

Platform LSF®

Natural gas supplier optimizes license usage for reservoir simulation projects



Customer

World-leading natural gas supplier

Industry

Oil and Gas

Challenges

- Increase work without increasing the number of licenses needed to handle the increased workload
- Need to control access to pay-per-use licenses allowing only priority jobs access to these licenses
- Need to capture license usage data for independent pay-per-use calculations
- Need a better reporting tool for management, users and administrators

Solution

- Platform LSF
- Platform LSF License Scheduler
- Platform Analytics
- Web Portal

Business Results

- License Leasing model from Schlumberger allows the company to access additional licenses when needed on a pay-per-use (PPU) basis without purchasing licenses outright
- Solution built with Platform LSF License Scheduler and Platform Analytics controls license usage and accurately tracks it for billing purposes
- Full reporting overview of the system, including performance and utilisation

Managing expensive license usage

This customer, one of the biggest energy suppliers in Europe, has used Platform LSF for many years to schedule and manage ECLIPSE reservoir simulation jobs running on an HPC cluster. Recently, this company started a new project with Schlumberger to provide offsite processing via a remote utility computing model.

The project has been so successful that the company decided to increase the number of in-house clusters dedicated to reservoir simulation. The main reason for this decision was that user workload had increased, driving up the number of simulations to the point where a larger combination of in-house clusters and leased hardware was required. However, the increased usage also caused shortages of licenses for “High Priority Asset Teams.”

In order to guarantee that enough licenses could be held back for these High Priority Asset Teams, Platform LSF License Scheduler was added to improve the ability to track and allocate license usage. At the same time Schlumberger, the de facto outsourced IT group for this customer, offered

“The project has exceeded our expectations, delivering well beyond our previous systems with a smooth transition to a Platform Computing solution.”

Chief Reservoir Engineer

a PPU license model. The customer could now access additional licenses, to ensure that high priority work could be completed on schedule, especially during periods when demand exceeded available 'owned' licenses. This however meant that the customer and Schlumberger needed to be able to accurately account for the utilisation of PPU licenses.

Schlumberger initially provided an in-house solution to calculate PPU costs. This solution analyzed FLEX logs and Platform LSF logs using spreadsheet macros to tie FLEX records to Platform LSF job records. While this provided information about which job used how many instances of each application feature – Schlumberger ECLISPE has a total of 38 different license features, mandating that further analysis be done to calculate license usage on a five minute interval basis in order to derive the final PPU bill.

The drawbacks of this solution were that it was very time consuming, since the FLEXlm logs had to be sent to Houston for initial processing prior to being merged with Platform LSF data. This proved to be manually intensive, and required significant effort to ensure consistency and accuracy of the results.

A total solution for license management and usage tracking

Platform Computing suggested that a solution built using Platform LSF License Scheduler and Platform Analytics would improve the process, making it both faster and more accurate. The solution consists of two parts. The first part of the solution controlled which jobs can use the PPU licenses. Jobs are categorized as either Standard or Priority. Platform LSF License Scheduler was configured to give Standard jobs

high priority over any available owned licenses. However, Standard jobs are not allowed to access PPU licenses and are put on hold if there are no owned licenses available. Priority jobs can use owned licenses if they are available, or if none are available, they can use a PPU license.

The second part of the solution was to report on license usage. Platform Analytics, a business intelligence solution for collecting, analyzing, and visualizing information for better project planning decisions, is used. Platform Analytics incorporates the FLEXnet Manager plug-in to accurately report on license checkouts and usage against specific Platform LSF jobs by providing FLEXnet Manager with job details for each checkout. Custom cubes of data are then used to report owned license and PPU license usage. The customer can now more tightly control access to PPU licenses, while Schlumberger has an accurate, automated, daily report of PPU license usage that is acceptable for billing purposes

According to the Project Manager in charge of the deployment, "this has been a very successful project, Platform Computing worked in an open and professional manner."

"This has been a very successful project, Platform Computing worked in an open and professional manner."

Project Manager



Platform Computing is the leader in cluster, grid and cloud management software - serving more than 2,000 of the world's most demanding organizations for over 18 years. Our workload and resource management solutions deliver IT responsiveness and lower costs for enterprise and HPC applications. Platform has strategic relationships with Cray, Dell™, HP, IBM®, Intel®, Microsoft®, Red Hat®, and SAS®. Visit www.platform.com.

World Headquarters
Platform Computing Corporation
3760 14th Avenue
Markham, Ontario
Canada L3R 3T7
Tel: +1 905 948 8448
Fax: +1 905 948 9975
Toll-free Tel: 1 877 528 3676
info@platform.com

Sales - Headquarters
Toll-free Tel: 1 877 710 4477
Tel: +1 905 948 8448

North America
New York: +1 646 290 5070
San Jose: +1 408 392 4900

Europe
Bramley: +44 (0) 1256 883756
London: +44 (0) 20 3206 1470
Paris: +33 (0) 1 41 10 09 20
Düsseldorf: +49 2102 61039 0
info-europe@platform.com

Asia-Pacific
Beijing: +86 10 82276000
Xi'an: +86 029 87607400
asia@platform.com
Tokyo: +81(0)3 6302 2901
info-japan@platform.com
Singapore: +65 6307 6590
wliaw@platform.com