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eBook

Empowering the future:

The Significance of
Connected Worker Platforms
in the Utility Industry

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Shifting Landscapes

The utility industry, once characterized by traditional methods and manual processes, is undergoing a profound transformation in the digital age. As energy demands rise, environmental concerns grow, and technological innovations proliferate, utility companies are compelled to reimagine their operations and embrace cutting-edge solutions.

Digital Transformation

At the heart of this transformation is the concept of digital transformation. Utility companies are harnessing the power of technology to optimize processes, enhance safety, and elevate the overall efficiency of their operations. Amid this paradigm shift, one crucial element emerges as a game-changer: connected worker platforms.

Connected Worker Platforms

Connected worker platforms represent the fusion of human expertise and technological prowess. They create a dynamic synergy between skilled workers and advanced digital tools, enabling real-time collaboration, data-driven decision-making, and unparalleled operational insights.

This eBook is dedicated to unraveling the significance of connected worker platforms within the utility industry. As we journey through these pages, we'll embark on a multi-chapter exploration, diving into the various facets of connected worker platforms and their transformative impact on the utility sector. From enhancing safety and risk management to empowering the workforce and realizing cost savings, each chapter will offer insights, real-world examples, and actionable strategies.

The Utility Industry's Digital Revolution

The utility industry, often associated with traditional infrastructure and established practices, is now at the forefront of a digital revolution.

Rapid advancements in technology have provided utility companies with unprecedented opportunities to innovate, optimize, and enhance their operations.

A Paradigm Shift Toward Connectivity:

In the past, utility operations relied heavily on manual processes and physical inspections. However, the dawn of the digital era has paved the way for a fundamental shift in the industry's modus operandi. The integration of digital technologies, such as smart meters, sensors, and data analytics, has enabled utility companies to monitor, manage, and maintain their assets with greater precision and efficiency.

From Traditional to Connected Workforce:

One of the most compelling outcomes of this digital transformation is the evolution of the utility workforce. Traditional fieldwork, characterized by paper-based reports and manual interventions, has given way to a connected workforce empowered by technology. This shift has been accelerated by the proliferation of connected devices, enabling seamless communication and collaboration among field technicians, engineers, and data analysts.

Reshaping Utility Operations:

Connected worker platforms play a pivotal role in channeling the potential of smart devices. These platforms act as the central nervous system of the connected workforce, facilitating seamless communication, data sharing, and collaboration across various operational domains. As utility companies harness the power of these platforms, they are able to respond more effectively to challenges, optimize resource allocation, and improve overall service delivery.

The Anatomy of Connected Worker Platforms

Connected worker platforms represent a dynamic fusion of human expertise and digital capabilities, creating a seamless bridge between field operations and technological advancements. At their core, these platforms are designed to enhance communication, streamline workflows, and facilitate data-driven decision-making within the utility industry.

Components and Features:

1

Real-time Communication Tools:

Seamless communication is essential for a connected workforce. These platforms provide field technicians, engineers, and data analysts with instant communication channels, enabling them to collaborate, share insights, and address issues in real time.

2

Data Collection and Analysis:

Data is the lifeblood of utility operations. Connected worker platforms empower employees to collect, analyze, and interpret data from various sources. This data-driven approach helps optimize processes, predict maintenance needs, and improve overall decision-making.

Enhancing Efficiency Through Integration:

The synergy between these components results in a platform that empowers utility workers in unprecedented ways. The ability to access real-time data, communicate instantly, and leverage augmented reality tools transforms routine tasks into strategic actions. As field technicians seamlessly integrate these features into their workflow, operational efficiency is greatly enhanced.

A Unified Platform for Utility Operations:

Connected worker platforms serve as a central hub that unifies diverse elements of utility operations. Field personnel can interact with data analysts, engineers, and remote experts, fostering a collaborative ecosystem that thrives on real-time insights and knowledge sharing.

