TelnT
Artificial Intelligence IoT Solutions

PREDICTIVE
MAINTENANCE

Capitalize on a new revenue stream while ensuring higher service quality

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Your problem: Manufacturers rightly focus on improving profit margins and growing revenue. Attracting new customers, selling more products and lean practices can help. However, as equipment sophistication increases, so does the ability to monitor equipment. Manufacturers can now develop revenue from maintenance services. Preventive maintenance has its advantages but to really drive uptime and maintain service levels, predictive maintenance is needed.

Our solution: TelnT brings the Internet of Things (IoT), streaming analytics and process analytics into an integrated predictive maintenance solution for manufacturers. The Artificial Intelligence ("AI") IoT provides access to usage and status data directly from equipment. Streaming analytics combines with predictive analytics to predict machine failure. Process analytics, helps monitor and schedule Just- field service technicians. The end result: reduced technician costs and improved service levels—enabling you to deliver more competitive service contracts at a lower cost.

Problem details

Seamless IoT and machine sensor data integration is critical as well as a low-latency messaging backbone for scalable, fast and reliable transport. Delivering potentially large quantities of data at sub-second speeds is key to downstream analyzed activities is not practical and has a very high price. The TelnT IoT Artificial Intelligence local device wireless Integration, featuring local processing and downstream messaging on events. This device addresses this need with an enterprise-grade service bus for wireless connectivity, messaging, transformation and security of machine local Artificial Intelligence processed data for advanced real-time analytics and Just On **A**rtificial **I**ntelligence **P**redictive-Alert-**R**eporting ("**AIPR**").

The TelnT Artificial Intelligence devices is scalable, flexible platform for streaming analytics is also essential to correlate data from multiple sources and support fast, effective decision-making. The platform must enrich streaming sensors data with a deep understanding of historical and predicted equipment availability and effectiveness to pinpoint when it's time to service, repair or replace. AIPR, TelnT's market-leading platform for local on machine analytics, does this by monitoring and correlating sensor data in real time. With the ability to manage 200 million events per second, AIPR identifies unplanned equipment degradation, performance and usage for large fleets of deployed equipment as well as automatically sends data to a prediction engine. AIPR alerts operators to maintenance requirements via real-time web or smart phone wireless dashboards and can even instantiate maintenance calls automatically if needed. AIPR stands alone as the only platform that can automatically manage alerts based upon criteria, such as time, so it can re-prioritize alerts as they become more or less critical to exception managers.

Why TelnT AI?

Staying ahead of customers' maintenance needs requires agility and insight together with:

- Just-On-Predictive-Alert-reporting from device itself without the need of downstream internet costly servers.
- wireless update maintenance profiles and real-time sensor data process locally by the Artificial Intelligence
- Condition local monitoring to drive prediction model for higher levels of equipment availability
- Accurate prediction of runtime failures and preventative measures
- Optimization of planned downtime but addressing multiple predicated failures at once
- Identification of problematic product in the field and their impact on uptime
- Monitoring field service technician tasks and performance in real time

Solution Series: Manufacturing and filed service
Predictive Maintenance

TelnT's solution

Connectivity, speed and scale from The TelnT IoT Artificial Intelligence local device Integration Platform & Terracotta

- Handle huge volumes of data
- Access and analyze in real time

Flexibility from The TelnT IoT Artificial Intelligence local device BPM

- Interact with service providers in real time
- Get real-time event and process data
- Deliver process-driven situational and case management

Combined streaming and predictive analytics with AIPR

- Monitor sensor data to determine equipment condition
- Analyze and act on high-volume IoT data in real time
- Leverage advanced predictive- model to anticipate failures

And of course, monitoring the effectiveness of business process is key to monitoring service levels. The **AIPR** device optimize is the real-time process analytics engine to measure and alert on Predictive Maintenance pattern. Such as volume of events, temperature, vibration, power consumption, air pressers, humidity, time lapse or any physical sensor. Those typical for service providers to manage. The response to identified exceptions and maintenance opportunities is critical to unlocking the value of predictive maintenance.

That's why intelligent business process management is needed for a wide range of activities, such as dispatching technician only on need based.

The TelnT IoT Artificial Intelligence local device is fully integrated with AIPR to combine streaming data, such as weather, equipment usage and traffic data, with process data, such as process step activity and inventory availability. The TelnT IoT Artificial Intelligence local device binds the solution to the rest of the enterprise so other enterprise maintenance resources can mobilize at unprecedented speed.

Key benefits

TelnT's solution brings equipment manufacturers closer than ever to their customers and turns a costly operational expense into a source of competitive advantage. Benefits include:

- More stringent SLAs and customized maintenance services than competitors
- Improved operating margins due to decreased technician and maintenance costs
- Increased real-time visibility into field service technician tasks and performance
- Improved remedial planning when maintenance requests cannot be completed during planned downtime periods
- Insights into preventative measures—for example, using predictive maintenance as the basis for continuous improvement in preventative maintenance

ABOUT TELNT

We are a unique consultant design house for Artificial Intelligence Internet of Things ("IoT") devices.
Design based on WI-FI, BLE, Sub GHZ LuRa All our designs are based on our OS ARTIFICIAL INTELLIGENCE.

Our Self-learning Artificial Intelligence Algorithm:
1. Improved its behave by eliminating illogical results
2. Automatic identifying recurring patterns when attached to humans, machines, assets or vehicles
3. Rule-based and self-decision to send a wireless alert
4. Multidimensional Rule-based algorithm for wireless alert report