

ARCURVE

Whitepaper for E&P Companies

Fundamental Changes: Managing Technology in a Low Commodity Price Environment

June 2016

Executive Summary

Without a doubt, the oil and gas industry is experiencing an incredibly difficult time. This generational downturn has resulted in severe job and experience losses and companies have to manage costs by prioritizing spending, leveraging existing technologies and engaging in flexible resourcing models.

In this “lower for longer” environment, many of our clients are finding unique solutions to manage their businesses while keeping a keen eye on costs. In this whitepaper, we want to share with you insights and examples of what some leading companies are doing to standardize, modernize and consolidate redundancies, eliminate non-value adding applications and enhance operational efficiencies while working with a scalable resourcing model to free up budgets for new business critical work.

Our clients are accomplishing more in this very difficult E&P industry environment by focusing on the following:

- Data Management
- Portfolio Rationalization
- Managed Application Services

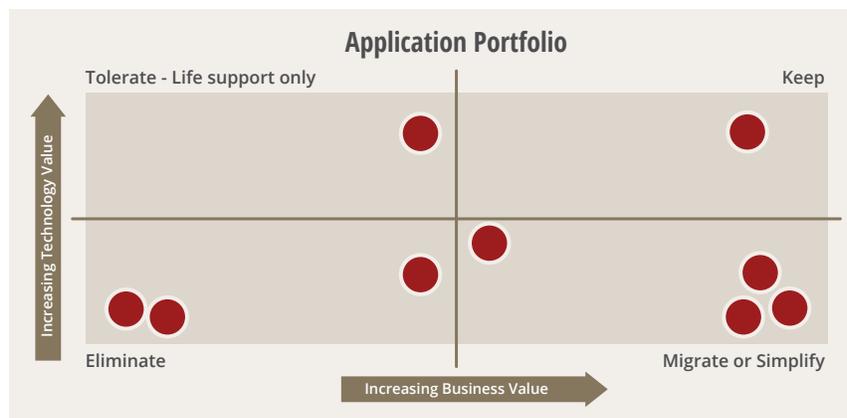
Abundant Custom Applications

OPERATING COSTS REDUCED BY ELIMINATING CUSTOM APPLICATIONS

Overview: In an effort to manage costs our client underwent an application rationalization program and Arcurve was retained to assist with the multi-stage portfolio audit process. Several underutilized applications, as well as multiple custom applications were identified and eliminated resulting in significant cost savings and reduced complexity within the client's organization.

The Technologies and Tactics employed by the Client and Arcurve to achieve the business objectives:

- Undertook a comprehensive Application Portfolio Review:
 1. Ranking of the business value and overall technology value to the organization
 2. Ranking business value to the organization
 3. Rigorous ranking of the application to either keep, tolerate, eliminate or migrate:



- Reviewed required application configuration changes and adapted the related business processes
- Focused on data migration to support removal of custom software and the follow-up implementation of a commercial off the shelf product (COTS)
- Improved data quality and eliminated or modified redundant reports

Business Benefits:

- Adapted the business processes associated with the applications to reduce complexity and improve the quality of the data
- Developed the technical continuity for application functionality and thereby eliminated excess applications resulting in significant IT cost savings
- Reduced the overall technology spend and, by eliminating custom software applications the client saw a 98% savings in sustainment costs

Constraints on operational budgets

REDUCED LABOUR REQUIREMENTS BY 40%

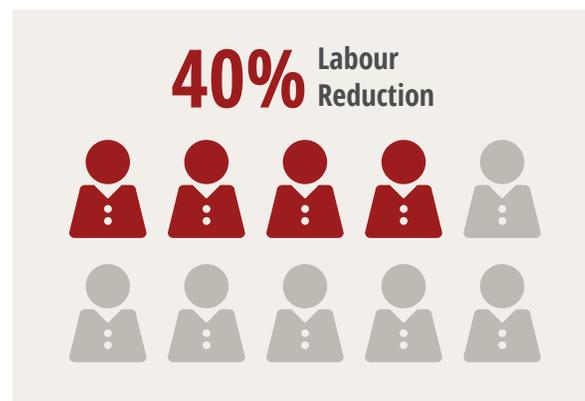
Overview: Due to capital constraints and reduced personnel, our client had multiple system implementations that were still required to meet business requirements but were “put on hold” because of a lack of resources. Our client was able to engage Arcurve in a “Tailored Services” model to allow it to meet their implementation objectives and at the same time re-evaluate its overall resourcing needs.

