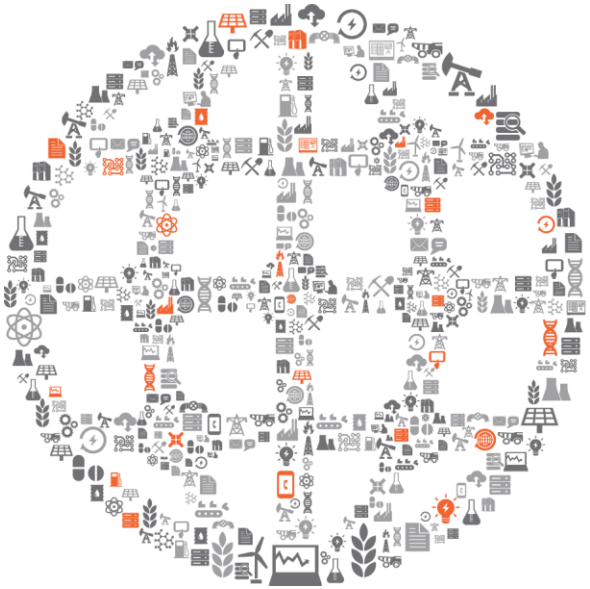


OSIsoft.

USERS CONFERENCE 2013

The Power of Data

E M E A

PARIS SEP 16-19 FRANCE

THRIVING IN A WORLD OF CHANGE

Cyber Security

Presented by **Bryan S. Owen PE**

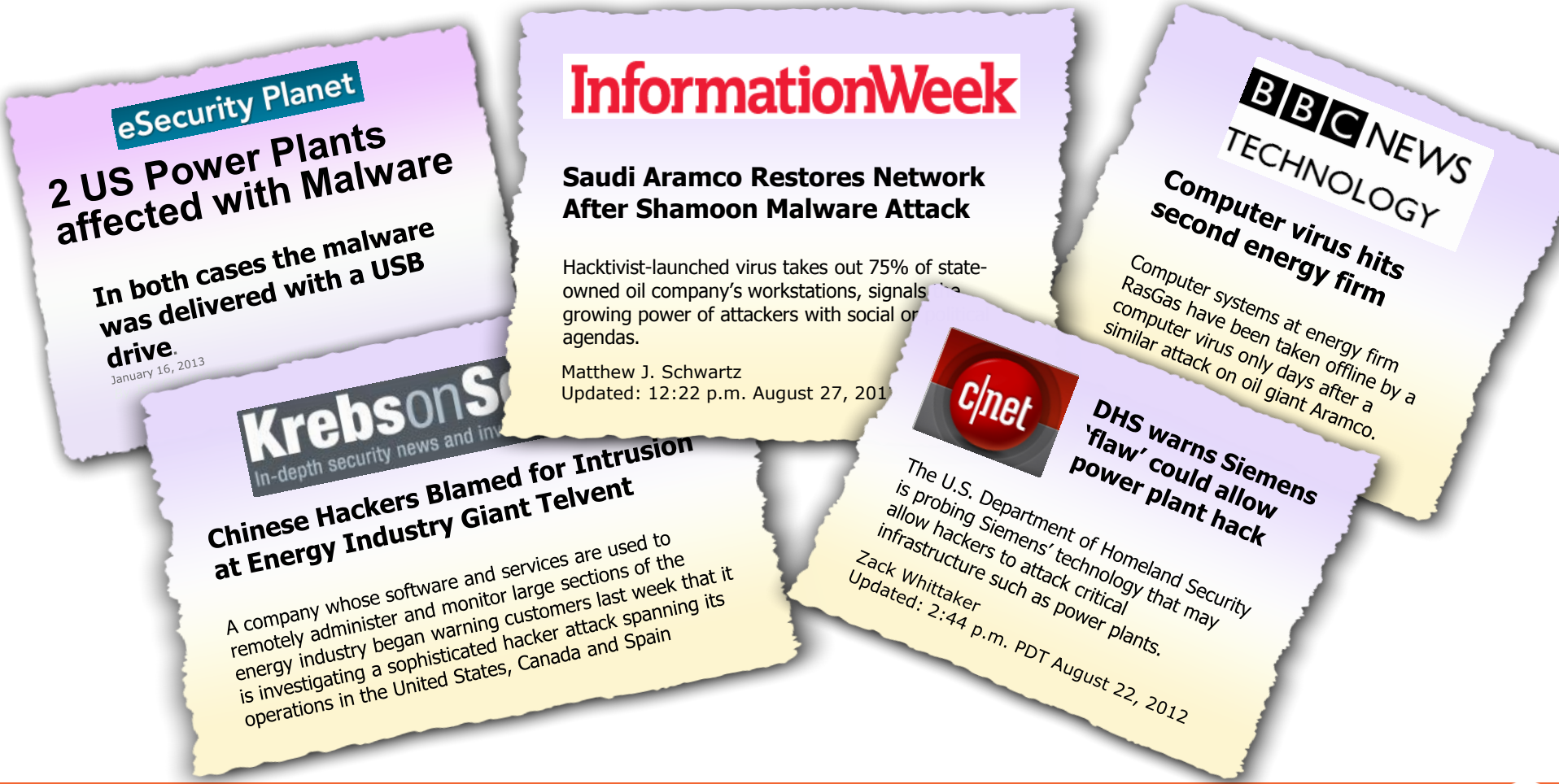
OSIsoft – Cyber Security Manager

Agenda

Trauma Center

Deployment Patterns

