



THE IOT ENTERPRISE: WHY YOUR ORGANISATION IS ALREADY IOT'D

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WHEN SOMEONE



MENTIONS IOT SECURITY

IOT SECURITY HYPE

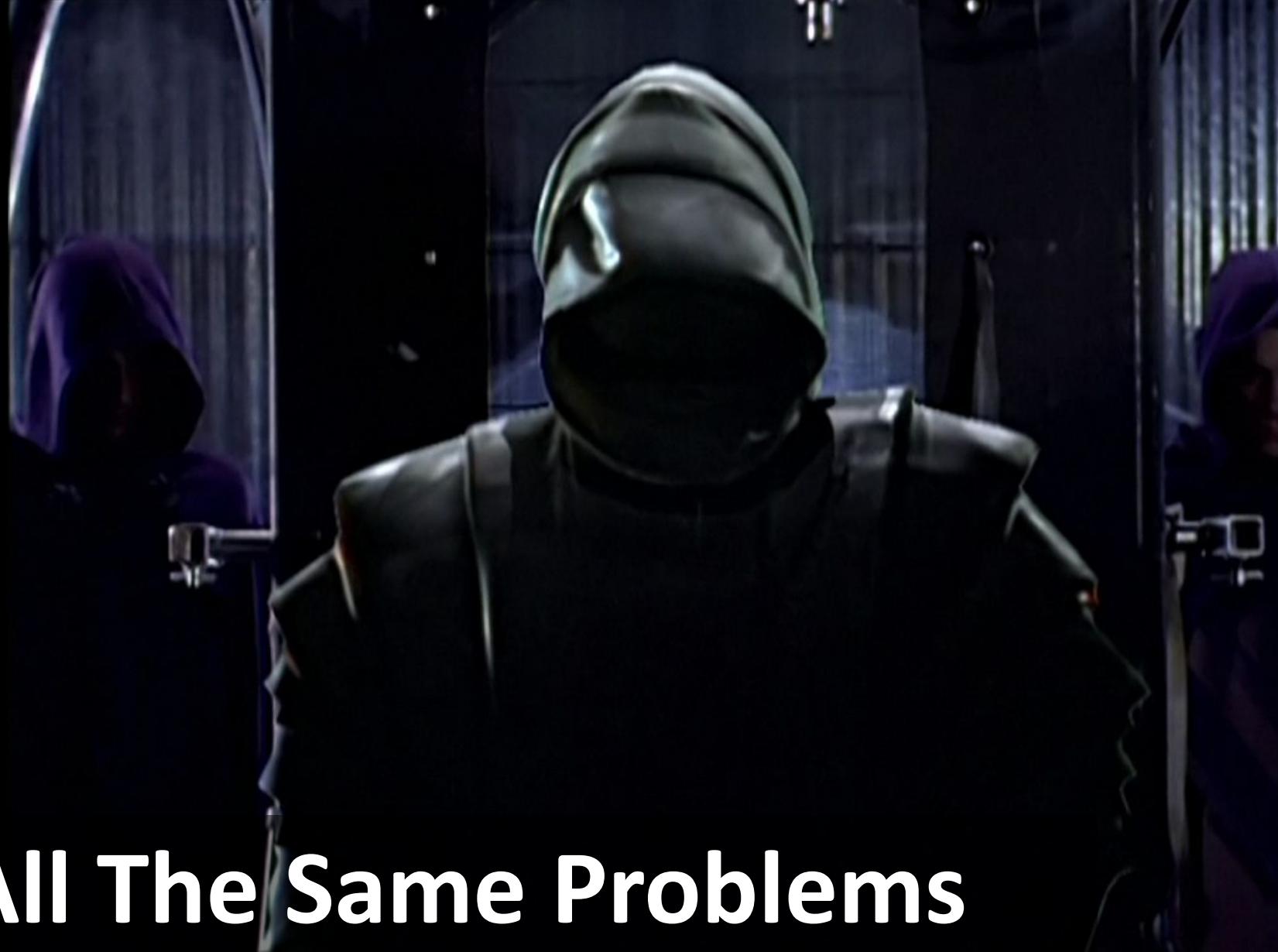
But Now It's Time
To Pay Attention &
Discover What's
Already Happening



