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Technical Software Licensing Optimisation

Since the beginning of Oil & Gas Industry, technology has played an important role in the discovery and development of hydrocarbon reservoirs. At present, a key piece of this technology is technical software, which utilisation has helped to achieve great improvements in our business.

The use of techical software is one of the big issues concerning our IT staff, given the costs of this resource and the benefits one company can achieve through its efficient utilisation.

This presentation briefly describes how PEMEX EXPLORACIÓN Y PRODUCCIÓN IT department is dealing with this important function through the launching of corporate access right service contracts and the sharing of some of these resources.

In order to acknowledge exactly what the situation was, a team formed by Pemex IT staff as well as by every service company´s staff, started in the middle of 2003 an inventory survey for technical applications. This survey included all the modules up to date purchased by Pemex from each company, as well as the location and the users for each one of these applications. Another item included in the survey, was the infrastructure related to each software, meaning licensing server, data base server and application server.

Once we finished the survey, agreeing in every single detail between Pemex and each company, we initiated figuring out how to proceed in order to achieve the best benefits for both parties. This was not an easy task, due to differences in opinions, interests and even cultures, but once we agreed primarily on the main goals and objectives, the work became easier every time.

We started by collecting all available information on a spreadsheet ordering by kinds of application, including actual costs and locations. At the same time, we defined the following 10 topics for classifying our users and modules:

- Geology
- Geophysics
- Petrophysics
- Drilling
- Engineering
- Reservoir Characterizing
- Reservoir Simulation
- Production operations
- Economic evaluation
- Data Management

Then we grouped together the applications depending upon each different topic, in order to calculate a pseudo total cost of ownership for every type of user, based exclusively on the modules they use for their daily work, and the frequency of utilisation. For getting these frequencies, we took advantage of the statistics monitored by the licensing system.

In this manner, we were able to play with the numbers, computing several indicators such as P-TCO per user, P-TCO per region, P-TCO per asset team, P-TCO per topic, etc. In order to meet the corporate strategy, we calculated the software costs for leveraging our customers to achieve the Pemex E&P goals for the year 2006: To duplicate the hydrocarbon reserves and to produce 4 MMBPD.

As we already had two regional contracts in the North Region, concerning this type of services, we decided to take these costs, adjust them using the topics classification, and extrapolate them nation wide to get a main cost for the services. These services including four major items:

- Common use technology access (nation wide baseline of applications, fixed cost)
- On site support (monthly fee)
- Specialized technical assistance (weekly fee)
- New technology access (monthly fee by user, variable cost)

For the common use technology access, we negotiated with the companies a fixed cost giving us the right of using nation wide all the applications named on an agreed list. The charge for each asset team was set based on the number and type of concurrent users.

As we already got an on-site support baseline (via the initial survey), we decided to charge per specialist, making a commitment with the service companies and the asset teams to ensure this minimum baseline (base on-site support) and opening the opportunity to get on-demand on-site support.

Concerning the technical assistance, we decided to serve it on a on-demand basis without any commitment for minimal baseline. In the same manner we dealt with the new technology access.

In parallel, we started sharing our licensing resources by using our Wide Area Network, and configuring our servers and clients so every workstation is able to ask for licensing to every licensing server (10 nation wide). This was done with the objective of measuring the use of every resource, so in the near future we are able to define what our real requests are, and switch to a better service scheme.

In conclusion, it is very important to acknowledge your customers real needs, as well as keep a very close communication with you providers, so you are able to together achieve the best practices in order to leverage your business goals.

...and why not, in the not so far future being able to share resources across the borders...