

Under the Patronage of H.E. Dr. Abdul Hussain bin Ali Mirza Minister of State of Oil & Gas Affairs & Chairman of the National Oil & Gas Authority

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ICT as Pathway for Optimal Productivity & Profitability



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Middle East

ICT as an Innovative Tool to Enhance the Productivity and Boost the Profitability of the Oil and Gas Industries: A Virtual Regional R&D Center Dr. Khalid Al-Ruwaihi Dean College of Information Technology, University of Bahrain

R&D is considered a key factor for economic growth and competitiveness. However, the R&D in the Oil and Gas industries within the GCC region didn't receive sufficient attention during the past decades. Nonetheless, with the advanced tools and solutions at minimal costs, the ICT offers an unprecedented chance to developing economies to utilize latest technologies to overcome such historical obstacle. The purpose of this paper is to present a novel proposal to create a virtual (online) R&D center in the oil and gas industry to serve the GCC region.

Dr. Khalid Al-Ruwaihi is the Dean of College of Information Technology at the University of Bahrain. He has more than 15 yeas of academic and administrative experience. He has also worked as a consultant to many local and regional industrial and academic institutes. Dr. Al-Ruwaihi worked closely with many local and regional organizations as an external expert to develop the ICT industry. He has published tens of articles in international journals and refereed conferences. Dr. Al-Ruwaihi was selected as the 2008 Eisenhower Fellow from Bahrain. He was also awarded the Fifth Crown Prince Award for Scientific Research in recognition to his outstanding research work in the area of hardware implementation of artificial intelligence.

Cryptography & Information Security Challenges Dr. Adnan Gutub Chairman and Associate Professor in the Computer Engineering Department King Fahd University of Petroleum and Minerals (KFUPM)

Cryptography and Information security aims to protect the confidentiality, integrity and availability of information. By the rapid computer technology improvement, security techniques are in continues change. It is involving new challenges and concerns forcing the security life cycle, from threats to operations, to be always alert.

The presentation will highlight some of these challenges relating to the complexity, human factor, economics, and privacy with emphases concerning cryptography and information security.

Dr. Adnan Abdul-Aziz Gutub is the Chairman and Associate Professor in the Computer Engineering Department at King Fahd University of Petroleum and Minerals (KFUPM) in Saudi Arabia. He received his Ph.D. degree in 2002 from the Department of Electrical and Computer Engineering at Oregon State University in Cryptography and Security hardware designing. Adnan's research interests are in modeling, simulating, and synthesizing VLSI hardware for crypto and security computer arithmetic operations. He has some work in modeling architectures for RSA and elliptic curve crypto operations. His interest involved computer security focusing on simple image based steganography and Arabic text steganography.

Empowering High-Performing Teams & Assets Omar Saleh

Director, Oil & Gas- Microsoft, Middle East & Africa

The world needs more energy, an estimated 40% to 60% more by 2030, according to Cambridge Energy Research Associates®, Inc. (CERA®). The so-called "easy oil" has been found, which means more challenges in finding and developing new reserves.

This Session will highlight industry trends, and the role Technology plays towards developing high performing teams and assets. Technology bring the industry a value proposition through cost-effective, standards-based solutions that accelerate time to insight and empower decision making, contributing to better control over real-time operations, reduced costs and non-productive time (NPT), faster time to first flow and better recovery rates.

Omar brings over 15 years of IT and Oil & Gas industry expertise including Solutions Consulting, Systems Integration, and Industry specific experience involving Exploration & Production Systems Applications, Data Management, as well as Integrated Solutions. Prior to joining Microsoft, Omar occupied a host of Consulting and Management roles as he worked for ENI (Egypt), Schlumberger GeoQuest (Middle East), CGG / Chevron (Nigeria), ADMA OPCO (UAE), and Sun Microsystems (Middle East & Africa).

