INTELLIGENT OFFERINGS
FOR OIL & GAS

Collaboration
- Region’s Largest CWE Implementation

Innovation
- Digital Camps
- Lightning Data for G&G
- 3D Printing

Industrial Security
Today’s Oil & Gas businesses are positioning for the future with new momentum, and we’ve been working to keep pace. We are finding that the best way to help our customers is to bring to each of them a customised combination of industry expertise, new ideas, technology excellence and proven capabilities in order to address challenges with repeatable results.

Our production optimization team is combining their industry domain expertise with the right combination of Wipro talent to address our customers’ business imperatives. They blend integrated process design, real-time data management, advanced analytics and visualisation, surface facilities asset management, hydrocarbon accounting and production reporting, collaborative environment services and many other capabilities to bring new ideas to our customers’ production and integrated operations initiatives. We are also bringing a consultative approach to helping our customers apply elements such as cloud, big data, analytics and mobility solutions, tapping Wipro’s advanced technology experts. For example, we have a mobile-enabled production surveillance solution that can accelerate and streamline access to data such as production trends, rates and ratios.

A common element across the industry is the need to enable the flow of work at an accelerated pace. We are applying workflow enablement to help our customers accelerate cycle times and improve productivity. For example, we have joined with best-of-breed vendor partners to offer an approach for delivering quality-assured seismic data to geoscientists for interpretation, with data selection, data management quality checks, notifications, an audit trail and intelligent storage. We have developed a proven drilling solution for well delivery management – streamlining the dozens of tasks and hand-offs required to bring a well from inception to completion.

Our collaborative services team continues to refine their process-driven approach for helping upstream Oil & Gas businesses make the most of virtual collaboration and integration across disciplines and locations. They have worked closely with Wipro’s global infrastructure team to offer a comprehensive blend of capabilities – assessments, business process design, collaborative team design, audio/visual design, procurement, facilities implementation services, vendor management and program and project management. We are now sharing the methods across the mining and manufacturing industries.

Most of our customers are developing new capital projects and face the complexities of managing engineering documents and 3rd-party relationships according to regulations and company standards. We have recently joined with an innovative partner to offer a semantic search capability for rapidly evaluating the accuracy and readiness of critical engineering design documents.

Geophysical data types do not emerge every day. We are pleased to be working with Dynamic Measurement, LLC to bring a perspective on lightning strike data as a new geophysical data type for exploration. Roice Nelson and Jim Siebert, Ph.D shared this point-of-view in Wipro’s booth at the exhibition of the Society of Exploration Geophysicists’ Annual Meeting in Houston, Texas, Sept. 23-25, 2013. They described the evidence that lightning is drawn to the earth’s telluric currents and the frequency of strikes can be used to construct a picture of subsurface characteristics, including fault lines, mineral concentrations and ground water. Wipro brings expertise in subsurface data management that can help companies harness this new data type with governance, modeling and rigour.

Wipro is privileged and thrilled to work within our customers’ upstream organisations. We are committed to bringing new combinations of insight, experience and inspired capabilities to the challenges they face.

Read more about lightning strike data in the following article.

About the Author

Mark Allen is the global head of the consulting practice of Wipro’s Energy, Natural Resources, Utilities, Engineering & Construction vertical. Under Mark’s direction, 500+ consulting practitioners are embedded across Wipro’s global Oil & Gas practice, working closely with Oil & Gas businesses to tackle the challenges of a dynamic industry.
A LENS TO FINE TUNE EXPLORATION DECISIONS

Inclusion of lightning strike data with currently used subsurface data types offers exploration organisations an opportunity to fine tune decisions and save time, money, and personnel effort. Roice Nelson and Jim Siebert from Dynamic Measurement LLC and Mark Allen from Wipro’s Energy, Natural Resources, Utilities, Engineering and Construction Strategic Business Unit answer key questions about lightning strike data and its place in exploration activities.
Roice: Lightning strike data has been in common use in several industries for a number of years, most notably in the insurance sector. Publicly available data is being captured on a worldwide basis. To date, we have a 10-year database for the continental United States and three years’ data covering the entire globe. Analysis of this data has confirmed that while strikes are largely controlled by meteorology across a region, the local behaviour of lightning strikes is influenced by geology — specifically by telluric currents. Tellurics, in fact, have more impact on lightning behaviour than the combined impact of topography, trees, and infrastructure. This means that lightning strike data can be used to construct a picture of the subsurface characteristics of a particular area — fault lines, mineral concentrations, and groundwater, for example.

