

## Customer Success Story

# An Infrastructure Update Helps a Utility Company Bring Power to the People



By a happy customer

Just as everyone expects the sun to rise every morning, we expect the lights to come on when we flip a switch. But delivering that electricity is more complicated than most people imagine. Without the right system to manage the delivery network, it's challenging for utility companies to keep up with existing power demands as well as develop additional services customers need and want.

As a utility company that delivers reliable and affordable carbon-free hydropower to communities across our region, we serve an area of approximately 300,000 square miles with a population of over 14 million people and a network of over 200 substations. To serve such a large region and so many people, we have an extensive and complex infrastructure network, relying on various technologies to manage it.

## Reliable Power Requires Reliable Technology

*Delivering electricity is more complicated than most people imagine. Without the right systems to manage the delivery network, it's challenging for utility companies to keep up with existing power demands and develop additional services.*

Over the years, we've worked with multiple vendors and technologies, customizing our solutions as necessary to meet our needs. But in 2019, we'd reached the end of our current system's lifespan, and it was time to replace the technology that allowed us to monitor our network infrastructure. We initially planned to upgrade our existing software, but this wasn't possible because of the extensive customization done over many years. Upgrading the specific components of our system no longer made sense and would have introduced network vulnerabilities—a risk we couldn't afford. It was time for something new.

Utilizing the Request for Proposal (RFP) process, we evaluated several vendors to determine which one best provided all the elements our team identified in the RFP requirements. We wanted a fully integrated solution that could monitor all the aspects of our environments, including our telecom and varying network elements including Cisco network components. After an extensive evaluation, we selected **Enghouse** because they offered a modular solution, that integrated seamlessly for an end-to-end solution. Their **OSS Suite** included the exact components we needed:

- Network Inventory management through **Aktavara**:
  - Aktavara Fiber Module - Fiber management and planning
  - Aktavara SONET Module
  - Aktavara WDM Module
  - Aktavara Projects Module
- Business Processes and Workflows with **Webtop Workflow Management System**.

On their own, each of these components would perform its intended function, but adopting the combined suite would make management easier, wouldn't need endless customizations and could support future network transformations.

## A Smooth Migration for Uninterrupted Power

Enghouse handled the migration in phases to effectively deal with the deployment of multiple technologies. First, they established a non-production environment for testing and development. Once offline systems were in place, we focused

on data planning and migration, followed by work on the system implementation and training.

The migration had to be smooth to prevent our customers from feeling any effects of the transition. Enghouse impressed us with their unique approach: They developed adapters that could connect to our legacy technologies and extract all the required information, making it easy to migrate the older appliances to the new environment. These adapters are very flexible so that as we move forward and manufacturers make future changes to network components, we can use these adapters to automatically pull that information into the system without needing someone to enter the data manually.

They also developed documentation and project management plans along with workshops to support the implementation of the different phases. Their in-depth training was a big part of the ongoing migration process. As we completed each phase, the Enghouse team facilitated a training session and a handoff, ensuring a smooth transition.

The project had some challenges, not the least of which was having to work through all the logistics complexities introduced by the COVID-19 pandemic.

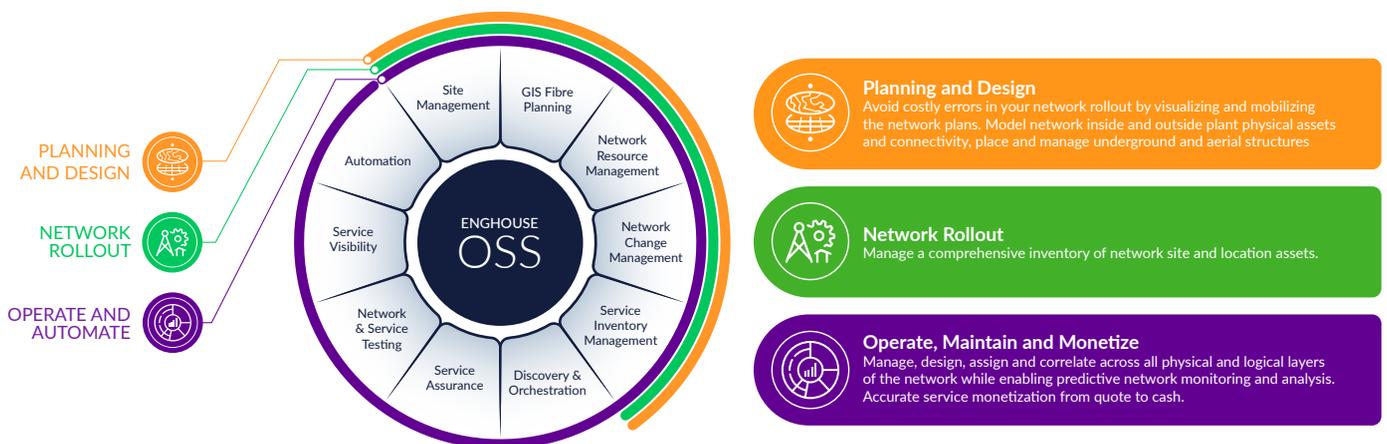
Enghouse was flexible during this time and completed many of the tasks including the training—remotely. When challenges arose, the team was responsive and kept us working through them without any more delays or work stoppages, and we went completely live with the solution on September 1, 2023. With the extensions to the timeline introduced by the pandemic, Enghouse worked with us through all of it whether it was a new network element or an unforeseen change in as we progressed through the project. The partnership established by both companies testing and retesting the software with offline systems was instrumental in making the project a success.