Adapting to Varied Challenges:

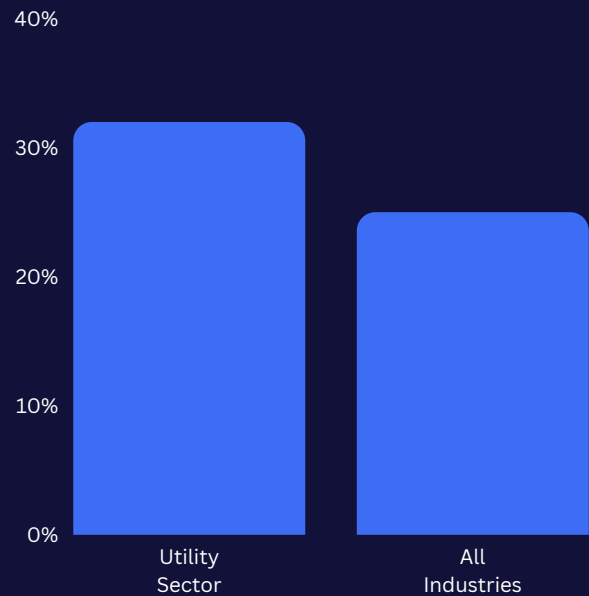
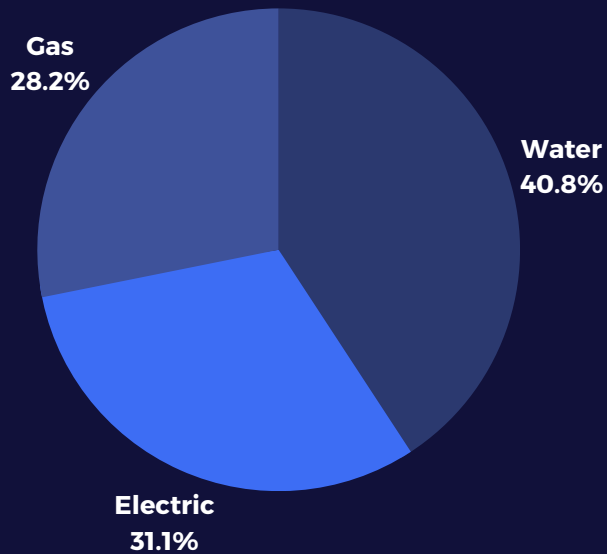
These platforms are designed to adapt to a wide range of challenges encountered in the utility industry, from routine maintenance tasks to emergency response scenarios. Whether it's identifying a faulty component or safety risk, connected worker platforms offer a comprehensive toolkit.



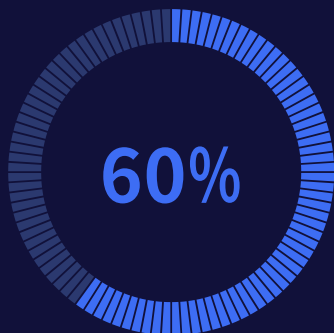
Enhancing Safety & Risk Management

The 2018 Utilities Sector SIF Study examined 1,060 recordable incidents across 11 prominent utility organizations across the electric, gas, and water sectors. The findings indicated that:

Water has the highest SIF exposure rate of all utilities studied, at 42%, followed by 32% for electric and 29% for gas.



The utility sector has a 32% SIF exposure rate, which is seven points higher than the all-industry SIF rate of 25%.



Nearly 60% of SIF exposures in the utilities sector can be attributed to two exposure categories: motor vehicle incidents (30%) or "line of fire" or "struck by" incidents (28%). Other SIF events include contact with biohazard materials, a serious fall or an accident involving powered equipment.

The study also detected significant relationships between several cultural factors and SIF exposures. There is evidence that sites with higher scores in management credibility, perceived organizational support, organizational value for safety, procedural justice and leader-member exchange have lower SIF rates.

Mitigating Occupational Hazards:

The utility industry is loaded with potential occupational hazards, from working with high-voltage equipment to handling hazardous materials. Connected worker platforms play a pivotal role in minimizing these risks by providing real-time data on equipment conditions, environmental factors, and potential hazards. This empowers field technicians with critical information, enabling them to make informed decisions and take precautionary measures.

Predictive Maintenance Through Data Analytics:

One of the cornerstones of safety in the utility sector is effective data. Connected worker platforms leverage data analytics and sensor technologies to predict safety risk before they occur. By identifying anomalies and patterns, these platforms allow for proactive safety, reducing the likelihood of injury and even death of frontline workers.

