

# Power of efficiency reaps benefits in utility operations

When implemented in utility back-office operations, cloud-based, Software as a Service (SaaS) technologies provide significant benefits to community water systems, including increased revenue, reduced costs, and more satisfied customers, according to FATHOM CEO Trevor Hill.

The American industrialist Henry Ford, founder of the Ford Motor Company, was a master of ingenuity when it came to understanding how to create a complex machine rapidly, reliably, and at minimum cost. Starting in 1908, the original Ford assembly lines ingested raw materials and out popped completed Model T's. Notwithstanding the process efficiency generated by this innovation, it was also a response to the fact that there were no well-developed supply chain and services markets at the time, and the do-it-all manufacturing process filled this gap.

## 56,000 assembly lines

The automotive industry has evolved materially from that centralized control model to encompass a vast supply chain with a myriad of parts and services suppliers and a massive investment in automation.

The original Ford assembly line concept, however, is not too far from where the United States (US) water industry is today. The US water utility sector has more than 56,000 community water systems operating as do-it-all assembly lines: taking in raw materials in the form

of surface and/or groundwater, treating, and delivering potable water to more than 291 million people, each with its own networks, systems, and processes – including unique back-office activities such as customer service, billing, and administrative processes.

Part of this approach is structural: water will always remain heavy and expensive to transport across large distances, accounting for the extreme localized nature of the water utility business. Despite this, the concepts currently employed in maximizing manufacturing efficiency can still be leveraged to make utility processes significantly better. Recent revolutions in service business models, combined with the adoption and conformity to industry-derived best business practices and the increasing acceptance of cloud-based services, mean that water utilities can enjoy the benefits of highly functioning back-office tools that increase revenue, decrease water loss, and delight customers at costs that are substantially lower than they pay today by doing these services themselves.

## Back-office supply chain

The operation of individualized back-office systems in the water sector remains one of the most financially inefficient processes in the industry, with many functioning at the extreme end of the so-called diseconomies of scale spectrum. In the US water sector, most water utilities simply lack the scale necessary to be efficient at these processes. While large utilities may have the resources and transaction volume necessary to support investment in modernized tools to achieve a measure of efficiency in this area, that scale of operation is an anomaly in the water sector: 99.5 percent of community water systems serve less than 100,000 people. At this scale, real efficiency is often impossible to achieve. This situation is exacerbated as the financial pressures associated with declining revenue, increased costs, and increasing customer expectations place greater pressure on current and future budgets.

## Do what you do well

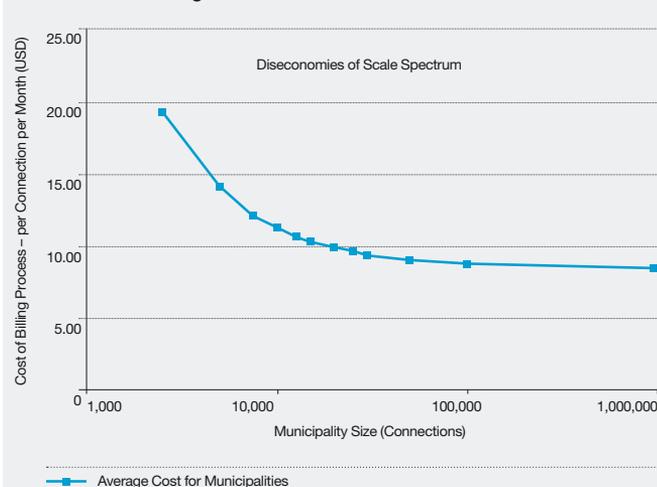
Evolving from a do-it-all mentality to a modernized supply system supported by professional services

has allowed the automotive industry to improve production times, reduce costs, improve margins, and increase reliability. Automotive giants focused on their unique core skills: designing, assembling, and marketing vehicles. This approach is, indeed, a key factor in managing excellence in organizations: creating the environment that allows staff to focus on what they are great at while investing in systems and services that serve to support them in non-core activities.

