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SECURITY CULTURE HACKING: DISRUPTING THE SECURITY STATUS QUO

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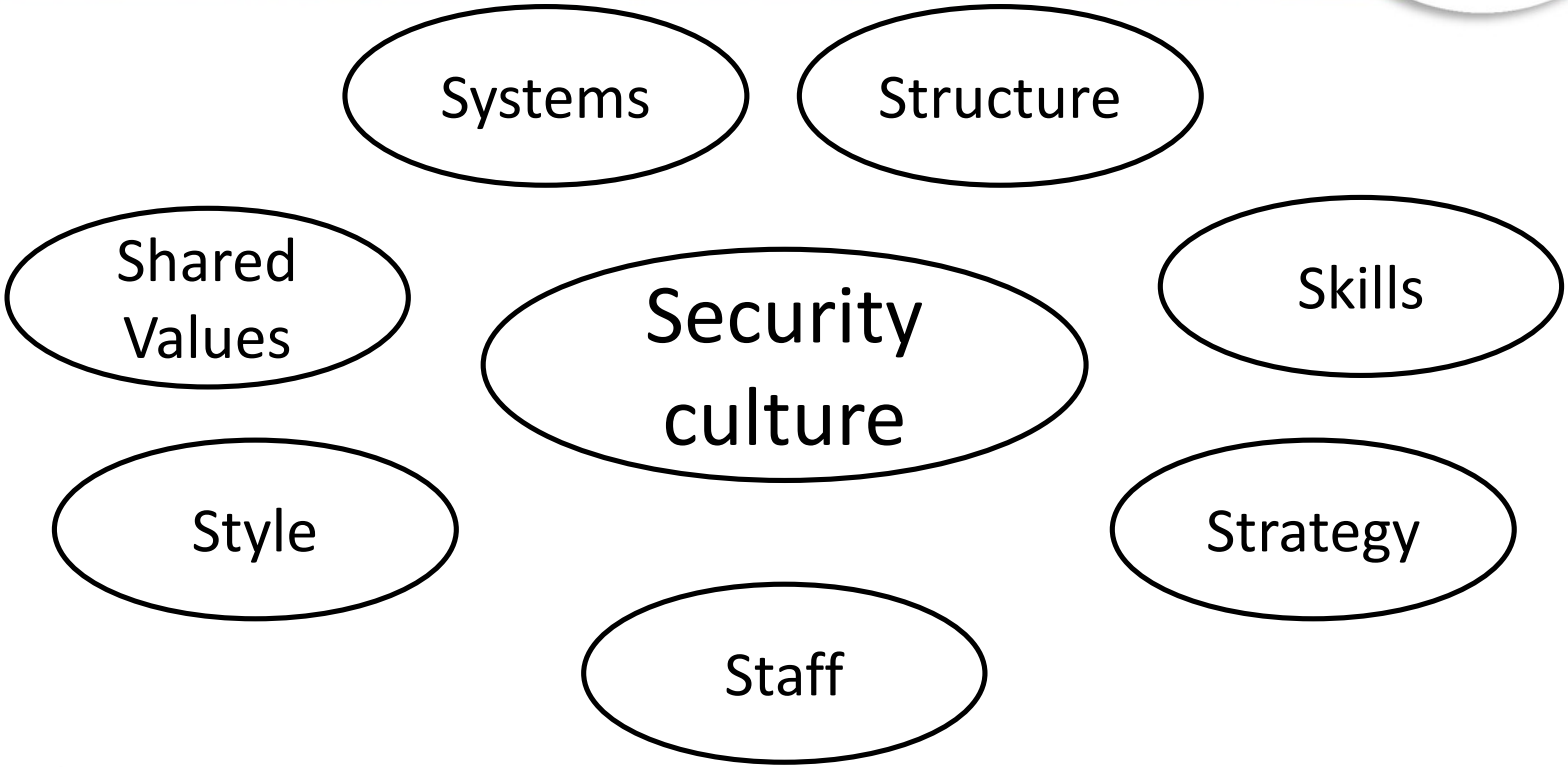
Agenda

- Security culture hacking
- The security culture hacker
- How to hack a security culture
  - Phase 1: Assess
  - Phase 2: Communicate
  - Phase 3: Connect
  - Phase 4: Teach
  - Phase 5: Reward
- Where to start and year one


SECURITY CULTURE
I AM YOUR WORST ENEMY
memegenerator.net

Security culture



The reality of security culture

What happens **with security** when people are left to their own devices.

