

Customer Success Story

Platform Increases Efficiency for Oilfield Services Provider



Customer

Leading Oilfield Services Provider

Industry

Oil & Gas

Challenges

- Use of an open-source MPI created untenable software maintenance overhead
- 57 different executables to re-link each month
- Testing new equipment and software was resource-prohibitive
- Supporting remote offices' applications was complicated and time-consuming

Solution

Platform MPI

Results

- A two-thirds reduction in time-to-software release
- Greater flexibility in migrating to new hardware and software solutions
- Much lower end-user support costs

Significant Efficiency Gains in

IT Operations with Platform MPI

Perhaps the most common lament heard today in IT organizations is, "So many resources are consumed by day-to-day minutia, we don't have enough time to pursue strategic IT initiatives." This was the case with the Systems and Deployment team at a large supplier of technology, project management and information solutions to the oil and gas industry. One of the chief culprits

was the open-source message passing interface (MPI) software used for the company's cluster-based implementations of a powerful simulation application used in oil exploration that is deployed across a global network of 80 offices.

"At one point two people were supporting 57 different executables of the simulation software which comprise three separate modules," recalls the Oilfield Service Provider's Systems and Deployment Manager. "It was untenable. We knew we had to find a new solution, fast. Platform MPI, [formerly Scali MPI Connect], provided the flexibility we needed to dramatically reduce the number of executables we had to update and re-link, and the professional support required to stay one step ahead."

The Systems and Deployment Manager describes the hectic scenario each month, as his team was challenged to update and re-link all the instances of the application, "It runs on globally dispersed Linux clusters from all the major vendors – HP, IBM, Sun and Dell. We use a variety of different processors and operating systems, which creates a wide matrix of combinations."

"Because the application was highly dependent on the open-source MPI," he continues, "it became a nightmare to link it with every version of the interconnect device drivers on a monthly basis. This consumed too much of our data center resources and required too much hand-holding for remote offices. We were getting calls from Azerbaijan to Angola. It was clear that we needed a solution to provide a buffer between the application and the device driver software. This way we could deliver a more flexible solution to our global end users."

Platform MPI reduces Support Overhead

In the search for an MPI solution that required less maintenance, the team evaluated two choices: Platform MPI and MPI-CHScorean open-source alternative. "Early on, we determined that we wanted a commercial MPI," he recalls. "The open source alternatives were too difficult, with too many modifications and

variants possible, making testing and evaluation too complex. Platform MPI easily won. Platform offered commercial-class performance and support, and was very responsive to our needs.”

After moving to Platform MPI, the company saw a host of benefits, including a two-thirds reduction in time-to-software release, testing and commercializing applications being one of the department’s responsibilities. “Cutting the number of executables translates into significant time savings—not just in linking, but also in testing,” he says.

Another benefit was greater flexibility in migrating to new hardware and software solutions. “We recently wanted to evaluate the use of Infiniband fabrics,” he says. “We didn’t have to change anything. The fact that there are four different Infiniband suppliers is daunting enough. Without Platform MPI, we wouldn’t have been able to do that, and would have had to accept the raw form of the executables and drivers.”

Platform MPI also helped during tests to evaluate servers with four-way AMD Opteron processors. By using the Platform MPI SMP option they did not have to build different versions, saving a lot of time and unnecessary effort. Platform’s commitment to staying abreast of new hardware and software developments is a big plus if the customer chooses to migrate to a new platform. “When we get new hardware, we’ve consistently found that Platform already supports it,” says the Manager.

Fourthly, the solution comes with much lower end user support costs. “Platform MPI has made it much easier for us to support our software installations around the world, because we don’t have nearly as many executables,” the Systems and Deployment Manager concludes. “It’s now much easier for us to explain to our field staff how to support the systems themselves, which means fewer calls to field.”

Commercially Supported

Software is the Right Choice

“The main benefit of choosing Platform MPI has been simplification—we’re using the same MPI on all of our systems. Given the diversity of our hardware environment, commercially supported software is a requirement. We need to be able to pick up the telephone and speak with an organization we can rely on for fast, accurate technical support or performance tuning. You just can’t do that with open source software.”

“Platform is in the business of providing High Performance Computing management software—open source organizations are not,” he continues. “We have had no problems in working with Platform MPI. It has installed and uninstalled very well and performed as advertised.” He sums up, “it’s been a very fruitful collaboration. Certification time for all our executables has been reduced. Evaluation and migration time has been reduced. Support is very good. Now our team can spend less time on day-to-day minutia and more time on the important, strategic tasks we need to get our jobs done.”

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Systems and Deployment Manager
Oilfield Services Provider



Platform Computing, an IBM Company, is a leader in cluster, grid, and cloud management software - serving more than 2,000 of the world’s most demanding organizations. Since 1992 its workload and resource management solutions have delivered optimized IT infrastructures, ease of management, and lower costs for enterprise, HPC, and technical computing clients. Visit www.platform.com. Twitter: @Platform_Tweets. For more information about IBM Technical Computing: <http://www.ibm.com/deepcomputing>.

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