# Next Level of Security Compliance

## Creating Operational Excellence and Mission Assurance

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**Bill Johnson** - TDI Technologies
**Patrick Miller** - Archer Security Group

tdi
ConsoleWorks
Cybersecurity Operations Platform

ARCHER
SECURITY GROUP

# Thank You for Attending!

- Q&A will be at the end of the webinar
- Send your questions at any time during the presentation and we will queue them up to be answered

**How to Ask Questions**

1. Click on the Questions and Answers icon to submit a question to all panelists
2. Type your question in the box and click Send
3. Click on the Chat to send comment to "All Panelists" or "Everyone"
4. Type your comment, question, or URL and hit <Enter>
5. Raise Hand to get Host's attention



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# Introductions

**Presenters**

## Bill Johnson
President & CEO
TDi Technologies
www.tditechnologies.com

## Patrick C Miller
Managing Partner
Archer Security Group
www.archersecuritygroup.com



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# Today's Webinar Format




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# Goal: Mission Assurance

- What is it?

*Strategic execution of the business goal despite tactical operational inconsistencies*

- How is it different than… ?
  - Security
  - Compliance
  - Resilience




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# Goal: Operational Excellence

- Do more with less
- Proactive vs. reactive
- Get back to your "day job"
- Measuring for continuous improvement



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# Goal: Security AND Compliance

- You can be secure and noncompliant
- You can be compliant and not secure
- You will do some things just for compliance
- You will do some things just for security
- You CAN do both in many areas, but this is the hardest (and most valuable) path…


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# Challenges: People

- Not enough of them
- Skillsets
- Budget
- Hanlon's Razor
- Culture



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# Challenges: Process

- You know what you're doing. Why do you have to write it down?
- Policy, procedure or process?
- Reflecting reality
- Manual vs automated


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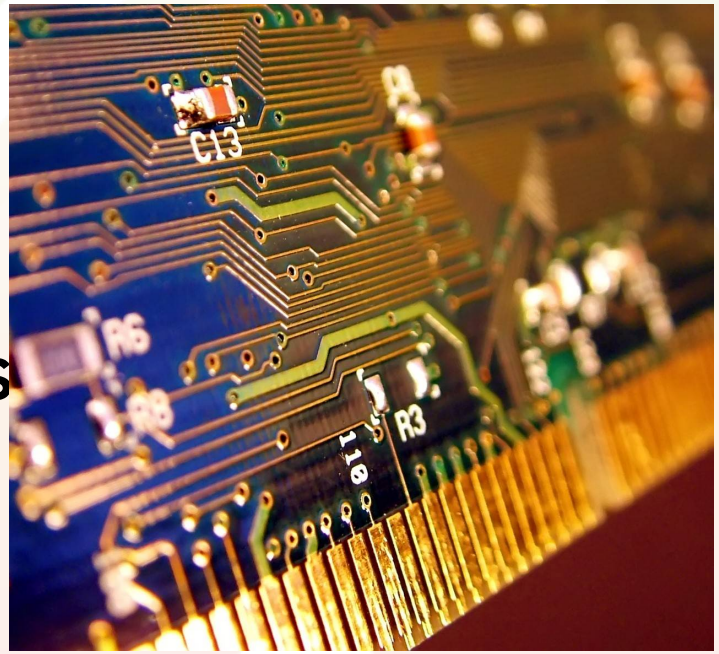
# Challenges: Technology

- Too much vs. too little
- Tool overlap
- Complexity
- Set and forget
- Integration
- Sacred cows and egos
- OT and IT…



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# Challenges: OT, IT and just T

| IT | OT / ICS |
|---|---|
| Protect data | Availability and safety |
| Protection from the Internet | No internet access at many plants |
| Modern systems and OS | Some that are 30 years old and no longer supported |
| Dynamic (people and devices come and go frequently) | Static environments (people and devices are around for a long time) |
| Extensive automation of tools | High level of control with manual processes |
| Standard communication protocols | Proprietary protocols |
| Patches freely installed (relatively quickly) | Rigorously tested by vendor for compatibility (slow) |
| Configuration changes occur frequently | Highly controlled for reliability & safety reasons |


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# Where Do You Start?

- Get management buy-in: resilience, cost savings
- Prioritize with a risk analysis
- Follow up with a gap analysis, merge both
  - People, Process, Technology
- Compile all current security/compliance metrics
- Be realistic about change; expect roadblocks
- Target high-value areas, but don't forget the low-hanging fruit


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# Baby Steps

- Build your technology blueprint/inventory
- Use analyses to frame approach
- Look for process revisions, with an eye toward controls and [targeted] automation
- Begin revision of process and automation in conjunction
- Lather, rinse, repeat