Jim: A number of parameters are measured including a strike’s location (latitude and longitude), the time and duration of the strike, peak current, time duration from zero to peak current and the time duration from peak back to zero, total wavelet time and wavelet symmetry, and the polarity. A chi-squared computation allows error estimation. Analysis of these parameters can reveal patterns that point to various types of subsurface characteristics.

Roice: Lightning strike data can be captured in water depths to around 300 feet. This makes it an excellent complement to controlled source electromagnetics (CSEM), which functions in deep water but does not provide reliable data in shallower (200-300 feet) depths.

Roice: This is a potential field data type and the lowest-cost geophysical data type to evaluate large areas. Analysis of lightning strike data is a quick way to design and optimize the more time- and cost-intensive seismic analysis for a given area.

Jim: Lightning strike data is like a lens to more finely tune the view. It can be analysed with other types of data for the same area to provide a more complete picture. Lightning data provides information that can’t be measured by other means.

Roice: Lightning strike data is already captured and available. To put this in context, a lightning data analysis can be done over a 100-square-mile area for $50,000, compared to a $500,000 to $1 million 3D seismic survey covering only a few square miles. The use of lightning strike attributes as the first geophysical data type in a study area quickly provides a tectonic framework for planning further data capture via 3D seismic or another geophysical method.

1 Telluric currents are electric currents moving underground at very low frequencies resulting from lightning strikes, solar wind, and, to a small degree, from human activity.
Where do you see the most strategic use of lightning strike data today?

**Mark:** Lightning strike information is a low cost, reliable data source for the kind of hydrographic analysis that unconventional shale operations require. Roice and Jim have done some really compelling work in the hydrographic arena, defining the lateral extent of ground water reserves through lightning strike analysis. I see this capability as a strategic key to unconventional shale plays.

In traditional exploration operations, Roice has already mentioned the value of analysing lightning strike data for a large area before doing any other kind of analysis. The strategic angle here is the ability to determine what portions of a leasehold to retain and what portions to release within the contractual timeframe without the time and cost of traditional geophysical surveys.

**Jim:** A corporation can obtain proprietary data for a given area by establishing a bespoke lightning strike sensor network. Building a private database over a period of time would offer additional benefits over use of the public database. Sensors can be strategically placed and the type of data collected can be tailored to the company’s needs.

What effort would be needed to take this on?

**Mark:** As with all subsurface data, the use of this new data type should be addressed holistically – from a process, organisation and technical standpoint – to support the geoscience organisation that would be embedding new processes into their business. Implementation efforts should include the design of workflows for validation, delivery and interpretation. A data governance model would be important to ensure the right roles and decision-making authority are in place for addressing how the data is acquired, reviewed, evaluated and leveraged into interpretation decisions. Behind-the-scenes technology enablement should be well-architected and tested. Data acquisition, modeling and storage elements must be designed and implemented, along with intuitive user selection, geographic and visualisation interfaces.

**Roice:** Mark’s comments demonstrate the benefit of the alliance of Dynamic Measurement LLC and Wipro. Jim and I have a deep understanding of the meteorological and geological significance of lightning strike data, and we share extensive upstream experience with Mark’s staff, so that as a team we can apply the data to exploration efforts. Further, the Wipro professionals can work with Oil & Gas companies to effectively integrate this data type into an exploration organisation’s existing subsurface data infrastructure.

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**About the Authors**

**H. Roice Nelson, Jr.** is the initial founder of Landmark Graphics and has proven success in designing, using, and building tools and processes for hydrocarbon exploration. Roice has taught courses all over the world on interactive interpretation and new technologies.

