

Transforming information into knowledge



Sumit Duttagupta Associate Director - Process Industry Group Rolta India Ltd sumit.duttagupta@rolta.com

At a time, when fluctuating product prices significantly impact the oil & gas industry, organisations are constantly looking to reduce costs, improve efficiency and increase margins. A concerted effort is needed to improve overall operational effectiveness, through actionable-visibility in exceptions-handling and a cross-functional visibility that fosters effective collaboration.

HR ADMIN

MAINTENANCE

The oil & gas industry relies on information and collaborative technology among its diverse stakeholders to meet its business goals. The future vision of digital collaborative knowledge management framework (DCKMF) is to create a flexible infrastructure, which enables a business to meet its targets and achieve operational excellence. This includes transparent collaboration inside the business, with partners and customers, while ensuring that all document and content management is transparent to the end user. The industry recognises that to manage future oil & gas developments and also to ensure effective production of existing reserves, it is essential to integrate and connect business processes, geographies, and organisations. The use of collaborative digital knowledge management frameworks (DCKMFs) will become a prerequisite, in time to come. This will allow oil & gas experts in the global community to assimilate and interpret large volumes of data and information to make informed on-time business decisions and evolve appropriate strategies. These

Overview steps



DCKMs must be developed around human collaborative work processes that connect different functional stakeholders and enable them to function effectively.

Industry needs

Oil and gas companies are increasingly recognising knowledge management as a core corporate competency. It is defined as an integrated approach to identifying, managing and most importantly sharing an organisation's information assets including databases, documents, policies and procedures, as well as undocumented expertise resident in individual workers. The latent knowledge held by individuals is becoming a major issue for and oil & gas companies, whose workforces are rapidly approaching retirement age. This makes the knowledge capture and transfer process critical to

sustaining daily operations. This framework will build up an environment that allows seamless percolation of strategic initiatives and implementation of broader management frameworks like KPIs, balanced score cards, etc.

Industry challenges

In oil & gas industry, vast exploration acreage generates considerable volumes of data and information. This mammoth data emanates from various domains like geophysics, geology, petro-physics, reservoir, drilling, etc. In addition, commencement of production leads to significant increase in both volumes and type of data flowing within an organisation. Moreover, substantial additional data and information is generated and managed by various supporting functions like HSE, finance, legal, procurement, commercial, information technology, logistics, human resources, etc. It has become clearly evident that almost all user groups in oil & gas industry essentially need an information system (IS) which will enable them to comprehensively fulfill their extensive information requirements. Such a system also needs to help them monitor

their key performance indicators (KPIs). This will accelerate overall maturity towards knowledge-based operational excellence in their respective areas.

Industry data-sets

Today oil & gas industry has terabytes of data to handle. For example, the G&G function alone comprises of tens of thousands of line-km (2D) and thousands of sq km (3D) data volumes. Companies foresee rapid multiplication of data volumes in years to come. The data is stored in various formats based on usage and class types.

Industry expectations

Over the years, with mounting data volumes and associated complex and critical decision processes involving huge monetary stakes, it has become imperative for organisations to have an efficient integrated performance management system. This system will need to have in-built capabilities to handle both - management information as well as knowledge in a seamless manner.

Integrated system offerings

The landscape for an integrated system offering to capture the knowledge management digital framework should be focused on enhancing the human reliability with the asset reliability coupled with a growth path for organisational maturity. It builds on organisations real time data layer, which is the core foundation for a digital framework to provide real time intelligence, performance management, performance analytics and strategy management. One of the solutions in the operational excellence space that provides information with actionable intelligence to all stakeholders across the enterprise is Rolta's 'OneView'. □

> MORE@CLICK ADI02985 | www.AandD24.in

