

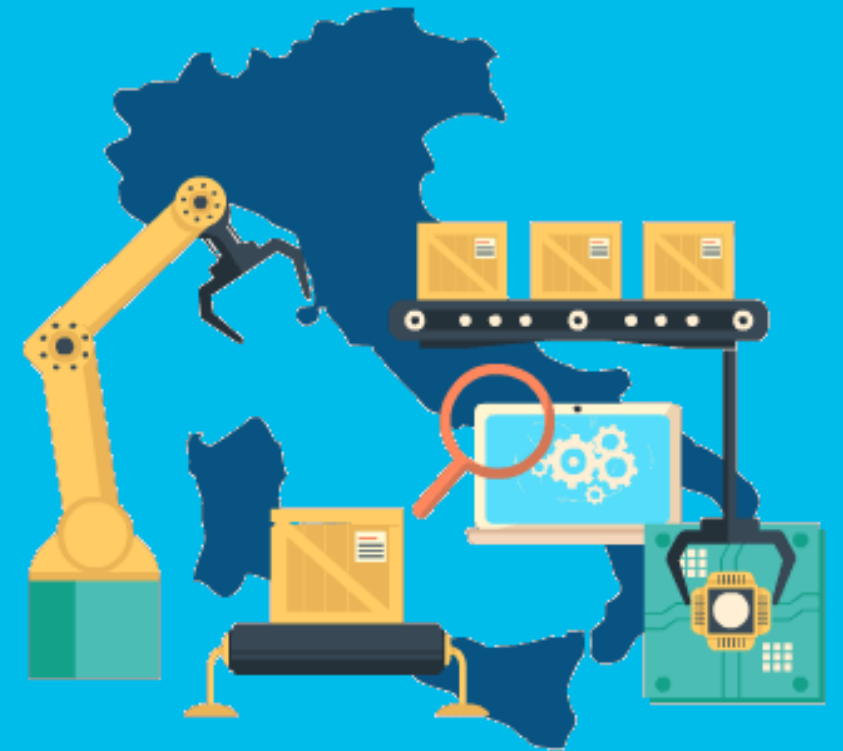


# Impresa 4.0

## Soluzioni concrete per innovare

Masi Matteo

Sales Specialist – Industry Digitization / Industry 4.0



# Da Industria 4.0 a Impresa 4.0

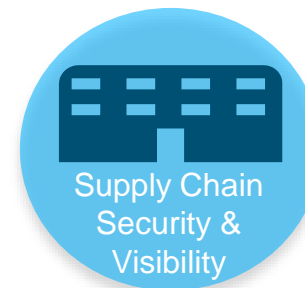
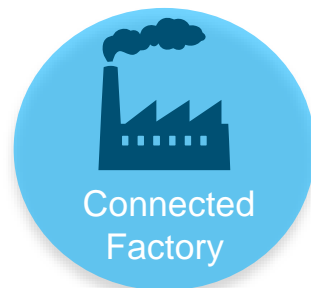
## #DIGITALIANI

### Industria 4.0

Focus su linea di produzione,  
Fabbrica e Macchine

### Impresa 4.0

Focus sul valore del digitale al  
servizio dell' Impresa  
Manifatturiera Italiana



