Is your Organization ready for a risk management program?

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SIRAcon • 2012-05-07

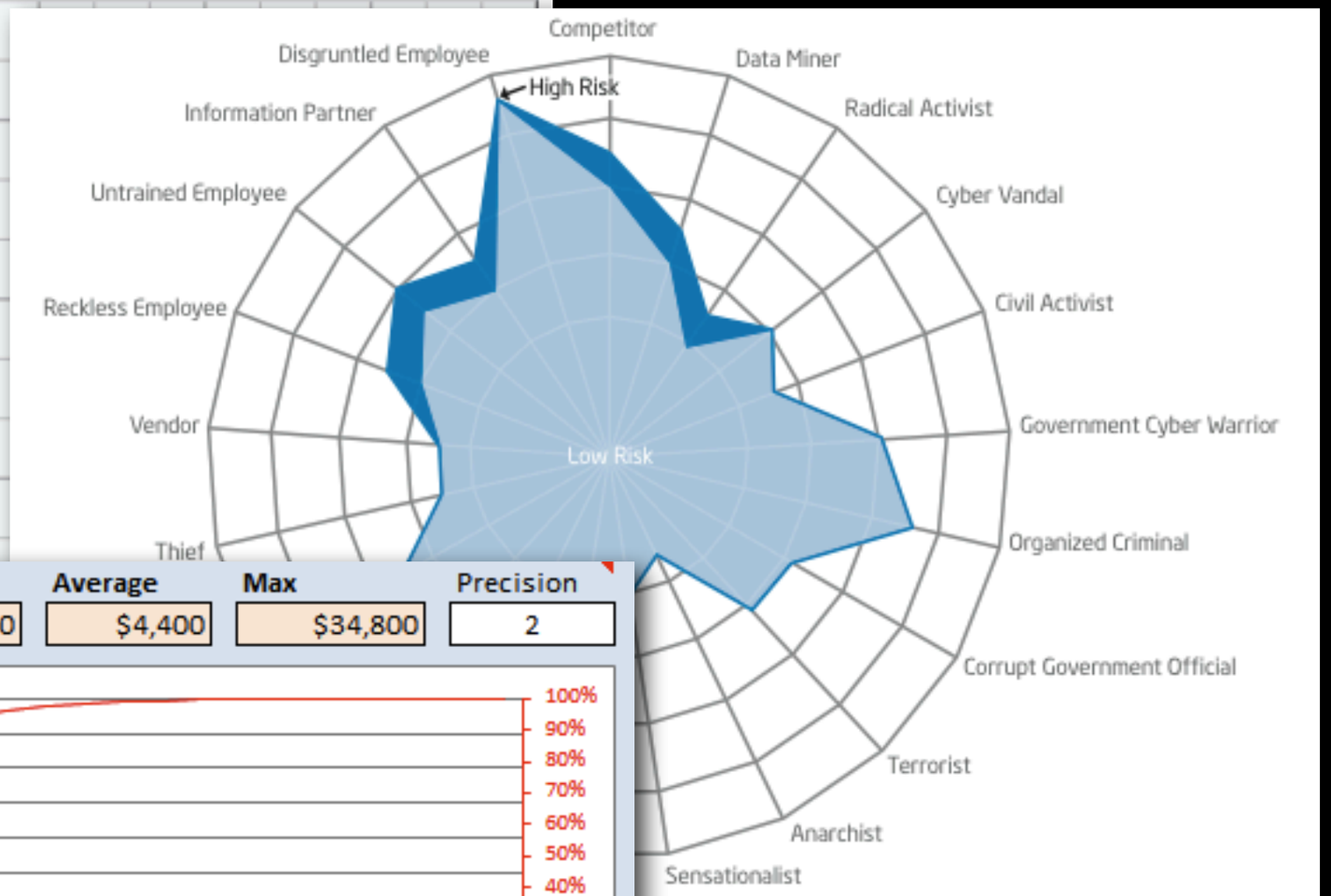
Lake Riskbegone

