

# APPLICATION BRIEF

# Utilities Solution

TELUDIO UNDERSTANDS THE ENVIRONMENT UTILITY COMPANIES OPERATE IN, AND PROVIDES SOLUTIONS THAT MANAGE THE RISKS OF DOING BUSINESS.

## Solutions for today and tomorrow.

The world revolves around its dependence on energy. However, the Utilities business environment is ever changing and faced with new challenges. Company profitability is threatened by volatile energy prices, putting greater pressure on margins and forcing price increases. Performance is also under scrutiny for increased uptime, worker safety, and customer satisfaction. While it becomes harder to generate profitable growth, key stakeholders such as investors, customers and regulators continue to expect the achievement of cost containment. In response to these challenges, Teldio provides solutions to leverage efficiencies in their business while decreasing operational costs.

Imagine automating processes and increasing workers' ease of communication and notification, while decreasing overall response times. Teldio understands the environment utilities operate in, and provides solutions that manage the risks of doing business.

**Teldio**  
Communicating Beyond Frequencies™



**TELDIO'S SOLUTION ENABLES  
YOUR ORGANIZATION TO RESPOND  
RAPIDLY TO CRITICAL INCIDENTS  
WHEN IT MATTERS MOST.**

# Several good reasons to integrate.

## Because you've invested in your company assets...

From miles of transmission lines to power plants and everything in between, your company has significantly invested in infrastructure. Managing and maintaining this infrastructure is necessary to ensure your customers have a reliable supply of energy, but often work flow is chaotic making it difficult to ensure prompt response to routine or unforeseen tasks and situations. Teldio's intelligent alarm notification system ACS significantly reduces response time to alarms by eliminating communication inefficiencies.

The implementation of ACS redirects alarm notifications generated by SCADA or other types of alarm networks directly to the right individual's mobile device based on their skill set, location and work schedule. The solution alleviates pending work load from the control center, which is often overloaded with operational tasks. By automatically redirecting alarm notifications to the right worker based on their skill set, schedule and location, asset security is increased significantly by reducing the response time to alarms. As a result, Teldio brings the command and control center to the hands of the field engineer, the operations supervisor and the lead

electrician, allowing mobile workers to have access to the right information instantly without depending on a dispatcher.

Mobile workers are also at the mercy of manual dispatchers when they need to place phone calls. This dependence and lack of autonomy can impede direct communication with suppliers, customers or emergency responders. Ultimately, this can cause significant delays in completing important operational tasks or responding to emergency situations.

Teldio allows employees to communicate seamlessly both internally and externally of the radio network so that they may tend to all given situations. RBX +Plus provides mobile telephony coverage where cell-phone providers cannot by extending the phone network to radios and giving them feature-rich functionality. Greater control over your own private mobile telephony network reduces your dependency on service providers and allows employees to stay connected from anywhere, at any time.

**Because you've invested in your company assets and infrastructure, best ensure that your employees have the tools and information to effectively manage them. ACS combined with RBX +Plus will help you achieve this.**

## Because you want the best for your workers...

Employees are the lifelines that permit businesses to run. Many operate directly in the field, often encountering difficult or even dangerous work environments. As an employer, you seek to give your workforce the tools that will enable it to complete all necessary tasks, while ensuring that their safety is always paramount. By combining Teldio's intelligent alarm notification system (ACS), indoor positioning system (IPS) and centralized lone worker (CLW), supervisors and managers receive the extra assurance that their workers are always safe and accounted for.

The safety of front line field electricians responsible for overhauling, maintaining, and inspecting equipment such as transformers and distribution stations is one of many key concerns for Utility companies. Teldio's CLW ensures that workers completing dangerous or hazardous tasks are pinged on their mobile device at every predetermined time intervals (e.g. every 20 minutes); their response to this message confirms their wellbeing. By coupling CLW with ACS and IPS, should a worker not respond to their

alive check message, an alarm would be triggered notifying the appropriate response team of a potential accident, and providing the worker's location data. Consequently, Teldio provides crucial data on workers' location and current state in packaged information that is easy to understand and efficiently communicated to them.

Teldio also provides the RBX +Plus platform that empowers workers' two-way radios by giving them advanced functionality and increasing their reach to external communication networks. Should a worker encounter a problem and need to communicate complex information to his supervisor, he could do so by calling his office extension or an external number from his two-way radio. RBX +Plus also enables workers to respond rapidly to critical incidents when it matters most by prioritizing channels to ensure an Emergency Channel is always reserved. As a result, employees in distress or responding to a situation can callout for help when they need it the most, at the push of a button, and from any location.

