

# Predict Equipment Failures and Minimize Maintenance Costs

## Predictive Maintenance



**iOmniscient** X **ASUS** X **intel**

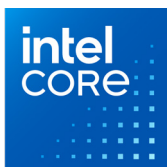
Before equipment failure occurs, physical warning signs are almost always present—visible, audible, or detectable through smell. Equipment might begin to vibrate or become misaligned; pipes or railway tracks may develop cracks; conveyor belts may produce rattling noises; valves may leak hazardous gases; and ball bearings in pumps can overheat.

With the ability to see, hear, and smell, Predictive Maintenance operates as if a human were continuously present. Its agentic, autonomous response capability enables immediate, predefined actions to safely stop equipment and mitigate damage. This helps prevent unplanned breakdowns, reduce maintenance costs, and minimize product loss. The system can operate with existing sensors - such as cameras and microphones - provided they meet the required specifications. For smell, iOmniscient provides an e-Nose capable of detecting and differentiating an infinite number of smells. iOmniscient provides turnkey design and implementation, 24x7 support, and optional managed services.

Predictive Maintenance has been deployed on the ASUS IoT PE3100G, a rugged edge AI platform engineered for high-performance in industrial environments. This system accelerates AI inference, image processing, and real-time analytics for demanding applications such as Predictive Maintenance.

*iOmniscient Predictive Maintenance can be implemented quickly and pay for itself in months rather than years.*

**Intel Products & Technologies**  
Accelerating AI and analytics at the edge



[Intel® Core™ Processors](#)



[Intel® Xeon® Scalable Processors](#)



[OpenVINO™ Toolkit](#)

# Key Intel-Enabled Features

Real-Time AI and analytics make it easy



Real-Time Detection



Multi-Sensor Fusion



Rapid Model Training



Energy Efficient

Powered by Intel Processors and optimized with the OpenVINO™ toolkit, iOmniscient and ASUS deliver:

01



Real-time fault detection powered by high-speed CPUs

02



Scalable compute enables advanced multi-sensor fusion

03



Energy-efficient CPU design supports low-power operation

04



Rapid model training accelerated by advancing CPU power

That's the power of Intel Inside.

## Country/Geo:

Worldwide

## Verticals:

Video Safety & Critical Infrastructure  
Manufacturing  
Transportation

## Use Cases:

Public Safety & Enterprise Security  
Smart City & Critical Infrastructure  
Smart Buildings

## About iOmniscient

iOmniscient provides AI based multi-sensory analytics (video, sound and smell). It offers 300+ ready-to-go AI applications for 30 industries including an in-built Agentic capability to provide autonomous real time responses. With 75 International patents it does things that no one else can do. Its systems are implemented in 70 countries.

[www.iomni.ai](http://www.iomni.ai)

[Predictive Maintenance - Edge AI Partner Spotlight](#)

**intel ai**

Intel® AI Edge Applications

## About ASUS

ASUS is a global technology company driven by innovation and passionate about enhancing digital life. It designs and delivers a broad range of products and solutions that empower people and organizations, combining cutting-edge engineering, quality, and sustainability to create intuitive, reliable experiences for users worldwide.

[www.asus.com](http://www.asus.com)

[ASUS PE3100G - Edge AI Partner Spotlight](#)

**intel ai**

Intel® AI Edge Systems

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