# Cisco Impresa 4.0 Solutions



**Connected Factory**  
(Assets, Machines, Robots, IoT,  
People)



**Factory Security**



**Smart Logistic  
&  
Physical Security**



**Industrial Collaboration**  
Connected R&D  
Academy 4.0  
Factory Collaboration

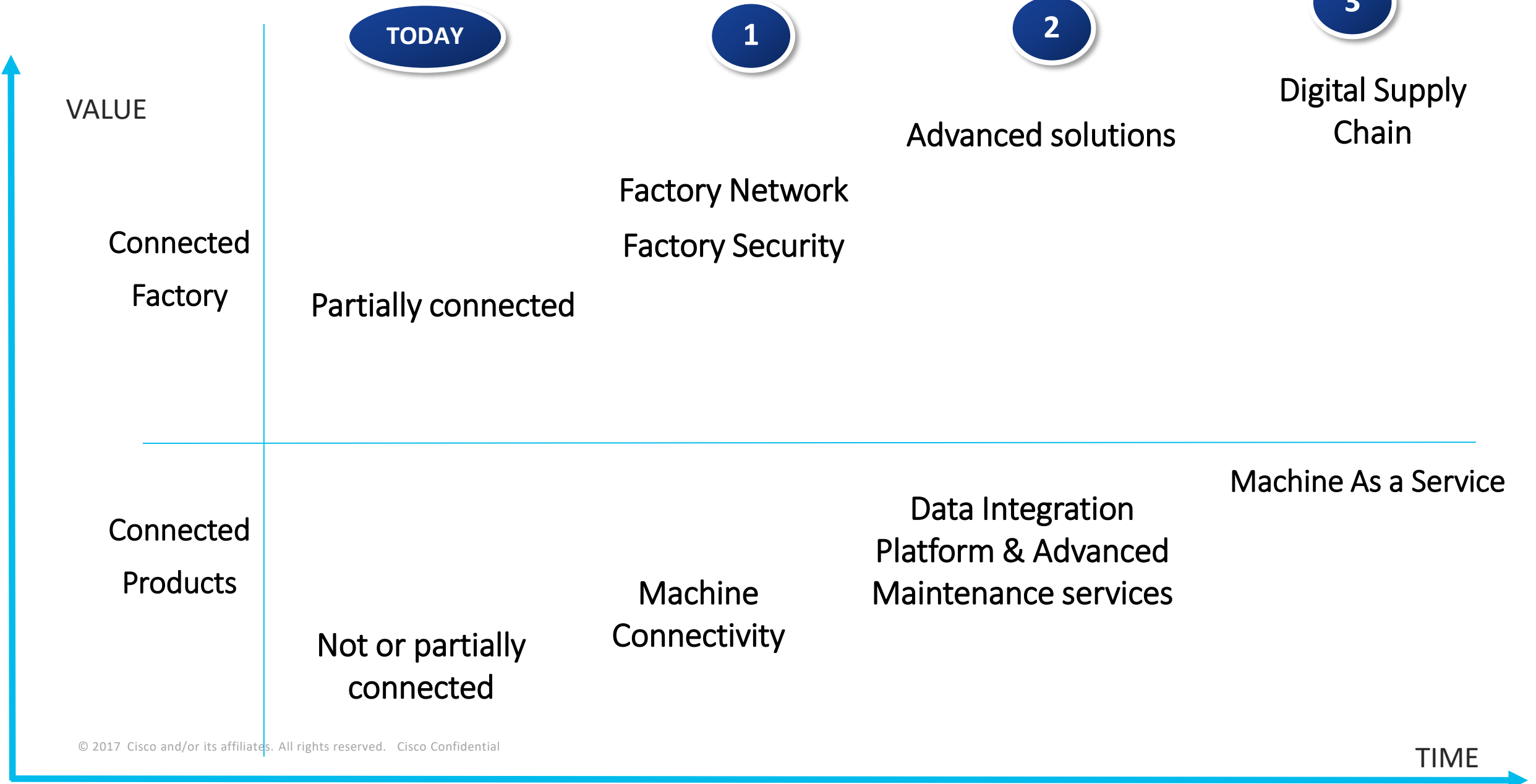


**Document Digitization  
&  
Visual Factory**



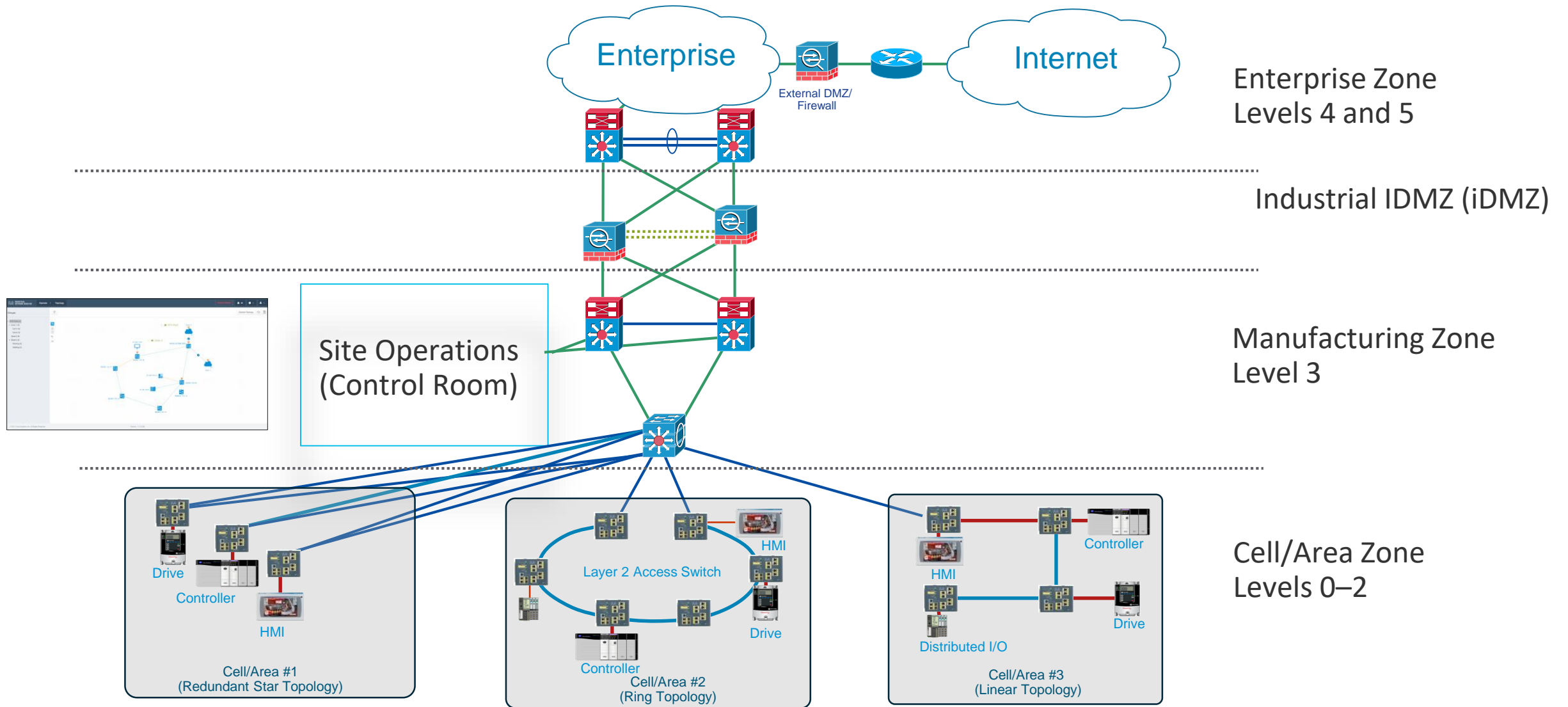
**Connected Products  
&  
Servitization**