Security Development



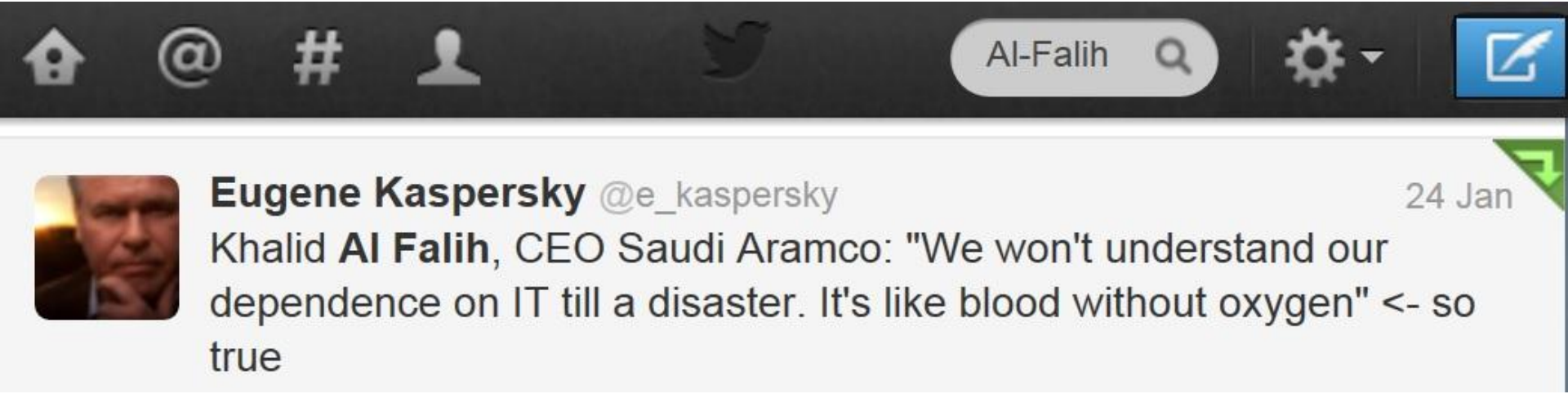
OSIsoft Technical Support Cases

- 20 Cyber incident cases (2012 to 2013.Q3)
  - Some false positives
  - Most were not
- Observation
  - Very disruptive
  - Trending higher (8 in 2012)
  - We take it serious

What happened, is my PI System ok?

