

REMOTE IT ENABLED (RITE) SERVICES: IMPROVING BUSINESS PERFORMANCE IN THE E&P INDUSTRY

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INTRODUCTION

Earnings and Return on Capital Expenditures (ROCE) can be significantly improved by Remote IT-enabled (RITE) Services. Some insightful firms in the industry's value-chain have already embarked on RITE initiatives, with impressive results. RITE Services can deliver dramatic short-term benefits in cost reduction, and deliver significant long-term gains in ROCE.

THE NEED FOR RITE SERVICES

Unyielding market pressures force the industry to seek new avenues to improve ROCE. These pressures are brought about by the imbalance between production growth rates, revenue volatility, and increase in costs, especially labor. These are in turn exasperated by constant changes in business focus, increase in competition at a global level, and the speed of change, compounded by an aging work force (Figure 2). It is a battle of competitive business designs to sustain value growth¹ and RITE Services will be a significant contributor to improving a firm's ROCE.

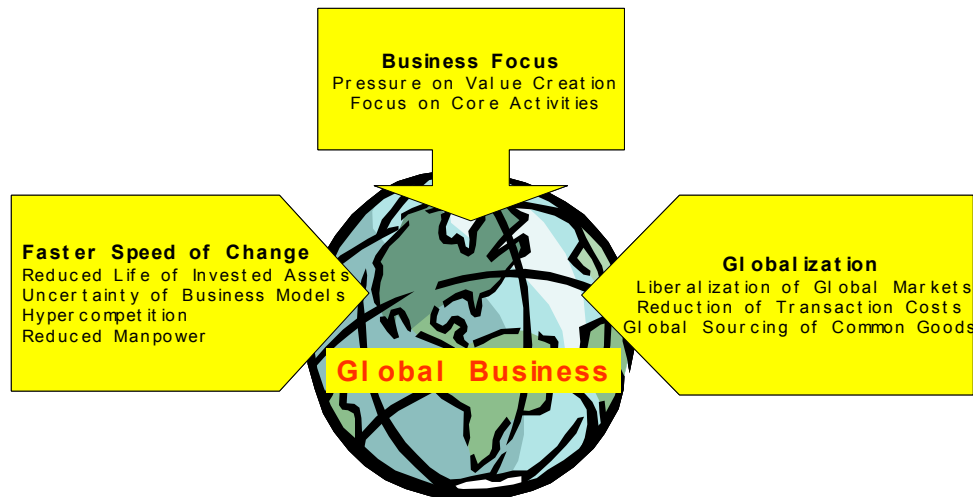


Figure 1: Sources of Pressure to Change Business Models

RITE SERVICES

RITE Services is managing outsourced business processes and services that are delivered over public or private networks to help clients improve business performance. This definition implies that RITE Services are remote-located, are delivered over networks, and involve the use of IT for business effectiveness.

Many major global companies have embraced RITE Services, and KPMG estimates that the Global RITE Services industry is expected to exceed \$600 Billion in 2005².

BENEFITS OF RITE SERVICES

RITE Services have the ability to significantly improve ROCE:

- **Magnify the Power of Cash:** RITE Services can deliver considerable benefits in cost advantages, with immediate savings.
- **Turn Fixed Assets into Variable Expenses:** Additionally, RITE Services shield companies from the vagaries of highly volatile market conditions, especially downturns. In

- the RITE Services business model, fixed assets get converted into variable costs, and shedding these are easier than reducing fixed assets.
- **Multiply Productivity:** When RITE partners are in the opposite end of the globe, productivity multiplies because production becomes a 7x24x365 process.
 - **Triple Economies of Scale, Scope, and Knowledge:**
 - **Economies of Scale** from RITE Services are obtained because available knowledge is shared over a number of uses as time pass by, thereby reducing average costs per use.
 - **Economies of Scope** are obtained because explicit knowledge can be re-used in activities and processes across different uses or users. For both economies of scale and scope, the higher the number of uses or users where codified knowledge can be re-used, the higher the benefits potentially obtained.
 - **Economies of Knowledge** are obtained because RITE Services promote:
 - Sharing explicit knowledge leads to knowledge combination not only mere replication
 - Codification in one domain raises the returns of more codification in another complementary domain, that is complementarities exist
 - Codification of knowledge creates redundancy to improve coordination at interfaces between activities.
 - **Magnify the Firm's Assets:** Moreover, firms can use RITE Services to leverage growth, to magnify the value of a firm's assets, improving its competitive edge and the ability to respond to changing market forces.³
 - **Speed Up Innovation:** The RITE Services-based business model can also help speed up the pace of innovation. Darrell Rigby and Chris Zook⁴ found that “companies that collaborate with outsiders on their R&D reap a higher percentage of their total sales from new products than companies that don't collaborate”.