**Jim Siebert, Ph.D.** is currently chief meteorologist for a local television station in Houston, Texas. He was director of operations for a meteorological consulting firm focused on energy markets and has published a number of articles about the relationships between weather and energy markets.

**Mark Allen** is the global head of the consulting practice of Wipro’s Energy, Natural Resources, Utilities, Engineering & Construction vertical. With over 20 years of petroleum industry experience, Mark has a proven track record in helping clients with operations process improvements, cost management, system implementations and strategy execution.
FROM DIGITAL CITIES TO OILFIELD CAMPS

Can Digital City solutions help manage Oilfield Camps?

Wipro has been developing and deploying solutions for Digital Cities, Airports and Maritime Ports for over a decade. With a similar amount of experience in leading Digital Oilfield programs for some of the world’s largest energy clients, Wipro is now using its in-depth knowledge from both domains to focus on Digital Camp Management.

The following thought piece provides information around what is driving more focus around this space, a comparative case study looking at a Digital City and the direct improvements it received after implementing Digital City Solutions, as well as best practices for individuals starting in the development of a Digital Camp Program.

What is driving the change? Why Digital Camps? Why now?

We have found that two primary drivers are focusing development in the Digital Camp:

Rapidly decreasing costs in technology: smart meters and sensors are now available at low costs and also are much smaller; they can collect data in real time (or close to it) across cities, buildings, ports, floors, offices, and for specific assets. This also includes the development of new social media applications that bring this information in an articulate and emphatic form to a wider array of stakeholders. Together, these advances have greatly reduced the costs associated with visibility and management of city / camp operations.

30%

Increase in productivity is what digital solutions ensure
Increasing demand for information by consumers and residents: smart phone growth has been exponential over the past few years, and many consumers / residents have phones that they rely upon for a wide array of purposes; one of which is the ability to easily communicate with other consumers, stakeholders and public officials. Digital Cities are relying upon mobile applications, integrated to back office systems, to effectively communicate / sell / promote / listen to stakeholders who will influence growth and be active participants in Digital City operations. We believe this same perspective is shifting to Oilfield Camps.

How is an Oilfield Camp operation similar to a Digital City project? A comparative case study

A recent project that reflects these drivers is a large Digital City in Western India could be viewed as a comparative case study.

The city is India’s first hill city, with a level of city infrastructure yet to be experienced in India, thus setting a new benchmark in planning, construction and service delivery. It has the distinction of being the largest urban infrastructure project in India and it provides significant economic benefits to the region.

The city found itself manually managing a ton of information that was difficult to search and expensive to maintain. Employees needed faster access to information and better ways to achieve team collaboration.

“Without a robust collaboration system in place, routine tasks become tedious and time-consuming, which hogs down productivity and undermines morale,” says Vice President - Information Systems. “We were becoming too large an organisation to operate without a central database, document management system, or network.”

The Solution

Wipro worked with the digital city in the areas of City Management System & Services, E-Governance, ICT infrastructure and value added services, including providing intelligent home solutions and digital lifestyle.

Wipro’s ICT 2.0 Digital City services provide integrated and effective solutions for enhancing IT operations within the Digital City, focused on enabling operating models, while defining processes for delivering best-in-class governance services. Wipro provided the necessary Digital City infrastructure to support technology selection, supply, installation and management of platforms, networks, data centre to create “MyCity,” “MyCity,” a data integration and collaboration technology platform, provided the city with a single, central place to get information, helping users increase productivity, and enhance collaboration.

With a successful information platform, the city has greater transparency into business processes and significantly streamlines everyday tasks and minimises paper costs.

The Benefits

With specific customisation and fine tuning of the portal in place, The Digital City is building a culture based on the real-time sharing of information and integration, leading to faster decision-making. It also has a dramatic impact on internal communications within the rapidly evolving enterprise.

Employees have access to countless resources, which helps them quickly find critical information. This helps them to optimize their efficiency and serve management in a better way. The solution also drives users to increase productivity. It assists managers to take timely decisions by providing real time updated data and thus enhances certainty. The productivity has increased by 30 percent post deployment of the solution.

