
Anatomy of a Merger

The challenges and solution of integrating Technical Information after a merger

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Introduction

After Board Approval, FTC permission, and the shareholder approval, the work begins! Besides all the difficulties of staff retention and integration, the merger of technical and operational information poses a massive problem. To operate the new company effectively and accomplish all the business goals of the merger, people and information must be working smoothly. And the clock is ticking.

This is a story about the approach and the planned use of new internet-based information management tools that are enabling Anadarko (APC) /Union Pacific Resources (UPR) to integrate their information in record time and on a scale that few companies have found possible.

This paper discusses early activities, philosophies and planned approaches. A subsequent paper will report on the success of these philosophies and plans.

Scope of the Problem

The scale of the information integration is significant. It crosses multiple functional boundaries, involves 3rd party vendors and disparate technology platforms. The table below summarizes the breadth of the challenge.

Area	Scale
Number of applications	
Number of data Vendors	
Number of Computing Systems	
Number of E&P Staff	
Number of IT staff	

In addition, apparently conflicting requirements are faced in such a merger. "Don't impact the current business" and "Find 'best practices', 'key competencies' and make changes that make the APC/UPR merger a sum greater than it's parts". "Grow the New Company"!

The Overall Approach

Organizing the Effort

The first step in any post merger process is to dig deeper than the initial 'due diligence'. Anadarko with the assistance of its KPMG merger consultants brought together people from similar functional areas and performed a discovery process. Their mission was to identify immediate, midterm and long term opportunities and work with the strengths of each organization. Their goal is to build plans that will be successful today and take steps toward the future.

Two major areas were identified requiring information integration:

- Exploration and Development Technical Information
- Production and Accounting Operational Information

Each area has its strengths, timing and requirements. Anadarko is strong in exploration, Union Pacific Resources is strong in operations. Focusing scientific and engineering efforts is the priority in E&D. Maintaining cash flow and improving efficiencies is the priority of operations. Each is discussed more extensively below.

Philosophy of the Value of Information

Anadarko is committed to managing the information and preserving intellectual assets of both companies. They view that multiple copies of data must be considered carefully. They believe that incremental value may reside in multiple versions of data that may hold imbedded intellectual content. This means that data must be referenced to time and ownership when integration takes place. All information integration actions must respect this belief.

Integration Challenges and Opportunities

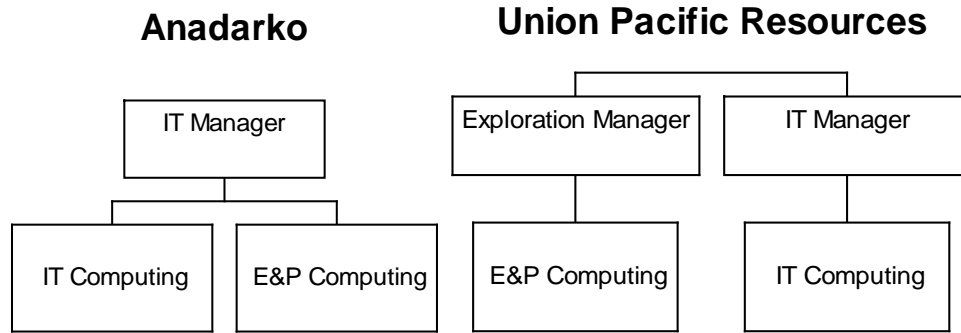
The following sections discuss the conditions and considerations that are going into information integration in each area.

IT Organizational Variation

At the foundation of information integration today is the technical and operational computing infrastructure. This includes networks, computers, operating systems, data storage, database management software and application software. The current conditions in a company are a function of policy and the degree of computerization or history. In this merger, some of the computing conditions were similar and some different.

Reporting frameworks

One difference that required a translation effort to assemble the study teams was that the E&P Computing departments reported differently.



The goal of bringing functionally equivalent staff together took time and consideration and these differences were discovered. As time went on in this organizational process, subgroups were consolidated and focused.