**Because you want a safe work environment for your workers, it is critical to give them the right tools to communicate, notify and respond to unforeseeable events. Teldio's Application Suite provides you this assurance.**

## Because you strive to minimize error. . .

Often, finding the right person to communicate with is a significant source of unexpected delay and error. By providing workers with tools that supply real-time information and automate processes, it becomes feasible to considerably reduce time inefficiencies and minimize human error.

For individuals managing large or scattered teams, Teldio's Indoor Positioning System (IPS) is an important tool to locate workers via their mobile Bluetooth device. When utilizing the advanced features of the system, it becomes possible for a senior engineer or a project manager to send targeted messages to workers via their mobile device providing them with location-specific data. Ultimately, this improves the reliability and efficiency of communications.

The automation of processes can also contribute to minimizing human error. In many work environments, alarm notifications must first be directed to a dispatcher prior to being communicated to the right individual. The action to manually coordinate communication between individuals takes time, and leaves room for human error. By implementing Teldio's ACS, alarm notifications are automatically

dispatched to the right workers instantly after the alarm is triggered. With its scheduling and competency features, the right on-duty staff are immediately targeted and notified, eliminating lag times and the room for error. The escalation function ensures that no alarm will go unnoticed; this closed-loop system will continue to ping users until the alarm has been accepted and responded to.

Better communication is the key to minimizing error. When a worker responds to an alarm notification from ACS, or is in a dangerous situation, the RBX +Plus platform allows him to call from his two-way radio and verbally notify the appropriate team of the situation at hand. By enabling workers to call both internal and external telephone numbers via their two-way radios, information can be diffused instantly without the need for a dispatcher. Furthermore, the RBX +Plus is the only phone interconnect to efficiently trunk incoming calls and ensure radio channel capacity is used to its full potential. This minimizes the worry of workers missing important calls due to high traffic on the radio network.

Because you need to minimize error, having the proper tools to transform information into practical knowledge is pivotal. Together, IPS, ACS and RBX +Plus provide a powerful platform to facilitate clear, quick, and efficient information transfer.



and,

## Because you need to minimize operating costs.

Recurring fees can be a financial burden, even more so when the services that engage these costs are critical to routine operations. Frontline workers cannot go without tools to communicate. The RBX +Plus platform enables the infrastructure in which you've already invested to replace cell-phones or other mobile devices, thus completely eliminating expensive recurring service fees. It takes little time to see impressive results: in past installations of MOTOTRBO networks coupled with RBX +Plus, ROI was achieved in the first 18 months of use due to the significant cost reductions achieved with the displacement of cell-phones.

Operating costs can also be minimized by reducing time inefficiencies. This can be done by automating workflow processes with the help

of Teldio's Application Suite. ACS ensures that the right workers are notified when alarms are triggered in your facilities, allowing them to react promptly and efficiently, and improving the ability to quickly contain the situation. IPS greatly simplifies the process of finding your staff and effectively communicating with them based on their location, while CLW ensures that workers are always safe, reducing the need to send two workers when only one is needed for a specific job or task. The RBX +Plus provides your workers with a means to communicate with no recurring fees, and extends the reach of your mobile communication network where other service providers cannot. Implemented together or as stand-alone applications, these solutions leverage your current infrastructure and processes to reduce inefficiencies.

Because you need to minimize operating costs, implementing applications that ease your work processes can be your first step in achieving your goal to minimize your operating costs.

# Looking over **practical** applications.



## The Company.

As the premier supplier of electricity to the Republic of Ireland and the employer of 7,000 workers, ESB wanted to efficiently respond to its security and engineering alarms while ensuring that workers had access to public emergency channels.

## The Need.

Teldio was recognized as a key component in ESB's decision to switch their communications network to a MOTOTRBO solution thus allowing their workers to remain in contact both with each other and with the outside world when it matters most.

## The Solution.

RBX +Plus and ACS were installed as a complete notification and response solution. Now, the right workers receive notification of alarms from the Honeywell BMS directly on their radios based on the scheduler and action filter. They can also respond to any situation via their MOTOTRBO two-way radios.

