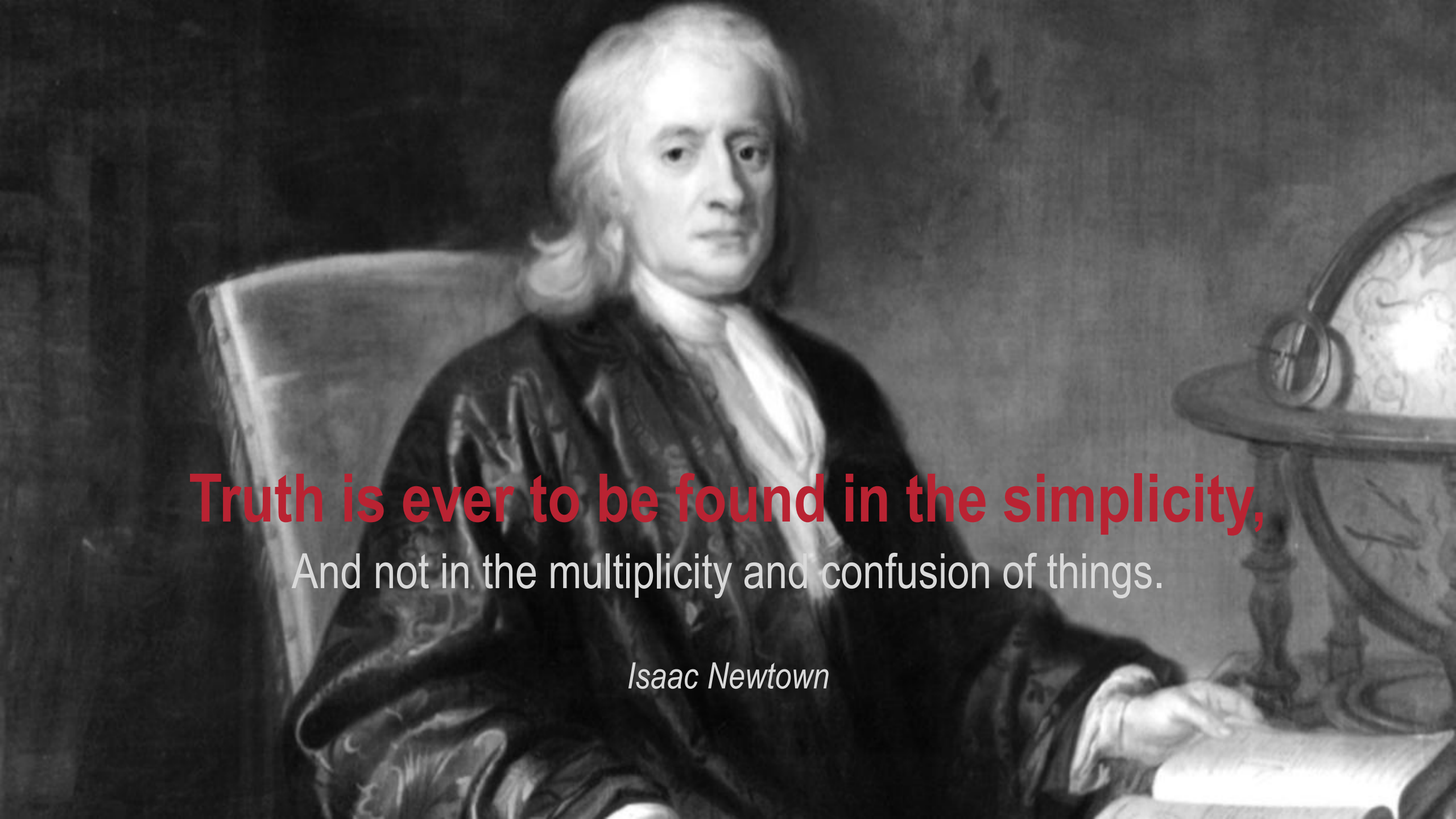
LEVERATE TECHNOLOGY TO IMPROVE PLANT OPERATION


Truth is ever to be found in the simplicity,
And not in the multiplicity and confusion of things.
Isaac Newtown