Real-time Alerts and Emergency Response:

Connected worker platforms are equipped with mechanisms to issue real-time alerts in case of safety or quality risks. Whether it's a sudden equipment malfunction or a hazardous condition, managers receive immediate alerts on their devices, enabling them to take swift action.

Ensuring Compliance and Regulatory Adherence:

Compliance with safety regulations and industry standards is paramount in the utility industry. Connected worker platforms assist utility companies in maintaining compliance by offering features such as digitized checklists, automated documentation, and audit trails. This ensures that safety protocols are followed, reducing the risk of accidents and regulatory penalties.

Reducing Human Error:

Human error is a significant contributor to safety incidents. Connected worker platforms provide technicians with digital tools that guide them through procedures, ensuring that each step is followed accurately. Additionally, these platforms enable remote experts to provide guidance, reducing the reliance on individual expertise and minimizing the chances of errors.

Improving Incident Response and Analysis:

In the unfortunate event of an incident, connected worker platforms aid in post-incident analysis. They provide a wealth of data and insights that can be used to understand the root causes of incidents, identify areas for improvement, and implement corrective measures to prevent similar incidents in the future.

Optimizing Operational Efficiency

Streamlining Field Operations:

Connected worker platforms revolutionize how field operations are conducted in the utility industry. Field technicians armed with these platforms have instant access to critical information, such as equipment status, maintenance history, and procedural guidelines. This real-time information empowers them to perform tasks more efficiently and effectively, reducing the time required to diagnose and address issues.

Improved Resource Allocation:

Resource allocation is a challenge in any industry, and utilities are no exception. Connected worker platforms provide data-driven insights into resource utilization. For instance, if there's a sudden equipment malfunction, the platform can help identify the nearest available technician with the required expertise, minimizing response times and maximizing resource efficiency.

Minimizing Downtime and Outages:

Downtime and outages are costly in terms of both finances and customer satisfaction. Connected worker platforms play a crucial role in minimizing these disruptions. By enabling rapid issue identification, remote diagnostics, and efficient troubleshooting, technicians can resolve problems faster and reduce the duration of downtime, ultimately improving service reliability.

Enhancing Asset Management:

Utility companies manage a vast array of assets, from power generation facilities to distribution infrastructure. Connected worker platforms provide a holistic view of asset health, performance metrics, and maintenance history. This comprehensive insight enables better management decisions, such as identifying when equipment needs maintenance or replacement to avoid unexpected failures.

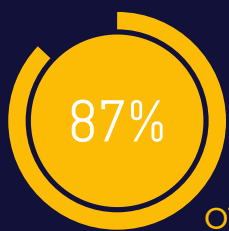
Data-Driven Decision-Making:

Connected worker platforms transform field technicians into data-driven decision-makers. The real-time data collected and analyzed by these platforms offer valuable insights for optimizing workflows, anticipating equipment needs, and reducing risk. This data-driven approach enhances operational efficiency by minimizing risk and focusing efforts where they are most needed.

Workforce Collaboration and Knowledge Sharing:

Operational efficiency is not limited to individual tasks; it also involves effective collaboration. Connected worker platforms enable seamless collaboration among field technicians, managers, and supervisors, fostering knowledge-sharing and problem-solving. This collaborative environment accelerates issue resolution and promotes a culture of continuous improvement.

Empowering the Workforce



87% of digitally-supported workers are more engaged and happier in their work.

Connected worker platforms empower field technicians with access to real-time data and insights. This access allows them to make informed decisions on-site, enhancing their autonomy and ability to address issues promptly. Empowered technicians feel more confident in their roles, leading to increased job satisfaction and improved overall safety and performance.

Continuous Training and Skill Development:

The utility industry is evolving rapidly, requiring field technicians to stay updated with the latest technologies and practices. Connected worker platforms offer opportunities for continuous training and skill development. Through remote guidance and digital resources, technicians can access learning materials that enhance their expertise, making them more versatile and adaptable.