# Digital Manufacturing Roadmap



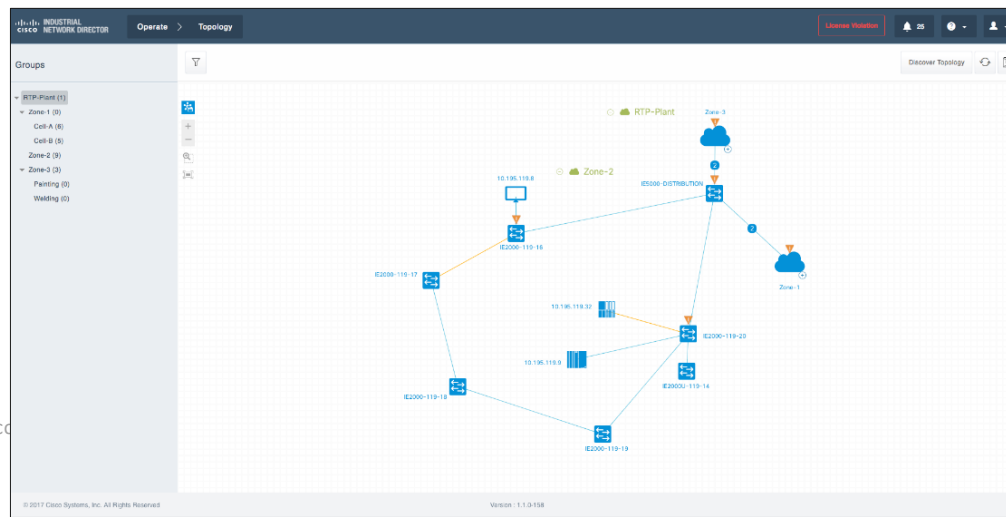
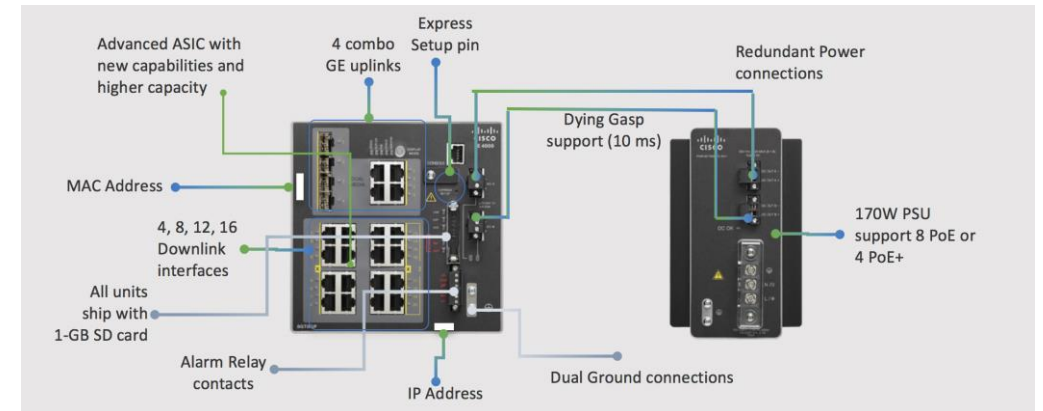
# Connected Factory Solutions

# Connected Factory



# Connected Factory

- 1 Network: Open, Standard-based, Secure, Scalable
- Enterprise & Industrial Protocols
- Network-As-A-Sensor built-in security
- Integrates Manufacturing Systems + Business networks
- Enables real time visibility to business applications
- Reduce downtime
- Improved OEE and productivity
- Increase safety