We've Been Here Before

The Era
Of
Shadow
IoT
Is Here

With All The Same Problems



While The Focus Has Been On OT



Our Regular Enterprises Are Now IoT'd

10 BILLION DEVICES

50 ZBYTES

imgflip.com

50 BILLION DEVICES

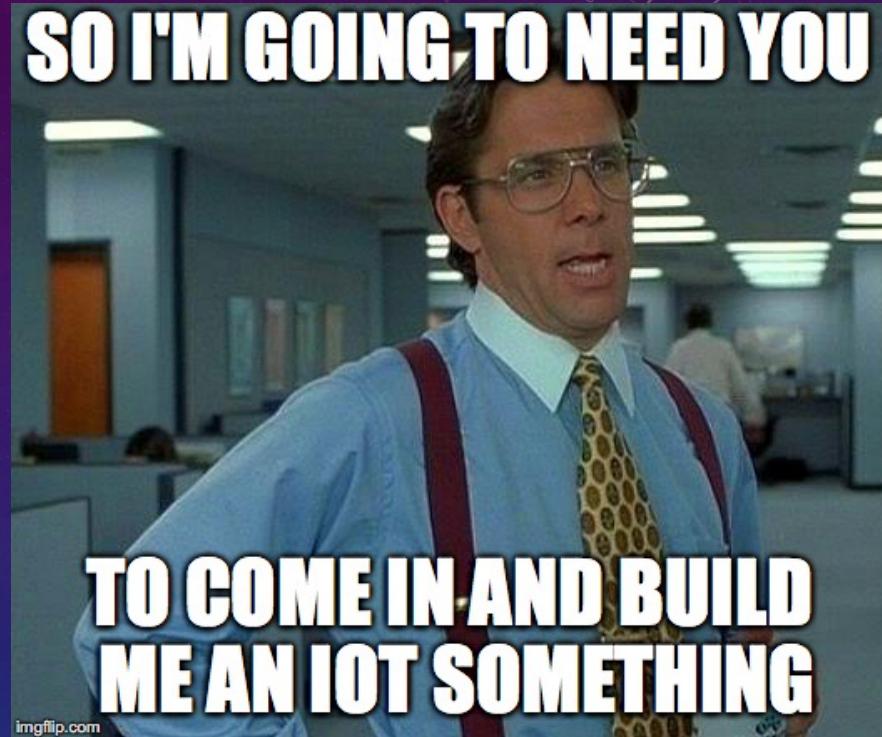
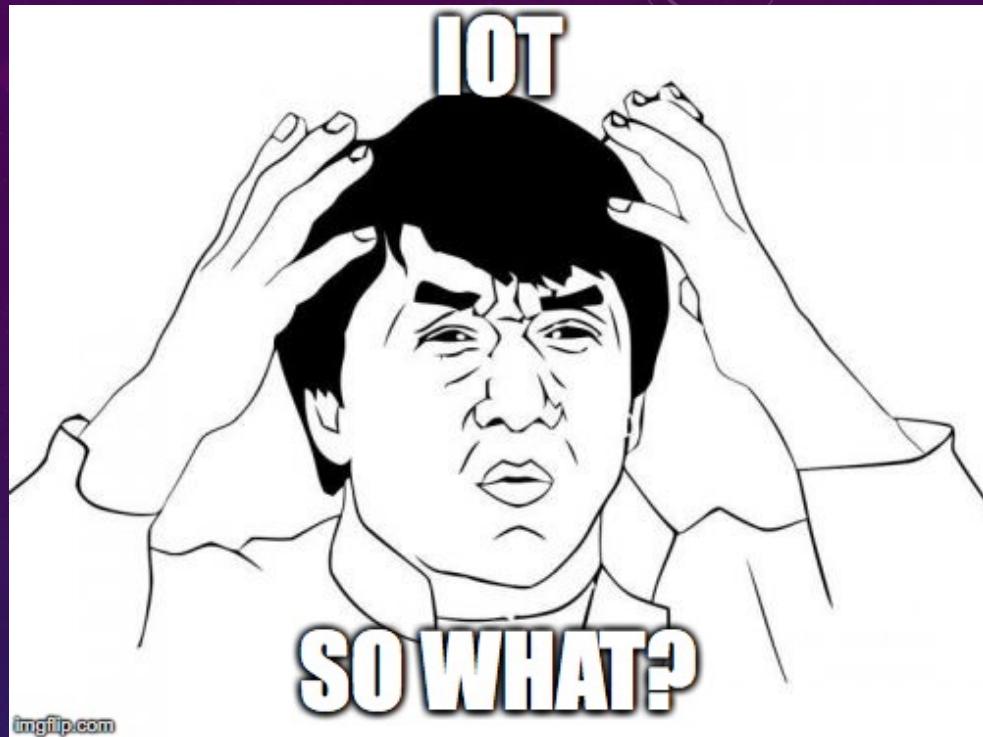
100 ZBYTES