## A Whole That's Greater Than the Sum of Its Parts

Each component in the Enghouse OSS Suite makes our lives easier. Aktavara manages our network infrastructure, including resource and inventory management. Using this module, we can model all of our technologies on one platform and have a consistent view of the resources across the organization. We also have WebTop Workflow for business process management, which Enghouse tailored to our existing operations and procedures. WebTop Workflow helps us automate service activation, instantly responding to customer changes and updates, and expediting tickets when they occur.

We've layered these modules atop our network infrastructure and the assignment and delivery of services through different technologies, such as E1, Sonnet, or ETH, so we can monitor the entire environment from end to end. We also can go into the system, change services, and adjust our environment based on changing business requirements.

As more fiber is deployed to homes and businesses to improve connectivity in urban and rural communities across the country, solutions like Aktavara Fiber Module for fiber management become even more powerful. This network design and management solution helps us optimize our resources, enhance workflows, improve customer service, and maximize operational efficiency. Additional products available with the Enghouse OSS product suite, are the NetBossXT and NetBoss Performance, which are optional solutions that enable us to manage performance and provide valuable customer analytics so we can respond quickly to critical network events, which results in better service availability and an enhanced customer experience. Combining these components reduces our operating costs, and we pass these savings on to our customers.



Compared to our previous solution, Aktavara is much more flexible. The WebTop Workflow and Projects modules match our business processes, compared to before when we were trying to make our process match the software capabilities. With Aktavara, WebTop Workflow, and Projects solutions, we've gained a system more adaptive to a project-release-centered operation. When we build circuits and enforce the allocations to be consistent across the circuits, we can create a branch where we can see how the project will look before and when it goes into production.

We also gain circuit break-type reports that have been developed from the system. If a certain site goes down, we can analyze and know what's impacted on a circuit level to determine quickly what services and customers are impacted. If there's a break in a fiber connection, we can notify the technical team and inform them of what circuits and customers are impacted, and we can also use that information to prioritize our response. The solution also provides information on the next steps which can help decrease downtime.

We've also gained additional capabilities we can do ourselves, like modeling the new devices we will use with circuits. The Enghouse team trained us on writing resource templates, so we don't have to wait for the third-party vendor to create it for us, which added delays to the deployment in the past. Our Enghouse products have given us a graphical user interface, allowing us to visualize all of our devices and cards, improving the visualization of our network along with our circuits. We can see the devices when they're operational based on status, colors, and whether the ports are free or not, which will help us implement our circuits more easily and see what spare capacity is available at a glance.

***Integrating network components helps reduce operating costs, and these savings are passed on to customers.***

We aren't the only provider of power and transmission services to adopt the Enghouse OSS Suite. Every utility company has similar challenges and an imperative to deliver uninterrupted power to customers, and our peers are increasingly seeing the value of the products. The OSS Suite might look slightly different in each of our businesses, but it helps us all deliver power with less effort.

## **Automating a Critical Mission for Uninterrupted Electricity**

Cities and municipalities rely on the Department of Energy's power administration companies to deliver public utility services, and the public utilities then provide those services to local businesses and residential customers within their markets. Our regional ecosystem supports everything from power for individual homes to local businesses and government agencies, and the Enghouse OSS Suite gives us the tools to efficiently manage both our network and the delivery of services to our consumers, including public utilities and state government.

We're running a mission-critical environment, and our network needs to work no matter what. As the world evolves and the environment changes, we need to provide more electric and sustainable types of energy, like the hydropower we produce and manage, which has less of an impact on the environment. Power companies will always need to deliver the services our customers want, but with the OSS Suite, we can automate most of that process and provide our engineers with the tools to go into the system, make changes, and configure the system so we can deliver new services as required or needed by our customers.

As we become more proficient users of our new system and more creative in its use, the combination will be even more powerful, and we'll see even more positive results, which is key to our primary mission of "Bringing power to the people we serve"!