IT History

Another difference was the length of history in computing introduction that exists between APC and UPR. UPR has been involved in computerization of information resources longer than Anadarko. They had to build systems and integration that was not available from vendors in earlier years. APC has developed its computing in the late 90's and has a significantly fewer number of legacy systems. APC has also addressed the information integration needs and have developed internet-based data integration capabilities with Petris technology. The role of the PetrisWINDS Enterprise system will be addressed later.

Technical Computing Integration

Unix Systems and Networks

Fortunately, the UNIX systems, networks and data storage (Auxpex hardware) systems and software are quite similar for both companies. The operating system release levels, the network protocols and the database server technology are parallel. Technical application areas have strongly influenced policy in this area. The technical workstation environments are expected to be easily merged.

Desktop Systems and Networks

The desktop PC systems and networks pose more variety and different standards, APC uses version with YYY network protocols. UPR uses AAA version with BBB network protocols. These systems are used across both companies and particularly add challenge to the operational integration.

Exploration & Development Information Integration

E&D integration requires attention to data resources and the choices of applications to use. As with any data collection, that is assembled from on-going work processes, some degree of data cleanup is required to combine the different data instances. Each is discussed below.

Data resources

Data resources include data stored in application systems, company databases and vendor data collections. A primary input for decision-making on what to keep and what to relinquish is from the evaluation of assets. Defining key exploration and development areas will determine what data to concentrate effort on.

Applications

Applications pose a more complex integration problem because they are tied up with staff competency and individual preferences. In addition, data collected in application systems may be hidden from view. The Landmark's OpenWorks software is a strategic application for Anadarko. Other systems, such as Recall provide specialized technical functionality.

The new PetrisWINDS Enterprise system is addressing the visibility and accessibility across all the key vendor and in-house application systems of APC and UPR. PetrisWINDS Enterprise is implemented through internet and middleware technology. Plans are in place to use PetrisWINDS Enterprise to link all major data collections owned by each company.

The result will be desktop visibility of data available across the entire integrated enterprise. With PetrisWINDS Enterprise, system data transfer can be performed by end users at the click of a mouse, delivering E&D data into the application of their choice.

Data Cleanup

Data cleanup is a necessary task to join multiple data collections. The key identifying values in E&D are the unique wellbore identifier, seismic line and/or lease. With these identifying values uniquely resolved, most other data can be associated for analysis and display. Unfortunately, systems and people use different identifiers and may or may not take care in notation. This presents a challenge to integrating data between two systems, vendors and companies. Data clean up to resolve discrepancies will be a part of the integration efforts.

Production Operations and Accounting Information Integration

A critical imperative of integrating production operations and accounting is to maintain production and cash flow.

Applications

APC and UPR use the same production account system. This is good. Unfortunately, over the years, each company has used the flexibility of the system to 'tailor' it to their needs. The result is that merging the operations will require significant efforts in translating data from one system into the other. This has to be balanced against the need to keep the business going.

In this situation, a comparison of the 'best practices' maybe overshadowed by the challenge of converting to one system or configuration. In this case 'size matters' and the larger UPR operational systems may become the standard.

The Role of the Internet

This paper highlights the challenges and scope of the information management that must be carried out for a successful company merger. Today, the internet provides a new opportunity to help businesses maintain their operations and refocus their scientific and engineering efforts in record time. It enables companies to preserve the intellectual assets of both companies to obtain greater value from the merger.

Another opportunity emerges from new internet technology. Web and application server technology allows data to be integrated at the desktop. This can give operational managers the information they need as the 'back office' conversions are carefully and cautiously merged. With desktop integration, no later changes will be required of managers because their desktop information environment stays the same. The data behind the web application comes seamlessly from different systems. PetrisConnect Oil and Gas Information System from Petris Technology can provide the framework for this approach.

In addition, the cost of this internet-based integration is considerably lower because for significant portions of the data the integration is virtual and no data must move or be converted in bulk. This saves both deployment costs and time.

Lastly, the desktop and virtual integration provides a flexibility that can give time to make changes that serve the future without interrupting the present operations and cash flow. The business value of these technologies is significant and our follow up paper will provide some measures of the speed of changes that were achieved.

Petris Technology is a partner in this effort and is working with both companies to provide data management tools with PetrisWINDS Enterprise and desktop data integration capabilities.