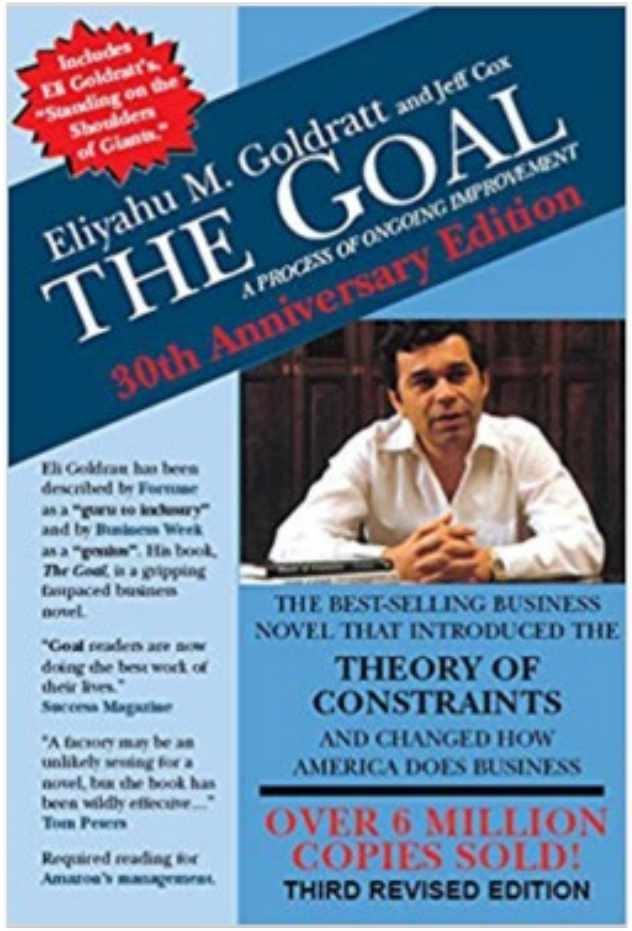
So, what is the simple truth in manufacturing

- The goal of any business is making money
  - Net Profit
  - ROI
  - Cash flow
- To measure this goal in manufacturing
  - ***Throughput***

  The rate at which the system generates money through sales
  - ***Inventory***

  All the money that the system has invested in purchasing things which it intends to sell
  - ***Operational Expense***

  All the money the system spends in order to turn inventory into throughput



PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Increase Throughput

Faster Time to Market

Reduce Inventory

Lower T.C.O.