New

- TSN (Time Sensitive Networks) support
- Industrial Network Director







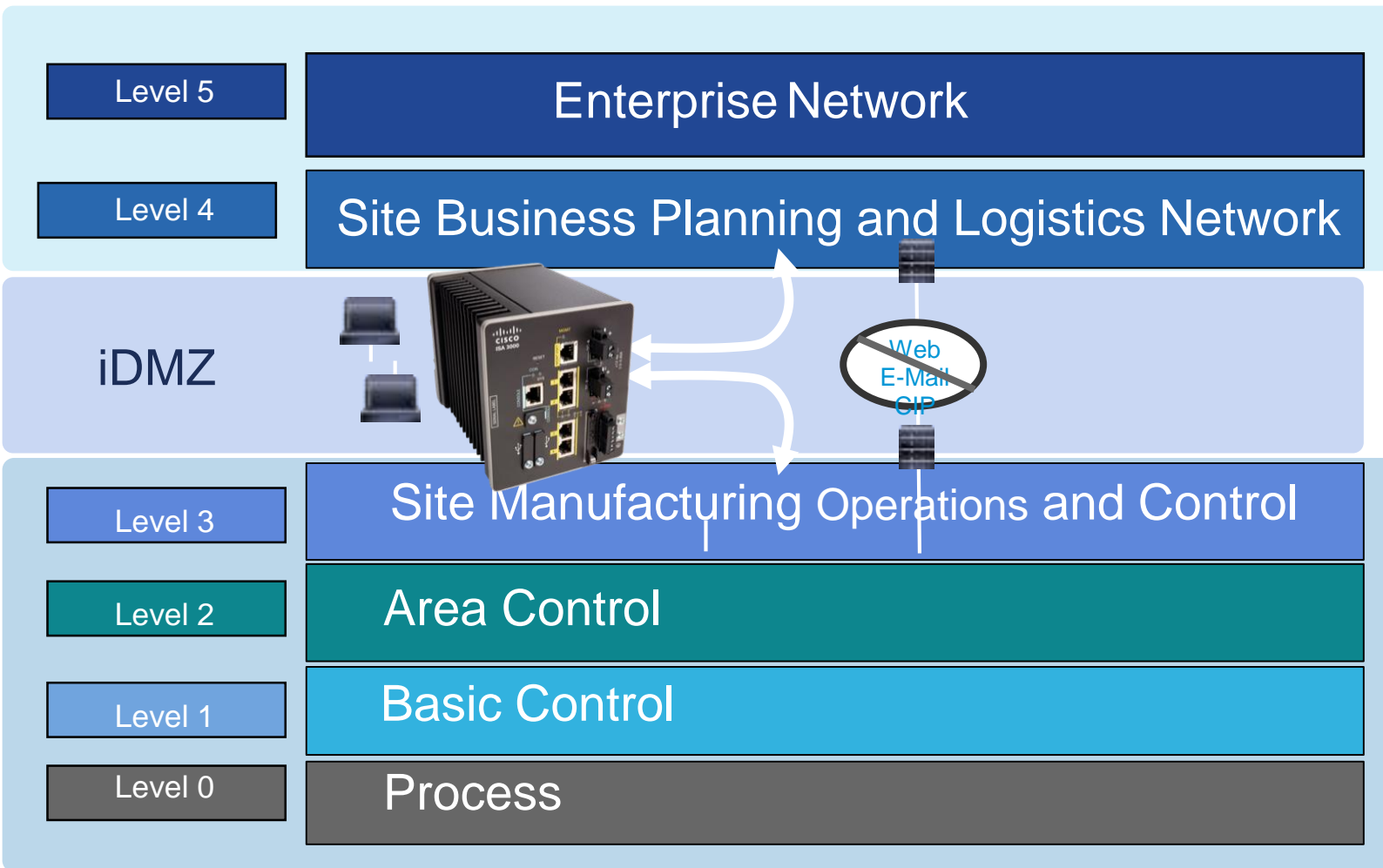
AVG with free movement





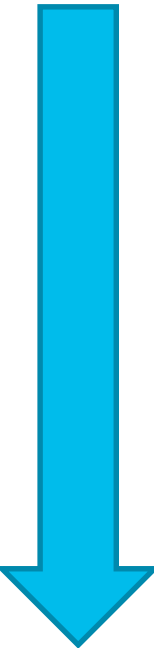
# Factory Security

- Business continuity, availability, integrity
- Quick crisis management and response
- Reduce downtime
- New business models
  - Remote maintenance
  - Remote collaboration
- 3 steps security
  - 1: Secured Connectivity
  - 2: Secured Visibility and Control
  - 3: Converged Security and Depth



# Cybersecurity nelle reti industriali d'impianto.

Evoluzione della sicurezza nelle celle industriali.

- 
- A. Conoscere quello che si vuole proteggere – INVENTARIO ICS
  - B. Classificare i sistemi in ordine di criticità (sistemi Safety)
  - C. Mappare le interdipendenze tra i sistemi ICS-PLC
  - D. Identificare l'esposizione dei sistemi a vulnerabilità note
  - E. Definire una strategia di ripristino dei sistemi compromessi

COLLABORAZIONE TRA IT e OT

- F. Big Data – Archiviazione dei dati provenienti dalle reti industriali
- G. Machine Learning – Definire i comportamenti «normali» dei sistemi

# Physical Safety & Security

The image is a collage illustrating physical safety and security in a factory. It features several key elements:

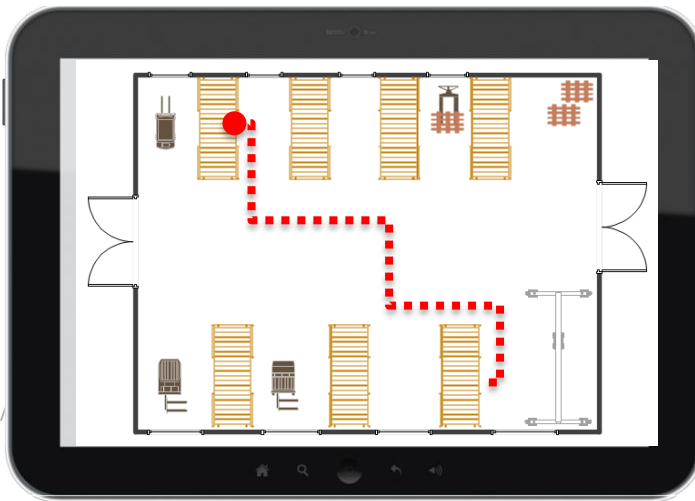
- Top Left:** A large monitor displaying a 'Danger Zone' map. The map shows various areas labeled 'Tool Bins', 'Parts', 'Build', 'Pack', and 'Warehouse'. A red dashed box highlights the 'Danger Zone' area. A 'Line Operator' icon is visible on the screen.
- Top Right:** A large screen displaying a 'Safety and Security Incidents Room' interface. The interface includes a header 'Keep The Ball Rollin' Get Spark for Desktop' and a list of incident notifications. The notifications are as follows:
  - You Line Operator has entered right into the Danger Zone at Wed May 04 2016 15:09:07 GMT-0700 (PDT)
  - You Line Operator has entered right into the Danger Zone at Wed May 04 2016 15:30:22 GMT-0700 (PDT)
  - You Line Operator has entered right into the Danger Zone at Wed May 04 2016 15:31:23 GMT-0700 (PDT)
- Bottom Left:** A worker in a blue uniform and white hard hat stands in the foreground with arms crossed.
- Bottom Right:** Industrial machinery and equipment are visible in the background.

Safety and Physical Access Security  
Locate people in case of emergency  
Emergency notification, Man Down  
Avoided incident management costs and penalties  
Movement of contractors and visitors



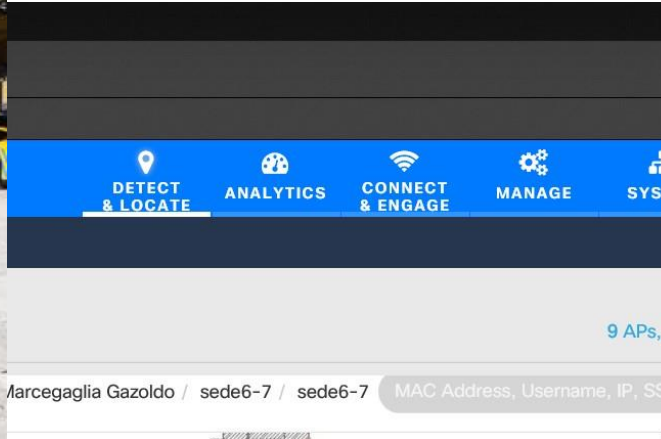
# Smart Logistic, Asset tracking

- Real time Equipment and Asset visibility, location condition
- Track supplies in transit
- Inventory accuracy
- Improved equipment utilization
- Real time push notification
- Correlate location of asset and operator to minimize down time

