



EDS Aligns IT with Energy Industry Needs



World Energy recently talked with Raymond E. Cline Jr., vice president of the EDS Infrastructure Service Line and a former director of Information Systems at the American Petroleum Institute, about how information technology (IT) outsourcing can play a vital role in the future success of energy producers.

World Energy: Drawing on your background in the oil industry, what do you see as the chief information technology issue facing today's energy producers?

Raymond Cline: The integration of modeling with real-time data and operations is a general theme across the industry. It involves the increased use of modeling technology, the increased use of sensor technology and the integration of these technologies into one closed cycle.

Examples exist in all elements of the oil and gas value chain. The upstream sector uses integrated digital oil field technologies to optimize field operations and production. The refining sector augments plant automation with data on market, logistics and feedstock availability to optimize efficiency. In the downstream industry, market, trading and logistics data are integrated to better exploit gasoline, natural gas and even convenience-store inventories and profitability.

Effectively using real-time data means using technology to figure out how you can meet your demand as well as meeting available opportunities in the market.

World Energy: Why should an energy producer consider IT outsourcing as an option for addressing those concerns? Why not tackle them internally?

Raymond Cline: There's the obvious benefit of freeing your company to concentrate on its core business as opposed to devoting valuable time and resources to overseeing your own information technology needs. What may be less obvious from an internal standpoint is the wealth of knowledge an experienced IT solutions company such as EDS can provide.

As IT specialists we deal with a number of industries from retail operations to the high-tech companies themselves. We can bring those experiences together and give the client the expertise from those other industries.

Given that 70 percent of the world's petroleum reserves are controlled by national oil companies, our IT services and technology experience become potential added value for the company that may be negotiating to conduct business with those various national entities. Our depth of knowledge becomes an asset the client company may use for leverage at the negotiating table.

Information technology is becoming a strategic tool. Coupling oil and gas companies' specific knowledge of the core business with the best in information technology offers a tremendous advantage.

World Energy: Today's major energy producers have personnel stationed around the globe. How does EDS address the geographical challenges posed by such wide-reaching operations?

Raymond Cline: We're global, operating in 64 nations around the world and supporting operations in multiple countries beyond that. The oil companies themselves are in many of these locations and looking at remote operations technologies. We have already invested heavily in remote operations and management technology for our own service delivery, which could be leveraged to provide IT services and act as a foundation for core-business remote operations. Our offerings are designed to support this. We have already been where the oil companies want to go, and we have, through some of our clients, delivered support and service to even more remote and dynamic environments.

World Energy: Replacing an existing IT infrastructure can be an enormously expensive and time-consuming undertaking. How can EDS assist an energy producer with a complex infrastructure without creating massive interruptions in their 24/7 operations?

Raymond Cline: That is our business. We have a number of well-established methodologies, and we have the staff to support those methodologies. Plans are developed to align with the business needs. We evaluate the window for change. We take over, do the assessment and provide the incremental modernization that is necessary to achieve results – including increased productivity, improved reliability and cost savings. And, of course, it is all done under constant review with the client.

World Energy: A number of key players in the IT outsourcing industry first built their reputations as providers of hardware or software, but EDS has often touted its people as its chief advantage. Can you explain what makes EDS unique in that aspect?

Raymond Cline: Our differentiator is the ability to marry infrastructure with architecture to provide efficient and effective management of IT to meet the client's business needs. We approach it from a service-delivery perspective, not a product perspective. Our people have that service mentality.

Because we are not a manufacturer, we have no stake in regard to which brand names end up on the client's PCs or servers. We are free to select equipment and software from all manufacturers based on the client's needs and the most cost-effective options available.



World Energy: EDS has formed a coalition of technology and business service providers, called the EDS Agility Alliance, to increase collaborative efforts among these various companies. What do these partnerships bring to the table?

Raymond Cline: It's about co-development and providing a point of view, realized in pre-integrated offerings. Our teams are working together daily. We work on their site, and they work on our site. What that means for oil and gas clients is that they aren't just getting the expertise of EDS, they are getting the expertise of EDS and our partners focused on their specific business needs. They are benefiting from the innovations of EDS and all of our partners.

As a result of the relationships we enjoy with our Agility Alliance partners, EDS has the unique ability to integrate hardware, software and processes from a host of sources from the moment of a project's conception. Furthermore, our clients enjoy the convenience of having a single point of contact as all of these pieces of the puzzle are coming together.

World Energy: The EDS approach to IT outsourcing stresses the importance of standardization, consolidation and automation. Doesn't that potentially limit a company's ability to adapt to its changing business needs?

Raymond Cline: It actually enhances a company's ability to react to a changing environment.

Speed is of the essence. Once you eliminate antiquated processes and redundancies from the client's system, you realize improved quality, stability and speed of operations. The smaller the footprint, the better off you will be from a reactionary standpoint.

Plus, we are able to work out bugs and issues before the point that a client is ready to expand. When the organization is ready, it can expand more quickly and with fewer disruptions.

World Energy: What are the key challenges you see on the horizon for the energy industry?

Raymond Cline: Demand is going to continue to increase. Supplies of hydrocarbon-based fuels are limited. Companies must go to new locations to capture hydrocarbons or they must capture hydrocarbons from more difficult formations. Plus, there is a looming challenge with the transformation from hydrocarbons to alternative sources of energy.

All of these situations involve very complex processes.

Modeling and real-time sensors will only grow in importance. The number and types of sources and distribution networks an energy provider must manage will only continue to grow.

There's big demand. Somebody has got to fill it.

About Raymond E. Cline Jr.

Raymond E. Cline Jr. is vice president of the EDS Infrastructure Service Line. In this capacity, he is responsible for product development, product engineering and service delivery operations for all EDS Infrastructure services.

Previously Mr. Cline was vice president of Portfolio Development, Infrastructure Portfolio, where he led product development and engineering for EDS IT Infrastructure. Mr. Cline also served as vice president of EDS Innovation Integration, Portfolio Management, where he led the functional integration and coordination of advanced innovation initiatives with the company's global accounts, regional CTO network, EDS Fellows and EDS Agility Alliance members to deliver innovative solutions for clients based on new and emerging technologies.

Before joining EDS Mr. Cline served as chief technology officer of Science Applications International Corporation (SAIC), a leading technology research and engineering company based in San Diego. While there, he was responsible for developing and defining technology solutions for several Fortune 500 companies.

Mr. Cline was the director of Information Systems at the American Petroleum Institute in Washington, D.C. He spent eight years at Sandia National Laboratories as department manager for distributed computing research and development. He was also the chairman of a multilaboratory coordinating board, overseeing a \$20.5 million gas and oil national information infrastructure program designed to develop distributed applications for the petroleum industry.

Mr. Cline earned a Ph.D. in chemical physics from the University of Illinois and a bachelor of science degree from Kent State University.

About EDS

EDS is a leading global technology services company delivering business solutions to its clients. EDS founded the information technology outsourcing industry more than 40 years ago.

Today, EDS delivers a broad portfolio of IT and business-process outsourcing services to clients in the manufacturing, financial services, health-care, communications, energy, transportation and consumer and retail industries and to governments around the world. Learn more at eds.com.