

Time To Cash In Company's Data IOUs

Internet-based online well information services allow independents of any size to obtain the information systems they need affordably, without major capital or operating overhead expenses.

By Mark B. Smith

DALLAS—Strong energy prices and high activity levels are good for business. Managing growth, lowering risk, finding new prospects and generating better returns—these are the right kinds of business problems for today's independent operator to have.

These business critical activities come coupled with many challenges in well information management. Dealing with e-mail overload is a constant chore. Oil and gas company staff members throughout the organization have to handle the same data several times—to create production spreadsheets, distribute internal reports, and provide status to partners. When they are done, the end result often is inconsistent data and rarely any actionable information. Compounding the internal information requirements are partner requirements. Partners—more sensitive than ever to rapid results—constantly are on the telephone to company executives and staff, wanting to know the status of drilling projects and production.

The larger energy companies hand the job of dealing with these challenges to their in-house information technology staffs. In-house IT has the time, budget, and manpower to create custom services for these businesses. Smaller independent exploration and production companies often cannot afford to dedicate the cash and manpower needed to deploy ex-

pensive custom IT projects that require constant updates and support.

The emergence of Internet-based services bring good news for smaller independents. With online well information services, companies of any size can obtain the information systems they need affordably, without major capital or operating overhead expenses.

Data IOUs

The life cycle of a company's wells generally advances from prospect to exploration to production to an exit transaction. The progression creates data at every step in many electronic and paper formats, and results in a scattered set of what may be referred to as data IOUs.

What is a data IOU? Another term for it might be a data island of unreachability; it is business-critical information anywhere in the company, sitting trapped so that executives cannot immediately access the data. It could be a report received from a service provider and sitting in someone's e-mail in-box. Or it might be needed data sitting on a company server, but the individual who needs the information is at home or on a well site.

Company staff may be using a robust drilling software package, but it only stores data on a local office's personal computer. Perhaps a manager is out of town for a business meeting and a key partner has him on the phone, wanting to know why he didn't make any drilling

progress the day before; if only the manager could see what the partner was looking at using the hotel's business center.

Data IOU examples are all around a typical oil and gas business office, and often impact operations several times a day. A well log sitting on a desk or a workover report sitting in a production manager's e-mail in-box are but two examples. A production delay might be avoided if the pumper in the field could quickly view one or both on his laptop.

Perhaps production information is sent daily to an administrator, but that person is sick and a partner or colleague calls the office wanting to know where his report is. Another example of a data IOU is a software program in the office that provides well bore schematics, but it is a Sunday and the engineer is at home when the supervisor in the field phones in with a problem.

Information When Needed

Online well information services allow company personnel and partners to self-serve the information they want, in the format they want—on-screen reports, Excel spreadsheets, charts, or PDFs—when and where they need it. The services use a standard Web browser to deliver information from a managed database dedicated to the company.

Well information services can help deal with exploration reporting, production data and online well files.

Company personnel spend too much time dealing with information at the rig. It takes time to create spreadsheets, and copy and paste macros to create a new worksheet before they can enter daily data. Their job is to drill wells, not be spreadsheet experts or be forced to maintain mailing lists. After they create a new spreadsheet, they are not done. They have the six-megabyte morning report spreadsheet ready, but now they have to try to figure out why the e-mail with the morning report is stuck on the PC and is not leaving the rig.

Well information services use online databases to provide easy-to-use Web screens to help in exploration reporting. Company men “fill in the blanks” quickly to save time, and cut down on errors. Communications are done automatically in the background as rig personnel move from item to item. The services eliminate tedious cutting and pasting of day-to-day data. An online database knows when the last drill bit was changed, or it can automatically create a cost sheet using a company’s own unique accounting codes.

Once this daily information is collected, reports such as day and/or cost versus depth, authorization for expenditure versus actual costs, mud and cement summaries, surface, production, and intermediate casing tallies and reports, rental reports, and even automatically generated well bore schematics can be created and made available for access within seconds. These reports are formatted with a company’s name and automatically distributed without maintaining mailing lists.

Today’s chief executive officers need instant access—anywhere and anytime—to consistent, normalized reports of well, lease, and project production. This finally has become a reality. Online well information services present production data. To access information on a well, lease, or program, one mouse click will generate a report for any time frame, another click automatically generates an Excel spreadsheet, and a final click delivers a production graph. All reports bearing the company’s name and banner have the same look and feel, regardless of how or from where the data arrived.