- Malware protection false positive (5)
- Generic malware (4)
- 3rd party security update (4)
- PI System security update (3)
- Architecture/configuration (2)
- Compromised credential (1)
- Hacking (1)

Emergency Preparedness is Key



NERC CIP version 4 and version 5
NRC 5.71 and NEI 08-09
Presidential Policy Directive PPD-21
Executive Order - Improving Critical Infrastructure Cyber Security

Regulatory Uncertainty continues for Power Generation

Support Capability Levels

- Personnel surety
  - Background checks
  - Role based cyber security education
- Multi-factor authentication
  - Extend beyond services and admins
- Incident response plan
  - Design and exercise the plan

Agenda

Trauma Center

Deployment Patterns

Security Development

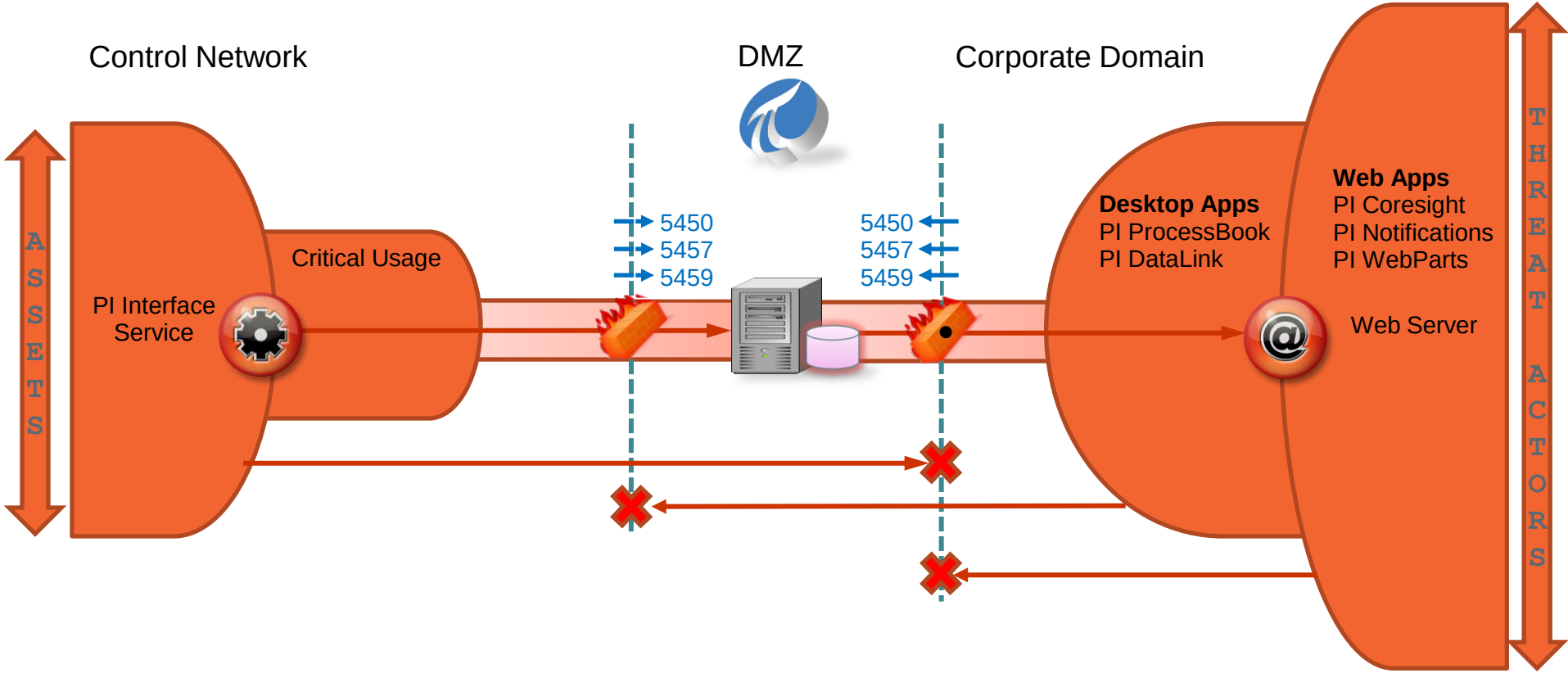
Threat Interaction Categories

Visibility

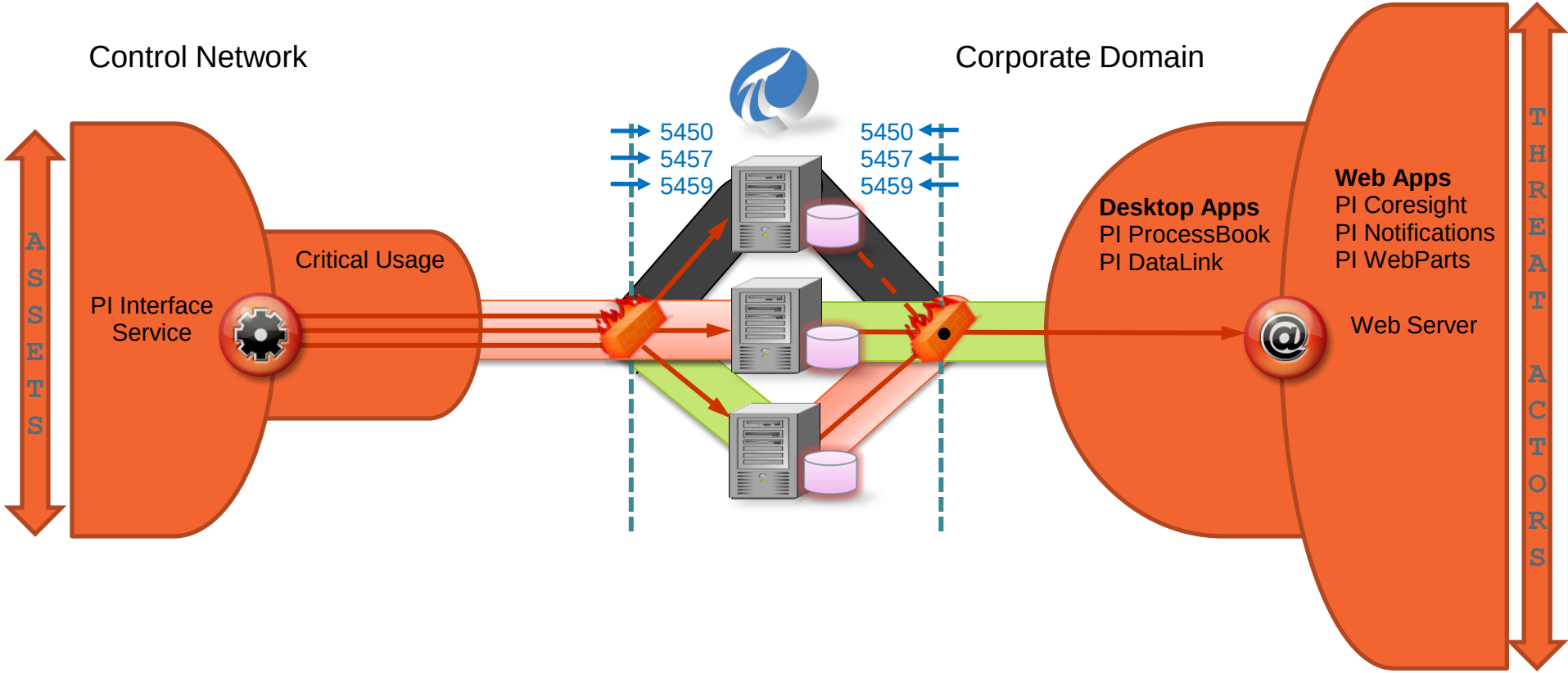
Access

Trust

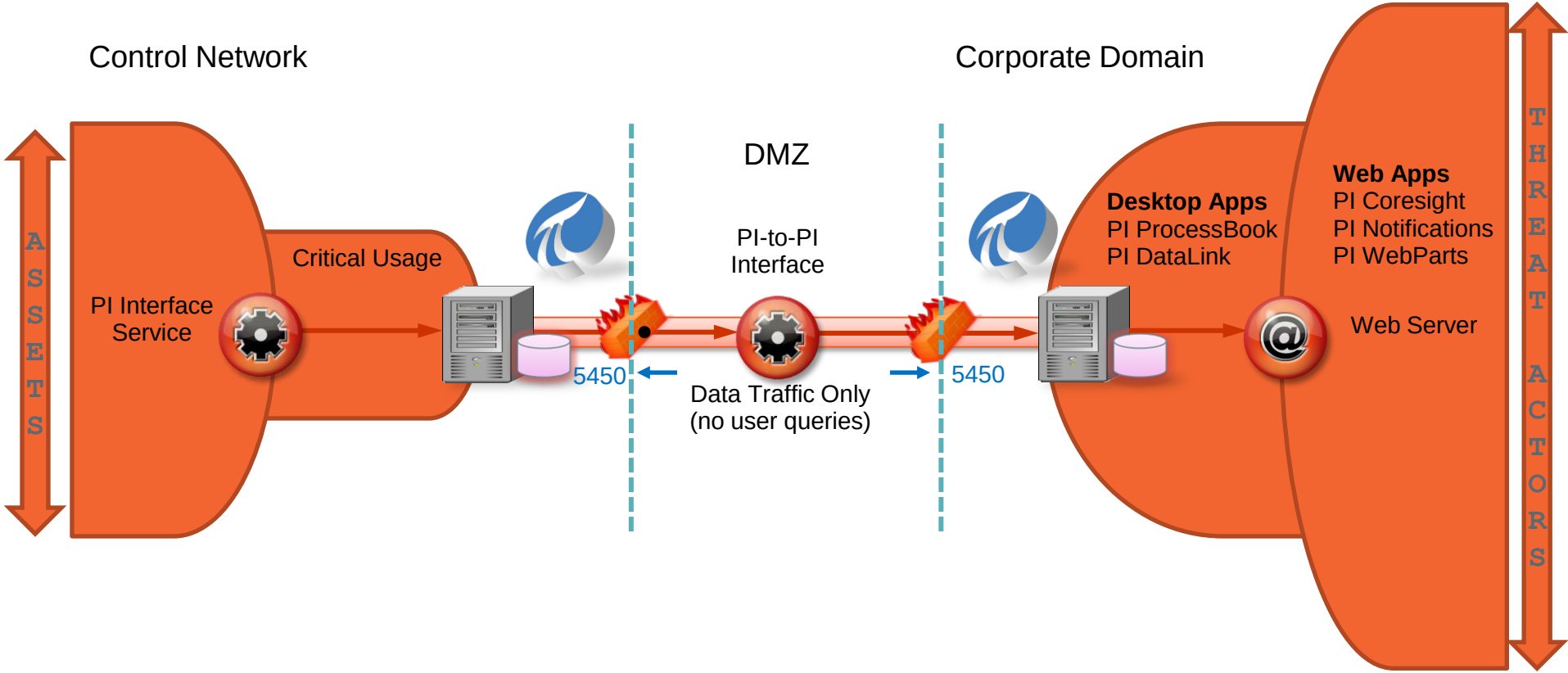
Pattern 1: DMZ PI



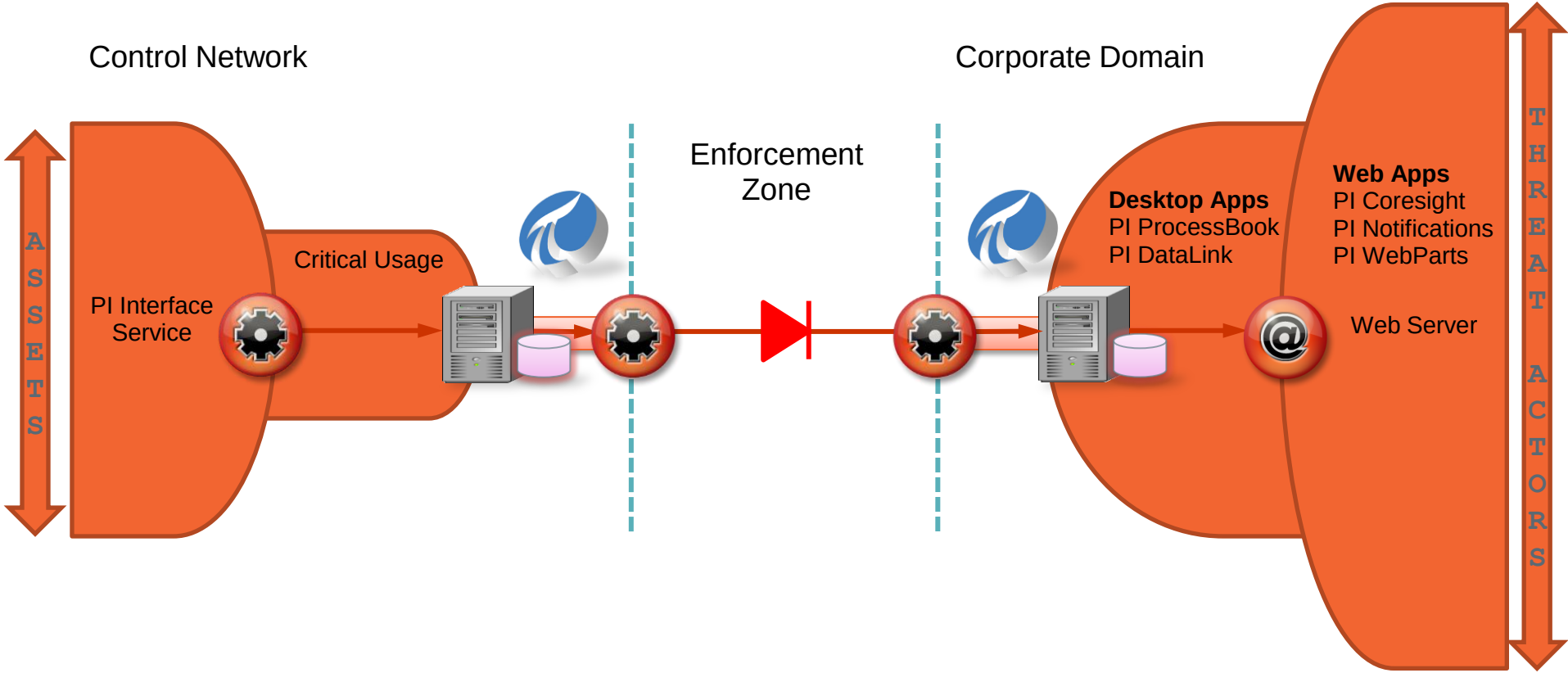
Pattern 2: PI High Availability



Pattern 3: DMZ PI to PI

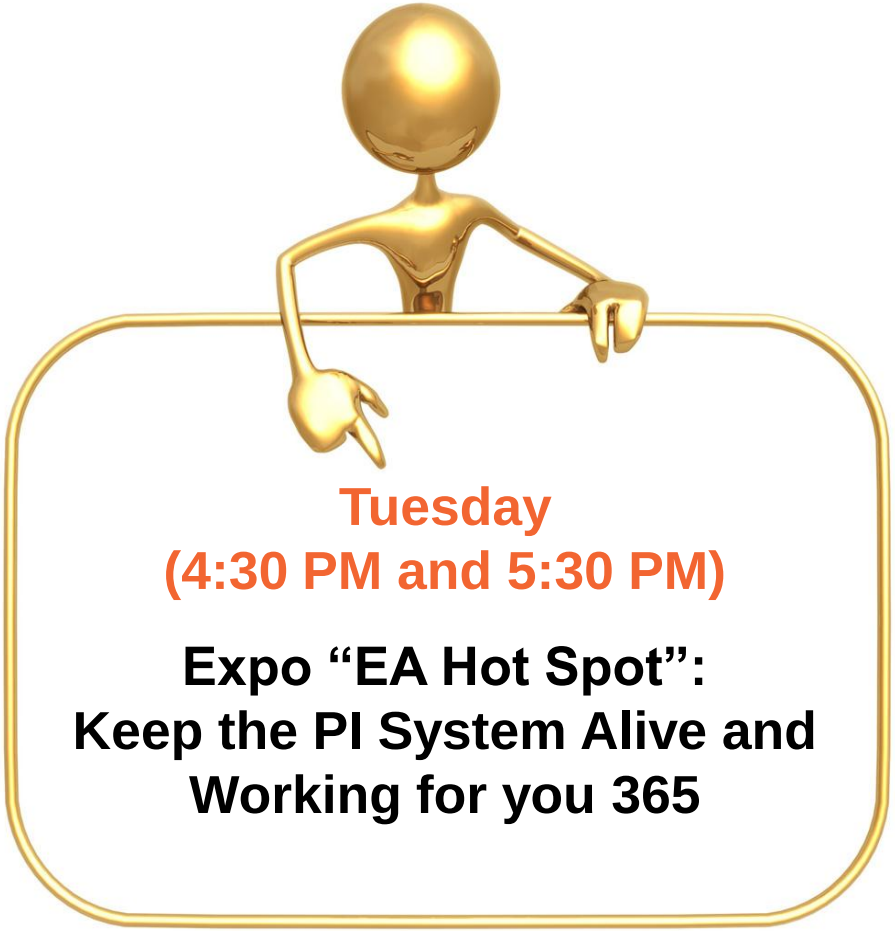


Pattern 3+: Absolute Enforcement



Tuesday
(3:20 PM – 3:50PM)

New Technologies for Cyber Security



Tuesday
(4:30 PM and 5:30 PM)

Expo “EA Hot Spot”: Keep the PI System Alive and Working for you 365