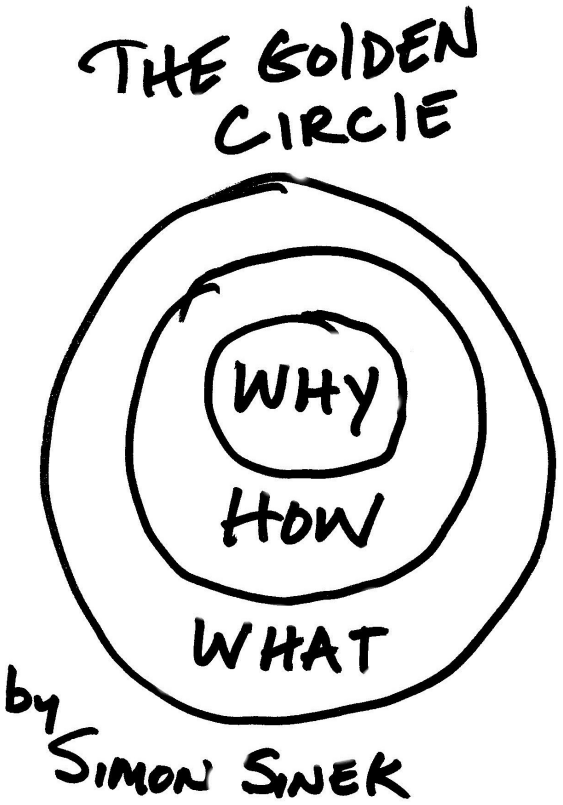
Reduce Operational Expense

Improve Asset Utilisation

Enterprise Risk Management

PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

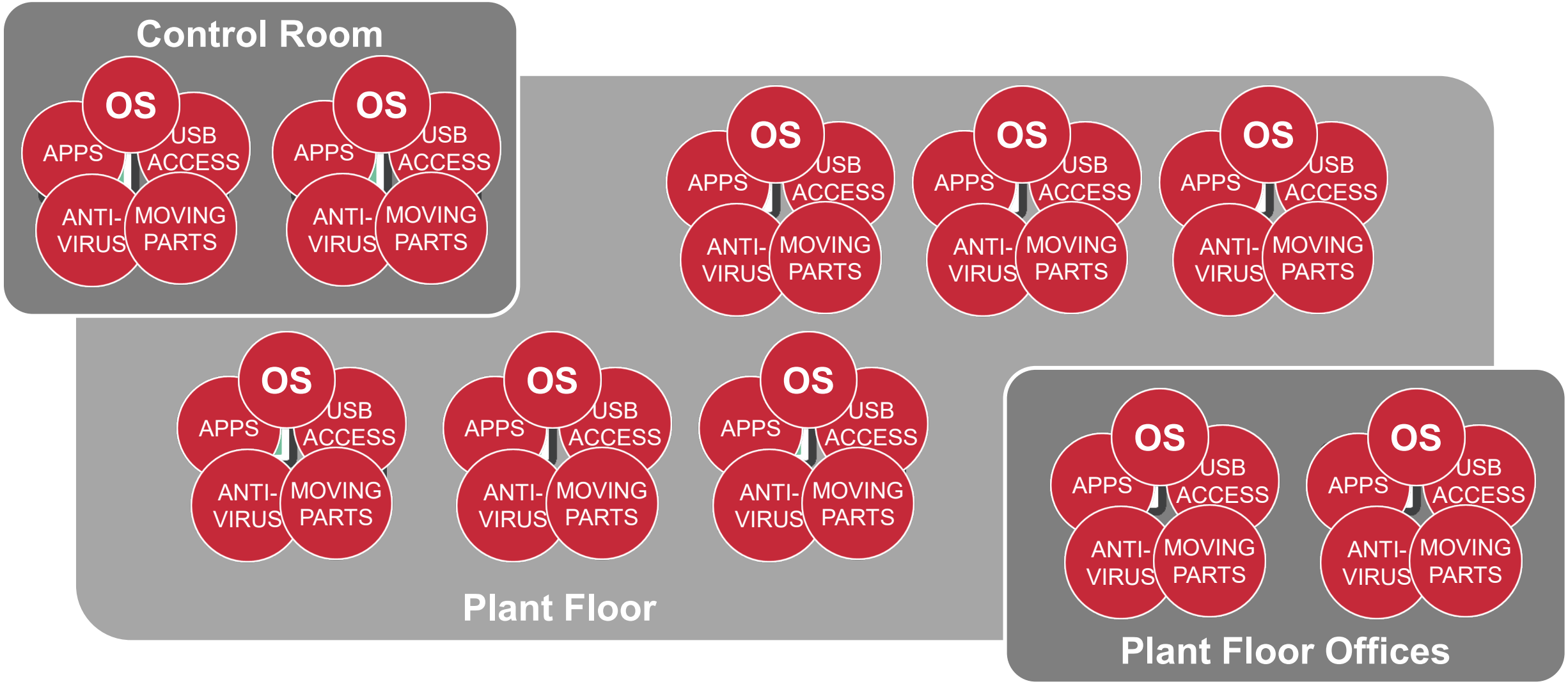
Where am I going with this



- The **WHY**
  - Business Outcome
- The **HOW**
  - Virtualization
  - Smart Safety
  - Industrial IoT
  - Converge Plant Wide Ethernet
- The **WHAT**
  - Come and talk to us