Security culture goals

Security Journey

Avoid the security status quo

Security culture is a long game

“Security” people	Security interested	Early Majority	Forced compliance	Not going to happen
0-3 months	3-12 months	1-2 years	2-4 years	Never

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Security culture that lasts

- A plan with a disruptive edge 
- Fun for all parties involved 
- Rewards engage with stuff 
- Return on investment via metrics 

Security Journey

Security culture hacking

Security culture hacking = applying a series of shortcuts or tricks for getting an org to focus on security, one person at a time.

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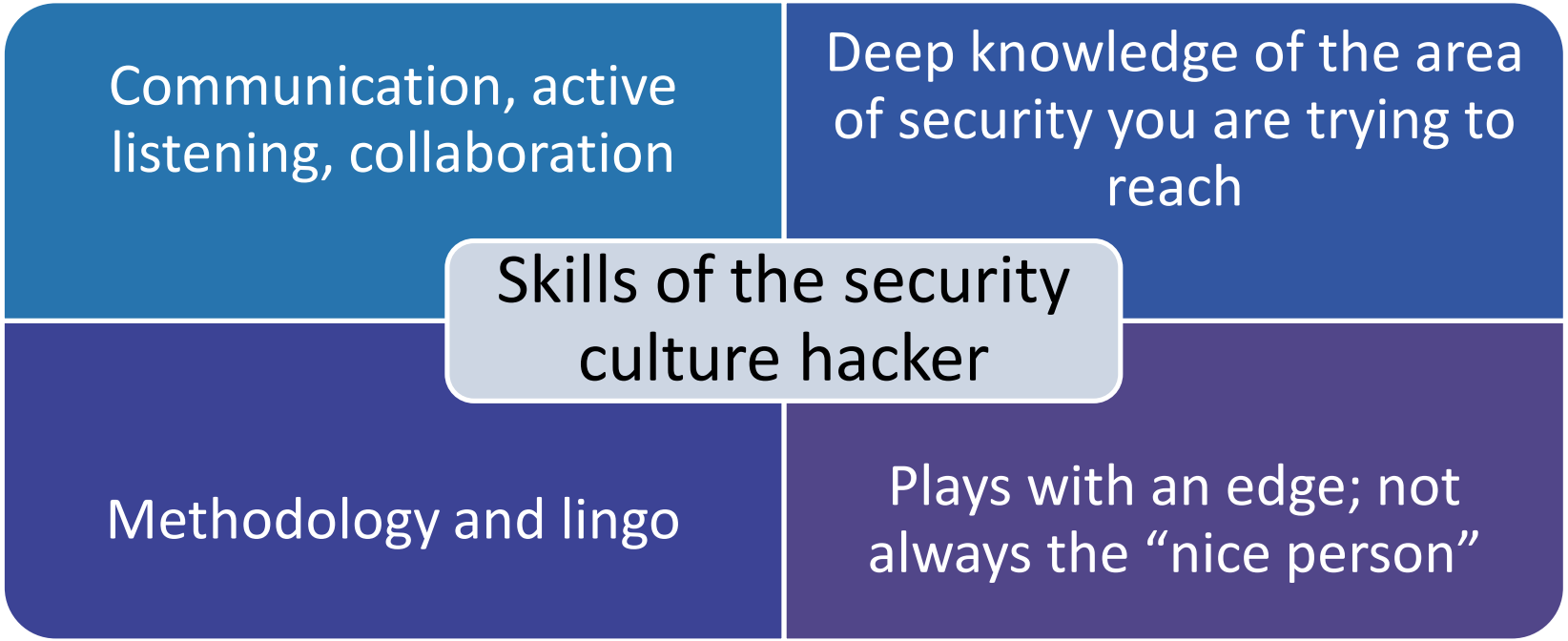
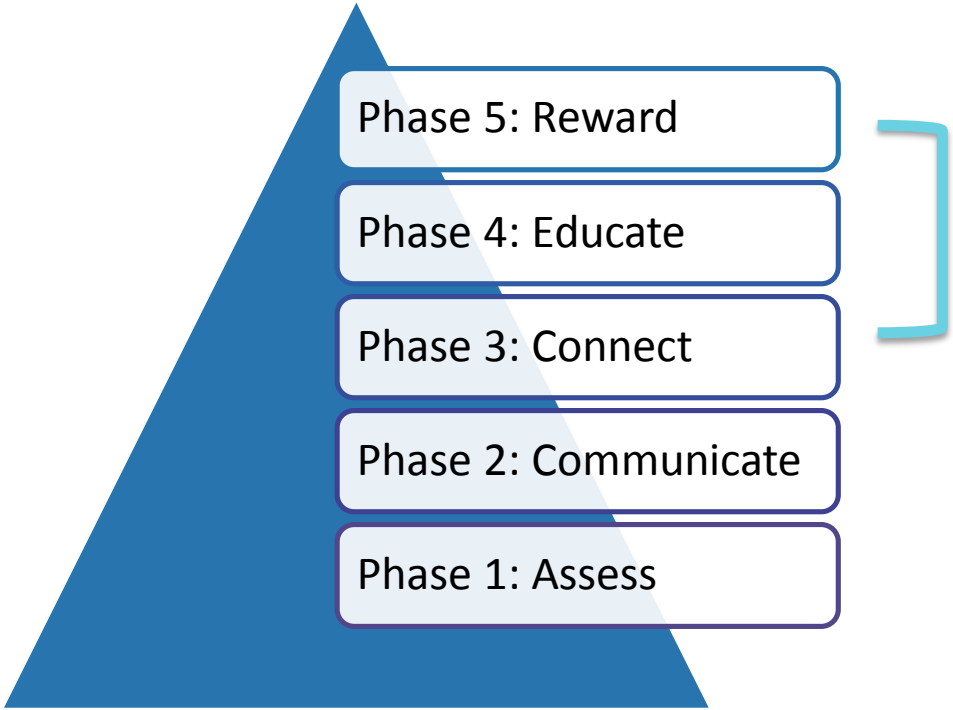

