

# Do you ever wonder...

## If the people showing you their high-tech solutions can really deliver?



To find out how “real” the new technologies are and if they are actually deliverable today, we asked Ray Cline at Science Applications International

Corporation—SAIC—who is Chief Technology Officer of SAIC’s Houston-based Energy Sector and responsible for applying the company’s vast technology resources to the energy industry.

Dr. Cline has extensive experience in technology applications, including a lead role in a large technology transfer project for the Department of Energy and a stint as Director of Information Systems at the American Petroleum Institute.

Since joining SAIC, he has been a key participant in technology and IT projects for industry clients including BP, Halliburton, PDVSA, BG International, and Saudi Aramco.

**World Energy: Dr. Cline, energy executives are bombarded daily with technologies that promise to increase competitive advantage. Are these technologies really deliverable?**

Cline: It depends on which technologies you are referring to. SAIC is implementing new technologies right now. We are also in development on what I call “far horizon”

solutions based on technologies we’ve implemented for government programs and other commercial industries such as healthcare.

**What technologies are you currently delivering?**

We are working on an exciting venture with Landmark Graphics that we refer to as a knowledge service provider or KSP. I suppose you could think of it as an ASP with knowledge management built in – a collaborative knowledge-sharing environment that works through a portal and secure Internet access.

We are establishing a global satellite communication network for a large oil field services company. This system is capable of supporting a fully converged network—broadband to support high-speed data, voice, and video and narrowband to support small packet transmission for mobile and SCADA applications.

In another part of the energy value chain, SAIC offers a wireless fleet management system that allows more efficient monitoring of a large vehicle fleet. Our approach is based on a web-enabled, scalable solution that is designed for the large size fleet.

**Can you give us more details on the Knowledge Service Provider approach?**

The KSP includes applications and business processes that support our knowledge management methodology (Figure 1), which serves as a catalyst

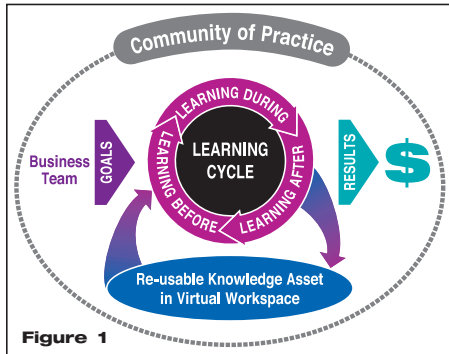


Figure 1

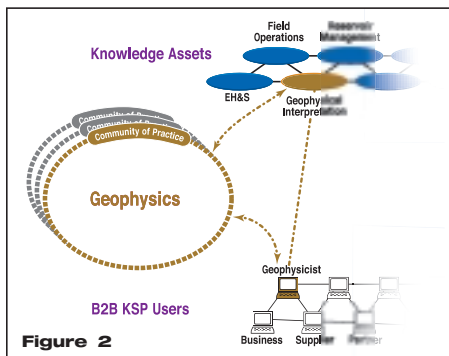


Figure 2

for connecting people in new ways. For example, in Figure 2 above, a geophysicist using the KSP to access a knowledge asset for geophysical interpretation from his or her desktop will be able to speed up decision making and gain fast direct access to experts anywhere in the world through the geophysics community of practice. The continuous innovation fostered by the KSP will contribute significantly to reducing time to market as well as keeping pace with the rate of change in the industry. This can lead to tremendous advantages in today’s “Internet Speed” marketplace.

**We hear about many advances in next generation networks. How do these next generation networks compare to your NGiN technology?**

NGN is a term usually applied to carrier-based networks that support converged voice, video, and data

capability. A Next Generation information Network (NGiN) consists of enterprise services and applications that are enabled by such a carrier infrastructure. The value of NGN and NGiN technologies is in cost savings and in improved business capability. Anywhere that you have one form of communication you can support all forms of communications. A good example is “Voice over Internet Protocol” technology, where internal telephone calls are actually routed over the corporation’s data network. This greatly reduces the cost of these phone calls. We have implemented VoIP in major U.S. locations of SAIC and are now extending it to major sites elsewhere in the world.

**How about your “far horizon” solutions? What is going on there?**

At the retail end of the chain, we are working with a global oil & gas company on a wireless solution to connect motorists with the company’s service stations. Through the vehicle’s communication system, the motorist could receive information such as directions and weather data, purchase items to pick up at the station, and use a concierge service that would operate like a concierge in a hotel.

We are working with a number of partners and customers on the E-Oil Field, focused on improving business decisions and operations through integrated technologies for reservoir optimization, asset management, remote operations monitoring and control, and environmental and safety compliance. This allows a greater scope of integration for both information and business processes, which can lead to the realization of the real-time enterprise in the oil industry.

**Just how far is the far horizon?**

You can expect to see these and other solutions implemented within three to five years. Farther out is another set of technologies based on a combination of advanced automation and robotics. So we have plenty of interesting technologies to deploy over time and we will continue to develop techniques to quickly move these closer to our customers.

**Dr. Cline, thank you for giving us a look at some real technologies for the energy industry. Do you have any final thoughts?**

Yes. The energy industry recognizes the value of being a “fast follower” of technology. Companies must quickly adopt technologies to impact business goals before their competitors do. To serve customers in this way, a technology provider must be an innovator. It is not sufficient to only develop new technologies – a provider must be able to apply existing technologies in new ways to meet customers’ business needs. And SAIC is doing just that. We have been a leading systems integrator for decades. We are now a leading systems innovator as well.

It looks like SAIC really is delivering some sizzling new solutions to the energy industry. But that’s not surprising. After all, this is the company that has specialized in leading-edge technologies for over thirty years. We have a lot to look forward to.

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