Broadband VSAT Services - Maximizing Business Performance Through Information Intelligence

Mohammed A. Al-Jaroudi

Communications Engineer - Saudi Aramco Company, Saudi Arabia

Broadband VSAT (Very Small Aperture Terminal) communications is a key element to support the Oil and Gas real time data applications and the daily operations and provides means of communications with their centralized operation centers. VSAT systems have enabled the Oil and Gas operations to introduce new applications like geosteering real time applications for drilling rigs that couldn't be achieved in the past using terrestrial communications, real time monitoring and control for SCADA applications to monitor and control oil and gas fields. This presentation highlights and discusses the real time applications of the Oil and Gas operations carried over VSAT communications and focuses mainly on the SCADA applications which is a critical tool to remotely monitor and control Oil & Gas facilities distributed at various remote sites.

Mohammed Al-Jaroudi is a communications engineer and a satellite specialist working with Saudi Aramco. He holds a B. S in electrical engineering from King Fahad University at Saudi Arabia. Since 1993, Mohammed has been working in many satellite projects at Saudi Aramco Company to serve the Oil and Gas operations like drilling rigs, Seismic operations, marine vessels and barrages, Bulk Plant, Air Fueling and other remote operation. He participated with the team to design and lead most of the VSAT/satellite projects being constructed at Saudi Aramco Company Mohammed is leading the VSAT requirements and activities within Saudi Aramco.

BPR, the e-Success Pillar Antoine Hraoui EVER ME - CEO

People, Processes and Technology play an important role in the success of IT projects. Three pillars apparently isolated but in reality intricately related by an essentially balanced equation conditioning the success or failure of all related projects; Considerable Business Process Re-engineering as opposed to considerable Change Management!

Analysts confirm that Business Process Re-engineering is of utmost importance for making IT implementations succeed; just like anything essential, proportions should be handled with care.

Antoine Hraoui started his career with Bull in 1985 and over the following 8 years developed extensive consultancy skills across a wide range of customers in the Middle-East, Africa, Europe and North America. In 2001 he took on the role of VP Business Development for the EVER Group and assisted in the international development of the group. In 2004, he co-founded EVER ME and led the launch of EVER Group in the Middle-East.

How to make distance & latency obsolete

Dr. Mohammed Anwar Karzazi

Regional Sales Director, Middle East & Africa, Riverbed Technology

This session will focus on how to:

- Solve the needs of workers scattered across the globe, often in remote or offshore locations by addressing network latency issues for satellite connections and slow WAN links.
- Ease the setting up of remote sites by simplifying the IT infrastructure through consolidation of remote file servers and backup
- Accelerate application and data access allowing project managers to collaborate from any remote site

Dr. Mohammed Karzazi is Regional Director Middle East and Africa, in Riverbed Technology. He is focused on driving growth across the MEA region as the company continues to expand its global operations and builds on its already strong success in the wide-area data services (WDS) market. Dr. Karzazi has over 15 years of experience in the IT industry across EMEA, having developed several European projects for France Telecom in south Europe and was key driver of the security and network's business for SCC. Dr. Karzazi holds A Phd in science from Paris and is CCIE from Cisco.

Towards A Digital Community Waleed A. AlBabtain Corporate IT Planning Manager, Kuwait Petroleum Corporatio

This presentation will demonstrate the efforts of KPC and its subsidiaries toward utilizing technology for enhancing the process of Sharing information and Knowledge. We will cover the process from its inception as part of the IT Strategic Direction and its alignment with KPCs Mission and Vision, ending with an overview of the Kuwait Oil Gate (KOG) project.

Waleed started his career with General Administration of Customs, he was in charge of technical management of the Customs projects then joined Kuwait Stock Exchange to oversee the management of the KMIS & KSE projects, In 1995 he joined Kuwait Petroleum Corporation (KPC) where he managed the setup of KPI office in Kuwait then as a project manager for the Oracle ERP implementation at KPC. Waleed chair the Corporate Information Technology Steering Committee responsible for the development and implementation of the IT Strategy Strategic Directions and initiatives of the Kuwait Oil Sector. Waleed has B.Sc. Computer Science / Kuwait University, Information Management Strategic Studies / Arthur D. Little / USA & IT Strategic Studies / Cranfield University/ UK

