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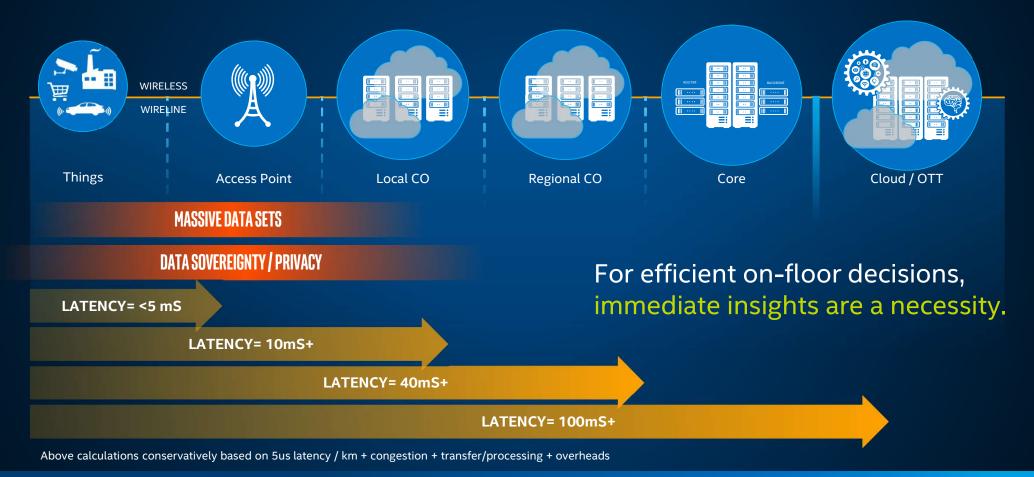
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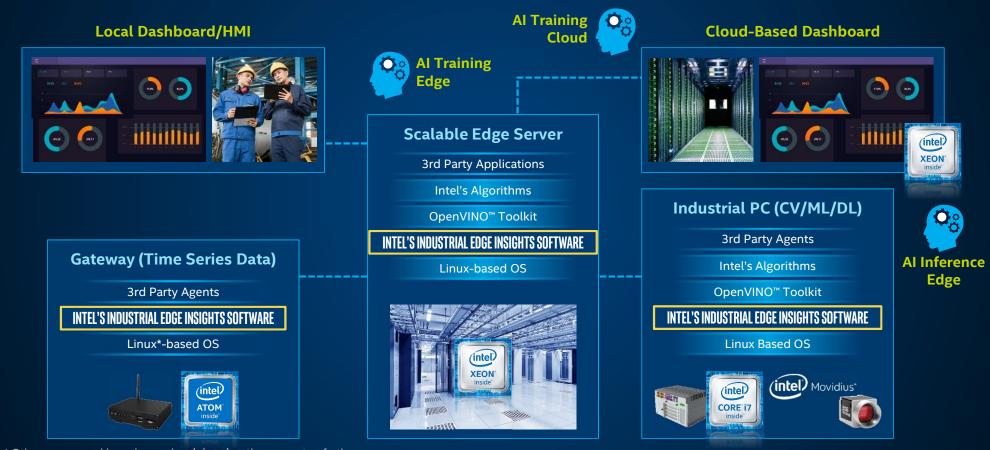
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LATENCY, BANDWIDTH, SECURITY DRIVE ANALYTICS TO THE EDGE



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ANALYTICS PIPELINES FOR SMART MANUFACTURING



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INTEL'S INDUSTRIAL EDGE INSIGHTS SOFTWARE (EIS)

ACCELERATES DATA ANALYTICS AND ALAT THE EDGE

WHAT is EIS?

Edge Insights Software ("EIS") is modular, product validated software that enables extraction of data (time series, image/video, audio1) at the edge, allowing it to be securely communicated across different protocols and different Operating Systems, managed cohesively, and analyzed quickly





SECURITY AND NEAR REAL-TIME













Movidius AliOS The Windows OpenVINO

Who NEEDS it?