Security Development

Trusted Advisors:

- Idaho National Lab
- Microsoft

Security Engagements

- Idaho National Lab
  - 2005 Assessment
  - 2008 vCampus Live!
  - 2009 vCampus Live!
  - 2011 Cooperative Research
  - 2012 vCampus Live!
- US Army NetCom
  - 2009 CoN #201006618
  - 2013 CoN (recertified)
- US NRC
  - 2010 DISA, NIST
- SAP QBS Certification
  - 2012 Veracode
- Microsoft Information Security Consulting
  - 2009 PI Server
  - 2010 PI Agent
  - 2011 PI Coresight
  - 2011 PI AF
  - 2012 PI ProcessBook
  - 2012 Products in Design (3)
  - 2013 Engineering Management
  - 2013 Products in Design (2)
  - 2013 SDL for Security Champions
- Windows Logo Certification
  - 2008 Server Core
  - 2011 Server Core R2

PI System Network Ports and Services

Service Endpoint	Platform Library	Port (TCP)	Transport Security	Comment
MS SQL Server	Winsock	1433		See MS189067 to enable SSL
Managed PI Agent	WCF	5449	✓	
PI Server	Winsock	5450		Secure authentication via SSPI Post assessment mitigations Transport security on roadmap
ACE Web Service	ASP.Net	5456		PI Web Services alternative
AF Server	WCF	5457	✓	
PI Notifications	WCF	5458	✓	
AF Server (Streaming)	WCF	5459	✓	
PI SQL Data Access Server	WCF	5461	✓	

Open Communication on Cyber Security

Bottom line: OSIsoft is actively finding and fixing issues.

Monday-Tuesday-Wednesday

Product Expo PI Security Pod
(12:35 PM - 5:20 PM)

Thursday

PI System Security Workshop
(10:00 AM and 1:30 PM)

Migrating to PI Server 2012 with PI AF and WIS
(10:00 AM and 1:30 PM)

Summary

- What happens to one company affects us all
- Security is better with newer versions
- Critical infrastructure protection is a shared mission
  - Start now at **#UC2013**!

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THANK YOU

Brought to you by

OSIsoft.

Get hands on knowledge of how to use and get value from the PI System