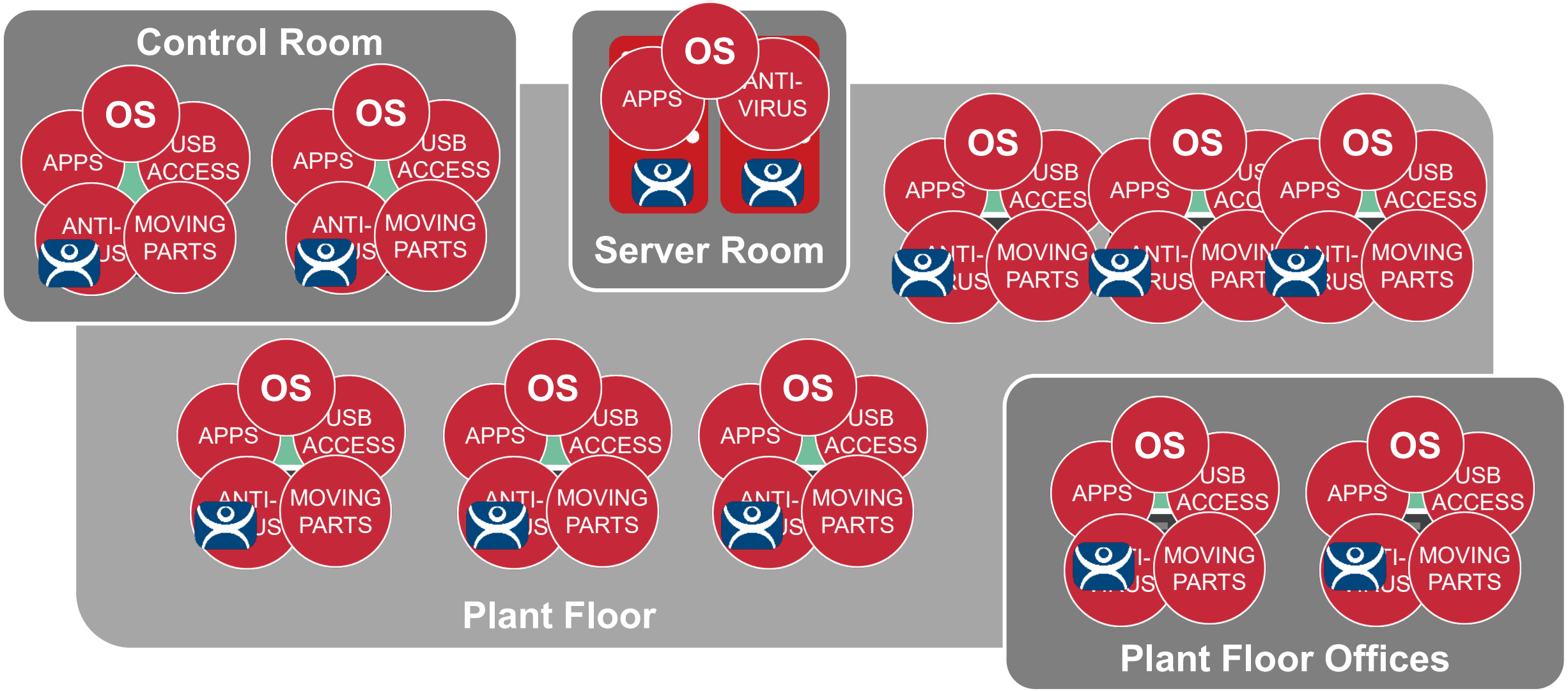
PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Virtualization - The Challenge