The city President says, “Seamless flow of information helps employees in accessing and effectively utilising data. Access to information, faster workflows, increased opportunities for staff collaboration and enhanced community building with employees will have a positive impact on our business and will give better visibility and control. This only results in enhanced productivity.”
Wipro’s experience in setting up Digital Cities and Digital Oilfields is based on establishing an understanding of industry drives. These help the camp managers identify where they can expect the largest return on invested capital, and what is of critical importance to the camp operators. Wipro suggests the following value drivers for Oilfield Camp Operations:

- Maintain highest standards of Health, Safety, Security and Environment (HSSE)
- Improve the quality experience of the customer – why can’t you get the same technical services you get at home, at camp?
- Reduce operating costs – can camp operators lower cost per guest ratios?
- Increase revenues – can technology increase revenue generation from the camps?
- Expand Portfolio – what new services can camps offer due to increased technology?

Identify clear value drives.

Wipro believes Digital Camps, when implemented properly, can bring significant value to camp operators. However, it is important to select capabilities that make the most sense for your camp, and to examine each service offered, associated cost structures, and identify the potential cost and benefit of the introduction or modification of technology into the business process to reduce costs and increase camp profits.

Not all solutions for all camps, identify what would work best for you

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Digital Camp solutions

- Office Energy Management
- Asset Management and Tracking
- User “Helpline” Center for request and grievances
- Network Optimization Strategy
- Road & Asset Management
- Building Management Solutions
- Physical security solution to cater to safety, security needs of the camp
- RFID & Mobility based Real Time Location
- Vehicle Tracking / Cargo Tracking and management
- Parking Management
- Infrastructure Services

Build a Digital Camp Master Plan

Setting a clear vision and selecting capabilities is critical to the success of a Digital Camp program, but the implementation is where things fall apart. A Digital Camp Master Plan, enabling camp operators to prioritise solutions which will engage users quickly, and lay an underlying infrastructure so services can be added quickly, is a necessary investment. It also creates clarity for decision makers and budget approvers as they move from the concept level to the investing in the Engineering, Construction, and Operations phase.

Identify partners that will benefit from the Return, and help in the Investment.

An unclear Return on Investment (ROI) is a top reason why Digital City and Oilfield solutions are not implemented. Addressing this early, and finding partners, will be critical to show a clear ROI calculation before projects are approved, and tracking these projects post implementation. One best practice that is recommended is to identify partners that will support in the Investment (I) phase of Digital Camp project, and are willing to take a part of the Return (R) as payment. This has proven effective in solutions which lower costs or increase revenues. In addition, it helps Camp Operators to quickly weed out suppliers who are unable to perform.

Conclusion

Analyzing our experience in both the City and Energy industries, and understanding the drivers around Oilfield Camp Services, we believe that Digital Camp Operations is the next step of the Digital Oilfield & City evolution. With proven solutions that have already had to meet the challenges and complexities of operating in an urban environment, and have met the high HSSE and engineering standards of E&P corporations, Digital Camp Operations represent a space where minimal capital investments could lead to significant returns.

About the Author

Kent Gryskiewicz is a Principal within Wipro’s Energy, Natural Resource, Utilities Innovation, Strategy & Growth team. He possesses nearly a decade of experience, primarily in the energy markets, both managing teams and delivering client programs. Kent leads Wipro’s Digital Infrastructure portfolio. In this role he is developing and executing the global strategy, GTM, capability offerings, and driving the organisation’s external engagements. Kent is viewed as an SME in the space of Digital Oilfields. He has spent time working within the Upstream enterprise for clients focused on building and delivering Digital Oilfield solutions. He can be reached at kent.gryskiewicz@wipro.com
Recent advances in Additive Manufacturing techniques and technologies have caused industries and organisations to recognise the potential of bespoke, on location, custom manufacturing of parts and equipment in a wide variety of materials from polymers to titanium. From NASA to Formula One, entrepreneurs and global leaders have begun to explore the opportunities for innovation and efficiency gains that this technology can offer.