imgflip.com

80 BILLION DEVICES

200 ZBYTES

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*For Business Unit Leaders IoT Has Gone
From "So What?" to
"Do Something Now!" In The Last 2 Years.*

THERE'S TWO PARTS TO THAT

Consuming IoT
For Internal Use

Consuming IoT
For Customer Use

And These Align With The Other Well Funded
Buzzword Of Digital Transformation

THE BIG DRIVERS – INTERNAL USE

Short Term



Lighting Management
Typical 70% Energy Savings



Improved Employee Productivity & Satisfaction



Improved Use Of Workplace Resources & Amenities

Mid Term



Business Process Improvement



Supply Chain Visibility & Automation



Predictive Maintenance

THE BIG DRIVERS – CUSTOMER FACING USE

Short Term

Mid Term



Improved Customer Experience & Satisfaction



Upsell Additional Products & Services To Customers



Automate Field Service



Understand Product Usage



Create New Revenue Streams



Create New Business Models

Just Like Cloud In The Early Days



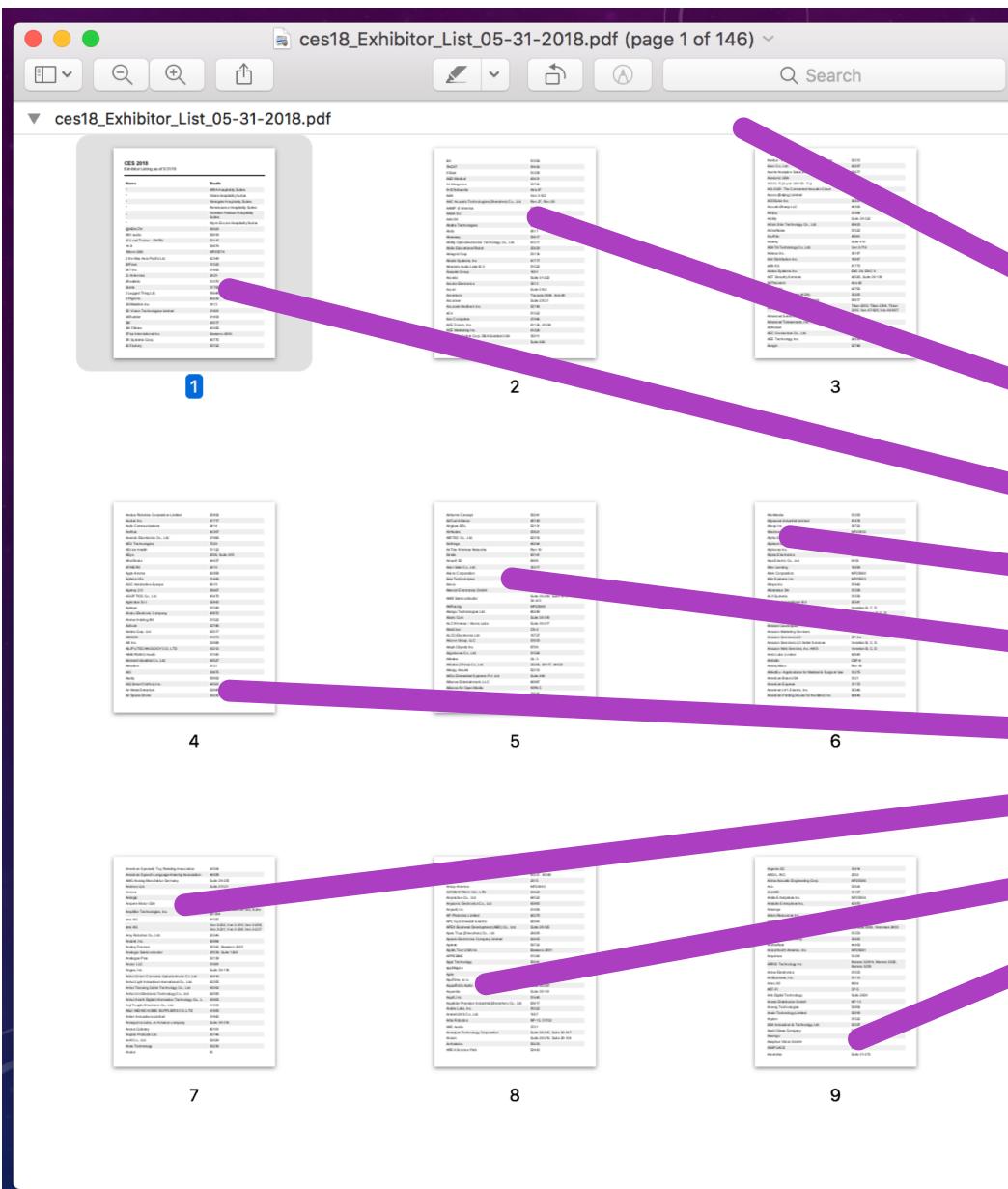
Security Is The #1 Barrier To Adoption

Many Devices & Platforms Lack Basic Security Hygiene



**Employees
Must Wash
Hands**

Especially Barry.





Or Any One Of My
67 Connected
Devices



No truck?