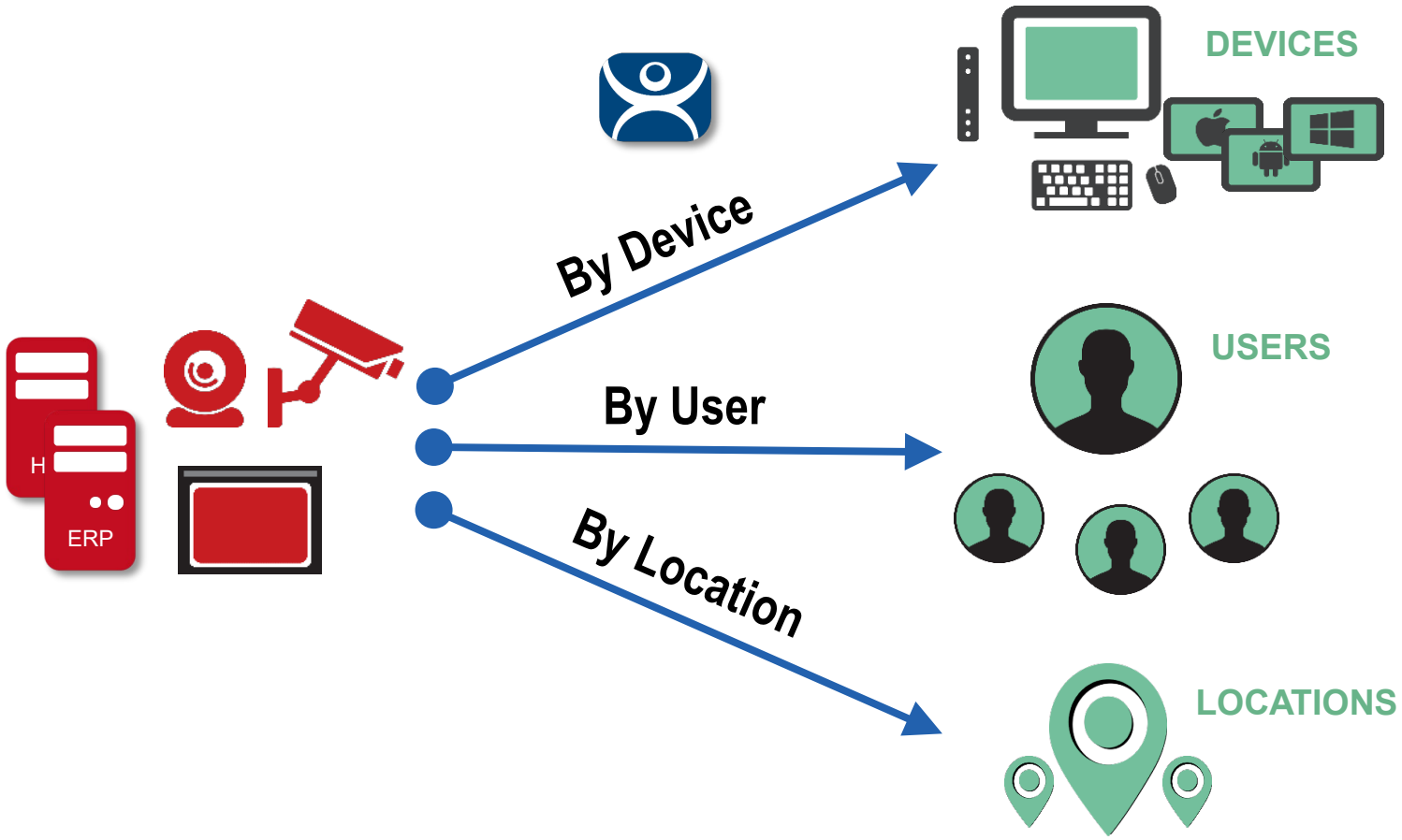
PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Virtualization – The Solution



PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

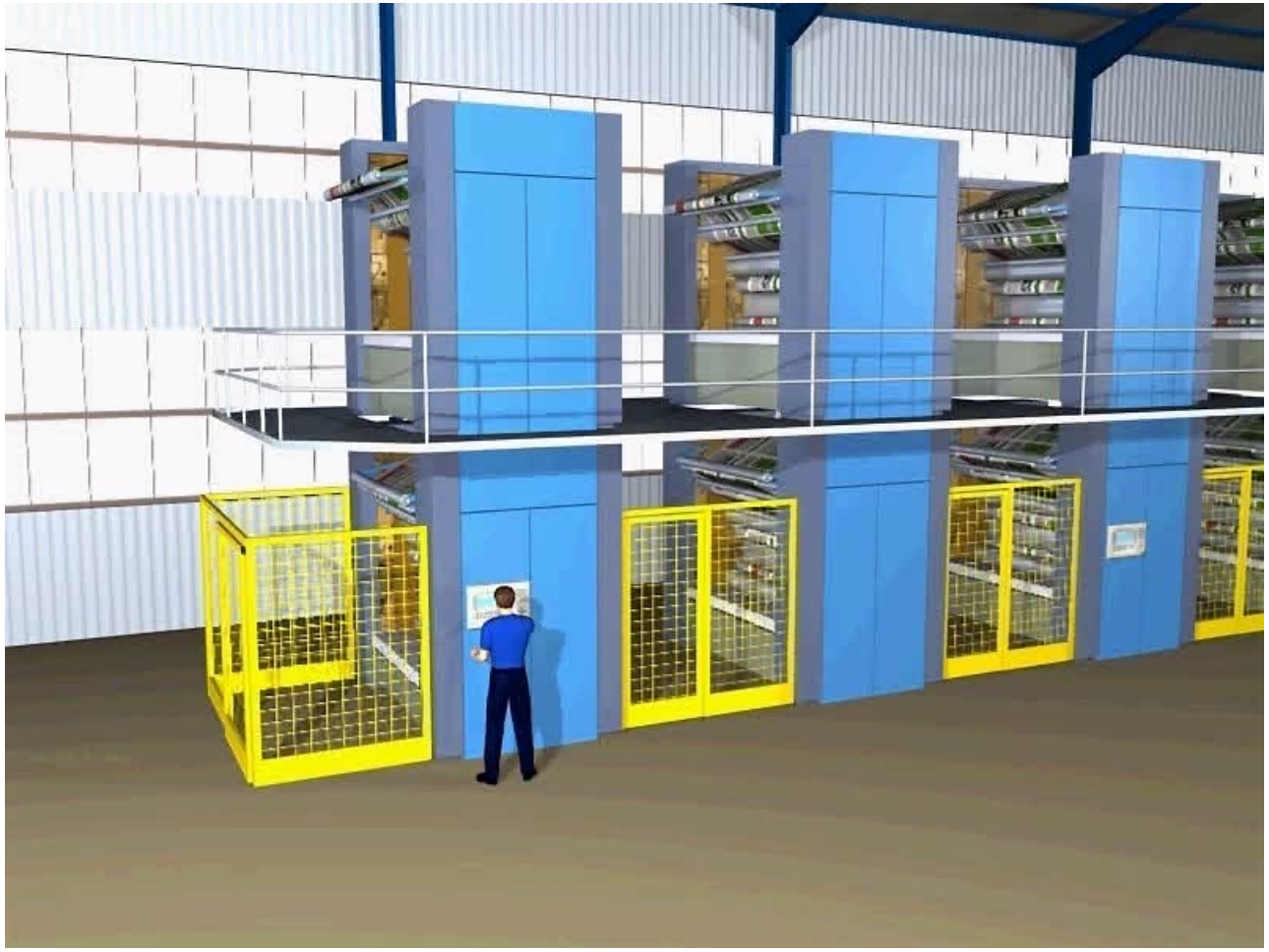
Virtualization



- The **WHY**
  - Lower T.C.O
  - Reduce Risk
  - Improve Utilisation
- The **HOW**
  - Virtualization
- The **WHAT**
  - Come and talk to us

PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Smart Safety – The Challenge



- Introduce Downtime
  - Legacy Design Methodology
- Confusing to operate
  - Lack of Diagnostic
- Difficult to Maintain
  - Lack of Flexibility
- Costly to implement
  - Over Engineering
- Longer time to market
  - Difficult to Install

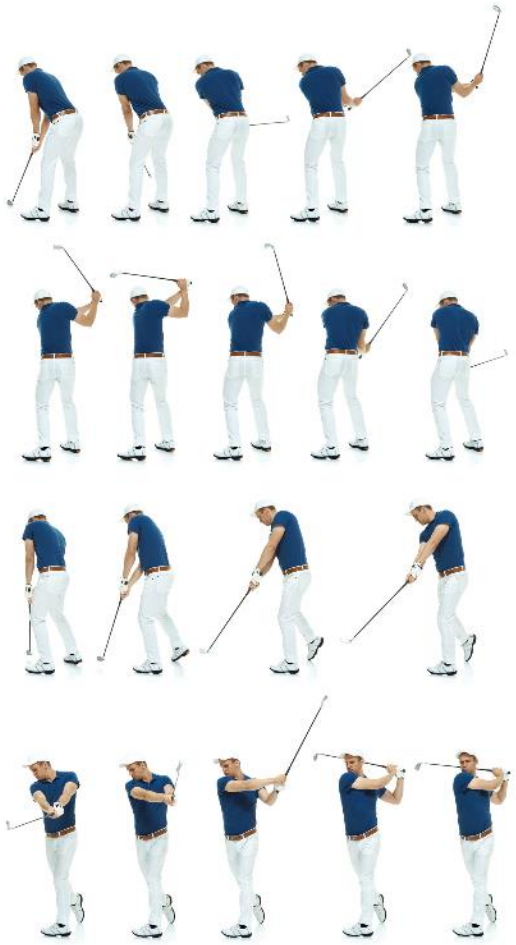
PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Smart Safety – The Solution

- Introduce Downtime
  - Legacy Design Methodology
  - Tools that help improve design
- Confusing to operate
  - Lack of Diagnostic
  - Smart sensors provide richer Diagnostic Information
- Difficult to Maintain
  - Lack of Flexibility
  - Situational aware system
- Costly to implement
  - Over Engineering
  - Smarter ways of achieving things
- Longer time to market
  - Difficult to Install
  - More efficient data communication