Speaking of how data arrives, it is the rare operator that has production data arriving the same way for all wells. Different-gauge sheet formats have been used with

different wells for years, often decades. Even with the wide availability of well-metering systems, most operators want to ensure a pumper visits each well every day. There can be a lot of inconsistency in the operating universe.

Well information services deal with data input independently of reporting. Managers do not have to look at the data in the formats that field personnel use for reporting. All the reports are consistent, so company executives always deal with information in the same format, as input mechanisms match how data is being reported today. Only the data are entered into the database directly, usually by personnel closest to the source of the data. Sometimes this information is input by a field office; increasingly, pumpers are comfortable directly inputting observed production numbers on Web-attached PCs and handheld devices.

Online databases, properly designed, allow users to store not only data for reports but also any type of file: prospect information, regulatory permits and other filings, well logs, and any other type of data file associated with a well’s life cycle.

It is all stored in one place, which means that anyone with a legitimate business need can access the exact information he needs to do his job in seconds. And, he cannot accidentally overwrite the existing data—all original data is protected automatically. Consider the situation whereby a staff member just received an acidizing report from a service provider. The report can be posted in seconds, and office and field staff can access that information immediately and discuss it as needed, with everyone seeing the exact same data.

Online Lessons

Security is a major issue for any oil and gas company considering putting its data online to give employees improved accessibility. The good news is that banks and other financial institutions put sensitive information online all the time so their customers can access account information from any Internet-connected device at the office, home, in the field, or on the road. Following key “best practices” learned by the banking industry will help executives make certain their oil and gas businesses are safely online, too. These include:

- Locate information in an independ-

ent data center, corporate-quality, always “on” and staffed 24/7/365. One cannot predict when his staff or partners will need to access information.

- Provide each user and partner with only the reports and well information to which he should have access.
- Use SSL—the security mechanism with a lock on the Web browser, so people can’t read company data as it moves across the Internet.
- Have a live support person on call to help out at all times.
- Make sure data and files are not commingled with another company’s information.
- Do not connect a business database directly to the Internet. Use a Web server in between as a hacker-proof buffer to securely manage connecting users with data.
- Ensure data is archived daily, with backups stored off-site.

New Capabilities, Professionalism

Fortunately, this dream is economically practical to implement. Oil and gas operators do not have to spend \$100,000 or more to find out what is happening or to keep their partners informed.

Turnkey online information services are available—usually costing between \$3,000 and \$10,000 up front—that can be deployed in a few weeks. On an ongoing basis, these monthly services cost less than the price of a postage stamp per well per day!

Keeping partners informed does not have to be an onerous task anymore. Automatically available drilling summaries and production reports provide better accountability to partners and investors, with increased professionalism. A key benefit of this approach is that the company actually is reducing the staff time needed to keep partners informed, while adding professionalism to its operations.

Another benefit is that once the drilling data for a well is in the online database, staff members can access it for the term of the service. This is particularly handy when a company is planning or drilling offset wells and wishes to review the day-by-day drilling experiences and costs.

When it comes time to sell some or all of a company’s assets, having the data and files stored in online well files pays

off handsomely again. Think about it—if all company well files are stored online in one place, creating a data room can be accomplished overnight. A credible service provider can provide this service at little to no cost. As an added ben-

efit, during the sale, prospective buyers can be given access to the online well information services to track up-to-date production information for just those wells for sale as if they were an existing partner.

Using these criteria to select a well information service will give operators the advantage they want to tap into the grid of data throughout their businesses, and get the information they need to make decisions as fast as the digital network. □

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Mark B. Smith is chief strategic officer and founder of Neofirma Inc. in Dallas. He founded the company in 2003 with the vision of providing easy-to-use, corporate-quality online well information management systems based on state-of-the-art database technologies. His career includes 15 years with Intel Corporation in strategic marketing management, where Smith launched the evolution of intercompany e-mail by spearheading the ability to interconnect desktop mail systems from IBM, Microsoft, and Novell over public communications networks and the Internet. During the late 1990s, while a business manager in the Intel Enterprise Server Group, he chaired the Business Quality Messaging Forum with IBM, Microsoft, H-P and AT&T. The effort resulted in transparent interconnections of message-enabled applications across global networks. Smith holds a B.A. in mathematics and a B.A. in languages from Southwestern University.