With assets located in increasingly isolated parts of the globe, on land or at sea, organisations spend millions annually in spoilage, storage costs, emergency shipping and deferment due to down time while awaiting an essential replacement part.

The ability to manufacture essential spare parts or whole pieces of equipment on site from CAD files has the potential to transform the Oil & Gas industry.

Wipro is working with our clients and our partners in manufacturing to help think through the issues associated with this type of a revolution in the supply chain. We recognise, as do our clients and partners, that there are numerous technological, legal and logistical hurdles to the full scale deployment of 3D printers to assets, platforms or near shore fabrication and warehousing facilities. Yet we also believe that these will be overcome in relatively short order.

With this belief in mind, Wipro is helping clients to begin to map out the areas of hidden complexity that such a transformation will inevitably entail, specifically with respect to the integration with existing enterprise IT. Our Oil & Gas teams are looking at the implications on Enterprise Resource Planning and Asset Management systems, developing sourcing decision engines that can help decide whether to make or buy a part, and architecting systems for product design verification, alteration and distribution that will ensure parts meet manufacturer specifications while allowing for innovation and knowledge sharing among and across assets.

At Wipro we are excited about the possibilities that this technology holds for our clients, and we are fully engaged today to ensure that when the manufacturing technology is ready, the enterprise is as well.
MANAGING INDUSTRIAL SECURITY RISK

Q&A on the importance of risk management in the Oil & Gas industry

Murali Rao

Q: Murali, you have more than 20 years of security experience. We often hear about the importance of “industrial security solutions or products”. In your view, what is that all about?

Murali: It is an interesting question and very important to understand the context. The Oil & Gas industry, amongst others, has seen an evolution of technology in oil fields & refineries over the last decade. What was once considered secure, reliable and safe by virtue of it being a silo, no longer is. With field data playing such an important role in analytics, visualisation, process optimization and remote control the bridge to the office domain has all kinds of security implications. The security question actually needs to be dealt with from multiple dimensions. From the perspective of the various Industrial Control systems, to data flows, to physical security of assets, as well a new-generation of threats coming from the growth in usage of technology.

It is in this context that the importance of ‘National Critical Assets’ comes into play. The importance of these assets are significant in terms of the nation’s security, energy stability and commercial interests. Cyber threats have led to a noticeable shift in the focus on ‘Industrial Security’ due to the potential impact on operations.

The Oil & Gas Sector is one of the most at risk sectors with large, remote and spread out assets and often aging infrastructure. Combined with the geo-political importance of the industry this makes it an alluring target to terrorists and hackers. Industrial security is about protecting the assets like the Distributed Control Systems, SCADA, network and other technical assets. The significance of monitoring and protecting these assets ‘physically’ is equally important to taking care of the data and cyber security.

Q: In your recommendation, what is the approach to handle these challenges?

Murali: A critical activity to be undertaken is to conduct an evaluation of the ‘Risk Posture’ of the enterprise to these risks. Addressing the risks through the identification and roll out of appropriate controls [people, process and technology], is in itself a major issue, due to the fact that we are dealing with a complex landscape with age-old systems, limited know-how of the existing systems, proprietary standards, issues with interoperability within an operational technology environment.

Industrial Risk Management for security is currently emerging and firmly on the agenda of corporates and nations. However, we know that there’s hardly anyone in the industry that has actually undergone vulnerability analysis and evaluations of their enterprise, for industrial systems as well as cyber threats. Recently, The UK Security Service (MI5) and GCHQ have launched a questionnaire to FTSE 350 enterprises to evaluate their cyber risk and the state of preparedness. More such initiatives need to be started to further build awareness and to take actions.

Q: What are the main challenges that you see?

Murali: The first step - that of recognising the importance of security is becoming more apparent. Protection of producing assets and ensuring safe operations is key. However, this is hampered by a lack of insight into the risk profile and quantification of the impact.