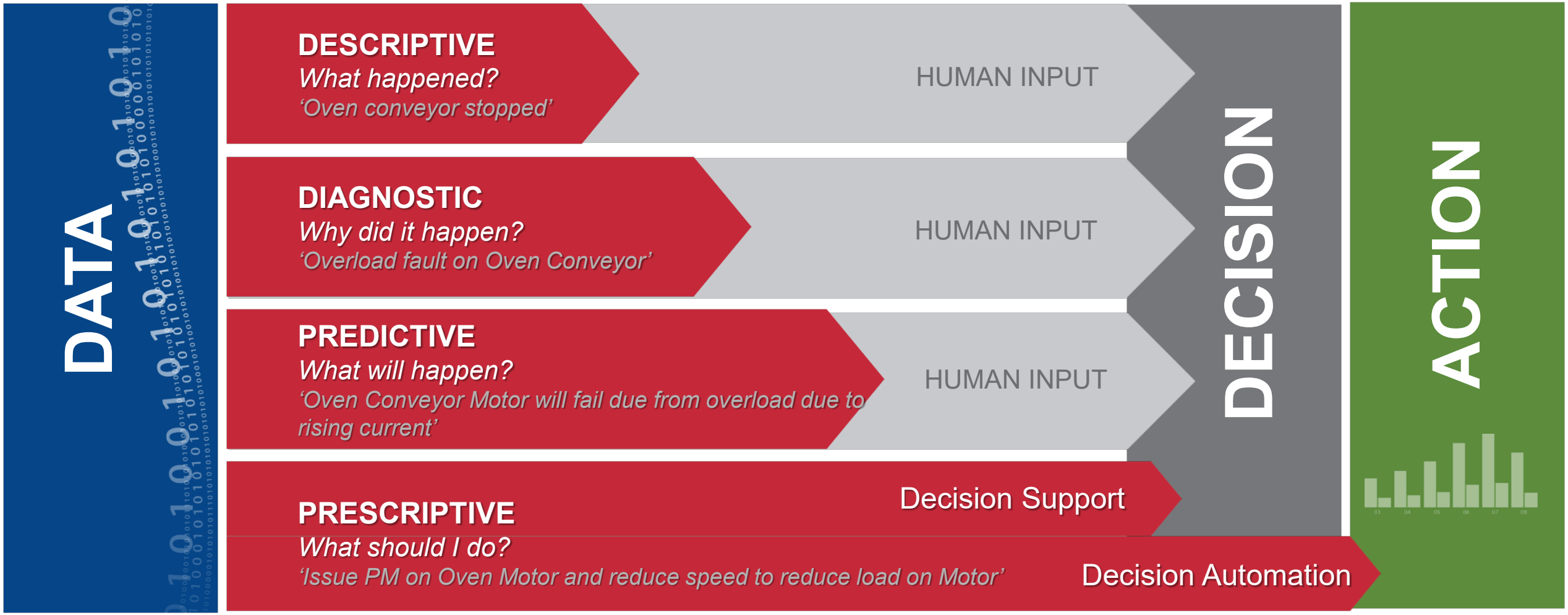
PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Industrial IoT



PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Industrial IoT – The Challenage



Source: Gartner

PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Industrial IoT – The Solution

