Hosted Solutions
By Utilities for Utilities

Executive Summary

Business today is becoming more dependant upon Information Technology (IT) and IT Solutions; as a result, the demands on IT professionals have been increasing and the Utility sector is no different. The human resources, expertise, financial investment and risks associated with running critical back office systems is stifling to small and mid sized utilities, making it difficult for them to take advantage of 'Best in Class' solutions. In today's market, utilities need to get 'Faster, Better, Cheaper' to successfully manage their business. The focus needs to be on the next dollar they spend, as it is the most important. They need tools to manage and run their business and assets safely, efficiently and effectively.

Ecaliber recognized the technology challenges facing its industry; a solution that was cost-effective, functional and flexible was required. An integrated Application Service Provider (ASP) offering provides a solution for small to mid-sized utilities. With standardized tools and practices, utilities can focus on their core competencies – delivering safe and reliable water and electricity services to customers. It also offers utilities, with limited resources, the opportunity to work together and excel. A solution *for utilities by utilities* was needed.

The principle behind the solution is that multiple utilities share a centralized system and all the associated costs, such as upgrades, maintenance and support. The solution provides utilities with access to technology they previously could not cost justify. Furthermore, by aggregating their size, they get the much needed scale required to influence upgrades, enhancements and future product decisions made by software vendors.

The strength of the solution lies in the relationships Ecaliber formed with several 'Best in Class' solution providers. Through these relationships, Ecaliber is able to partner in delivering 'Best in Class' services and solutions to customers. Customers maintain their identity and autonomy and are free to participate in any solution that is made available through the ASP. The *a la carte* type offering allows utilities to make decisions that best suite them, as a company. They are not tied to the decisions made by the solution providers.

The real benefits of the solution are achieved by way of sharing common systems. Not only are utilities lowering their financial risks but at the same time reducing their operational risks as well. Burdens and responsibilities such as daily data back ups, system operation and disaster recovery strategies are shifted to the ASP and controlled individually via service level agreements (SLA's). More importantly, valuable IT resources are freed up for redeployment to pursue other utility objectives.

In addition, with common systems in place, common procedures and processes could be derived, thereby enabling utilities to work collaboratively to gain further operational efficiencies and provide services to one another. For small to mid-sized utilities, this may be the single biggest benefit of all as they can optimize resource utilization by either outsourcing to another utility or by acting as the outsourcing provider.

Project Mission Statement and Description

Our mission was to create a 'Best in Class' suite of software products and services for utilities that could be delivered through an ASP offering. A Software as a Solution (SAAS) model by Utilities for Utilities would allow small to mid sized utilities to take advantage of resources and technologies that were generally beyond a level that they could cost justify.

Fully integrated 'Best in Class' software and solutions, allows utilities to drive efficiencies through improved systems and processes. Small to midsized utilities need to get 'Faster, Better, and Cheaper' in order to survive in today's business environment. When resources are scarce, the next dollar a utility spends is the most important. Better tools means that utilities can manage their distribution assets more efficiently and effectively. The solutions also help utilities lower direct operating costs through more effective deployment of its labor force.

Ecaliber recognized that by focusing solely on delivering 'Best in Class' software solutions that it could potentially alienate alliance partners and create an adversarial atmosphere to switching end users from their current products. Incorporating the software offering within a larger services suite, and having Ecaliber choose to not just provide but receive services from other utilities, leveled the playing field with all utilities experiencing some degree of change. Despite the fact that utilities would be getting better tools, 'Best in Class' tools, the costs savings and opportunities needed to far exceed the status quo in order get utilities to convert to the outsourced model. Utilities that share standard software and processes can take advantage of sharing resources. The power of the model is that utilities are free to share resources and services with other member utilities.

The solution was designed around utilities sharing a centralized system of hardware, software, maintenance and support. Remote access is done by way of a secure virtual private network (VPN). Each customer connects to the Network Operations Centre via the VPN where the solution is hosted. To participate, utilities need only computer workstations and access to the internet.

At the core of the ASP solution is the Harris NorthStar CIS for customer service management, billing, financials and job costing software. Additional solutions are provided by Loris Technologies for document archiving and management, Utilitismart

Corporation for Meter Reading and Meter Data Management, and SPI for electronic business transactions. Ecaliber also provides a utility package for custom reporting that integrates the various technologies, depending upon each customer's needs. Individually each component is powerful and provides remarkable functionality, but when all the components are integrated they form an outstanding suite of applications that can meet the majority of the needs for an entire utility. Each configuration is utility specific giving them a true sense of control and autonomy. For example, as a customer, Essex Power's solution is branded as an Essex Power solution and not an Ecaliber solution.

Justification and Goals

Industries dependence on information technology (IT) has grown exponentially over recent years and will only continue to grow as the cost of technology decreases and as adoption increases. Owning and operating systems continues to increase and the pressures to maintain 7X24 business systems along with disaster recovery centers are taxing on IT departments. The computing power required to support a disaster recovery center is equal to that of a production environment, therefore, a centralized solution with one disaster recovery center is cost effective.

The growth in the SAAS model – which has grown by 100% of the ERP market from 2004 to 2005 (source: IDC) – is direct evidence that mid-sized firms are seeking alternative solutions to the challenges of operating critical business applications. While hosted software for ERP systems is expected to grow at 20% CAGR (source: IDC) the key is to provide the mix of applications and services that *directly* address the issues with the status quo at a cost equal to or less than the status quo. Ecaliber's goal was to bring a solution suite that reduced customer service and finance operations cost by at least 10% while also providing tools to allow each utility to manage more assets with the same staff.

