IT & OT:

The essential relationship in digital manufacturing

It might seem like Information Technology (IT) and Operational Technology (OT) professionals come from different worlds.

But if manufacturers want to achieve the potential of the industrial Internet of Things, these two functions have to work together effectively.

IT & OT

Charged with: Keeping corporate functions and business applications running smoothly.

Manages: Software, networks and data centers, often with frequent patches, updates, and changes.

Concerned about: Security and enterprisewide analytics.

Misconceptions about OT:

"Their legacy and proprietary systems are difficult to connect to!"

"They leave us vulnerable to cybersecurity attacks!"

Charged with: Ensuring manufacturing processes run safely and effectively.

Manages: Physical assets and technology to support operations, generally with a long product lifecycle.

Concerned about: Uptime, safety, quality, and operational effectiveness.

Misconceptions about IT:

"They just don't understand the reality of the factory floor."

"If they make a mistake, it could shut us down, and cost us millions!"

IT and OT have different priorities.

IT generally relies on the security triad – Confidentiality, Integrity, and Availability, in that order. OT reverses that order.

Confidentiality: "The most important thing is to keep all of our company's proprietary data secure. We must avoid a cybersecurity attack at all costs."

Integrity: "We need strict control over our data to avoid errors or tampering."

Availability: "Once we're confident that everything is secure and accurate, we can get back up and running."

Availability: "The most important thing is to keep everything up and running smoothly. Let's keep planned downtime to a minimum and eliminate unplanned downtime."

Integrity: "We have to be able to trust the readings we're getting."

Confidentiality: "Keeping data safe is important, but our proprietary systems are unlikely to be hacked anyway. Security by obscurity!"

Cisco is bringing these two functions together, working to transform manufacturing through new initiatives, including:

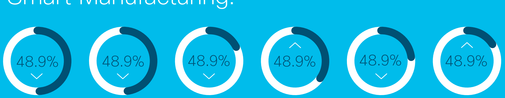
Predictive Analytics

Fog Computing/ Edge Computing

Wireless for the Factory Floor

Innovative Security Approaches

Together, they're unlocking the potential of Smart Manufacturing.



Decrease in the defect rate

Decrease in unplanned down time

Decrease in annual energy costs

Increase in inventory turns

Decrease in new product introduction cycle time

Increase in original equipment effectiveness

http://www.cisco.com/c/dam/assets/docs/becoming-smarter-manufacturer.pdf

Want to learn more?

Explore the White Paper

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