



EMC Services for Automating Upstream Processes



Issues

- Mergers and acquisitions
- Disparate systems
- Diverse procedures
- Multiple data stores and types
- Multi-departmental data requirements
- Manual reporting processes
- Inaccessible historical information
- Inadequate activity tracking
- Hampered decision-making

Business Challenge

Managing the lifecycle of a well is a complex and detailed process that comprises activities from lead identification and exploration through to production and delivery—geological assessments, budgeting, field construction, drilling schedules, completions, reclamations, and sales. Each stage of the process requires teams to assemble a wide range of technical and financial data and documentation from many sources, has myriad regulatory and reporting requirements, and thrives on timely decision-making. Challenges to optimizing the process include insufficient access to timely data and documents, error-prone and time-consuming manual business processes, and inefficient global communications.

• Insufficient access to timely data and documents inhibits collaboration

Key well lifecycle data is stored in both structured and unstructured form as documents, spreadsheets, forms, images, maps, and geological and seismic data. Manual paper-based and phone-based processes are frequently used to update systems. Complicating matters is the fact that geologists, geophysicists, petrophysicists, engineers, executives, and financial analysts all look at a well with different perspectives. The result is that silos of information have developed, business systems are often out of sync with the actual status in the field, and access to important data frequently necessitates going through other staff members. Consequently, teams find it difficult to capture and share the information required to make timely decisions and executives are unable to get an enterprise-level view of the status of all wells.

• Time-consuming manual business processes cause errors and delays

When responsibilities for tracking and managing well data are distributed across multiple departments, the processes for collecting, analyzing, and reporting data frequently become inefficient. Manual workflows for collecting and distributing data cause delays in communicating information. Much of the time spent compiling documentation to move a well prospect from exploration to development can be spent on transferring information. Activity tracking is either non-existent or done manually. Workflow can not be monitored or audited and tasks can fall through the cracks. Sensitive data may not be fully safeguarded with no way to track changes to documents or data.

• Inefficient global communications hinder reporting

With distributed organizations and limited ability to directly access important data, companies find it difficult to quickly combine various data sources to create timely reports. Manual reporting processes that rely on copying data from multiple sources increase the chance for errors to be introduced into the data. The volume of data inhibits companies' ability to track, analyze, and plan at a detailed level. It is especially difficult to manage a company at the well or field level with daily numbers if it takes weeks to acquire those numbers.

EMC Streamlines Upstream Processes at Every Stage

Geological and Geophysical

- Asset (lead to prospect) tracking
- Centralized asset data and document access
- Executive dashboard for consolidated view of asset status
- Storage of historical information (“look back”)
- Compilation of weekly reports
- Management and distribution of forms

Drill and Complete

- Standardized reporting processes
- Accurate, easy-to-create daily drilling reports
- Centralized access to reports; interactive web-based reports
- Centralized well data and document access
- Dashboard views of well activity with drill-down
- Automated workflows and process auditing
- Permit tracking

Produce and Enhance

- Track requests for well rework
- Display production data in corporate portal
- Centralized repository for safety documents
- Consolidate well statistics, permits, equipment, etc.
- Capture live data on safety equipment
- Link health and safety guidelines, scheduled maintenance, etc. to physical equipment

Account and Report

- Display KPIs in corporate portal
- Workflow for tracking month-end accounting process
- Interface with ERP and accounting systems
- Role-based views of data
- Display expense data in dashboards
- Streamline and automate manual SOX compliance processes

Market and Transport

- Predictive pricing analysis
- Track and monitor purchaser credit and sales
- Integrated data feeds, stock quotes, spot and market pricing
- Dashboard views of vendors, pricing, purchasers, etc.
- Partner extranet for financial report access

EMC Services

EMC’s consulting services for automating upstream processes improve collaboration, expedite decision-making, and increase efficiencies. We develop integrated business intelligence systems that organize and maintain the documents needed to manage the lifecycle of wells, provide access to up-to-date well status data, and automate and standardize well reporting processes.

• Centralized, consolidated data and documents expedite information access

With EMC’s flexible offerings, myriad oil and gas companies are reducing the time to obtain well status data and improving its accuracy. Role-based data and document access ensure that information users are presented with only the information that they need or want to know. Unnecessary time spent searching for documents is eliminated and historical information is preserved in a central location. Employees in any department can quickly and easily get the exact information needed.

• Dashboards speed decision-making

Executive dashboards provide an enterprise-level view of well status and a consolidated view of the key performance indicators that drive the business. Data is aggregated directly from corporate business systems, ensuring consistency, so that there is no doubt about the validity and relevance of the data. With a dashboard, staff can monitor results on a national, regional, district, field, or well level. The systems incorporate a red/yellow/green color scheme so management can immediately see where attention is needed. Users can easily drill down into the numbers to see what actions might be required.

• Automated workflows and standardized reporting processes increase productivity

Workflow systems eliminate time-consuming paper- and phone-based processes and reduce the time to compile reports from distributed data. Easy-to-use interfaces for generating online reports simplify and streamline ad-hoc data reporting processes, resulting in greater productivity. Teams collaborate and communicate better and daily status data is collected and distributed in a consistent manner. With a consistent, transparent view of critical operational data, management gains a greater level of insight into the business, makes decisions faster, and time-to-production is reduced.

EMC Consulting

As part of the world’s leading developer and provider of information infrastructure technology and solutions, EMC® Consulting transforms information into business results. Our consultants bring a unique mix of industry, business, and technology expertise to solve today’s toughest challenges. We use field-tested tools, proven methodologies, best practices, and industry standards to minimize risk and optimize time-to-value in our engagements. We provide a full range of consulting, design, implementation, and support services.

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