

Downtime -Technology 1 – SCADA Alarms

SCADA (Supervisory Control and Data Acquisition) alarms play a crucial role in monitoring and managing industrial processes. They are essential for promptly notifying operators about abnormal conditions, potential issues, or deviations from the desired operational parameters within a system. SCADA alarms are an integral part of industrial processes, providing real-time notifications to operators. Following ISA18.2 guidelines ensures that these alarms are well-designed, effectively managed, and contribute to a safer and more efficient industrial environment.

Pros	Cons
<ul style="list-style-type: none"> Alarms can be logged for future problem solves and reliability improvements. Alarm resolution data can be stored and reported on for shared learnings. Alarms can send notifications to key stakeholders to enable for quick resolution. 	<ul style="list-style-type: none"> Too many alarms can be counterproductive and lead to alarm fatigue. Alarms need to be monitored by operators. Alarms should have a corresponding action to resolve the alarm.

Technology Cost range: \$20,000 - \$50,000, depending on the complexity of the use case, vendor licencing, integration and reporting requirements.

DMC Technology Cost: \$15,000

DMC Cost Assumptions:

- Existing SCADA and Process Historian.
- Alarms required and procedures for alarm resolution known and documented.
- Addition of alarms, resolution procedures (SOPs) and pareto reporting.
- Internal costs for end user staff involvement have not been included.
- Single design and build iteration.

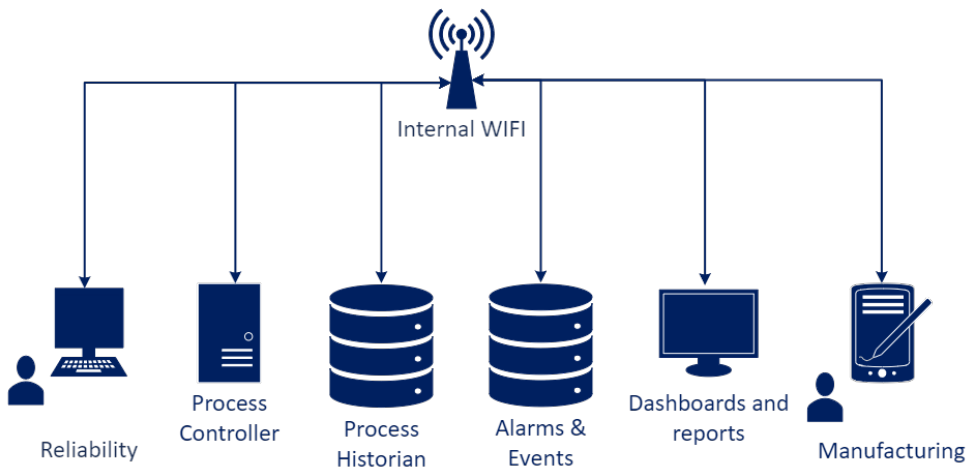
What situation would this technology usually be adopted in? SCADA alarms are typically adopted in manufacturing environments where real-time monitoring and control of various processes and equipment are essential. This includes industries such as automotive, pharmaceuticals, food and beverage, and chemical processing, where maintaining operational efficiency, safety, and quality are paramount.

RoI Considerations: SCADA alarms can lead to significant returns on investment by reducing downtime, minimizing production losses, optimizing resource utilization, enhancing product quality, and improving overall operational efficiency. The cost savings achieved through proactive monitoring and timely response to alarms often outweigh the initial investment in the technology.

What skills are required to implement & run this tech? Implementing and running SCADA alarms in manufacturing requires expertise in industrial automation, process control, programming (such as PLC programming), network configuration, database management, and alarm management principles. Additionally, knowledge of the specific manufacturing processes and equipment being monitored is crucial for effective implementation.

Pre-requisites for successful adoption: Successful adoption of SCADA alarms in manufacturing requires clear understanding of operational requirements, thorough assessment of existing processes and infrastructure, establishment of alarm management policies and procedures, adequate training for personnel involved, seamless integration with existing systems, and ongoing maintenance and optimization efforts to ensure effectiveness and reliability.

Typical Tech Stack



Who can help with this technology? Several entities can assist with the implementation and optimization of SCADA alarms in manufacturing, including industrial automation consultants, system integrators specializing in SCADA systems, manufacturers of SCADA software and hardware, and engineering firms with expertise in process control and instrumentation.

What to google when researching this technology? When researching SCADA alarms for manufacturing, key terms to search for include "SCADA systems," "alarm management," "real-time monitoring in manufacturing," "industrial automation alarms," "SCADA software," and "alarm prioritization strategies."