The production environments are WMQ 5.3 on AIX 4.3.3 and 5.3 and test environment is WMQ 6.0 on Windows. We are re-platforming our main CRM application and need to perform volume tests at will before moving the new application to production'*.

Access to production strength WMQ message load data was hampered by the larger and more robust existing production data only being available on AIX 4.3.3 and WMQ 5.3 releases, whereas the current development and production environments consisted of Windows and AIX 5.3 running WMQ 5.3.

The Challenge

- ❖ The initial challenge faced was how to gain access to such large volumes of data without undertaking a large test data creation project of it's own.
- ❖ The second challenge was one of ensuring that the production data created on AIX could be used for tests on Wintel based machines.
- ❖ The third challenge was the fact that the production Queue Managers were on AIX 4.3.3 utilizing features which substantially differed from the newer supported WMQ and operating system environments and releases.
- ❖ The fourth challenge was that EDF was primarily interested in a subset of queues containing the most important messages relating to their customer information
- ❖ The final challenge was not only that copying recovery logs from unlike system to unlike system needed planning and extensive research, the project delivery team wanted to be sure that no important data and files were missed in order to ensure a true production type workload had been tested against.

EDF objectives:

- To replay WebSphere MQ production data collected from one OS platform on another different OS platform and different WMQ release.

EDF comments:

- *'ReQuest was robust and intelligent enough to handle replay and recovery of the messages from an WMQ 5.3(UNIX) replayed on WMQ 6.0(Windows)'*
- *'the only tool on the market that can selectively report on and recover/replay messages from legacy archived WMQ logs.'*





EDF comments:

- *'a critical situation arose at another EDF department which required several critical WMQ messages to be found and replayed'*
- *'Without being able to replay these messages, we would have been in danger of non-compliance of Telecom regulations'*
- *'with the help of Cressida's ReQuest™ the needed messages were found, identified and replayed within minutes.'*
- *'we are planning to use ReQuest for... it's unique capability to restore the WMQ queue managers to the same point-in-time quickly and accurately'*



The Search

EDF Energy initially carried out a study into the native WMQ features and facilities and discovered that the information they required for their workload performance testing was contained in the WMQ recovery log files. However, there was no easy way to migrate such log file information across different releases of WMQ and operating system versions used. EDF energy sought to find a solution that could easily and quickly migrate current production workload such that it could be used as is and without delays. Several load generator and testing vendor tools were considered but the amount of time and resource commitment required to undertake such a task using these tools impacted the overall project timeframe. James Hoath recalled that he had come across a solution in one of the popular WMQ discussion forums that could do the job on short notice and discovered Cressida's **ReQuest™** for WebSphere MQ, a message management solution that can read and process the WMQ Recovery Logs and report on, replay and recover the messages according to the user's requirements without any application changes or further investments in employing a long cycled workload generation exercise.

The Solution

Cressida's **ReQuest** for WMQ is a powerful Message Tracking, Message Reporting, Message Replay, Point-in-Time Message Recovery and Auditing solution. **ReQuest** uses unique filtering technology to analyse critical message activity information already contained in WMQ logs. **ReQuest** is non intrusive; no application changes are required and it provided EDF Energy with the key features they required to provide a transition test and migration facility using actual production workloads as well as point in time analysis of message flows between the various application components.

With minimal assistance of Cressida staff, **ReQuest** was implemented across the required platforms and procedures were put in place to process the required replay functionality from AIX 4.3.3 to AIX 5.3 and subsequently to Windows on 2 different WMQ release levels. Hoath commented *'ReQuest was robust and intelligent enough to not only handle extracting messages from an WMQ Log file generated in UNIX to be replayed on Windows but as importantly to subsequently handle replay and recovery of the messages from an WMQ 5.3(UNIX) replayed on WMQ 6.0.(Windows). It is also the only tool on the market that can selectively report on and recover/replay messages from legacy archived WMQ logs.'*

James Hoath then concluded his remarks by adding *' During the visit of Cressida's System Engineer to assist in the migration of data from AIX 4.3.3 running WMQ 5.3 to AIX 5.3 running WMQ 6, a critical situation arose at another EDF department which required several critical WMQ messages to be found and replayed. Without being able to replay these messages, we would have been in danger of non-compliance of Telecom regulations. It would have required considerable effort on our part (and may not even have been possible) to resend these messages, but with the help of Cressida's ReQuest™ the needed messages were found, identified and replayed within minutes.'*

Having completed the CRM application performance testing to ensure the new application was performing as designed, EDF Energy is now using ReQuest to identify and track missing messages at a given point-in-time. Another EDF user department plans to further use ReQuest to implement rapid emergency recovery in the event of an application failure. Mrs. Laura Brown, who heads EDF Energy's IT Disaster Recovery department stated *' a crucial part of the recovery process that we are planning to use ReQuest for is it's unique capability to restore the WMQ queue managers to the same point-in-time quickly and accurately'.*

Summary

Cressida's **ReQuest™** for WebSphere MQ provided EDF Energy with a reliable, scalable, flexible solution to their requirement for a reliable Replay facility to test and migrate their important new application to the production environment. EDF have also used ReQuest features to track missing in-transit messages and for recovery of queues to a point in time before a failure due to hardware problems. The most recent addition to Cressida WebSphere MQ solutions is the User Configurable WMQ API processing product **InQuest™ for WebSphere MQ**. InQuest offers unique user flexibility and control to intelligently select and filter WMQ message traffic and to perform automated authorized actions including Message Content Based Alerting, Standards Enforcement, Compliance Reporting, Replication and Message Tracking and Recovery functions.