

VENTYX SOLUTIONS FOR ENERGY DELIVERY

WHEN PERFORMANCE IS REQUIRED, VENTYX IS PROVEN

124,000+ miles of North American transmission lines rely on a Ventyx solution for work and asset management.

The Energy Delivery industry faces multiple business challenges that are driving the need for change in enterprise workforce and asset management. Electric transmission and distribution (T&D) organizations and natural gas utilities, with their complex infrastructure of dispersed customers and assets, highly-mobile workforce, and tightly regulated environment, share several critical priorities:

Operational Efficiency - With limited options to increase revenue, one of the top business challenges is increasing operational efficiency to improve a utility's profitability. This typically translates into the need to reduce operations and maintenance (O&M) costs. To achieve O&M cost reductions while maintaining or increasing service levels, many utilities are looking for information technology-driven process improvements.

Smart Grids/Intelligent Networks - Utilities interested in managing energy demand, relieving pressure on the grid, and lowering carbon emissions are incorporating smart grid technologies. The intelligent utility networks monitor energy flow and usage across the entire network to detect faults more rapidly and increase reliability and efficiency. Properly aligning workforce and asset management processes will extend the are essential for success.

Workforce Productivity - A major area of emphasis in today's Energy Delivery industry is to increase field worker "wrench time," by adding one more hour per day per worker of productive work for the entire field workforce. This is only possible by implementing processes and systems that streamline day-to-day tasks,

such as eliminating extra trips and having parts ready when they are needed.

Service Reliability - Disruptions cost utilities up to \$1 million a day in fines, and often play a role in what rates are charged. Maintaining high service reliability and customer satisfaction is the No. 1 overall concern for many utilities and requires tools to optimize work processes, and ready access to critical information to ensure dependable asset performance.

Aging Assets - Over the past 30 years, investment in transmission and distribution assets in the U.S. has lagged behind the gross domestic product (GDP) and energy demand growth. Today, utilities do not have access to enough capital to address this problem purely with a build/replace strategy. Investments in technology, including work and asset management, monitor and make the best use of these aging assets.

Aging Workforce - Many utilities expect to see half of their workforce retire in the next 5-10 years. This situation raises issues related to both labor replacement and knowledge retention. Current employees have developed extensive knowledge of company assets and processes, which needs to be captured and transferred to new employees to achieve the desired productivity objectives.

Meeting Growth Requirements - Energy demand is expected to continue to rise and utility mergers and acquisitions are creating ever-larger entities. Energy Delivery utilities must be prepared to accommodate growth and expansion by leveraging an asset and service management solution that is capable of scaling with burgeoning demand.



Ventyx is the clear leader in mobile workforce management in energy, utility, and communications markets with over 100,000 licensed mobile users worldwide.

The race is on to reconcile the challenges of the transmission, distribution, and gas utility industries with a system that will:

- Coordinate workforce and asset management
- Support long- and short- cycle work
- Support compatible units and workflow management
- Create efficient and manageable workflow schedules

OUR PROVEN SOLUTIONS FOR ENERGY DELIVERY INCLUDE:

Service Suite for Enterprise Workforce Management

- Enterprise Scheduling
- Enterprise Dispatch
- Enterprise Mobile

Asset Suite for Enterprise Asset Management

- Asset & Work Management
- Materials & Procurement Management
- Safety & Compliance Management

Business Intelligence

- Set goals, map strategies, track progress, monitor trends, and take action from a single user interface

