

Make corporate IT work better without running up the budget

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For a quick perspective on the growth of electronic data and data challenges in the geophysical field, take a few minutes and browse a few major search engines. Plug in various word combinations of data, data storage, and geophysical. Search results? As one would expect, there is a lot going on with geophysical and data since this industry deals with as much or more data on an ongoing basis than any other.

Staying in this exploratory thinking mode, consider the ubiquitous nature of technology in the geophysicist's professional workplace and what kind of glue is required to keep all the parts harmoniously in place. To virtually nobody's surprise, building and maintaining a first-class IT infrastructure is no small task or expense.

Fortunately, however, as technology continues to make companies more efficient, more solutions have emerged to both alleviate the problems of running the IT function and coping with exponentially growing mountains of data and the endless capital expenditures associated with IT operations. One of these solutions is outsourcing.

Outsourcing IT? Yes and, more specifically, the catalyst for companies deciding to outsource their IT infrastructure management, including data storage, hinges on management's reaction to changes occurring within the business and the market. For example, as the oil and gas industry becomes more competitive and more lease opportunities occur in the Gulf of Mexico, companies need to spend more time focusing on the business opportunities. Therefore, companies should consider, instead of contracting for certain IT services on a piecemeal basis, using a "managed service" in which the outsourced vendor comprehensively takes ownership of, alleviating the sizeable burden associated with, a company's IT infrastructure.

At minimum, the outsourcing option has become a practical business decision. With geophysicists having to focus more on what is involved in data acquisition and the systems that support applications for a series of commoditized industries, IT infrastructure and maintenance is a tricky balancing act. Only a decade ago in a more benign IT world, complexities were fewer. Now, companies are overloaded with servers, routers, firewalls, bandwidth, and storage nightmares. With the complexities in any one of these commoditized technologies and the regulatory implications now being imposed on most companies, it is almost impossible to maintain a competitive edge and still focus on core business.

Consequently, CIOs or internal IT operations organizations are hard pressed to keep pace with the rate of change and are increasingly electing to have these burdens externally alleviated. That means the service provider will take ownership of the systems—the operations, maintenance, and all affiliated underlying technologies and mechanical electrical infrastructure to keep the systems "up" 100% of the time, fully redundant and in regulatory compliance.

Positive results from taking an external IT management approach include: improved network performance; cost

control predictability made possible through a flat recurring fee; deferred capital expenditures on IT equipment, allowing companies to spend only overhead expense dollars instead of capital; and improved IT staffing and expertise (from both cost and availability perspectives).

Deferring capital expenditures is a particularly important point when evaluating the service provider option. IT infrastructure must be depreciated at a rapid pace because of the rate of change at which equipment becomes obsolete. Outsourcing of IT infrastructure also provides companies, especially ones in businesses such as geophysics, flexibility for cyclical business conditions.

In other words, if a tremendous surge in business occurs, the company does not have to immediately ramp up at a cost in the millions; instead the infrastructure can simply be scaled up (or down in leaner times) through the service provider. That helps ensure that companies do not overhire and overspend capital.

What's typically outsourced? When geophysical organizations look more closely at their IT infrastructure and associated ramifications in terms of whether to continue to manage it all internally or looking externally for an enhanced solution, another "managed IT services" definition emerges. This terminology is both (a) tactical, with services offered at a systems operations level, and (b) strategic, whereby the service provider effectively becomes a business partner that works with companies through their growth.

Outsourced services by and large fall into three groups: systems and network operations; security monitoring; and management/maintenance ... and within these are several levels or layers. At the top of the pyramid, security continues to be a major driver, especially with the value of data in the seismic industry. To this end, it's vital to stay on top of best practices, which includes focusing on both physical and logical security.

If considering IT outsourcing, questions that the vendor and the company management should answer include:

- How can the service provider help strategically deal with the business?
- How is the company growing and changing?
- Does the service provider need to work more closely with the company staff so that operations can go more smoothly and full-time employees can focus on other things?

Weighing the risks. While IT infrastructure outsourcing may be appealing to many companies, it is prudent to consider some risks. At a high level, the following should be considered:

- *Culture match.* Will the company and the potential service provider's cultures promote communication and collaboration or constrict it?

- *Contract clarity.* Does the agreement clearly spell out what is included and what will be extra? (These are surprises that nobody likes.)
- *Transition plan.* Before an agreement with a service provider is signed, their transition/implementation plan must be evaluated to ensure it is comprehensive.

Additionally, the results of an IT outsourcing study published in 2004 stated that:

- At least 40% of the surveyed companies considered lost knowledge a key risk.
- Mismatched roles and competencies were viewed negatively slightly less than 40%.
- Not quite 10% believed that workers would rebel against the concept.

Another recent study by a well-known research firm found concerns that include:

- Managing the outsourcing relationship and any related "hidden costs."
- Managing the risk of intellectual property in third party hands and any security risks.
- Maintaining the quality of customer service.

These concerns simply emphasize that, in one respect, selecting a technology service provider is no different than with any other service provider—which boils down to evaluate the outsourced company's services and reputation first. In other words, get the tough questions satisfactorily answered.

Conclusions. The probable availability, over the next few years, of leases in the Gulf of Mexico has prompted start-ups to suddenly appear to leverage one or more of these leases as the foundation of a new business. Getting a new business off the ground takes considerable time and effort, which is greatly complicated by having to get immersed in data center expenses, personnel, and time. Therefore, with time-to-market being a critical part of a business plan, start-ups want to leverage outsourcing partners to move their new business quickly and avoid costly mistakes.

Ultimately, companies large or small outsource because it relieves them of the burden of managing critical, yet non-strategic functions.

So which companies should seriously consider outsourcing IT infrastructure? In making this decision, it is helpful to answer the following questions about the company:

- Does it have a difficult time controlling IT costs?
- Is it ever certain what monthly IT expenses will be?
- Is it growing quickly or proceeding through a merger and needs to scale its IT infrastructure without financial penalty?
- Is it unable to afford downtime (e.g., because the network and systems are business-critical, they must be up and running 24/7/365 with 100% availability)?
- Does it find it difficult to keep pace with the rapid 18-36 month technology cycles?
- Is management satisfied with current IT staff, but stuck on the horns of a dilemma—head count limitations, existing applications simply cannot be supported simultaneously with new ones being developed, and/or the company's current IT staff does not have the expertise

to roll out and support new applications (assuming they could actually be developed)?

If the answer to any, most or all of these is "yes" or "probably," the company should begin exploring IT infrastructure outsourcing as a viable option for sustaining its IT infrastructure more robustly. **TJE**

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