

NIST Internet of Things Advisory Board (IoTAB)

Robby Moss

Opening Statement

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Representative Benefits of IIoT in Supply Chain Management

- **Increased visibility and real-time tracking of goods**, allowing for more accurate forecasting and inventory management.
- **Improved communication and collaboration** among suppliers, manufacturers, and logistics providers.
- **Reduced downtime and maintenance costs** through predictive maintenance and remote monitoring of equipment.

Representative Manufacturing Related Opportunities

- **Real-time monitoring and control** of manufacturing processes can improve efficiency, reduce downtime and maintenance costs, and improve product quality.
- **Predictive maintenance** can be used to predict and prevent equipment failure, leading to improved efficiency and cost savings.
- **Automation** of repetitive and labor-intensive tasks can improve efficiency and reduce labor costs.

Representative Procurement Related Opportunities

- **Real-time tracking and monitoring of goods** can improve inventory management and forecasting, leading to reduced lead times and improved customer service.
- **Automated purchase order processing and invoice matching** can reduce manual errors and improve accuracy, leading to improved efficiency.
- **Predictive analytics** can be used to anticipate demand and optimize purchasing decisions, leading to improved efficiency and cost savings.

Potential Challenges of Implementing IIoT in Supply Chain Management

- **High initial investment costs** for the implementation of IIoT technology and infrastructure.
- **Difficulty in integrating existing systems and devices** with new IIoT technology.
- **Lack of standardization and interoperability** among different IIoT systems and devices.
- **Ensuring data privacy and security** to prevent cyber threats and breaches.
- **Limited technical expertise** among supply chain managers to fully utilize the capabilities of IIoT.

Change Management Challenges

- **Resistance to change:** Employees may resist changes to their existing workflows and processes, leading to resistance and a lack of adoption of IIoT technology.
- **Limited understanding of IIoT:** Many employees may lack the understanding and knowledge required to fully utilize the capabilities of IIoT, leading to a lack of adoption.
- **Training and support:** Employees may require training and support in order to fully utilize the capabilities of IIoT, which can be time-consuming and costly.
- **Alignment with business goals:** It's important to align the implementation of IIoT with the company's overall business goals, and to communicate the benefits of IIoT to employees to gain their buy-in.