WHO’S THIS GUY?

• I’m Francis Cianfrocca, founder of Bayshore Networks, Inc.
  
• Pleased to meet you!
TODAY’S TALK

• The Industrial Internet is both Industrial and Internet

• The killer apps: secure access and predictive analytics

• But you can get into trouble because of technical and organizational problems

  How do you resolve the conflicts?
LETS BE CLEAR ABOUT A COUPLE OF THINGS

The Industrial Internet is all about connecting data to apps.

Data → Apps produces process efficiencies.

Efficiencies come through sharing data and analytical results.

How do we enable sharing?
HOW TO **ENABLE** THE INDUSTRIAL INTERNET

You want to share data and apps with your customers and partners.

But you can’t trust your partners to have flawless security and safety.

Policy-based security ensures integrity of assets and processes.
HOW IT AND OT COME TOGETHER

IT Space
Historians, MES, ERP

External Space
Analytics, Secure Remote Access

OT Space
Production zones, SCADA, Control Loops
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Convergence Layer
Policy, Transforms, Security

OT Space
Production zones, SCADA, Control Loops
DESIRE TECHNICAL CAPABILITIES

• Safety and Security Policy Enforcement
• Data and Protocol Transformations
• Security Elements
UNDERSTANDING SAFETY & SECURITY

- IT people worry about security
- OT people worry about Safety and Process Integrity
- In the IIoT, Security problems translate into Safety risks
- FIREWALLS DON’T SOLVE THIS PROBLEM
IT/OT GATEWAYS ARE NOW A “THING”

Industry analysts are starting to talk about…

IoT Platforms and IT/OT Gateways
IT/OT GATEWAY: **BASELINE FEATURES**

- Safety and security enforcement
- Data transformation from OT protocols to IT formats
- Encryption & Identity
IT/OT GATEWAY: **BASELINE FEATURES**

- Applies safety and security *policy*
- Transforms OT protocols to IT formats
  - DNP3 into JSON
  - Modbus into SAP
  - EtherNet/IP into MQTT
- Decrypts/Re-encrypts
- Segregates data planes
  - Channel separation (IT side and OT side)
ORGANIZATIONAL CHALLENGES

The IT/OT Fight Club

It can make or break your project
KEY TAKEAWAYS

- Focus on existing data and existing apps first
- Recognize that Safety matters as much as Security
- II Value and Security Risks both come through Data
- You need a policy-based security approach
- Your IT and OT people need to communicate
THANK YOU