Developing a Regional Oil and Gas Industry e-Procurement model. A BAPCO Case Study

IT Governance, IT/ Business Alignment & Balanced Scorecard Richard Arthur IT Quality Assurance Consultant & Business Systems Leader - Kuwait Oil Company

"Organizations must leverage technology to turn strategic vision into reality and maximize ROI. With most known sources of hydrocarbon resources on the decline, innovative application of information technology will enable companies to survive and thrive. The transition to digitally intelligent exploration & production must be carefully managed to avoid costly misadventures. Effective IT Governance is a critical success factor in determining a successful outcome. The use of a well-designed Balanced Scorecard performance management system, supplemented by regular Benchmarking to support and measure the success of the IT strategy development and implementation, will help keep IT/Business Alignment on track."

Eng. Richard Arthur, PMP, MBA is IT Quality Assurance Consultant and Business Systems Leader at Kuwait Oil Company. Mr. Arthur is a Chartered Engineer and Fellow of the Institution of Electrical and Telecommunication Engineers, a Senior Member of IEEE, a Senior Member of the American Society for Quality and a Member of the Society of Petroleum Engineers. His 25+ years of professional management experience spans the US, Canada, UK, EU, Middle-East, South Asia and Australia.

Software Solutions for High Performance Computing Grid Deployment David Brooks Sales Manager, Oil & Gas - Platform Computing

High Performance Computing (HPC) is an essential business tool for processing the vast amounts of data needed to exploit subterranean and submarine fields. HPC systems provide the compute power that enables simulation of complex geographical structures using applications for reservoir simulation, seismic analysis and field visualization. Hear how Platform Computing allows E&P companies to increase the ROI of these compute resources by increasing utilization and reducing maintenance.

David Brooks has a BEng (Hons) and has worked in the engineering sector in software simulation for over 10 years. His current role is managing sales of Platform Computing software in to the Oil and Gas market, currently the largest growth sector for Platform Computing.

Developing a Regional Oil and Gas Industry e-Procurement model. A BAPCO Case Study Gary Gribben, Project Leader - eProcurement BAPCO

This presentation focuses on the particular challenges faced by BAPCO in developing an effective, sustainable e-procurement strategy within Oil and Gas in the region and includes the need for process improvement, social responsibility and implementation to international Oil and Gas standards. Our objective is to develop a regional Oil and Gas e-procurement model, which provides opportunities for integration and collaboration with other Oil and Gas companies in the Middle East.

Gary Gribben is Project Leader of the eProcurement development at BAPCO and is also supporting the Tender Board eTendering project rollout. He has over 20 years experience at BAPCO in the Maintenance and Procurement areas. Previously he worked in Banking, Manufacturing, Business Consultancy in UK and as a University Lecturer in IT at Sheffield University UK for two years.

He has been a PMP Professional since 2003, a Prince2 Practitioner and Qualified Prince2 Trainer since 2005 and is studying for an MSC in Project Management from Aberdeen University in UK.

Time is Money Arthur Farmer Regional Manager, MEA and APAC - UC4

In modern data centers, a primary concern is to function as free from random and human error potential as possible while managing a multitude of major applications running on a multitude of operating systems. Workload Automation Suite allows the organizations to automate IT processes and to provide IT managers with the error-free production and a higher quality of service. UC4 Workload Automation Suite enables nearly operator-free performance and eliminates the risk and costs of down time. In today's world, organizations can not afford any down time and should be looking for solutions that can assist them achieving this goal.

Arthur Farmer is the Regional Manager for MEA and APAC at UC4. Arthur has broad business experience and has usefully worked over 15 years in international sales and Marketing positions in the Telecommunications and IT industries.

IT Innovation in O&G Industry Alawi Albar Technology Solution Professional – Microsoft

Employees are faced with limited opportunities to contribute and often struggle to socialize ideas within the organization. Within many organizations a lack of coordination and long development times lead to limited customer insight. As speed and coordination are critical to many organizations' success, an effective collaboration solutions and process is essential to turn insights into ideas and action.