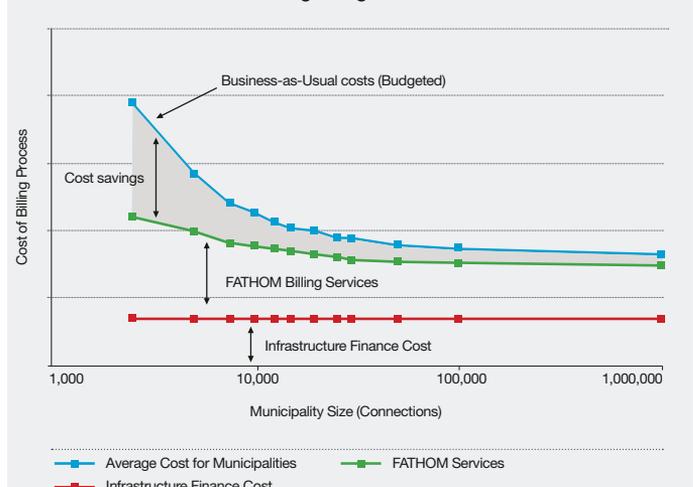
The corollary is that entities are rarely experts in everything. Certainly, car manufacturers do not make their own central processing units (CPUs) for circuit cards. They outsource that activity, holding the supplier to specific, clear, and enforceable service levels and quality standards. The combination of professional expertise – allowing for specialization in business roles – means businesses can focus on their core strategic advantages and augment those value propositions with the help of key suppliers. The result is an even greater offering for customers – and better business.

The core objective for water utilities is providing clean, safe,

The True Cost of Billing



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reliable, and cost-efficient water to their constituents. Meeting this objective includes providing the day-to-day communication and outreach on managing water volatility, resource sustainability, infrastructure investment, and cost containment. It does not mean that water utilities are expected to be experts in other specialized services, such as infrastructure delivery, no matter how closely they are tied to the success of the business. In fact, very few utilities employ dedicated design engineers, surveyors, construction crews, or own the associated equipment to deliver large-scale infrastructure projects. Utilities outsource that activity to professional service providers under specific, clear, and enforceable service levels and quality standards.

Despite the success in other service areas, this concept has not often been deployed on the softer side of the utility business: the back office of meter reading, billing, customer service, customer engagement, and other activities. The primary reason for this occurrence is the highly fragmented nature of water utilities, which has evolved a complex series of insular systems and unique business processes that have been historically

## Very few utilities employ dedicated design engineers, surveyors, construction crews, or own the associated equipment to deliver large-scale infrastructure projects.

very difficult to consolidate.

Innovation in business models, information technology, and services offerings is changing this landscape. Software as a Service (SaaS) deployment methodologies, cloud-based computational power, storage, and networking integrated with knowledge-based systems and industry best practices are now available that can drive efficiency and cost savings – all with specific, clear, and enforceable service levels and quality standards.

### Partnering for efficiency

Partnering with professionals for non-core back-office activities can generate cash from existing budgets all while improving customer engagement and satisfaction. FATHOM, a leader in consolidation of these back-office functions, has demonstrated that accessing professional expertise in the field of back-office efficiency generates enough increased revenue while decreasing costs so as to be virtually self-financing.

As an example, one of FATHOM's recent implementations in the City of Cedar Hill, Texas, US, resulted in an annual revenue increase of US\$426,000 per year (a 4.8 percent increase) by improving the data accuracy within the billing and metering systems, ensuring that all water usage is properly billed, and reduced non-revenue water. By adopting FATHOM, Cedar Hill was also able to reduce meter reading and billing costs by more than \$390,000 per year.

This combined \$800,000 net benefit could be leveraged at today's interest rates into more than \$10 million dollars of investment. Alternatively, it could be used to pay down existing debt obligations or be used to defer or completely offset

rate increases for the community, or any combination thereof. The investment in FATHOM offers flexibility to the utility while providing a guaranteed cost of service and service level certainty for 15 years, which delivers stability in an era of great uncertainty in utility finances.

### Assembly line of the future

There is no doubt that decreasing revenue, increasing costs, and resource volatility will define the operating environment for water utilities in the future. These factors will drive increasing pressure on efficiency and financial resourcefulness. The consolidation of services through partners such as FATHOM brings economies of scale to the fragmented water market where it is most effective – the back office – which finds, preserves, and augments revenue while controlling costs. Utilities can then focus on what they do best: delivering safe, reliable, and cost-efficient water.

### Author's Note

*Trevor Hill is the chairman and chief executive officer of FATHOM, based in Phoenix, Arizona, United States.*

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