SECURE360 conference

BT

Risk Matters, so Does Trust:
Maturity, Agility, Risk & Trust

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WELCOME TO SECURE360 2013

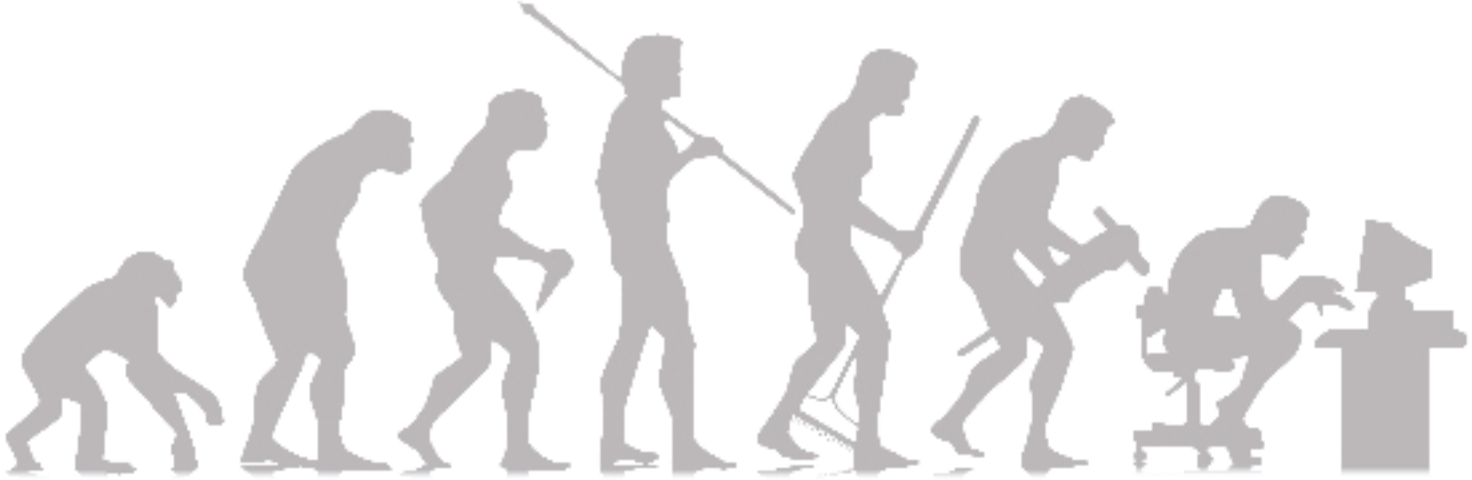
- Don’t forget to pick up your Certificate of Attendance at the end of each day
- Please complete the Session Survey front and back, and leave it on your seat
- Are you tweeting? #Sec360

My Journey

- Hacker/Researcher > Consultant > Policy Scribe > Architect > Risk Manager > CSO >Trusted Advisor

or

- From the guy that said no to the guy that facilitates yes



- 31/2 years as Security & Compliance Director for fortune 50 company
- Currently US&C Security & Mobility Portfolio Manager

Security Maturity Continuum

Evolution

Outsourcing, Partnering and Transformation

Next Stage

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Outsourcing, Partnering and Transformation

Next Stage

	Internally Managed Estates	Cost Center	Externally Managed Estate	Cloud Based Services and Applications
Organization	• Disparate • Splintered cultures			
Technology	• Dedicated & owned • Multiple vendors • Decentralized			
Operations	• Multiple groups • Dedicated resources			
Governance	• Business specific			

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Organization	• Disparate • Splintered cultures	• Internal customers • Unified culture		
Technology	• Dedicated & owned • Multiple vendors • Decentralized	• Dedicated & owned • Rationalized vendors • Centralized		
Operations	• Multiple groups • Dedicated resources	• Centrally managed resources		
Governance	• Business specific	• Consolidated process, policy, finance and audit teams		

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	Internally Managed Estates	Cost Center	**Externally Managed Estate**	Cloud Based Services and Applications
Organization	• Disparate • Splintered cultures	• Internal customers • Unified culture	• Defines & aligns business requirements	
Technology	• Dedicated & owned • Multiple vendors • Decentralized	• Dedicated & owned • Rationalized vendors • Centralized	• Dedicated & owned • Legacy & shared • Vendor agnostic • Centralized	
Operations	• Multiple groups • Dedicated resources	• Centrally managed resources	• Centrally managed oversight	
Governance	• Business specific	• Consolidated process, policy, finance and audit teams	• Dedicated process, policy, finance and audit teams	

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Technology	• Dedicated & owned • Multiple vendors • Decentralized	• Dedicated & owned • Rationalized vendors • Centralized	• Dedicated & owned • Legacy & shared • Vendor agnostic • Centralized	• Shared • Diverse • Agnostic • De-centralized
Operations	• Multiple groups • Dedicated resources	• Centrally managed resources	• Centrally managed oversight	• Dashboards • SLA's • Escalation
Governance	• Business specific	• Consolidated process, policy, finance and audit teams	• Dedicated process, policy, finance and audit teams	• Mature & holistic • Risk/reward aware • Agile

How do you make the transition?