Workforce Collaboration and Knowledge Sharing:

Connected worker platforms break down communication barriers between field technicians and management. Collaboration is no longer limited by physical proximity; technicians can seek guidance through the platform's communication tools. This collaborative approach accelerates problem-solving and knowledge sharing, creating a culture of continuous learning.

Boosting Employee Morale and Job Satisfaction:

Empowered employees are more engaged and satisfied with their work. When technicians have the tools they need to excel, see the impact of their work, and have opportunities for growth, their job satisfaction improves. This, in turn, leads to reduced turnover rates and a more motivated workforce.

Driving Innovation from the Frontline:

Field technicians are often the first to encounter operational challenges and opportunities for improvement. Connected worker platforms empower these technicians to contribute directly to innovation. Their insights and feedback can be incorporated into the platform's development, ensuring that it meets their needs and drives continuous improvement.

Realizing Cost Savings and ROI

By allowing workers access to the right information and guidance at the time it's needed, organizations report significant business outcomes, including:



70%

Productivity gains



50%

Cost savings

3x

Efficiency gains

source: Librestream

Reducing Operational Costs:

Connected worker platforms have a direct impact on operational costs. By enabling faster issue identification, remote diagnostics, and efficient troubleshooting, these platforms reduce the time and resources required for field operations. Additionally, reducing use of paper eliminates time spent driving inspections back to the office and overall administrative costs.

Measuring Return on Investment (ROI):

Investing in connected worker platforms is not just about technology adoption; it's an investment in operational efficiency, safety, and employee empowerment. Measuring the ROI of these platforms involves assessing the tangible benefits they bring, such as reduced downtime, OSHA Compliance, and reduced workers' compensation premiums. Comparing these benefits to the initial investment provides a clear ROI calculation.

Minimizing Travel and Transportation Costs:

Field technicians often need to travel to various locations for maintenance and repairs. Connected worker platforms minimize the need for unnecessary travel by enabling remote diagnostics and guidance. This not only saves time but also reduces travel expenses, contributing to cost savings.

[Check out Anvl's Digital Transformation ROI sheet](#)

Overcoming Challenges and Implementation Strategies

Integrating with Existing Systems:

Many utility companies already have established systems and processes. Integrating new a connected worker platform with these existing systems should be seamless. Connected worker platforms can be combined with existing EHS, work order management systems, CRM, and many others.

Ensuring Reliable Connectivity:

When in the search phase, it is critical to find a connected worker platform that works offline. In areas with poor connectivity, offline mode is critical.

Managing Change and Ensuring Workforce Adoption:

Resistance to change can be a significant challenge when introducing new technologies. Utility companies need to ensure that their workforce embraces the new platforms and workflows. Connected worker platforms should include training programs, clear communication about benefits, involving employees in the design phase, and providing ongoing support to address any concerns.

Balancing Tech Innovation with Workforce Experience:

Implementing cutting-edge technology should not come at the expense of user experience. Connected worker platform design should be user-friendly, providing intuitive training materials, and seeking feedback from field technicians to ensure that the platforms are both technologically advanced and easy to use.

Budget & Resource Allocation:

Implementing connected worker platforms requires financial investment. Utility companies might face budget constraints and challenges in allocating resources. A compelling business case should be crafted in unison with the connected worker software company, considering long-term benefits, and exploring financing options to secure the necessary resources.

The Future of Connected Worker Platforms

Embracing AI and Machine Learning:

As technology evolves, connected worker platforms are likely to incorporate advanced AI and machine learning capabilities. These technologies can analyze vast amounts of data to provide predictive insights, automate routine tasks, and offer real-time decision support, further enhancing operational efficiency and accuracy.

Enhancing Remote Work and Collaboration:

The trend towards remote work is likely to continue, and connected worker platforms will adapt to further empower remote workers. Remote collaboration, training, and real-time support will become even more seamless, allowing experts to guide field technicians from any location.

Implementing Connected Worker Platforms

Before implementation, utility companies should clearly define their goals and objectives. Whether it's improving safety, optimizing operations, or enhancing workforce empowerment, having a clear vision will guide the implementation process.

Assessing Current Processes and Workflows:

Understanding existing processes and workflows is crucial. Conduct a thorough assessment to identify pain points, areas for improvement, and how connected worker platforms can best integrate into current operations.