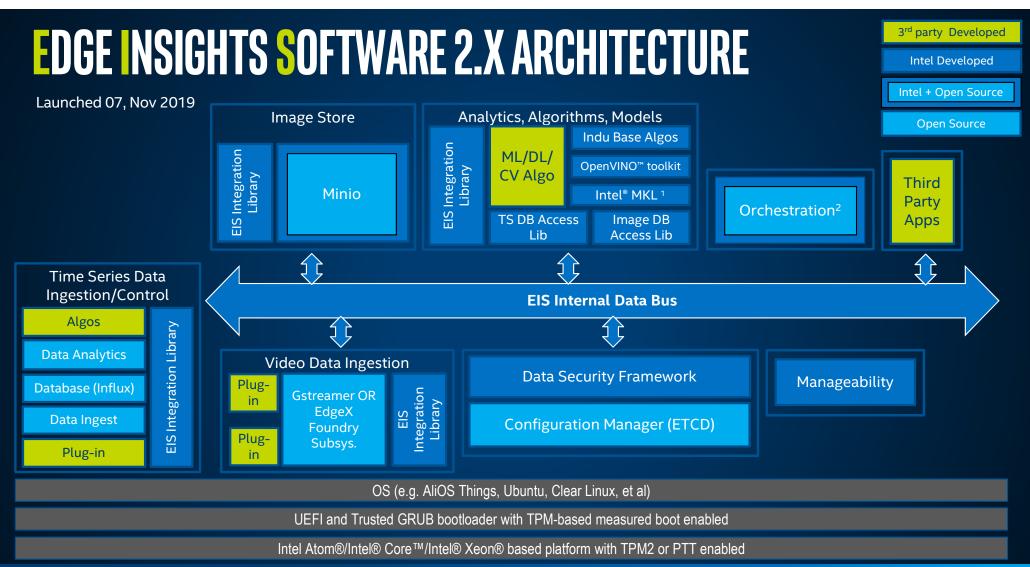
OEMs SIs **ISVs CSPs**

- ✓ Quicker to deployment
- Quicker to productization and time to market
 - ✓ **Downloadable today** with signed license

Save OXMs, SIs and CSPs 100s ~1000s engineering hours to let them do what differentiates them

For more information, visit Intel EIS webpage

- 1&2: Targeted for a future Industrial Edge Insights Software release
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INTEL'S INDUSTRIAL EDGE INSIGHTS SOFTWARE (EIS) FEATURES

EIS provides:

- Modular message/data bus for machine, video, and audio* workloads
- Containerized ingredients for image processing, storage, and analytics
- Support for industrial optimized inference and training at the Edge
- Support for various operating systems (e.g. Linux*, AliOS*, etc.)
- Connectors for easy usage of Intel® Media Software Development Kit (Intel® Media SDK), OpenVINO™ toolkit, and Intel® Math Kernel Library (Intel® MKL)
- Cptimized for Intel's CPU, GPU, FPGA, and VPU portfolio with hardware ranging from Gateways, Industrial PCs (IPCs), to Edge Servers
- \$0 binary distribution (OBL) to Intel's ecosystem partners







REAL TIME



Optimized on Intel® Architecture-Based Platforms



















1. Targeted for a future Industrial Edge Insights software release

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INDUSTRIAL CUSTOMERS SEEK ANSWERS



How can I meet rising requirement on **PRODUCT QUALITY?**



PREDICT AND REDUCE
DOWNTIME?



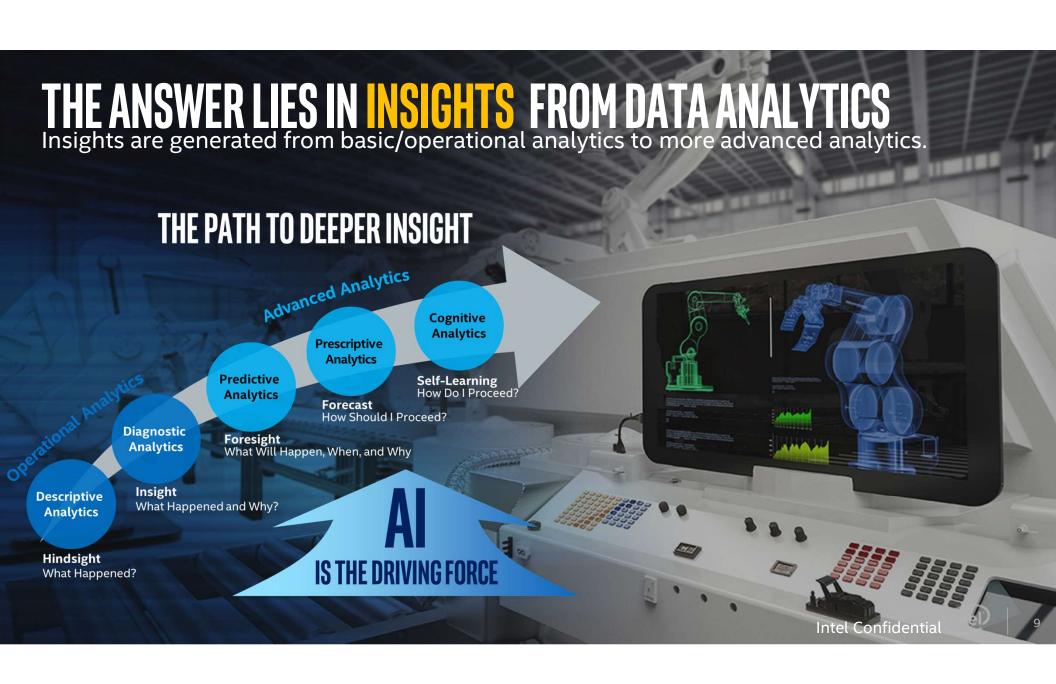
How can I **OPTIMIZE FACTORY OPERATION**for higher throughput?