Communication, active listening, collaboration
Deep knowledge of the area of security you are trying to reach
Skills of the security culture hacker
Methodology and lingo
Plays with an edge; not always the “nice person”

Inverse of a social engineer

Social Engineer	Security Culture Hacker
Black hat / works for evil	White hat / works for good
Break in	Build up
Uses phishing, vishing, impersonation	E-mail, web conference, and face-to-face meetings
Calls Execs to steal passwords	Calls Execs to protect passwords
Persuasion skills	

How to hack a security culture



Security Journey

Phase 1: Assess

Goal: Create a strategy based on where the organization needs to go in the quest for a strong security culture.

Assessment random sampling

Information Security

Developers

Executives

Program Managers

Finance

HR

Security Journey

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A simple self-assessment

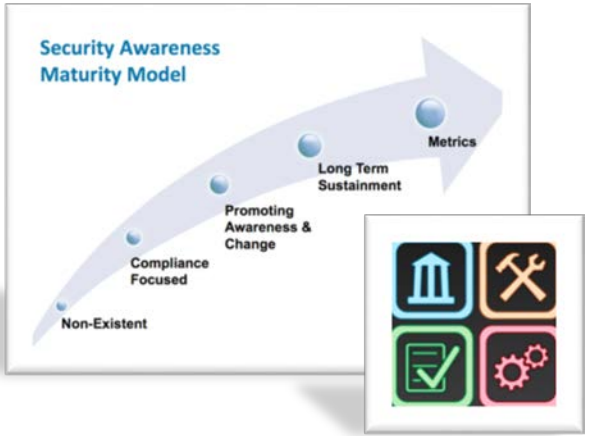
- What does security mean to us as an organization?
- How do we “do security”? How does security impact each job role?
- How risky is our application fleet or data that we store?
- Who are the attackers we face?
- Do we do high-level security awareness training? Role-specific?
- Ever heard of a secure design principle? What are some that we apply?
- Do we have a security response team? How do we contact them?

