

CASE STUDY: HYDRAEXPRESS

GLOBAL COMMUNICATIONS COMPANY MOVES FROM CORBA TO WEB SERVICES WITH ROGUE WAVE® HYDRAEXPRESS

Background

A global communications company that provides innovative voice, data and video services had a very large distributed system called the Line Validation and Administration System (LVAS), which was originally implemented in C++. Several years ago, the LVAS was split into seven units of functionality, each of which ran discrete executables and communicated via CORBA.

The company selected an architecture where the system could be easily spread across multiple machines to ensure full functionality. In the event of failure in one unit, the rest of the system would continue to operate without interruption. CORBA worked to facilitate communications between the components. But as the cost of licensing a CORBA system continued to increase, along with its inability to expand to new platforms, the IT team began reviewing their options in order to upgrade their system.

Solution: HydraExpress

The company opted to move to web services and selected Rogue Wave® HydraExpress, to facilitate that process. HydraExpress provided the company a framework for developing and hosting high performance C++ Web Services. It also included advanced XML, Simple Object Access Protocol (SOAP), and Web Services Description Language (WSDL) productivity tools for transforming new and existing C++ applications for use in Service Oriented Architectures (SOA).

Each of the seven units had disparate interfaces that were a mixture of all the messaging patterns, including one-way operations and synchronous. The company converted the IDL files to WSDL files and then generated client and server skeleton code from those files. Instead of the CORBA skeletons calling the functionality in the LVAS implementation classes, the company used the skeletons for the web services.

Business Benefits

As a result, the business logic remained intact while the communications network shifted to web services replacing CORBA. Using HydraExpress, the company was able to directly address bottlenecks that occur between services and produce easy-to-use frameworks that abstract the details of networking, parse XML files, and stream data between different platforms. Furthermore, not only was the organization was able to upgrade to newer hardware, HydraExpress was significantly more cost-effective to implement and maintain, and yielded much higher performance levels than the old CORBA implementation. The new system also leveraged legacy systems based on C++, which enabled the company to implement upgrades into their system that ultimately created greater efficiencies. Three years into the project, the company maintains that HydraExpress has been highly successful in addressing their performance needs, stable, and was one of the most cost-effective solutions available both at the time of implementation, and in terms of on-going maintenance costs.