Organization

- Risk Tolerance
- Maturity Level
- Culture Change

Operations

- Key Performance Indicators
- Escalation Paths
- Roles & Responsibilities

Technology

- Architecture
- User Experience
- Application & Service

Governance

- Business Objectives
- Effective Forums
- Policy Change
- ITIL Practices

The Governance, Risk & Compliance Challenge

Adapt to evolving security threats (Ops)

- Network boundaries are less defined as access adapts to meet changing business needs
- External attacks continue to become more sophisticated and change faster
- External attacks are targeted and financially motivated
- Threats from inside the organization are growing

Comply with growing regulation (Audit)

- Continued market vertical regulations such as Basel II, SOX, HIPAA, SEC, PCI DSS
- Increased growth and evolution of regulation
- Local data protection laws place a greater focus on data security

Control or reduce their costs (Business)

- Increasing scarcity and growing cost of retaining IT security talent
- Security budgets are now subject to same rigour as other IT spend
- Solutions need to be flexible to adapt to changing threats without needing to be replaced
- Rationalize solutions and suppliers to reduce costs
- Integrate security management across their company to reduce costs and get the most out of what they've got
- Volatile Cost of Compliance (TCO)

Governance, Risk & Compliance Benefits

- **Facilitates:** Agile and effective governance
- **Drives:** Holistic Risk Management
- **Creates:** Audit Ready Enterprises
- **Identifies**: Redundant Cost Elements
- **Supports:** Rapid Deployment Regardless of Maturity Level
- **Fosters:** A Cost Effective and Business Reasonable Approach
- **Provides:** Measurable Business Value

Exploiting GRC Opportunities:

- Alignment
- Effective Forums
- Measured Policy Change
- Consider ITIL

Tools of The Trade

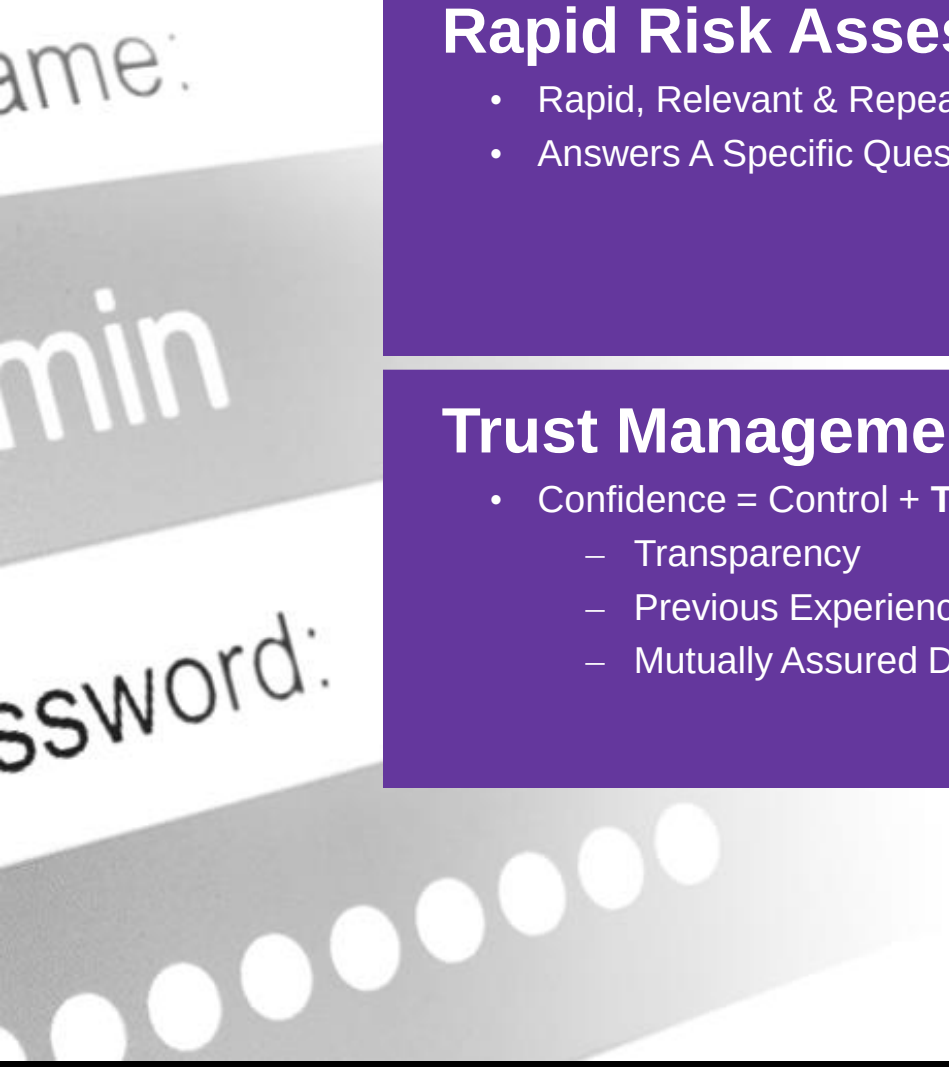
Compensating Controls

- Confidence = **Control** + Trust
- Contractual Langue
- Service Credits
- Risk Reward Parity

Agile & Effective Governance

- Business Objectives
- Develop Effective Forums
- Drive Measured Policy Change
- Adopt ITIL Practices
- Discipline & Consistency

Tools of The Trade



Rapid Risk Assessment

- Rapid, Relevant & Repeatable
- Answers A Specific Question

Trust Management Metrics

- Confidence = Control + **Trust**
  - Transparency
  - Previous Experience
  - Mutually Assured Destruction/Success

"You have to trust someone!"

Bruce Schneier

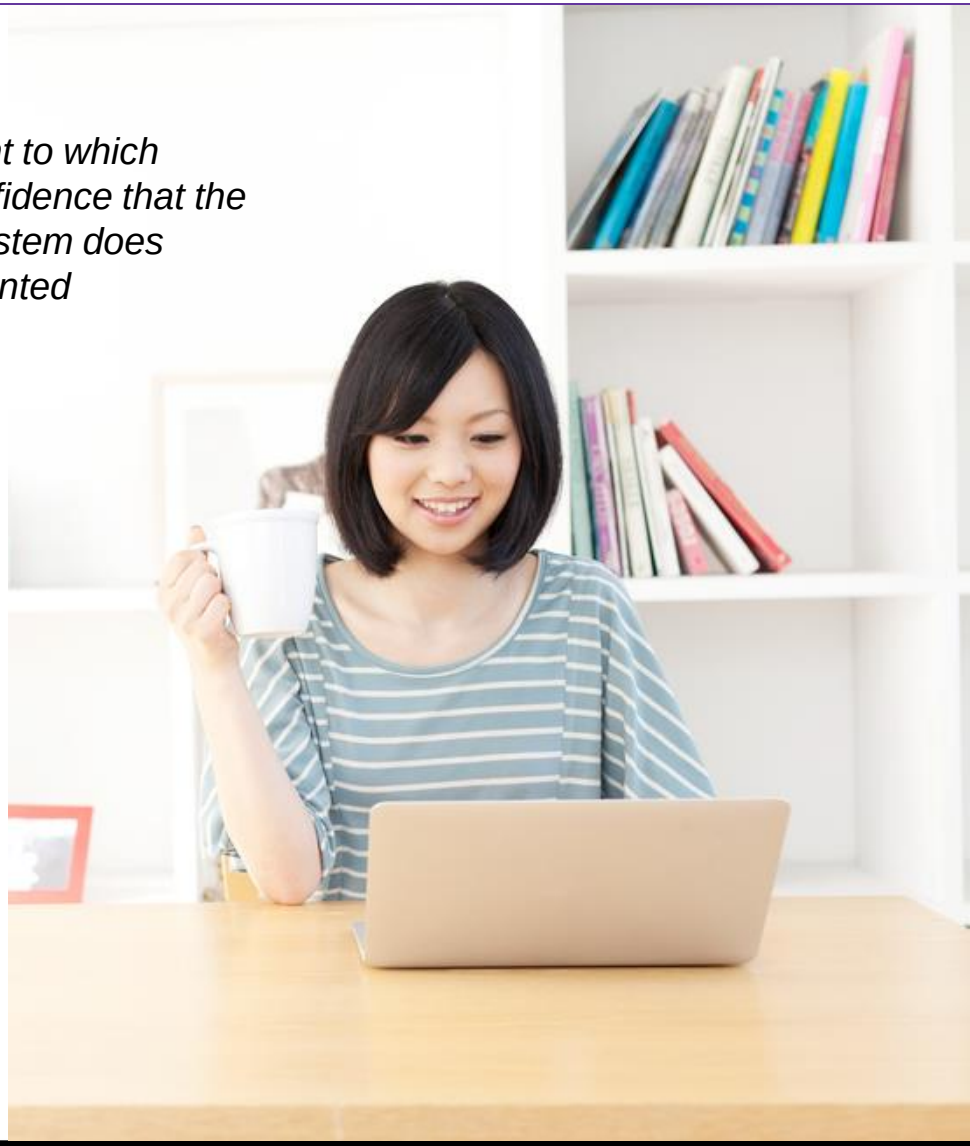
Trust Definition:

RFC 2828

- *“Trust [...] Information system usage: The extent to which someone who relies on a system can have confidence that the system meets its specifications, i.e., that the system does what it claims to do and does not perform unwanted functions.”*

- http://www.ietf.org/rfc/rfc2828.txt

- trust = system[s] perform[s] as expected



Trust Definition:

*"Trust (or, symmetrically, distrust) is a particular level of the **subjective probability** with which an agent assesses that another agent or group of agents will perform a particular action, both before he can monitor such action (or independently of his capacity ever to be able to monitor it) and in a context in which it affects his own action."*

Diego Gambetta,
"Can we trust trust?"
1988

Trust Management Methodology

ISECOM - http://www.isecom.org/

(Disclaimer: I became a CTA last year)

What is Trust Analysis?

- The use of logic and reason to make a trust decision
- It is a new practice originally developed to explore operational trust
- Identifies 10 trust properties

ISECOM Trust Properties

- **Size:** “How many trust subjects are there?”
- **Symmetry:** “What are the vectors of the trust?”
- **Transparency:** “How much do we know about them?”
- **Consistency**: “What happened in the past?”
- **Integrity:** “How is change communicated?”
- **Value of Reward:** “What do we gain?”
- **Components:** “What are your resource dependencies?”
- **Porosity:** “How much separation between the subject and environment exists?”
- **Control*** and **Offsets***

Dr. Piotr Cofta: Trust Governance & TERM

- **Literally wrote the book(s) on Trust**
- Recently launched http://trust-governance.com/
- Collaborating on the development of **Trust Enhanced Risk Management** (TERM)
- **TERM can be introduced gradually**, as it is backward-compatible with existing risk management methodologies

"With trust, companies can enjoy 10% increase in profit margin or 40% cost savings…

…Without trust, technology has no business value."

Dr. Piotr Cofta

Benefits of Adopting TERM

- **Trust is considered a good thing** because it reduces the cost to maintain security and controls
- **How can TERM help us?**
  - Create a relative Trust Score to answer a specific business question and rank entities accordingly
  - Define Trust Score thresholds for certain operational functions
  - Seek compensating controls to treat specific risk where trust does not exist.
  - Examples: MPLS & RSA Seed Escrow

"Security exists to facilitate trust. Trust is the goal, and security is how we enable it."

Bruce Schneier

Tools, Tools, Tools!!!

- **5 Practical Tools (work in progress)** http://trust-governance.com/?page_id=668
  - TERM (Trust Enhanced Risk Management)
  - Trust Compass
  - Trust Journey
  - Trust-O-Meter
  - TMM (Trust Maturity Model)
- **Trust-O-Meter**
  - Rapidly assesses the Trustworthiness of a partner
  - 9 Dimensions: Competence, Integrity, Benevolence, Understanding, Interest, Encapsulation, Obedience, Reputation & Continuity
  - Can be used to define Trust Score thresholds for certain operational functions

Trust-O-Meter

- **Facilitated sessions: Decision Support Tool, Due Diligence and Organizational Governance**

A	B	C	the highest of A, B and C	X	P: highest of X, Y Z
D	E	F	the highest of D, E and F	Y	Q: medium of X, Y, Z
G	H	I	the highest of G, H and I	Z	R: lowest of X, Y, Z
					score

score: P+Q*0.7+R*0.3

- **Use relative scores to determine which partners are more Trustworthy than others or if Trust gaps are unacceptable and require compensating controls.**

Take Aways

The "Clouds" are gathering and security professionals are uniquely positioned to facilitate the future.

"Carpe diem"

- Know where you are on the **maturity continuum**
- Speak the language **business understands**
- Communicate risk & reward in **effective forums**
- Treat risk creatively and **understand how, why and who you trust**

Thank you

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http://day-con.org