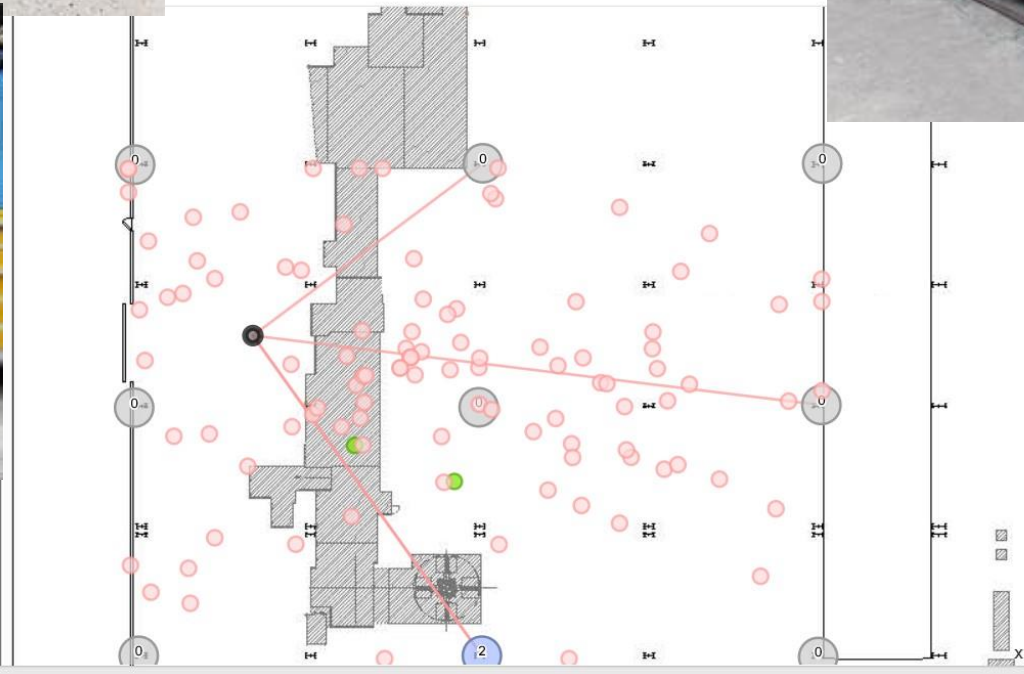




# La localizzazione dei prodotti siderurgici negli impianti produttivi.



- > Pozzolo Formigaro
- > Unassigned



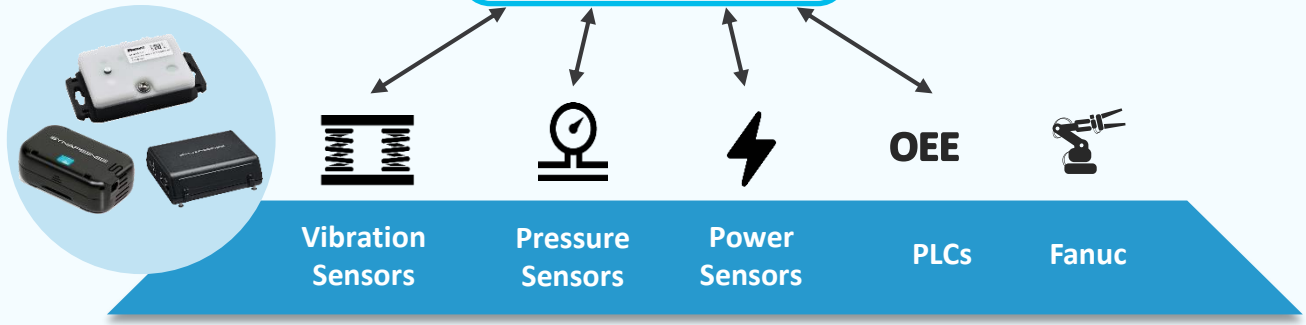


# Equipment Health Monitoring, Retrofit, Predictive Maintenance

Manufacturing workflow apps

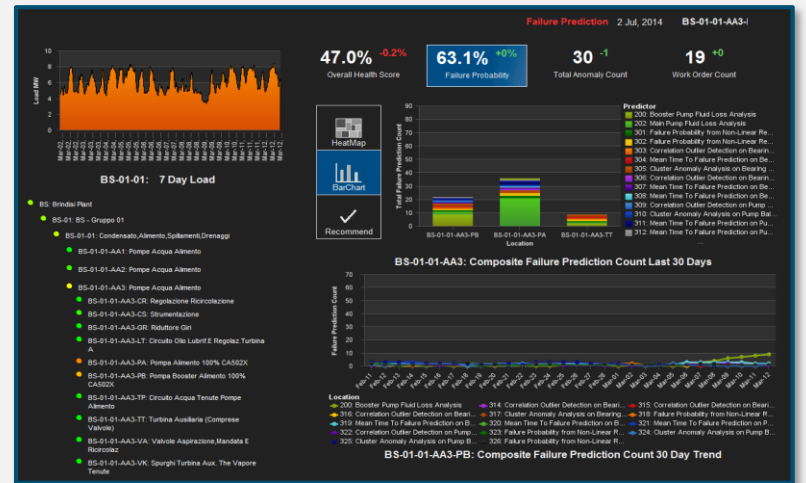


Cisco IoT Software



## Capabilities

- Real-time monitoring of equipment state and condition
- Easy to read trending data
- Automated policy to notify factory staff potential issues before they occur
- Real-time visibility
- Enables steps toward predictive maintenance
- Improved issue response time



# Industry Collaboration



Spark Board: Connected R&D



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Telepresence  
Remote Support

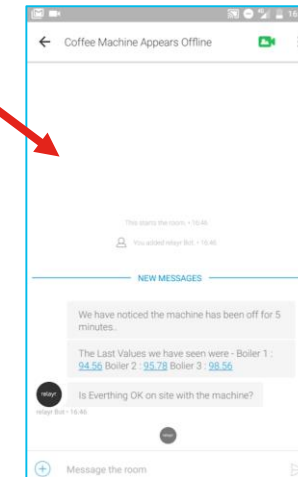


Smart Glasses and  
Helmets



Spark:

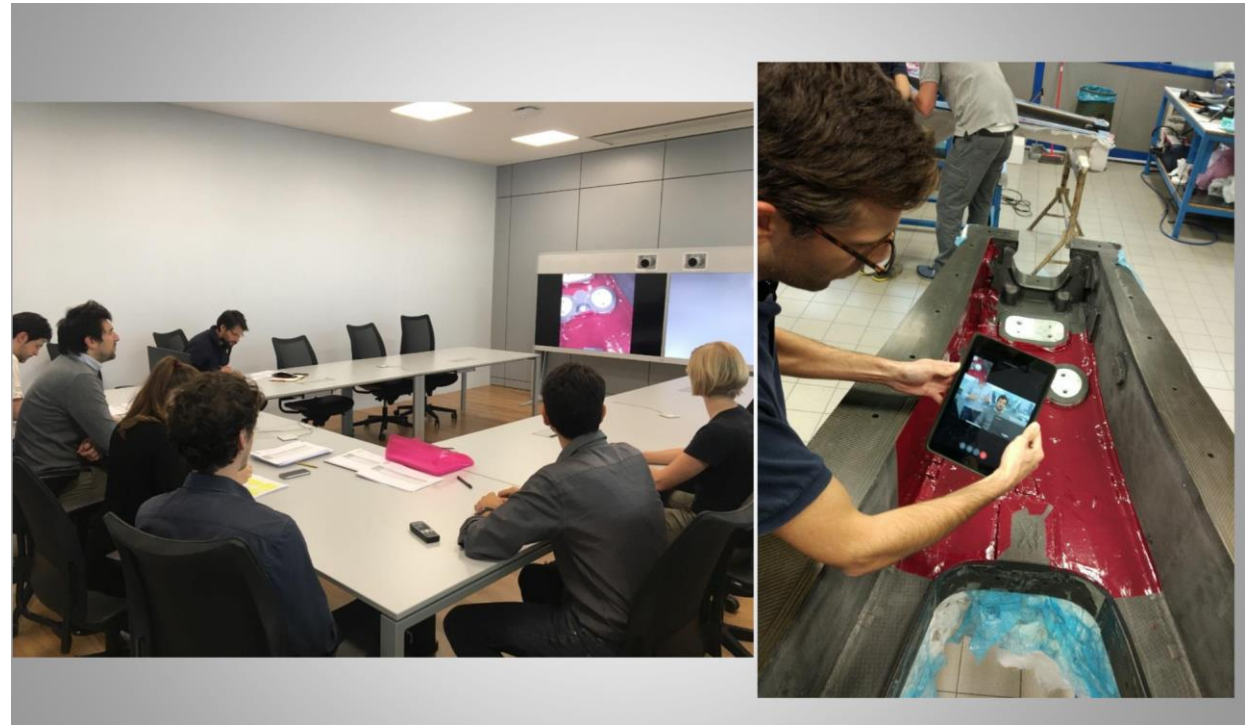
Human-Machine  
Interaction with bots



## Collaboration: Horizontal processes



## Collaboration: Vertical processes





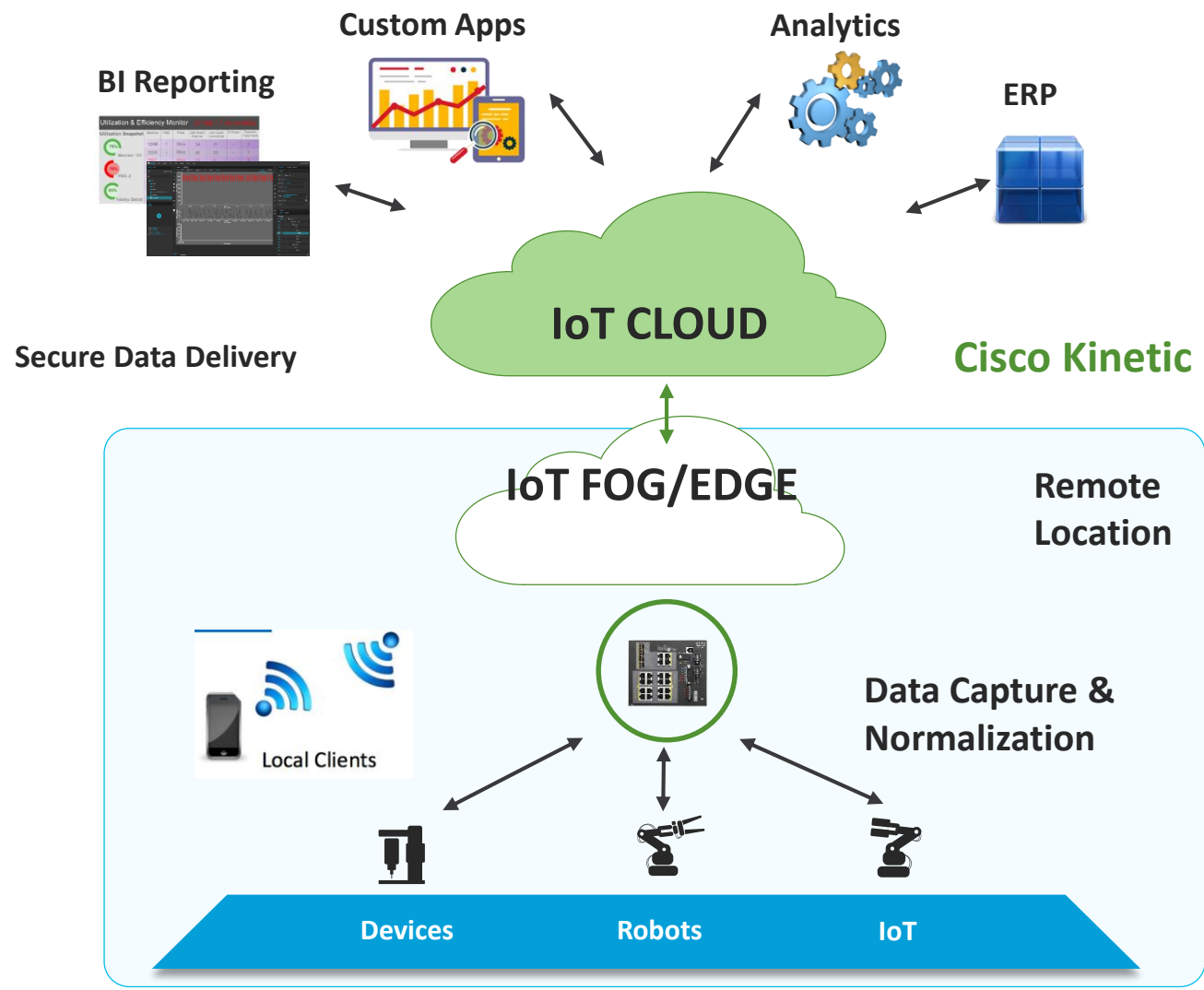
# Fluid-o-tech Visual Factory



# Connected Machine Solutions

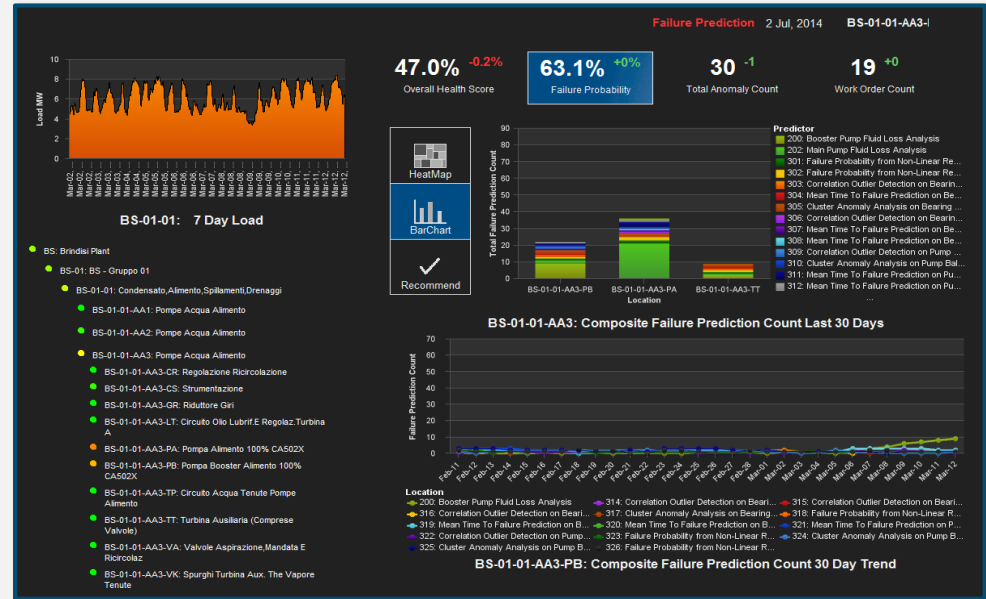


# Connected Machine & Servitization



## Solution Benefits

- Data Extraction from Machine
- Machine Security
- New revenue stream thanks to new services
  - Predictive maintenance, zero downtime, machine running, Data Analytics, Remote support
- Machine Retrofit