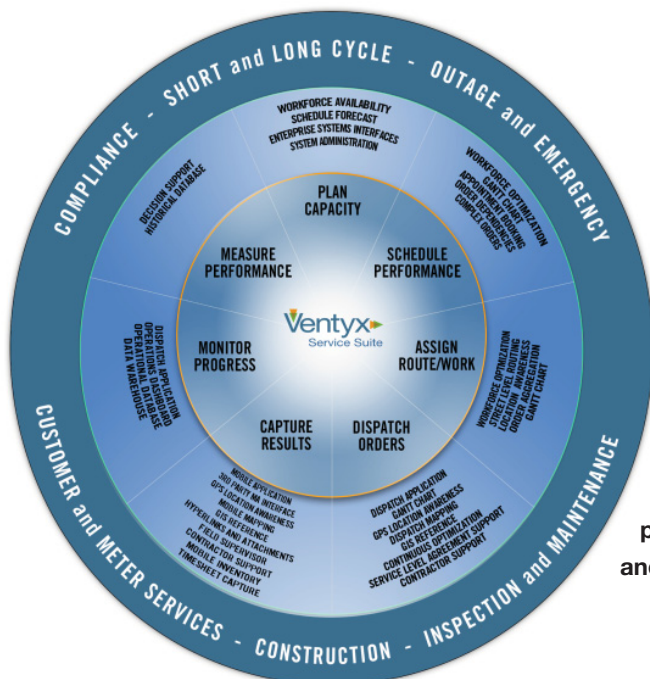
Foundation Architecture

- Technology platform that anchors the process-centric functionality in Ventyx solutions

Ventyx provides the backbone infrastructure for Energy Delivery organizations with product suites that operate individually to answer strategic needs, or together as a complete solution. Our best-of-breed Service and Asset Suite allow you to standardize and streamline your work processes to maximize workforce productivity and improve customer satisfaction. They are specifically adapted to the unique needs of utility service companies, and Ventyx is working closely with our customers to bring asset management and mobile workforce management to intelligent grid projects.

With Ventyx Service Suite, the combination of resource optimization with the industry's best scheduling and dispatch modules ensures that you will get the right field service representative to the job with the right parts within the committed time slot. Most importantly, you'll be able to keep the customer better informed as to the status of requested work.

With Ventyx Asset Suite, you can improve overall asset utilization, decrease operating and maintenance costs, reduce outages, and extend asset life. You'll be able to track compatible asset units and groups, and uniquely tracked commodities. You can improve line and vegetation maintenance, streamline the supply chain, and maintain regulatory compliance.



Ventyx's new approach to Energy Delivery enables better planning and execution of T&D and gas utility processes by integrating best-of-breed asset, scheduling, and mobile workforce management.

Fifteen of the top 20 North American gas utilities use a Ventyx solution.

SOLUTION BENEFITS

Ventyx Energy Delivery solutions deliver field service performance, asset performance, and the work lifecycle benefits. Companies like Xcel Energy, Progress Energy, Nicor Gas, Duke Energy, BC Hydro, Exelon, and Bonneville Power Administration have all experienced operational efficiencies and performance improvements using Ventyx solutions.

Field Service Performance Benefits:

- Cost Savings – Improve crew productivity and reduce travel costs
- Communications – Improve reporting, reduce billing errors, and reduce documentation costs.
- Problem Resolution – Improve response time and minimize problem duration

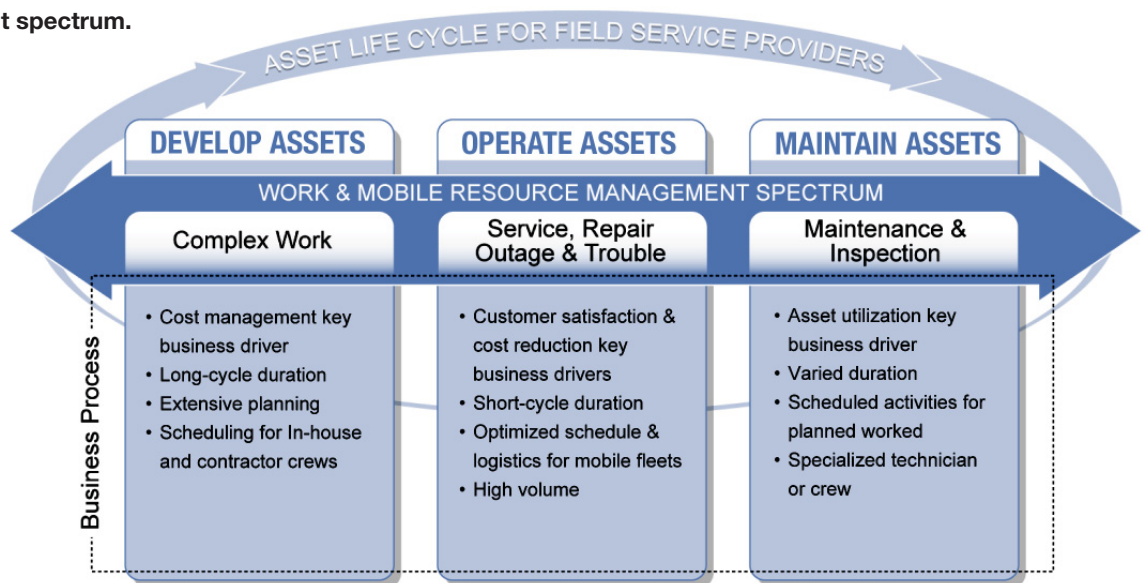
Asset Performance Benefits:

- Cost Savings – Eliminate legacy systems, reduce the number of compatible units maintained, and streamline the supply chain
- Standardized Processes – Standardize work-order design, asset inspection, and maintenance processes
- Regulatory Compliance – Meet stringent regulatory and safety requirements
- Single Provider Solution – Leverage a single solution for integrated utilities that both generate and distribute energy

Work Lifecycle Benefits:

- Visibility – Comparisons of actual work time to estimated work time, visibility across departments and work, transparency into interdepartmental workflows and response to emergencies
- Management – Integrated management of the planning, scheduling, delivery, and measurement of work
- Continuous Improvement – Key performance indicators to measure and improve the accuracy of planning, performance of work crews, and accuracy of asset data

Ventyx solutions for Energy Delivery address the entire work and mobile resource management spectrum.



PERFORMANCE PROVEN AT XCEL ENERGY

THE BOTTOM LINE:

Ventyx combines leading solutions and the most experienced team of professionals in the industry to help our customers improve their operational and financial performance.

Our solutions have been licensed for use by more than 400,000 users in 900 companies worldwide, including 49 of the top 50 Fortune 1000 Energy companies and 48 of the top 50 power generators in North America.

Ventyx is the performance proven leader.

Xcel Energy, a \$10 billion electricity and natural gas company headquartered in Minneapolis, MN, wanted to improve customer responsiveness, reduce its cost structure, and provide real-time access to critical business information. To achieve these goals, Xcel Energy's management team envisioned business transformation through a unique technology alliance.

The company selected Ventyx and other strategic technology partners to cultivate new and creative solutions. Ventyx provided Service Suite for resource optimization, scheduling and mobility, and Asset Suite for work and supply chain management. Asset and Service Suite were integrated with other provider applications into a seamlessly integrated business information system.

Xcel Energy's Utility Innovations initiative had to be tested and validated in a microcosm environment before the solution would be rolled out to its 80 service centers across an 11-state service territory. At Arvada Service Center, the microcosm test environment, the results were extraordinary:

- 87% Reduction of Scheduling Effort
- 26% Improvement in Designer Productivity
- 17% Reduction in Maintenance and Inspection Effort
- 47% Improvement in Construction Crew Productivity
- Accurate Designs and Material Lists

ADDITIONAL ACHIEVEMENTS INCLUDE:

- Consolidation of Standardized Processes:
 - Work-order design = 7 to 1
 - New construction = 12 to 1
 - Gas inspection = 5 to 1
 - Substation inspection = 4 to 1
 - Maintenance = 15 to 2
- Eliminated 56 Legacy Data Systems
- Reduced the Number of Compatible Units by 75%
- Improved Data Integrity and Data Confidence
- Improved Crew Planning and Scheduling:
 - Improved communication between design and construction
 - Ability to track a project from inception to close on a single schedule
 - Ability to place virtual tasks on the schedule in order to provide a better forecast
 - Near real-time exchange of data between Asset Suite and Service Suite
 - Move tasks around the schedule and save the schedule only when ready
- Improved Time Reporting Functionality for 6,000 Employees
- Streamlined Work-order Close Process for the 150,000 WOs Generated Annually
- Reduced Meter Set to Bill Time by 84%
- Improved Outage Communications
- Achieved Savings in:
 - Mapping costs
 - Number of crews
 - Crew productivity
 - Improved reporting
 - Reduced billing errors
 - Reduction in number of designers
 - Reduced documentation costs
 - Reduced drive times