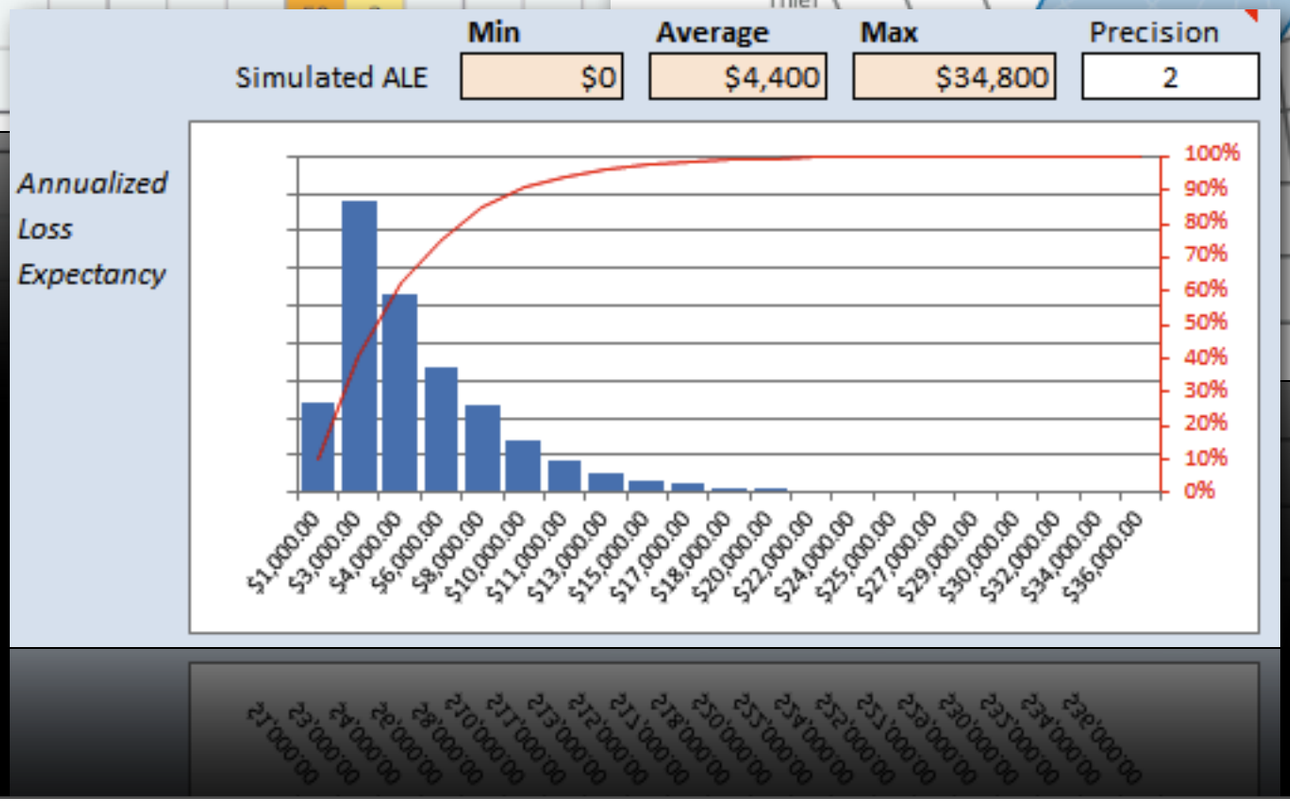
Where all the likelihoods are low, all the loss tables are populated & all the risk analysts are two standard deviations above the mean…