The Technologies and Tactics employed by the Client and Arcurve to achieve the business objectives:

- A “Fit for Purpose” managed application services solution was designed to address the needs of short-term resource shortage, including as needed services for Tier 1 to Tier 3 technical support
- A strategy was created to enhance operations through automation and to reduce and/or eliminate the need for certain administration resources
- Increase operational efficiencies associated with data fixes and data entry
- Improve “Measurement validation” by optimizing the application to align with the field data

Business Benefits

- Improved service levels to the business units
- Created a flexible custom designed model with access to Tier 1 to 3 expertise allowing the client to meet its business needs with 40% fewer personnel
- Increased cost recovery of approximately 30% through Joint Venture Accounting by using a third party service provider



Resource Reductions

REDUCED THE NEED FOR MANUAL PROCESSES BY 90%

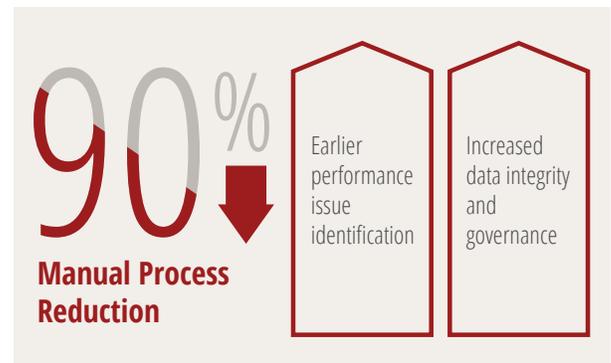
Overview: In order to reduce costs, our client eliminated several full-time positions including support for their Field Data Capture product and as a result the client lost certain domain expertise. The client recognized that although engineers were working to maximize production in the field, the incremental improvements were not being updated in the application. In addition, the organization was also focused on validating compliance related information, such as Alberta Energy Regulator's Directive 017.

The Technologies and Tactics employed by the Client and Arcurve to achieve the business objectives:

- In collaboration with the Production Engineers Arcurve reconfigured the Field Data Capture application to match changes in the field
- Introduced recommendations for changes to business processes, data ownership and governance to reduce costs, inefficiencies and related support calls
- Improved measurement validation and introduced configuration changes to the Field Data Capture application to comply with AER Directive 017
- Assisted in troubleshooting existing facility configurations
- Focused on data fixes such as removing wells that were no longer owned by the client
- Manually entered facility data needed for production accounting
- Arcurve acted as liaison between the application vendor and the business units

Business Benefits:

- Reduced the need for manual processes by 90% which resulted in a significant decrease of expenditures
- Enabled Production Engineering team to identify performance issues one to two days earlier than previously
- Improved data integrity and governance



Limited internal client resources restrict ability to sustain custom applications

REDUCED APPLICATION FOOTPRINT BY 40%

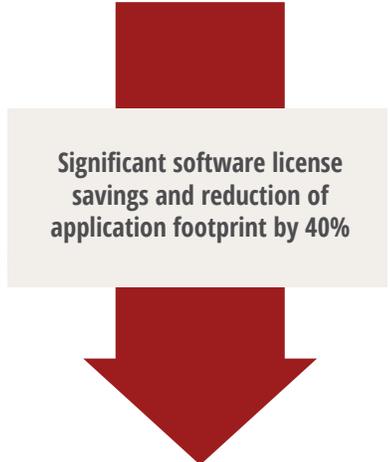
Overview: Our client had invested in over 20 custom applications with a footprint that impacted 145 other software applications (inclusive of custom integration). Arcurve was retained to assist the client to understand how each application fit from a Business and Technology value perspective in order to reduce costs and improve the client's return on its existing technology investment.

The Technologies and Tactics employed by the Client and Arcurve to achieve the business objectives:

- Application Portfolio Assessment of 20 applications to rank if the application was worth keeping, tolerating, migrating or eliminating
- In order to reduce or eliminate dependencies on under-utilized systems, a rationalization of the custom application portfolio was completed by an analysis process where multiple scenarios were evaluated to ensure that the business needs were being met
- A two year application road-map was developed to align with the current and future company objectives with a retirement plan for each application
- Arcurve and the client prioritized actions that would have immediate G&A savings
- Arcurve conducted an overall risk management assessment by completing a source control audit

Business Benefits:

- Portfolio Rationalization reduced the application footprint by 40%
- Reduced sustainment costs by 75%
- Significantly improved business agility by simplifying the portfolio, allowing the company to quickly adapt to changes and industry disruptions
- Replaced the full cost of the custom application with SaaS (Software as a Service) resulting in long term savings



Significant software license savings and reduction of application footprint by 40%

Conclusion

In the current economic environment “doing more with less” is becoming the norm and as a result the technology spend is coming under ever increasing focus and pressure. In this Whitepaper we have shared with you some of our clients’ methodologies to respond to the pressures imposed by low commodity pricing including:

- Standardizing, modernizing and consolidating the application portfolio, to reduce redundancies and non-value adding applications and thereby allowing budgets to be freed up for new business critical work
- Working with a partner on a Fit for Purpose managed application service model that reduces the overall technology spend while allowing for flexibility in resources without compromising technical or subject matter expertise

Business performance is optimized with cohesive processes and integrated technology solutions and with high-quality, well managed data, companies can access the right data when they need it, allowing smarter, responsive and more strategic decisions. Adapting to the current situation in a proactive fashion while staying focused on the needs of the business will allow IT/IS departments to not only be in position to recover from the current difficult market conditions, but to remain ahead of the curve moving forward.

We would be pleased to discuss this Whitepaper and what Arcurve can do for you.

Michael McGovern, Director Business Development
info@arcurve.com 403.242.4361 www.arcurve.com