New technology help drive growth and profitability for Oil and Gas, including a new Innovation Process Management (IPM) Solution that enables organizations to foster innovation by capturing, evaluating, and developing ideas to drive growth and profitability, and to increase competitiveness.

Alawi Albar is a Technical Consultant with 10 years of extensive experience in different technologies. He has been working with Microsoft for the past 3 years and was responsible for many solutions including Infrastructure, Security, and Management and lately he's acting as the Technology Specialist for Microsoft's Unified Communications solutions. In his early years, Alawi worked with many Internet Service Providers (ISPs) in Saudi Arabia where he built complete Internet Datacenters from scratch. Alawi has passion for Software and strongly believe that it can bring under-utilized Infrastructure projects into life (to gain better ROI) using integrated software solutions.

Visualization of Massive Reservoir Simulation Models using Advanced Visualization Technology Khalid S. Al-Zamil PET ENGRG SYS ANALYST I, Saudi Aramco

Fine scale high resolution reservoir modeling has become a common practice at Saudi Aramco; modeling sizes ranging from few million cells to fifty million cells is routine and growth in size is expected to be in the hundreds of millions cells soon. Analysis and interpretation of simulation results for this magnitude models is extremely challenging. This presentation will discuss Saudi Aramco efforts in handling these large-scale problems and will cover technology roadmap, techniques for scientific flow visualization, multi resolution rendering, massive data handling and how advances in computing technology are applied.

Khalid holds B.S. and M.S. degrees in Computer Engineering from KFUPM. He joined Saudi Aramco in 1997 as a Petroleum Engineer Systems Analyst. Khalid specializes in analysis and visualization of massive data relating to reservoir simulation and has lead numerous projects in simulation software development and technology transfer and implementation at Saudi Aramco. Khalid is currently the team lead for the Process and Visualization Team.

Windows High Performance Computing Solution to Boost your Reservoir Management Ahmed Al-Jeshi

HPC Regional Manager, MEA, Microsoft Cooperation

It's a fact: Windows HPC Server 2008 (HPCS) combines the power of the Windows Server platform with rich, out-of-the-box functionality to help improve the productivity and reduce the complexity of your HPC environment. Windows HPC Server 2008 can efficiently scale to thousands of processing cores and provides a comprehensive set of deployment, administration, and monitoring tools that are easy to deploy, manage, and integrate with your existing infrastructure.

Ahmed started his career in 2000 with Saudi Business Machines Ltd as a Software Consultant doing consultancy and support services for their clients purchasing AIX or Linux clusters among other products as well. He then joined Microsoft Cooperation as a Regional Sales Specialist for HPC covering Middle East and Africa.

Real-Time Geosteering ... Challenges and Optimization Mohammed A. Al-Hamad Group Leader of Geosteering Operations Support, Saudi Aramco

Real-time geosteering operations is a mission critical and a challenging process conducted to optimize well placement for multi-laterals and horizontal wells. Saudi Aramco is a pioneer in establishing the Geosteering Operations Center (GOC) to provide a 24x7 command center to monitor and geosteer horizontal and multilateral wells in an optimum and cost effective manner using state of the art technologies for visualization, real-time collaboration, data integration and software applications. Saudi Aramco has adopted the propriety real time data integration system to manage and enhance data quality of advanced Logging-While-Drilling (LWD) and Measurements-While-Drilling (MWD) tools. In this presentation, an overview of major challenges and technologies adopted will be highlighted.

Mohammed Al-Hamad is a Saudi Aramco Exploration System Analyst with more than fifteen years of experience in the oil/gas industry. Mohammed received his BSc in Computer Engineering from KFUPM in 1993. His work experience is focused on G&G software technologies such as seismic and geological interpretations, data integration, 3D visualization, geological modeling and geosteering. He was involved in major projects, such as deployment of integrated G&G solutions, Project Archival and Retrieval System, establishing of 3D visualization centers and the real-time Geosteering Operations Center (GOC). Since 2005, Mohammed was assigned as Geosteering Operations support Group Leader and oversaw major enhancements to the GOC.