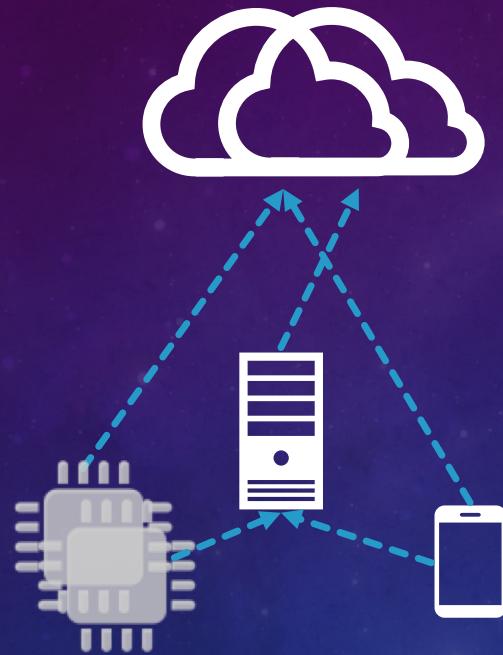
No worries mate

The Regular Tools Don't Fit Right

Non-Ecosystem Consumer Devices

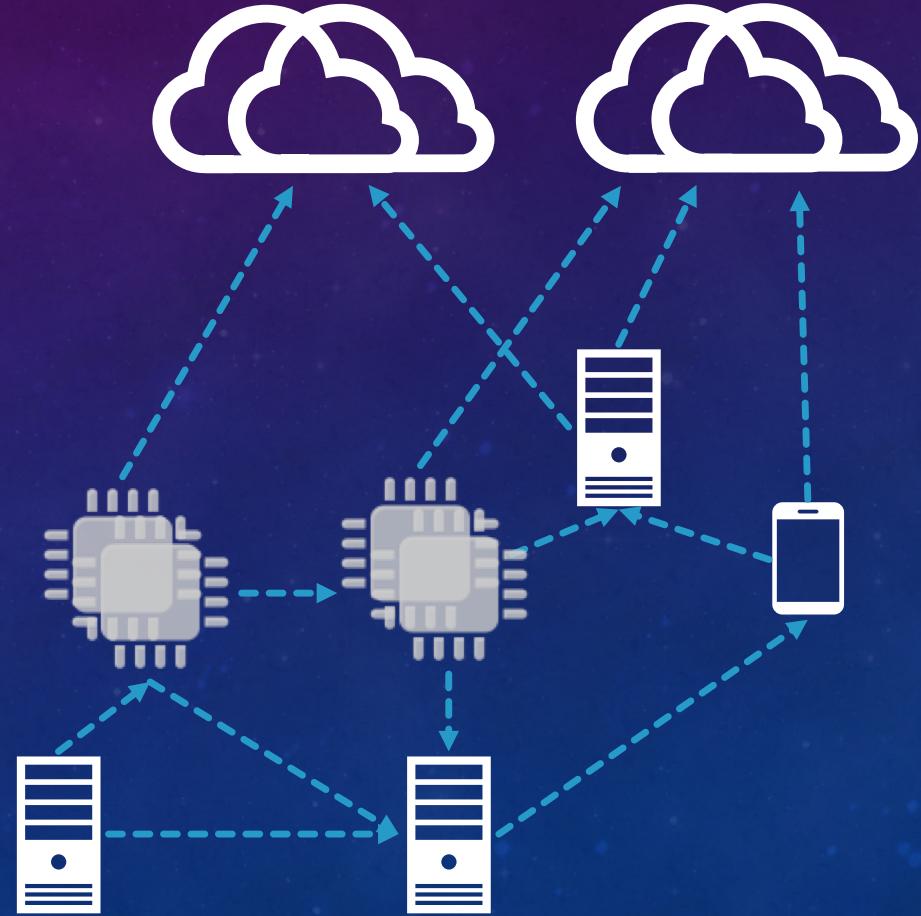


Ecosystem Devices



**EDGE PROCESSING
& CONTROLLER**

IoT, OT Hybrid Devices



PLATFORM EVOLUTION



Complex, Multiple Communications Systems



AI & ML First Strategy & Design



Interaction With OT Systems



Combined Edge & Centralised Cloud Computing



Real-Time Response



Automation First, By Default Design

IT Networks Will Start To Adopt More Of These Concepts & Overtime Look More Like IoT Networks

1st Recommendation Gain Visibility Of IoT Devices In Use



Look For Devices & APIs In Use

Look For Anomalies

Make Friends With Facilities & Your BMS

Monitor IoT Traffic At Gateways

This Includes A Business Engagement Model

OH AND DO THIS FOR YOUR OT ENVIRONMENTS TOO

All Of The Problems With Old ICS Are Still There



Image Credit: MagpieShooter https://en.wikipedia.org/wiki/Story_Bridge#/media/File:BNE-StoryBridge-fromCityCat.jpg

After You Audit & Find This Stuff



2nd Recommendation

Develop An Assessment Policy For IoT



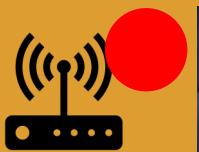
Can You Get Well Formed Logs?



Are Communications Encrypted?



Is There A Defined Lifecycle?



Is There A Secure Update Mechanism?



Assess The Cloud Service

http://community-sitcom.wikia.com/wiki/File:Spanish_classroom.png

3rd Recommendation

Apply Hardening Everywhere

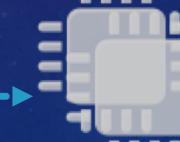
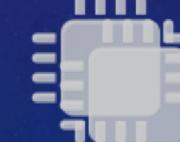
Apply Cloud Controls



