

An aerial photograph of an industrial facility at night, featuring two tall smokestacks on the left, a large central warehouse, and numerous parked vehicles. The scene is illuminated by site lights, and a teal overlay covers the top and right portions of the image. A large teal speech bubble shape is positioned in the upper right, containing the title text.

SITUATION MANAGEMENT SOLUTIONS FOR UTILITIES



WHITE PAPER

Qognify

Today's Utility Industry Challenges Cycle

Security and safety comprise a significant business risk for utility companies. Their operations are both complex and critical. The potential for injury and loss of life exists every time a utility crew steps into the field. Energized power lines and electrical

substation equipment creates a significant safety hazard for electrocution and electrical burns. Water utility face risks of intentional harm through malevolent acts.

In these, a single major security or safety incident can cost millions of dollars in operational costs, remediation, insurance payouts, lawsuits, halted business operations and fines.

The utility industry including electric, water, nuclear and other types, faces a range of challenges throughout the world. The increased scope of new technologies in the control room, rising threat-levels, regulatory compliance – both internal and external, and common operational issues all contribute to create a more complex environment.

Here's how some of these challenges are impacting the industry.

Data Consolidation and Unified Management in Complex Environments

Growing expectations for continuously improving, cost-effective safety, security and operations has dramatically increased the scope of new technologies and sensors that are deployed across utility organizations' sites, sending vast amounts of information into the security control room. Also, most of these technologies function as siloed or disparate systems, that need to be monitored. This information overload reduces control room operator efficiency and increases the risk of human error.

Inconsistent Event Response

Most utilities do not have the necessary policies, procedures and processes in place to handle events consistently and effectively. In addition, many utilities find it difficult to take written procedures and implement them in actual security control room day-to-day operations and then make sure that every event is handled and documented according to those procedures.

High Rate of Employee Turnover and Increased Training Costs

utility companies must ensure that all security operators within the organization are familiar with the organizational procedures and that they will follow these procedures consistently. This becomes particularly challenging since many security operators are contracted workers with a high turnover rate. This results in a costly and time-consuming training and certification process, which must cover complex procedures and a variety of security systems from multiple vendors – each with a different look and feel. And still, this does not ensure that procedures and response will be followed and acted upon.

Increased Threats and Risk

The electric utility industry faces more threats than ever in the form of terror, crime, vandalism and, increasingly, costly copper theft:

- As potential terror targets, the ramifications of damage to the bulk electric system could be severe.
- Crime, sabotage and vandalism are no less of an issue. Not only costly to replace or repair, these incidents can disrupt the service provided to the surrounding population and impact public image.
- With a direct correlation between the price of copper and the rate of theft, incidents of copper theft are on the rise.

Complex and Ever-changing Reporting Requirements

An ongoing challenge to electric utilities is creating a verified audit trail and having a proper reporting mechanism. It helps improve security, and supports debriefing, investigation and prosecutorial actions. Together with that, reporting is also extremely time-consuming, costly and damaging when done inaccurately.

How Qognify Situation Management Solutions Address These Industry Challenges

Situator, the leading Situation Management solution, integrates and correlates information in real time from multiple and diverse systems across the enterprise. At the same time, it coordinates the most effective and compliant responses, ensuring that everyone in the security management and operational chains know what is happening, where it’s happening and how to respond.

Qognify Solution Highlights

Meeting the business challenges faced by modern utilities, Situator:

- Consolidates and manages the vast amount of data flowing into control rooms from all connected security systems.
- Automates processes to ensure consistent event response.
- Helps organizations maintain internal policy and procedure, in addition to any external regulations. cyber security teams in while handling incidents.

Unified Management, Centralized Control

Situator merges all access control systems, video cameras, perimeter protection sensors, geo- location systems, communication systems, web feeds, fire and safety systems, HR systems, other data sources and operating procedures into a single unified platform. Situator then fuses, correlates and prioritizes all data from these disparate systems.