- Predictive Maintenance & Machine learning
- Machine-As-A-Service

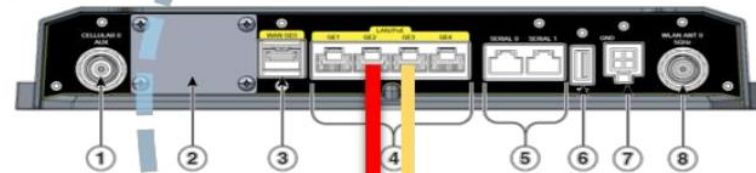
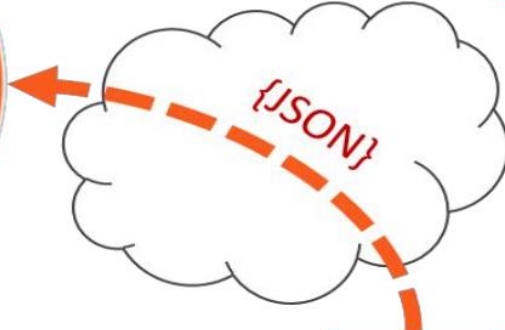


# Hydroservice Connected Machines and Predictive Maintenance



software providing:

- I/O signals acquisition
- Variable engineering
- Protocols conversion
- Security & Authentication



Physical variables from sensors

**SAP CLOUD**  
HANA ANALYTICS & PREDICTIVE

DASHBOARDS

REAL TIME  
MACHINE  
OVERVIEW

STATISTICS &  
TRENDS

ALARMS

# We are innovating manufacturing

But not everything goes  
right

Take care