Harden Edge Compute

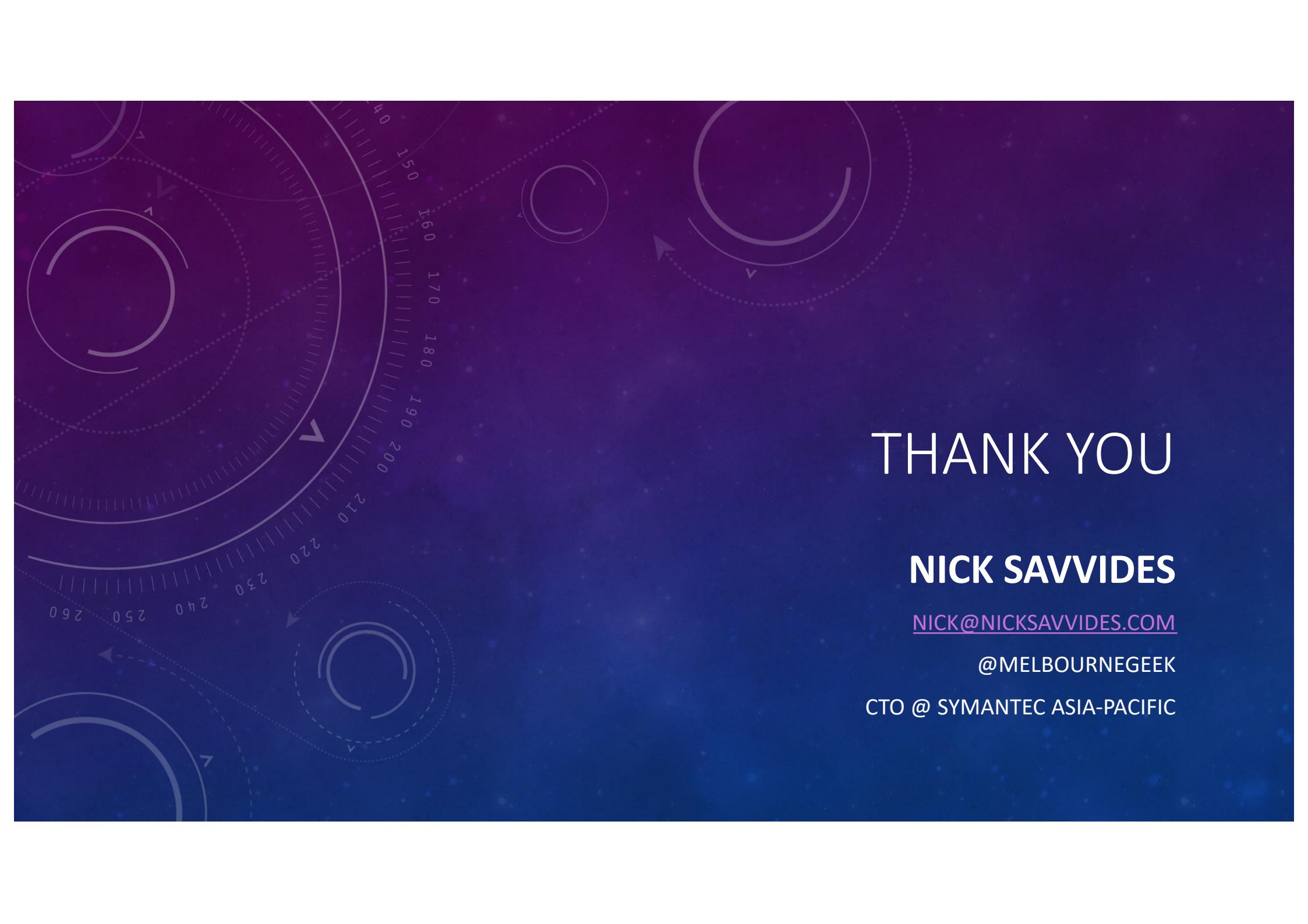


Apply Device Controls



Harden PLCs



The background of the slide features a complex, abstract design. It consists of several concentric circles in white and light blue, with arrows pointing in various directions (up, down, left, right) on the arcs of these circles. The numbers 140, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, and 260 are placed along the outermost circle, suggesting a cyclical or radial progression.

THANK YOU

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