The Light Works

Figure 8. VERIS A⁴ Grid depicting the frequency of high-level threat events

		Malware			Hacking			Social			Misuse			Physical			Error			Environmental		
		Ext	Int	Prt	Ext	Int	Prt	Ext	Int	Prt	Ext	Int	Prt	Ext	Int	Prt	Ext	Int	Prt	Ext	Int	Prt
Servers	Confidentiality & Possession	381			518		1				9	8	1					2	1			
	Integrity & Authenticity	397			422		1				6	1	1									
	Availability & Utility	2			6						5											
Networks	Confidentiality & Possession										1											
	Integrity & Authenticity	1									1											
	Availability & Utility	1			1						1											
User Devices	Confidentiality & Possession	356			419						1											
	Integrity & Authenticity	355			355						1	1										
	Availability & Utility										1											
Offline Data	Confidentiality & Possession											23										
	Integrity & Authenticity																					
	Availability & Utility																					
People	Confidentiality & Possession							30	1													
	Integrity & Authenticity																					
	Availability & Utility																					





"Sir, the possibility of successfully navigating an asteroid field is approximately three thousand seven hundred and twenty to one!"


BATTLESTAR
GALACTICA

Objectives

- Analyze the gaps in your current organization
- Start framing even the most compliance-driven program in basic risk terms
- Gradually move from reactionary spend to qualitative/quantitative-based prioritization

Where Are You Now?

Security Policy

Asset Inventory

Documented Controls

Loss Estimates

Business Involvement

Threat Profile

Standard Definitions

IRP

. . . is how an institution expresses its intent with regard to information security

Asset Inventory

. . . enables you to know what you have, where it is, who own's it, etc.

Documented Controls

. . . are specific activities performed by persons or systems designed to ensure that business objectives are met

Business Involvement

. . . ensures proper ownership & responsibility

Standard Definitions

. . . enables everyone to speak the same language

Incident Response Program

. . . ensures needed resources are identified & organized to effectively deal with adverse events

. . . enables you to analyze, prioritize & communicate
the most important threat actors/actions to stakeholders

Loss Estimates

. . . because you can't have risk without the potential for loss


000
010
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Metrics
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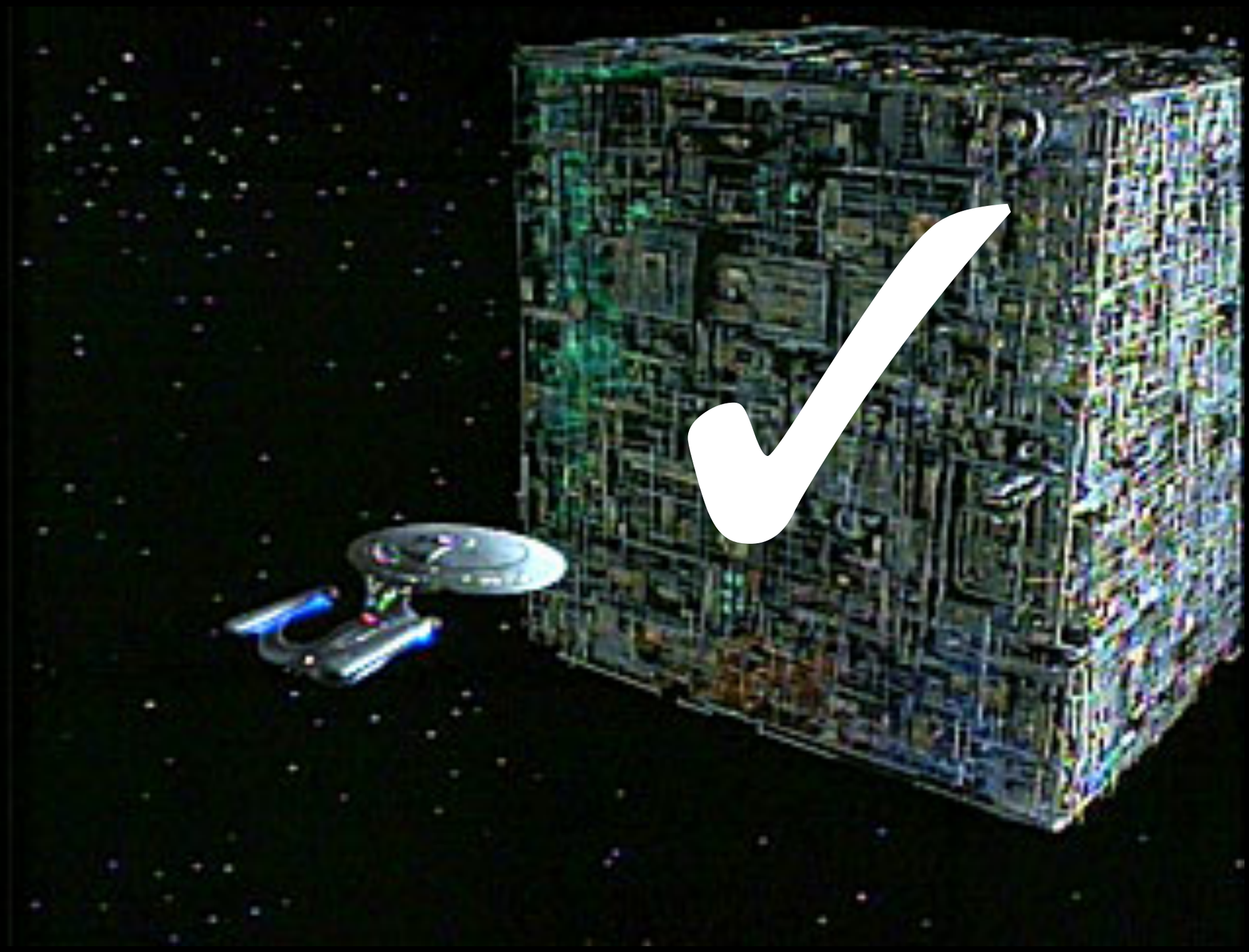
"But, all we have are compliance controls!"