How can I leverage Latest technology for **BETTER BUSINESS OUTCOMES?**

How can I **STAND OUT IN COMPETITION** in my industry?





DATA ANALYTICS HELP TO REDUCE DOWNTIME, IMPROVE PRODUCT QUALITY, OPTIMIZE OPERATION Unleash the values of all data types including vision data and non-vision data at the edge for truly smart and

connected industrial environment







MACHINE

- **PEOPLE**
- Worker safety
- Worker behavior
- Predictive maintenance
- Robotics Pick and Place



- Product defect detection
- Raw material appearance inspection
- Asset management



PROCESS

- **Factory operation** optimization
- Optimization of raw material utilization
- **Predictive Analytics**



ENVIRONMENT

- Temperature optimization
- Humidity optimization

Structured Data

Time series

Image

Video

Text

Audio

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Lengths of the bar indicates the comparative AI value impact by data type. Resource: McKinsey Global Institute "NOTES FROM THE AI FRONTIER INSIGHTS FROM **HUNDREDS OF USE CASES "**



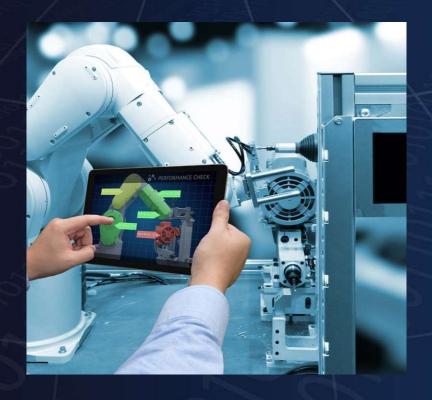
TRANSFORMATION IN THE INDUSTRIAL MARKET

Smart factory is one of the outcomes of Industry 4.0.

It employs artificial intelligence, robotics, analytics, workload consolidation, and IoT to transform raw data into immediate (near real-time) insights.

The benefits of smart factories are many¹:

- Leaner process
- Maximum flexibility
- Improved predictability
- Increased agility
- Proven productivity

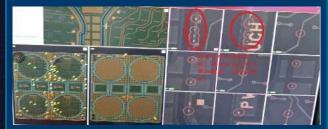


1. "Smart Factory and Its Benefits on Manufacturing Industry," Infinite Uptime August 21, 2018 https://infinite-uptime.com/blog/smart-factory-benefits-manufacturing/



INDUSTRIAL EDGE INSIGHTS PLATFORM USE CASES

DEFECT DETECTION



Package, part, or surface defects detection using AI and vision technology

- Inline quality control/assurance
- Reduce production losses and cost
- Reduce customer returns

PREDICTIVE ANALYTICS



Predicting future outcomes based on historical data

- Predict product quality
- Predict equipment maintenance
- Prevent costly maintenance
- Predict yield fluctuation

MANUFACTURING PRODUCTIVITY



Identifying opportunities/processes to improve on

- Monitor and improve factory production efficiency
- Monitor and identify production line constraints
- Monitor worker safety

APPLICABLE FOR BROWNFIELD AND GREENFIELD SITES AND INFRASTRUCTURES

