



CLUSTER REPLY FACTORY CONTROL TOWER

Bring the power of IoT to the production room floor



AGENDA

1. IIoT technologies give manufacturers a competitive edge
2. Obstacles to efficiency in manufacturing
3. Introducing Cluster Reply Factory Control Tower
4. Next steps

ORGANIZATIONS THAT IMPLEMENT SMART MANUFACTURING STRATEGIES SUCH AS REMOTE MONITORING OF EQUIPMENT HAVE A SIGNIFICANT ADVANTAGE OVER COMPETITORS WHO DON'T

50%

The ability to measure OEE with IIoT technologies like remote monitoring result in productivity improvements from 15% to 50%.¹

JIT

Delays during manufacturing have a major impact. Just-In-Time (JIT) production models require goods be delivered within exact production windows.

\$384B

The global smart manufacturing market is expected to be worth 384.8 billion by 2025, growing at a CAGR of 12.4% from 2020 to 2025.³

OBSTACLES TO EFFICIENCY IN MANUFACTURING

NO DATA OR SILOED DATA

Manufacturers need the ability to easily obtain meaningful insights from shop floor machinery and legacy systems.

LACK OF PREVENTIVE MAINTENANCE STRATEGY

Proactive maintenance informed by data analysis can reduce downtime, unlike a reactive and schedule-based maintenance approach.

UNNECESSARY COSTS

Manufacturers can reduce costs related to production downtime, equipment replacement, and maintenance hours by adopting IoT technologies for equipment monitoring and analytics.

CLUSTER REPLY FACTORY CONTROL TOWER PROVIDES MANUFACTURERS WITH A UNIFIED PLATFORM FOR REMOTELY MONITORING AND ANALYZING THE PERFORMANCE OF INDUSTRIAL ASSETS, REGARDLESS OF BRAND.



**SINGLE SOURCE
OF TRUTH**



**SMARTER
MAINTENANCE**



**REDUCED
COST**



SINGLE SOURCE OF TRUTH

Provides a single unified platform for data from sensors and machines across the facility or facilities, regardless of OEM.



Automate data ingestion from machines on the production room floor.

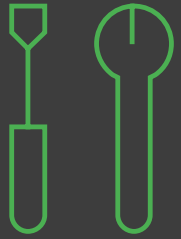
Manage data on a scalable platform.

Verify time alignment of production cycles.

Enable meaningful insights around machine health and performance.

Intelligently detect defects on production items.

Monitor equipment from anywhere using a proprietary web app.



SMARTER MAINTENANCE

Enables real-time awareness of equipment health so maintenance activities can be prioritized by need.



Shift from schedule-based maintenance to a preventive approach, enabling you to identify performance trends that can indicate a potential machine failure.

More efficiently direct maintenance personnel activities by only servicing machines that need attention.

Automated notifications can remotely alert maintenance staff when machines operate outside of your predefined parameters.



REDUCED COST

Efficiency improvements and mitigation of resource waste helps reduce the cost of operating.



Understand your current processes and apply enhancements that save time and money.

More effectively maintained machines will last longer, diminishing the need for asset replacement.

Reduced downtime on the production line means fewer wasted labor hours and better adherence to production schedules.

Easily retrofit legacy equipment rather than buy new.

POWERED BY AZURE

FACTORY CONTROL TOWER LEVERAGES AZURE FOR ITS SECURITY AND FLEXIBILITY



Productive



Hybrid



Intelligent



Trusted



NEXT STEPS

- We'll connect you with the sales team for Factory Control Tower: clustermanufacturing@reply.it
- Learn more about Factory Control Tower at: www.reply.com/cluster-reply/en/sf
- Learn more about Azure: azure.microsoft.com



ACTIONABLE INSIGHTS FOR FACTORIES

CLUSTER REPLY SMART FACTORY REFERENCE ARCHITECTURE



Edge Processing
Data is ingested from sensors and external services. Edge processing enables AI and other complex logic to react faster to local changes and operate more reliably.

Ingestion
Locally processed data flows into IoT Hub. Data from any external service such as ERP systems that house product detail and servicing information is processed and transformed for use.

Formatting and Storage
Data is sent to stream analytics and is formatted for storage. Cosmos maintains primary telemetry data while SQL maintains anagraphic data such as plant regions, products and sensors, images, and more. In parallel, raw data in Azure Data Lake or Blob storage is made available for downstream modeling.

User Insights
Plant and machine operators, technicians, and analysts have 24/7 access to customizable insights and equipment health. Notifications are sent to the mobile app and APIs allow for data ingestion back into external services.