- Sarbanes-Oxley
- PCI-DSS
- MA 201 CMR 17
- NRS 603
- Japan IPA, Law No. 57 of 2003

- Ensure all risk statements in your control library are actual risk statements and not just descriptions of the control failure

- Require that individual control statements are specific to the application / device / system

- Loss of Confidentiality of PAN data in $SBU online payment system
- Loss of Integrity of Financial Reports in $SBU claims management system
- Loss of Availability of $SBU drug manufacturing monitoring system

- Use a roll-up view when communicating your documented risks to management

- Loss of Integrity of Financial Reports
- Loss of Confidentiality of PAN data

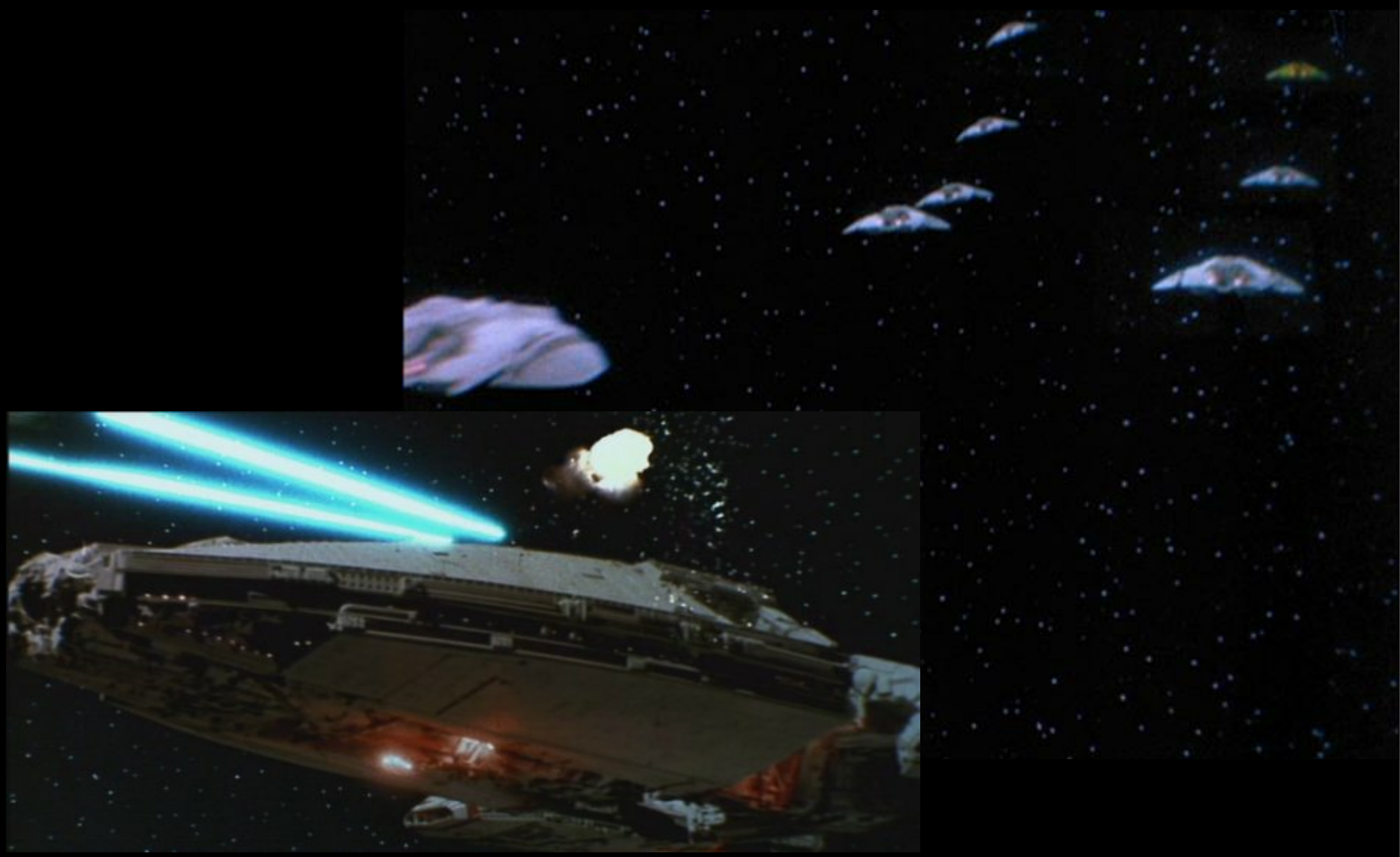
- Loss of Availability of Industrial Monitoring System

Take the offensive

http://www.sans.org/critical-security-controls/

1. Inventory of Authorized and Unauthorized Devices
2. Inventory of Authorized and Unauthorized Software
3. Secure Configurations for Hardware and Software on Laptops, Workstations, & Servers
4. Continuous Vulnerability Assessment and Remediation
5. Malware Defenses
6. Application Software Security
7. Wireless Device Control
8. Data Recovery Capability
9. Security Skills Assessment and Appropriate Training to Fill Gaps
10. Secure Configurations for Network Devices such as Firewalls, Routers, and Switches
11. Limitation and Control of Network Ports, Protocols, and Services
12. Controlled Use of Administrative Privileges
13. Boundary Defense
14. Maintenance, Monitoring, and Analysis of Security Audit Logs
15. Controlled Access Based on the Need to Know
16. Account Monitoring and Control
17. Data Loss Prevention
18. Incident Response Capability
19. Secure Network Engineering
20. Penetration Tests and Red Team Exercises

- With the SANS Top 20 in hand, objectively enumerate your $ORGANIZATION capabilities and use this data to start a risk dialogue



- Audit Findings
- Breach Response

Unsupported hardware/software

- Consistent, calibrated & company-wide risk assessments

- Demonstration that the risk assessments carry weight / affected change

- Elevation of the risk assessment from a project management checkbox to critical path element when rolling out an app / network / system / etc.


U.S.S. DEFIANT