APPLICATION OF RITE SERVICES

So far, the focus of outsourcing- of Non-Core Analytical and Administrative activities (Figure 2)- has been on discrete, cohesive tasks that belonged to contiguous departments within oil companies- drilling, well-construction, rigs and other equipment, seismic data acquisition, payroll, some IT functions, and other such functions. These activities and tasks could be easily identified, carved out, and outsourced to the industry's service firms.

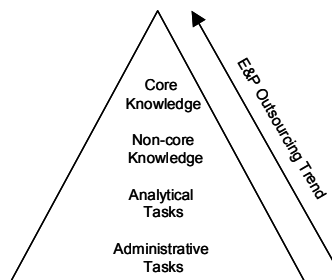


Figure 2: E&P Outsourcing Trends

However, there are two major immediate additional sources and opportunities for improving ROCE:

1. Non-Core Knowledge Activities that reside in the day-to-day activities of the high-priced core professionals, such as Project Administrative Services, Software Support and Maintenance Services, Network Management Services, Plant Operations Optimization, and many more.
2. Non-Core Activities at Oilfield Service, and Engineering & Construction companies- in contiguous departments, as well as in core professionals. These include services for accounting, IT, project administration, software development and support, operations monitoring and control, customer support, CAD design services and others.

EXAMPLES OF RITE SERVICES IN THE OIL & GAS INDUSTRY

Many Oilfield Service Companies and Engineering & Construction (E&C) Companies are at different stages of implementing RITE Services. Some implementations are captive organizations, while others are with independent RITE Service Companies.

SCICOM, an independent company based in New Delhi, India, has been a quiet success story in the implementation of RITE Services in the upstream industry.

Scicom focuses on high-end software support and development for the oil and gas industry. Its expertise in visualization, data-management, across multiple platforms and frameworks, not only find applications in seismic interpretation, data processing, drilling, geology, and production but also in medical imaging and semiconductor testing industries.

"Scicom has the talent, specific domain knowledge, and secure processes and infrastructure to deliver sophisticated solutions rapidly, at the lowest cost, at significant savings. Their value propositions were so compelling that we quickly went from pilot to a long-term goal driven relationship, for maximum savings and improvement in productivity," said Dr. Vik Rao, Vice-President, Halliburton Energy Services.

"Very simply, Scicom delivered quality solutions on schedule, with processes and methodologies that turned distance into a non-issue," he added.

ENERGY VIRTUAL PARTNERS (EVP), a Houston, Texas, USA, based company is another example of a RITE Services firm. EVP is an asset management service for the oil and gas industry. Like all RITE Partners, EVP magnifies oil & gas companies' assets. In this case, EVP frees most vital resources to focus exclusively on core assets, while effectively exploiting all properties in a customer's portfolio, thereby optimizing shareholder value.

Many E&C firms, such as **Bechtel** and **Jacobs Engineering**, have captive RITE Services ventures, focused on cost reduction and improved productivity.

In all these instances, RITE Services are outsourced to organizations that have both technical, communications and other capabilities, similar to, if not greater than, client organizations.

EXAMPLES OF RITE SERVICES IN OTHER INDUSTRIES

Thanks to its software export infrastructure, India is emerging as a prominent location for global RITE Services. India is already a powerhouse in software exports with estimated revenues in excess of \$7 Billion in 2002⁵, growing to about \$50 Billion in 2008⁶. India's export of RITE Services (excluding software services) to USA alone is expected to grow from about \$250 million in 2000, \$870 Million in 2001, to \$4 Billion by 2005².

India's biggest strength is its huge supply of high-quality, low-cost engineers. Each year, India graduates 220,000 engineers. The average wage is \$12,000, with a PhD commanding up to \$30,000 a year, about one-fifth the price in the U.S. Some companies that have shifted research work to India report savings of up to 60%⁷.

US and European firms have set up remote operations in India, including global giants such as Texas Instruments, Intel, Oracle, Microsoft, Motorola, World Bank, Citibank, GE, Conoco, American Financial Group, AIG, British Airways, AXA, Aetna, Ford Motor Company, Cisco, SAP, Nestle, Philip Morris, Eastman Kodak and many others.

When Jack Welch was at the helm of General Electric, every operating and strategic plan review required operating units to include plans for RITE operations in India. Using RITE Services is a

long-term strategic initiative at GE. General Electric Capital operates centers in India. In addition to running call centers, GE Capital performs RITE Services for other GE companies.

The next phase is the emergence of independent low-cost RITE Service organizations such as **Scandent**, headquartered in The Netherlands, with global offices and operations. Scandent has developed innovative RITE processes, such as project administration services (PAS), successfully implemented at a major automotive firm in the US. PAS can be applied to projects in the oil and gas industry, to significantly increase productivity of project staff, with impact on costs and schedules.