INFORMATION SOLUTIONS CAPABILITIES – Cloud | On-Premise | Edge

SCALABLE EXECUTION SYSTEMS

SCALABLE ANALYTICS

MOBILITY & COLLABORATION

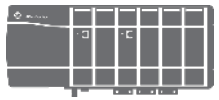
CONNECTED SERVICES

AUTO DISCOVERY | ZERO CONFIG DASHBOARDS | ORCHESTRATION & WORKFLOW | PEOPLE IN THE IIOT

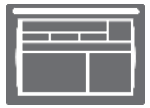
DATA TRANSPORTATION

SENSORS & ACTUATORS

INTELLIGENT MOTOR CONTROL



CONTROLLERS



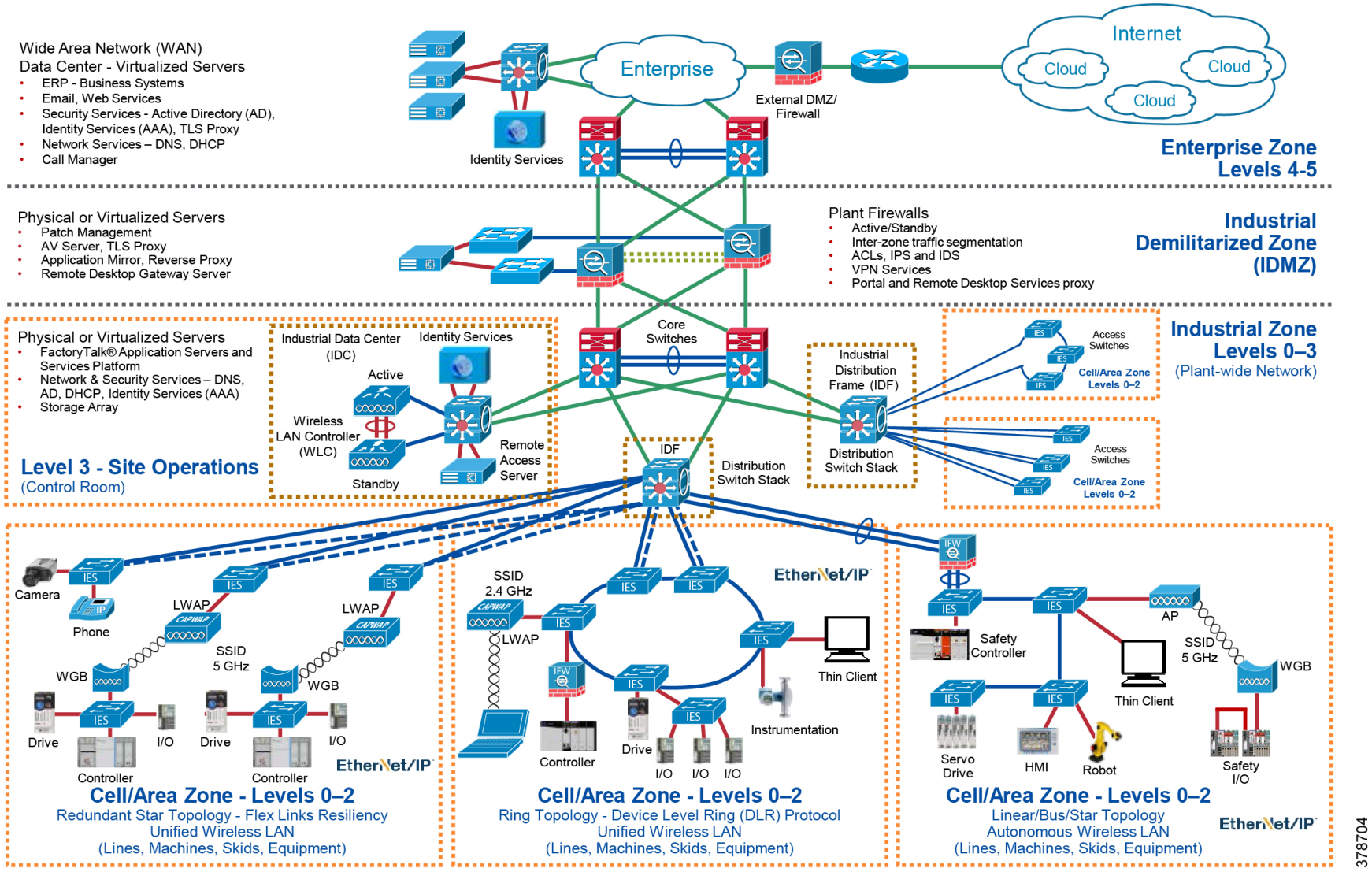
MOBILE / DISPLAYS

MACHINES & EQUIPMENT

REMOTE ASSETS

PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

CPwE – Reliable and Secure Data Transportation



PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

Increase Throughput

Reduce Inventory

Reduce Operational Expense

Faster Time to Market

Lower T.C.O.

Improve Asset Utilisation

Enterprise Risk Management

THE CONNECTED ENTERPRISE

Delivering great business outcomes

PUBLIC Copyright © 2018 Rockwell Automation, Inc. All Rights Reserved.

QUESTIONS