Selecting the Right Vendor:

Choosing the right vendor is a critical step. Evaluate vendors based on their track record, experience in the utility industry, platform features, scalability, and customer support. A vendor that aligns with your company's goals and values is essential for successful implementation.

Customization and Integration:

Ensure that the connected worker platform can be customized to fit your company's specific needs. Integration with existing systems and workflows is also crucial to avoid disruptions and ensure a seamless transition.

Comprehensive Training and Onboarding:

Training is key to successful adoption. Provide comprehensive training to all users, from field technicians to data analysts. Training should cover platform usage, benefits, security protocols, and best practices.

Change Management and Communication:

Implementing new technology often involves changes in roles and processes. Effective change management strategies, including clear communication, involving employees in the process, and addressing concerns, will help minimize resistance.

Pilot Testing and Feedback:

Before full deployment, conduct pilot testing with a small group of users. Gather feedback on usability, functionality, and any challenges faced. Use this feedback to fine-tune the platform and address any issues.

Monitoring and Continuous Improvement:

Implementation doesn't end with deployment. Continuously monitor platform usage, gather performance data, and assess whether the platform is meeting the defined goals. Regularly review and optimize processes based on feedback and data insights.

Scaling and Expansion:

Once the platform proves successful, consider scaling it across different departments or regions. Expansion should be carefully planned to ensure that the benefits and efficiencies are maintained.

Conclusion

The adoption of connected worker platforms in the utility industry represents a transformative shift that brings numerous benefits. Throughout this eBook, we've explored the significance of these platforms in enhancing safety, optimizing operations, empowering the workforce, and achieving cost savings.

As utility companies embark on this journey of digital transformation, it's crucial to partner with the right solution providers to navigate the complexities and maximize the advantages of connected worker platforms. Anvl offers a comprehensive platform that aligns perfectly with the principles outlined in this eBook. Here's how Anvl can help utility companies harness the full potential of connected worker platforms:

1

Safety First: Anvl's platform prioritizes safety by providing real-time insights into potential hazards. By integrating safety protocols and risk assessment tools, it helps utility companies reduce accidents and incidents, safeguarding both employees and the community.

2

Data-Driven Decision-Making: Anvl's data analytics capabilities empower utility companies to make informed decisions based on real-time data. Whether it's identifying patterns of unsafe behavior or optimizing workflows for efficiency, data-driven insights are at the core of Anvl's offering.

3

Workforce Empowerment: Anvl doesn't just focus on safety; it also empowers the utility workforce. Through intuitive interfaces and remote, logic-based workflow guidance, field technicians can access the information and expertise they need to excel in their roles and embrace the digital transformation.

4

Continuous Improvement: Anvl understands the importance of ongoing optimization. The platform facilitates continuous improvement by enabling feedback loops, monitoring performance, and adapting to the evolving needs of utility companies.

5

Real-time Collaboration and Communication: Anvl's platform facilitates real-time collaboration and communication among field technicians, supervisors, and upper management. Through features like messaging, video and photo capabilities, stop jobs and flags, it enhances safety by adding context and communication to hazards. This real-time communication capability is particularly valuable for addressing issues swiftly, enabling management to be notified and close the loop immediately. Anvl empowers utility companies to foster a culture of collaboration, leading to more efficient operations and continuous improvement.

Among these points, Anvl also offers offline mode (crucial for utility works in low-service areas), easy platform integrations, Power BI Integrations for leading indicator analytics, and is iOS, Android, and Windows compatible.

In a rapidly evolving industry like utilities, the partnership with a forward-thinking technology provider like Anvl is instrumental in successfully implementing connected worker platforms. Anvl's commitment to safety and efficiency aligns seamlessly with the principles discussed in this eBook.

As we look to the future of the utility industry, the role of connected worker platforms will only continue to expand. By leveraging solutions like Anvl, utility companies can not only adapt to change but also thrive in an era of digital transformation while maintaining a strong commitment to safety and efficiency.



Let's get to work.

Anvl is a mobile-first Connected Worker Solution for companies to unlock critical data and drive continuous improvements in quality, safety, and operations for workers and supervisors.

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