IMPLEMENTING THE RITE PROCESS

The transition process to RITE Services is not without challenges. However, the industry has deep experience in outsourcing and project management. Managing RITE Services require the same methodologies and rigor that the industry excels in, to deliver savings over the long term.

The transition to this low-cost alternative must be accomplished in a phased approach, with the goal of achieving the maximum savings over the long run. Table 1 provides a framework for developing and managing transition to RITE Service companies, over multiple phases.

Phases	Activities	Project Mgmt.	Evaluate	Select	Detail	Execute	Operate	Product Mgmt.	Dedicated Assets	Knowledge Sharing	Long-term Relationship & Trust	Savings
One	Explicitly Defined Tasks	Client Firm	Tasks to focus on; Vendors; RITES infrastructure	Tasks and Vendors to execute tasks	Project Plan for Vendors and Infrastructure	Monitor & Control Vendors	Monitor & Control Vendors	Client Firm	No	Vendor to Client	Low	20% to 30%
Two	Tacit Defined Tasks	Shared by Client and Vendors	Additional tasks; current vendors' performance; appropriate RITES infrastructure	Tasks and Vendors to execute tasks	Project Plan for Vendors and Infrastructure	Monitor & Control Vendors	Monitor & Control Vendors	Client Firm	Yes	Vendor to Client to Vendor	Medium	30% to 45%
Three	Goal-Driven Tasks	Vendors	Focus on goals; current vendors' performance; appropriate RITES infrastructure	Tasks and Vendors to execute tasks	Project Plan for Vendors and Infrastructure	Monitor & Control Vendors	Monitor & Control Vendors	Client Firm	Yes	Joint teams	High	45% to 65%

Table 1: Framework to Manage RITE Services

In American football, the last twenty yards on the way to a touchdown is often called the Red Zone. In the Red Zone, failure to achieve great gain will most likely result in great loss. Dutch Holland⁸ recommends ten principles for executing successfully in the Red Zone, five focused on design and five focused on execution.

MAXIMIZING THE VALUE OF RITE SERVICES

Recent studies suggest that productivity gains in a production network (or value chain) are maximized when companies are willing to collaborate in unique ways, often achieving advantages by sharing resources, knowledge and assets.

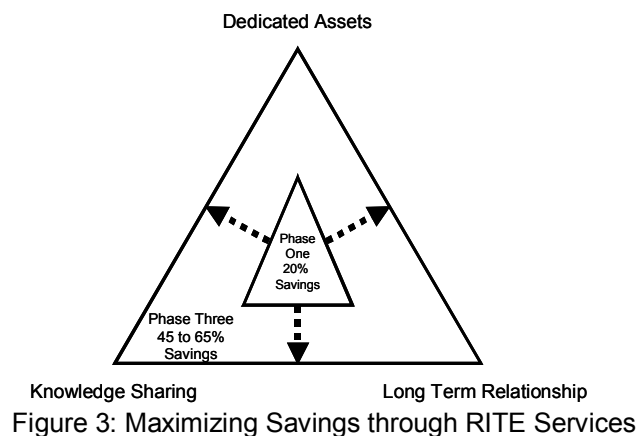
Jeffrey Dyer⁹ found that, in the automotive industry, the leanest, best performing value chain (Toyota) usually wins and that there are four major factors in the success of a production network. These are:

1. Designing the boundaries of the firm or the “governance profile” of the production network. Toyota’s managers avoid vertical integration, except where it is required for

- differentiation in the market, and rarely used arms-length relationships when working with external firms.
2. **Dedicated Assets:** Investing in dedicated or relation-specific assets and resources. Toyota created the conditions that encouraged suppliers to make investments in assets dedicated or tailored to the production network, share valuable knowledge with other members of the production network, and trust Toyota and other members of the production network. The investments in dedicated assets resulted in lower costs, faster product development cycles, and higher quality.
 3. **Knowledge Sharing:** Creating inter-organizational knowledge-sharing routines. These knowledge-sharing activities resulted in a production network that learned faster than other production networks, about best practices in production, quality and management.
 4. **Long-Term Relationship:** A commitment to the long-term creates high levels of trust throughout the extended enterprise to lower interaction and transaction costs and maximize flexibility and responsiveness, resulting in a production network with lowest interaction and transaction costs.

A combination of these four factors enabled Toyota and DaimlerChrysler (which later emulated Toyota's model) deliver impressive results, outperforming loosely integrated production networks.

Combining Dyer's factors of success with the phased approach would deliver increasing cost reductions, over time, as shown in Figure 3.



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