Ireland, UK  
**Electrical Supply Board**



### The Company.

WE Energies is a power generation company that provides service to customers in portions of Wisconsin and Michigan's Upper Peninsula. Their 13 sites vary from coal, natural gas and oil-based power generation.

### The Need.

Because their workers carry PTT cellular devices, the company incurred expansive reoccurring operational costs. Also, their cell-phones received weak to no covering inside the power plants.

### The Solution.

The PTT cellular devices were eliminated and replaced with 1,700 MOTOTRBO radios across Wisconsin in the 13 WE Energies sites in both Capacity Plus and IP Site Connect configurations. Teldio's RBX +Plus ensures workers can call both internally and externally to the radio network, creating a safe and more productive work environment no longer plagued with dead zones.



Wisconsin, USA  
**WE Energies**





# Worker Safety &



## RBX<sup>+PLUS</sup>

### Unified Communication Solution

The award winning RBX +Plus brings all the benefits and functionality of corporate unified communications to digital radios, enabling companies to operate under one private business critical mobile telephony network. Digital radios can now communicate seamlessly with phones while having most functionality found on mobile devices. Enable your Field Supervisors to reach their employees when offsite, or your Lead Technical Engineer to call your Fire Marshall from his radio.

RBX +Plus leverages existing radio and telephony infrastructure in a whole new way by giving customers the ability to truly control their mobile communications coverage area while reducing, if not eliminating mobile communications costs without sacrificing functionality.

## R2R<sup>Recording</sup>

### Radio to Radio Recording

The Teldio recording solution enables network administrators to record, log and playback any group call on MOTOTRBO two-way radio networks of any configuration. This solution also allows users to record both Radio-to-Radio and Phone-to-Radio conversations, making it easy to use recorded field service calls for auditing or training purposes.



# Situational Awareness



## ACS<sup>Plus</sup>

### Intelligent Alarm Notification

Alarm Control System (ACS) can drastically raise the level of efficiency and safety in the workplace. The software application automatically dispatches safety and business critical alarms to MOTOTRBO digital radios and other mobile devices. This application provides the assurance that if an alarm is raised, ACS will immediately identify the available responsible employee based on schedule and competency, and escalate the alarm until it is acknowledged, resolved and closed. If your front line workers were to miss or ignore their alarm notifications, their supervisor or the operations manager would be notified as the alarm was appropriately escalated until acknowledged. Quicker response times mean the difference between service interruption and normalized production levels.

## CLW

### Centralized Lone Worker

The Centralized Lone Worker (CLW) module raises an alarm whenever a radio or mobile phone user does not respond to a regular safety check sent automatically by the application at predefined intervals. If an employee fails to respond to the alive check request within the allocated time frame, an emergency alarm is immediately raised to supervisors and/or support teams. Employees completing dangerous tasks in the field or in the production facilities now have the extra assurance that someone is looking out for their wellbeing, and supervisors know they can keep track of their employees, wherever they may be.

## IPS<sup>Bluetooth</sup>

### Bluetooth Indoor Positioning

Indoor Positioning Solution (IPS) allows organizations to locate and track employees and assets using any Bluetooth device including MOTOTRBO radios equipped with a Bluetooth Adapter. IPS provides real-time location data of radio and mobile phone users using strategically placed Bluetooth beacons. IPS can be used in conjunction with ACS to trigger an alarm notification if a worker or asset enters or leaves predefined zones. It also complements CLW to provide location data of a worker in distress signaled by a panic alarm or non-response to an alive check. IPS provides you with additional information to ensure that your most important assets – employees and equipment – are safe, secure and where they need to be to ensure consistent system uptime of your grid.



## About Teldio.

Teldio ensures greater employee safety, security, and situational awareness by providing cost effective radio to telephony unified communications, alarm management and indoor positioning solutions. We have given ourselves the mandate of providing breakthrough solutions to integrate existing communication infrastructures. Teldio solutions are also scalable, helping your communication network grow.

How can we help your company? Teldio employs a mix of highly skilled engineers and industry business veterans to tackle the most complex challenges faced in the two-way radio and alarm management markets. As such, Teldio has become the bridge between mobile, telephony and alarm networks ensuring the maximization of communication technology investment by significantly reducing recurring costs.

The company's world headquarters are located in Ottawa, Canada with a regional office in Cambridge, England and presence in the United States. Combining its network of strategic partners, Teldio has representation in over 90 countries across 6 continents.



**Teldio**<sup>®</sup> Communicating Beyond Frequencies™  
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