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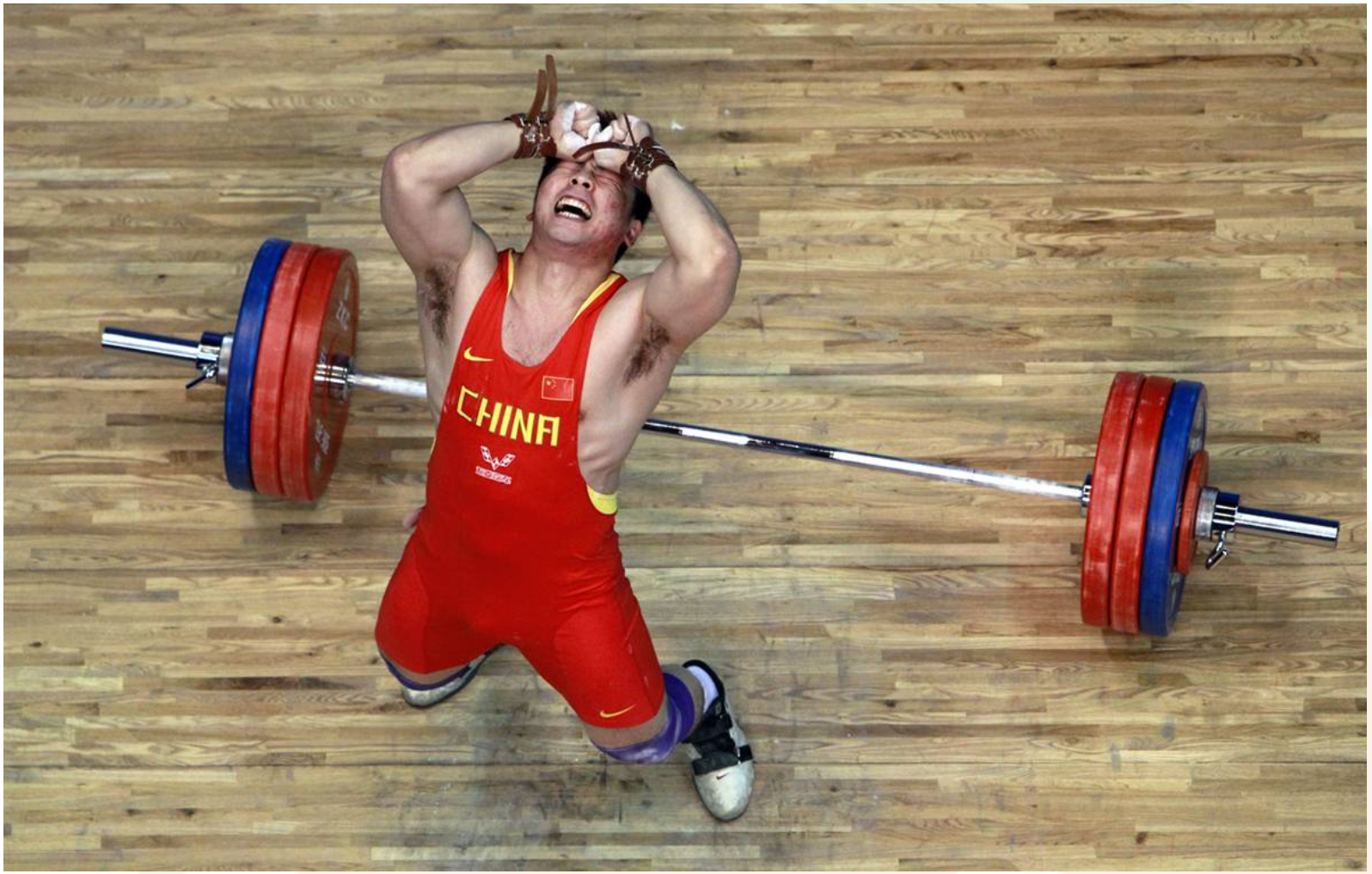
# Change Is Hard



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# Build a Defendable Environment

- Segment critical systems into enclaves
- Minimize dependencies on other segments
- Insert network monitoring points
- Don’t forget that you still have to manage it



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# Reduce Your Surface Area

- Eliminate tool overlap, waste
- Establish a technology blueprint
- Standardize
- Kill any service that isn't required
- Remove anything noncritical from critical network segments


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# Phase Out Fragile Systems

- Homogenize builds as much as possible
- Remove hard to manage snowflakes
- Start planning for ICS upgrades
- Shrink footprint of legacy equipment



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# Get Access Under Control

- Fewer access points to manage
- Fewer people to manage
- Multifactor authentication for remote access


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# The Patching Problem

- 90% of the "problem"
- Can range from hard to very hard
- Some vendors are getting better
- Will eventually become a diligence argument


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# Change and Config Management

- Simply put, best bang for the buck
- Compliance bonus points
- Hanlon's Razor repellent
- Faster recoverability and root cause analysis
- Great for metrics


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# Monitor Everything

- If it produces a log, get it into a SIEM
- If not, monitor the network
- Disk space is inexpensive
- Security telemetry = operational telemetry
- Data is the new oil
- Diligence and insurance bonus points


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# Get The People Onboard

- Training and awareness – at all levels
- Use security metrics, less FUD
- Accountability, diligence and liability


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# Don’t Start From Scratch

- Understand controls
- Capability Maturity Models
- Frameworks


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# Buy Smart

- Procurement language
- Supply chain risks/compliance
- If it doesn't fit your technology blueprint, keep looking
- Request pilots, bake-offs


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# Get Help

- You can't smell your own breath
- Negotiate for professional services, regular maintenance
- Integrators
- Outsourcing and Cloud


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# Conclusion

- Your goal isn't security or compliance but they can support mission assurance
- Operational excellence is a path, not a place
- Be realistic about what to do and when
- Focus on people, process and technology
- All of this is good for business and will make you more resilient and profitable


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# Q&A



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# Thank you very much!

Bill Johnson, President and CIO
TDI Technologies, Inc.
bill.johnson@tditechnologies.com

Patrick C Miller, Managing Partner
Archer Security Group
p.miller@archersecuritygroup.com