At any point, only the most relevant data is displayed on a single intuitive user interface to the operator with clear guidelines. This ensures that the operator has everything needed to manage the situation according to the organization’s policies, SOPs (Standard Operating Procedures) and regulations. In a multi-operator environment, Situator ensures that only the right people see the right information, resulting in consistent and efficient response. This frees up other operators to work on other tasks without interruption.

Evolving incidents can be assigned to multiple stakeholders at once, allowing operators to collaborate on managing an incident. One example is assigning tasks or sharing information between the physical and cyber security teams in while handling incidents.



Figure 1: Identifying what happened, where it happened and what to do in Situator

Consistent Event Response and Exception Management

Situator can identify potential — or unfolding — situations by intelligently connecting the dots between seemingly unrelated events. Furthermore, Situator enforces processes, automates specific tasks and complex workflows, and intelligently adapts them as an event unfolds to reduce the risk of human error. This ensures that the right action is taken at the right time by empowering organizations and their personnel to make consistent, effective and informed decisions.

The exception management principles inherent in Situator make it possible to design modular response workflows that can adapt automatically or on-demand as situations develop. Featuring an industry- leading intelligent correlation engine, Situator is used to correlate security, safety, IT and operations data streams. Based on customer configurable business logic, suspected patterns are evaluated and appropriate alerts are generated, presented to the user, and trigger pre-configured workflows.

Situator supports both the definition of business rules and dynamic workflows. Business rules are easily definable through a graphic wizard. Dynamic workflows are designed using a Microsoft Visio like drag-and-drop Graphical User Interface, allowing logical elements and actions to be configured by the administrator to create virtually any custom business logic required.

Examples of General Procedures Embedded in Situator

Below are some examples of general standard (security and safety) operating procedures that are embedded and automated by Situator:

 Perimeter breach	 Door held open
 Assault with a firearm	 Copper theft
 Person in restricted area	 Shelter in place
 Sensor failure	 Smoke and/or fire
 Duress button activation	 Chemical spill
 Disconnected gateway	 Explosion of a gas pipe

Situation Management and the Electric Generation/Transmission Control Rooms

Situator’s capability to connect multiple systems and unify different sources of information is not limited to just the security control room. Rather, it can also be used in other control rooms. One example is the electrical grid (transmission) or the electrical generation control rooms.

Situator integrates different operational systems such as SCADA, Historians, Energy Managements Systems (EMS) and others and consolidates the information that needs to be presented to the operator, and identifies important alerts or situations. If a response is necessary, Situator uses its advanced tasks and workflows capabilities to guide the operator on the specific tasks that need to be performed.

Situator Deployment in an Electric Utility SOC

The results achieved by one of the nation’s largest electric utility providers spanning across 11 states illustrates the effectiveness of using Situator. This well-known US IOU (investor-owned utility) leveraged the Qognify solution to implement its physical security plan and maintain regulatory compliance.

By unifying their security platform, the IOU Security Operations Center has:

Gone from managing **14** sites to **350** without increasing personnel

Increased efficiency and reduced event-handling time by **60%**

Integrated and centralized more than **5000** sensors

Self-added more than **2000** security procedures

Reduced new operator training time from **10** weeks to **5** weeks

Maintained compliance of **internal and external regulations**

Situator

Situator’s comprehensive and multi-layered approach to addressing the needs of the is based on decades of experience providing solutions for some of the world’s most security conscious environments and locations. Its proven technology and capabilities are in continual use, ensuring the security and compliance of organizations throughout North America and across the world. With a completely integrated and unified platform where tasks, procedures, and responses are pre-planned, often automated and always recorded, ensuring physical security and regulatory compliance becomes a seamless event for the electric utilities industry with Situator.



ABOUT

Qognify helps organizations mitigate risk, maintain business continuity, and optimize operations. The Qognify portfolio includes video management, video and data analytics, and PSIM/Situation Management solutions that are deployed in financial institutions, transportation agencies, airports, seaports, utility companies, city centers, and to secure many of the world’s highest-profile public events. www.Qognify.com

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