The fix to these risks will take quite some time to address, which is a problem in itself. Threats are growing in number and are becoming more sophisticated. At that same time, companies IT landscapes are also becoming more complex and growing with more data sources, connections and more data stored in enterprise historians and databases.

Domain-specific information is embedded in critical upstream applications and to do their jobs, employees, vendors and other partners must have fast, convenient and secure access to those systems and that information.
Wipro advocates the following steps:

1. Current state assessment of ‘Risk Posture with regards to Industrial and IT Assets’
2. Assess Business Continuity Effectiveness
3. Create and evolve a governance mechanism to monitor evolving threats and anticipate risks
4. Create the ability to Monitor, React, Analyse, Respond, Manage, Remediate and conduct Forensics
5. Build an Awareness campaign aimed at addressing the enterprise culture

Very often, in their rush to adopt the latest Industrial security-related tools and technologies, businesses overlook these fundamental principles. Further more, organisations approach either a consulting organisation or tool provider to assist them in Industrial security solutions without realising the link between corporate/IT strategy and technical implementations. It is strongly recommended that enterprises take a holistic approach and reach out to partners who can bring best of both worlds.

Wipro is helping one of the world’s largest Oil & Gas companies in their mission to secure more than 1000 plants & sites. The first step that we have carried out was to identify top 10 risks that are present across all sites. Next was to develop a strategy to get the basics in place. Some of these measures are actually as simple as having patches deployed across all devices or putting the correct antivirus solutions in place.

As organisations progress, they can roll out a robust governance process for industrial security. For example, Wipro has come up with their “PCD Security Maturity Model” which is in line with the European Union’s “ENISA Security Model for SCADA security”. This model assists organisations to identify their maturity level and identifies what steps need to be taken to become “Best in Class” (ranging from converged risk assessment methodology for Enterprise and Industrial IT to Convergence of Logical & Physical IDs).

Q: Is there any final message you would like to give?

Murali: Industrial security is not an end-state in itself; it is constantly evolving. It needs to be dealt with at board level, encompassing the business issues, national issues, cyber threats and physical security. As Oil & Gas becomes more digital, intelligent and integrated, we need to evolve our risk attitude as well. Oil & Gas companies need to work together with specialist service providers like Wipro to address this critical issue against a constantly evolving threat landscape.

About the Author

Murali Rao is Head, Enterprise Security Solutions (ESS) – EMEA with Wipro Technologies Limited. He is based out of London, UK and can be reached at murali.nagaraja@wipro.com
Mark Deutekom & Keith Simmonds are two leaders of Wipro’s Collaborative Work Environment (CWE) Program at Petroleum Development Oman, PDO in the Sultanate of Oman.

Wipro’s engagement with PDO for the design and deployment of the strategically important next generation of CWEs started in the summer of 2010 and is on track for scheduled completion by the end of 2013.

As a result of this, there are more than 700 of PDO’s engineers successfully using the CWEs to work collaboratively and making use of the facilities to help address operating challenges. These users are split between the Muscat based headquarters and ten different locations in the interior of Oman.

The newly inaugurated Marmul Field Collaboration Centre in Southern Oman is bespoke designed and constructed state of the art building and collaboration center.

Q: What do you remember of your start on the program?

Insights from Mark (Program Manager) and Keith (Change & Communications Manager):

The immediate task was to mobilise the resources required to start the program and to get them into the country. One of the challenges was to provide a broad range of skills needed from CWE expertise, construction management, audio-visual knowledge and business process to program management. We are able to achieve this as the results show.
It was the combination of complexity and scale. This is a very ambitious program, covering many different assets, a large user group and some new thinking in the ways CWEs are used. PDO was keen to advance the thinking of the concept of CWEs and to expand on and further develop the concept of people, processes and tools.

To give people some perspective; the assets are spread throughout 212,000 kms² - acreage the size of Great Britain, with many of them in remote locations that are difficult to reach. Ensuring that the large number of stakeholders were kept informed and were able to find out about what the CWEs mean to them was a challenge. In addition to roadshows and regular visits, one successful solution was the development and use of “You-Tube” style short films.