In preparing the service offering, Ecaliber identified that considerable financial and operating risks are mitigated with economies of scale. Future costs for items such as hardware and software updates, new reporting features, ongoing support and maintenance would now be spread across the entire customer base. Operational risks are mitigated as support, maintenance and disaster recovery are all shifted and become the responsibility of the host and controlled via SLA's. While utilities are not absolved of all risk, they certainly can take control and manage and reduce a substantial percentage while still maintaining control.

Additional financial justification comes from monetary savings gained through the implementation and adoption of the new technologies that would be difficult to cost justify by individual member utilities. For example, over a two year period, the direct cost savings realized by Ecaliber from the Loris document management solution

through reduced paper, print and storage was almost $60,000. In 2003, Ecaliber was billing for approximately 18,000 utility customers and over a two year period, that number grew by five hundred percent up to 90,000 customers. Over that period, through the use of the Loris products, Ecaliber was able to **reduce** the number of printed pages by **one million** despite the five hundred percent increase in end use customers. The Loris solution is fully integrated into our business practices and this makes our staff 15 to 20% more efficient as they no longer wait to print, bind and file documentation.

Further operational savings are also achieved through the reallocation of IT resources and the implementation of process and procedures designed around the new technologies. St. Thomas Energy has been able to free up IT resources to pursue opportunities in developing Fiber Optics networks within the Town of St. Thomas. St. Thomas Energy is then able to sell this bandwidth to commercial customers. This is similar to the project developed by Lakefront Utilities in Cobourg, Ontario. Both scenarios help justify the model for member utilities; IT resources can be redeployed to pursue other IT business initiatives.

Overall Project Timeline and Description

From conception to full implementation the project took approximately three years to develop. The solutions are a work in progress as new products are added to the suite and new services are developed and new alliance partners are formed.

When the project was first conceived in 2002, the concept of software as a service was new and the solutions Ecaliber looked to implement, unique. Numerous ASP solutions have been offered in the past with little success but never in the format Ecaliber was proposing; a solution by Utilities for Utilities. The fact that Ecaliber is also a user adds value as potential customers know the solution works for an actual utility.

The first step to the solution was to secure, as partners, the vendors of the various ‘Best in Class’ software products. Some creative licensing arrangements were needed so that small to mid-sized utilities could afford the ‘Best in Class’ solutions. The products needed to be open, flexible and modular so that they could integrate into the total solution. The partners needed to demonstrate their expertise in their given field and demonstrate their commitment to the model. Ecaliber integrated the solutions together and became the subject matter experts for each product, but relied on the various vendors for tier two support and development.

At the time the solution was being designed Ecaliber was using the Harris Computer Systems NorthStar Customer Information System (CIS). The product was one of three emerging in the newly deregulating Ontario market. It was open, well designed, efficient and functional and Harris, as a company, was committed to the Ontario market, its

home base. In addition, Harris had several other modules such as full financials, job costing, work estimating, work management, Customer Web Portal, Executive Information System and Mobile Service Orders to compliment the offering. The suite of products, the modular design and the success of the company made Harris a logical choice as the foundation for the solution. With the backbone of the solution in place Ecaliber sought out additional partners. Partners were secured in the areas of document archiving, document management, meter data management, meter reading, asset management, performance management, workflow and hosting for support of the entire solution.

With the partners in place and the solution proven to work for Ecaliber, the first external customer implementation was performed. The first few implementations were challenging with steep learning curves and implementation periods of up to six months. With each implementation came experience and with the experience the speed to market was dramatically reduced.

Today, Ecaliber can successfully implement a full conversion in as little as three months from contract signing to the go live date. If the customer already uses the Harris products, the implementation only takes weeks. The formal training is generally performed by the various software vendors; however, most of the day to day processes that require training are handled by Ecaliber who utilize a shadow training methodology. For example, the employees who perform Billing and CSR functions for Ecaliber will work with the employees who share the same function from the converting utility. They are trained in a real, production environment so they get real world examples and solutions to problems. This relationship often carries on through the implementation and a mini peer support network is established.

Detailed Project Accomplishments and Benefits

The solution has proven to be effective for utilities. Under the SAAS model, Ecaliber has successfully converted seven utilities over the past two years. There are approximately 140,000 customers served by the seven utilities in southern Ontario and the United States. The SAAS model has brought economies of scale and technology efficiencies to the utilities. Internal operational efficiencies have been realized as processes are standardized and streamlined, enabling utilities to reallocate resources to focus on their core business of managing customers and their network. Ecaliber is able to support 140,000 utility customers with three IT professionals and the support of the resources from its various partners.

The most recent member to the model, St. Thomas Energy Services located in St. Thomas, Ontario, is a great example of savings available under the model. Through the SAAS model they are paying 40% less for the same services plus they receive all the

added benefits such as Customer Web Access, Document Archiving, Web based reporting and importantly, a fully functional disaster recovery site.

With each new utility added the scale increases and momentum builds. Many of the utilities are now working together to standardize processes now that they run standard back office solutions. For example, Erie Thames Powerlines, Essex Power and St. Thomas Energy Services have been able to collaborate on a supply chain model. Part numbers and descriptions were standardized so that material pricing can now be tendered and a common web based inventory control system allows each utility to view each others inventory. In the event of an emergency resulting from a storm or an accident or through the normal procurement process, utilities are able to share inventory with each other reducing the levels each needs to maintain.

The advantages of the SAAS model continue to grow and improve but the foundation remains the same. It is reliant on partners delivering 'Best in Class' solutions and services. Utilities are able, through their scale, to now influence the future development of the products they use. Utilities are maintaining their identity and autonomy while controlling and mitigating financial and operational risk.