One of the CWE locations in Northern Oman is officially the hottest place in the country where summer temperatures can exceed 50C, so work there was particularly challenging.

As Wipro we have created a turnkey solution and managed a large number of vendors to pull this all together. For the audio-visual part alone we had over 11,000 main equipment components to procure, manage and install. In such a substantial program you always have a large number of external dependencies to manage so overall this makes for a very challenging assignment.

Well, without mentioning dollar numbers we can safely say that on scale this is the largest CWE implementation ever completed in the Middle East. We have built ten CWEs in Muscat – each CWE consists of a large multi person collaboration suite, a large collaboration room and a dedicated communication room where the Programmers can interact with their field counterparts 24/7. They use audio-video with advanced data sharing capabilities for enhanced communication.

Each asset has a CWE in Muscat and a counterpart in the interior of Oman. Where the existing buildings were not suitable or had insufficient space we have designed and built new ones as dedicated CWE centers. In total we have created more than 6,000m² of CWE floor space. That is just the physical side as the CWEs are all about people, process and technology.

We were able to provide the program as a turnkey solution to our client. We literally provided everything from A-Z. That covers all of the project management, the change management, training and process work. It also covered everything from design of the CWE (layout and how it needs to function), the look & feel, the technology used, portals and tools like the automated well monitoring, right down to the furniture that is used.

By taking it under one roof, PDO were better able to contain the scope and avoid the usual blame game that you get between different parties. With Wipro responsible overall that means there was a single point of accountability or as we referred to it, “one neck to wring”.

It also has some other important benefits for PDO. Managing some of the unknowns is much easier with one party, and by running all of the procurement through Wipro we were able to significantly reduce cost, control budget and scope. Another advantage is the speed of implementation. Wipro was able to run tenders and select vendors in record breaking time shaving 1-2 years off the deployment and saving cost of 40-50% compared to the pilot CWE.

Well, of course many things happen and you deal with them. One thing that comes to mind is around risk management. Like with any large program you identify the risk, the probability of it occurring and the impact. You then try to mitigate these. So we did all that and then during phase the warehouse of our audio visual supplier went up in flames! I have to say, that wasn’t on the risk register… Also travel between the field and coast was not always easy – on more than one occasion flights were diverted or cancelled meaning that instead of a 30-minute flight, several hours were spent on the road instead.

We think of the way that the CWEs have turned out. The CWEs in the headquarters are an integral part of the design and building and looking at them you would know that they have been designed by an outside party. They are visually stunning and extremely functional and will have such an impact on day-to-day operations.

We are proud of the end results in terms of look and feel but also the fact that the concept of collaborative working to “know sooner, decide faster and perform better” has been embraced by PDO and that this concept is now firmly embedded in their working culture.

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ABOUT WIPRO’S ENERGY BUSINESS

We serve the Oil & Gas industry as part of Wipro’s Energy, Natural Resources and Utilities strategic business unit. We help Oil & Gas customers do business better through our domain specific, upstream and downstream solutions which can effectively collect data from oil wells to retail outlets, integrate different parts of value chain to increase transparency and finally provide tools and solutions to effectively analyse data. Wipro works with 7 of the top 10 global Oil & Gas companies and has over 8 years of engagement with 2 of the super majors. It has over 400 dedicated domain consultants along with solutions and frameworks serving businesses in the Oil & Gas sector. In 2011, Wipro acquired SAIC’s Global Oil & Gas business unit, reinforcing its focus on this industry. We understand Oil & Gas, to help you do business better.

ABOUT WIPRO LTD.

Wipro Ltd. (NYSE:WIT) is a leading Information Technology, Consulting and Outsourcing company that delivers solutions to enable its clients do business better. Wipro delivers winning business outcomes through its deep industry experience and a 360 degree view of “Business through Technology” - helping clients create successful and adaptive businesses. A company recognized globally for its comprehensive portfolio of services, a practitioner's approach to delivering innovation, and an organisation wide commitment to sustainability, Wipro has a workforce of 140,000 serving clients across 57 countries. For more information, please visit www.wipro.com.

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