Case study: water cooler

Assessment tips for success

Time box

Assess --> Strategy

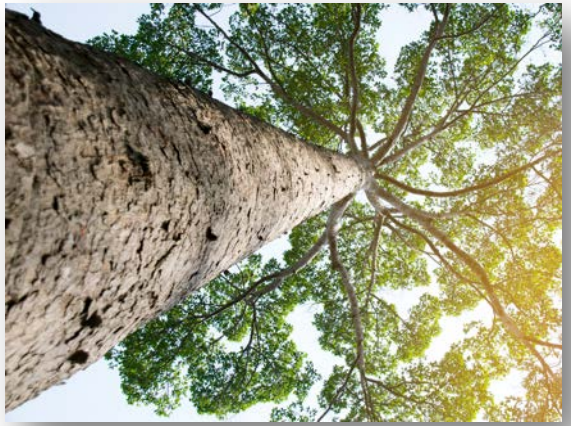


Other sources

Phase 2: Communicate

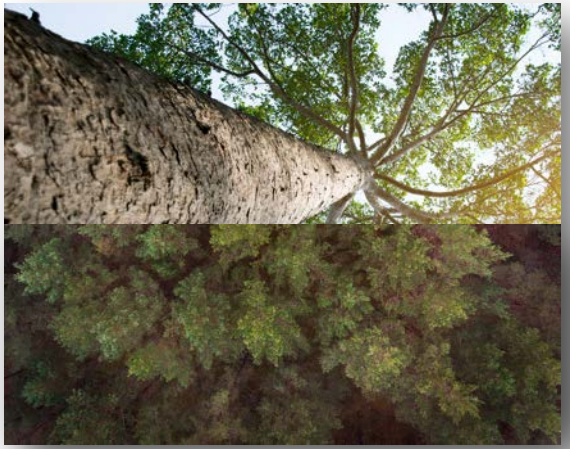
Goal: Reach out to people from across the organization, at all levels, and tell them about security.

Various communication approaches



Bottoms up

Top down



Hybrid

Case study: scare tactics

Break whatever you build in front of your Executives

Communication tips for success

Strategy

Travel

Face to face

Phase 3: Connect

Advocates
Ambassadors
Champions
Guilds

Goal: Educate about security and embed expertise within every team.

Security Journey

Champion case study

Champion tips for success

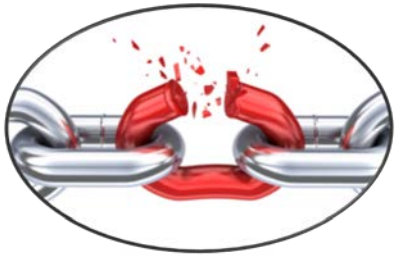
- Organizational distribution
- Clear roles and expectations
- Management support and buy-in is mandatory
- Program as destination; create a program that people seek out
- Invest in the champions and they will pay it forward

Champion activities

Monthly training

Online community

Mini-conference



Spot the flaw

Hack-a-thons

Full conference

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Phase 4: Educate

Goal: Provide meaningful, transformational security education that everyone wants to consume.

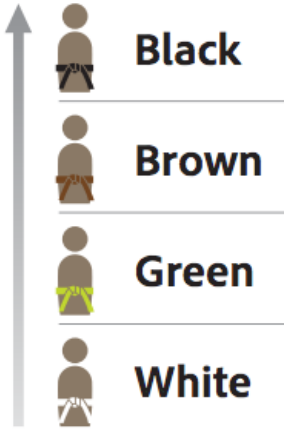
Mechanisms of security learning

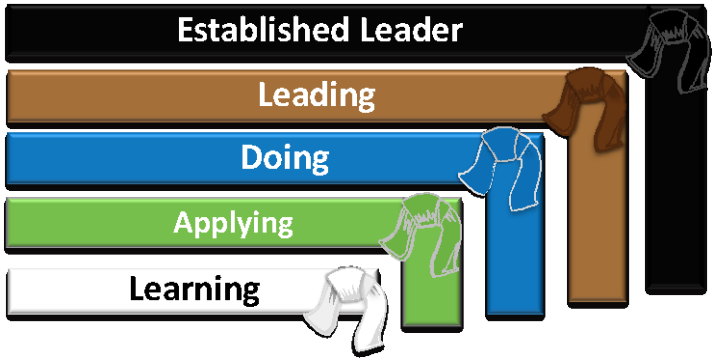
Video

Classroom

Hands-on

Continuous security education case study





Apprentice	Basic awareness
Padawan	Successful Testing
Jedi Knight	Doing
Jedi Master	Teaching
Jedi Grand Master	Innovating

Continuous security education tips for success

- Begin with the foundations; never assume base knowledge
- Start with why; focus on why the learner needs to care
- Connect “Security Champions” with the education program
- Recognize individual achievements or levels
- Pick a fun theme and market the program using the theme
- Role-specific education

Phase 5: Reward

Goal: Use more carrot and less stick to encourage the adoption of security culture.

Reward using the tools you already have

Good job in front of team

E-mail

Gift cards

Cash

Enhanced training

External conferences

Rewards case study

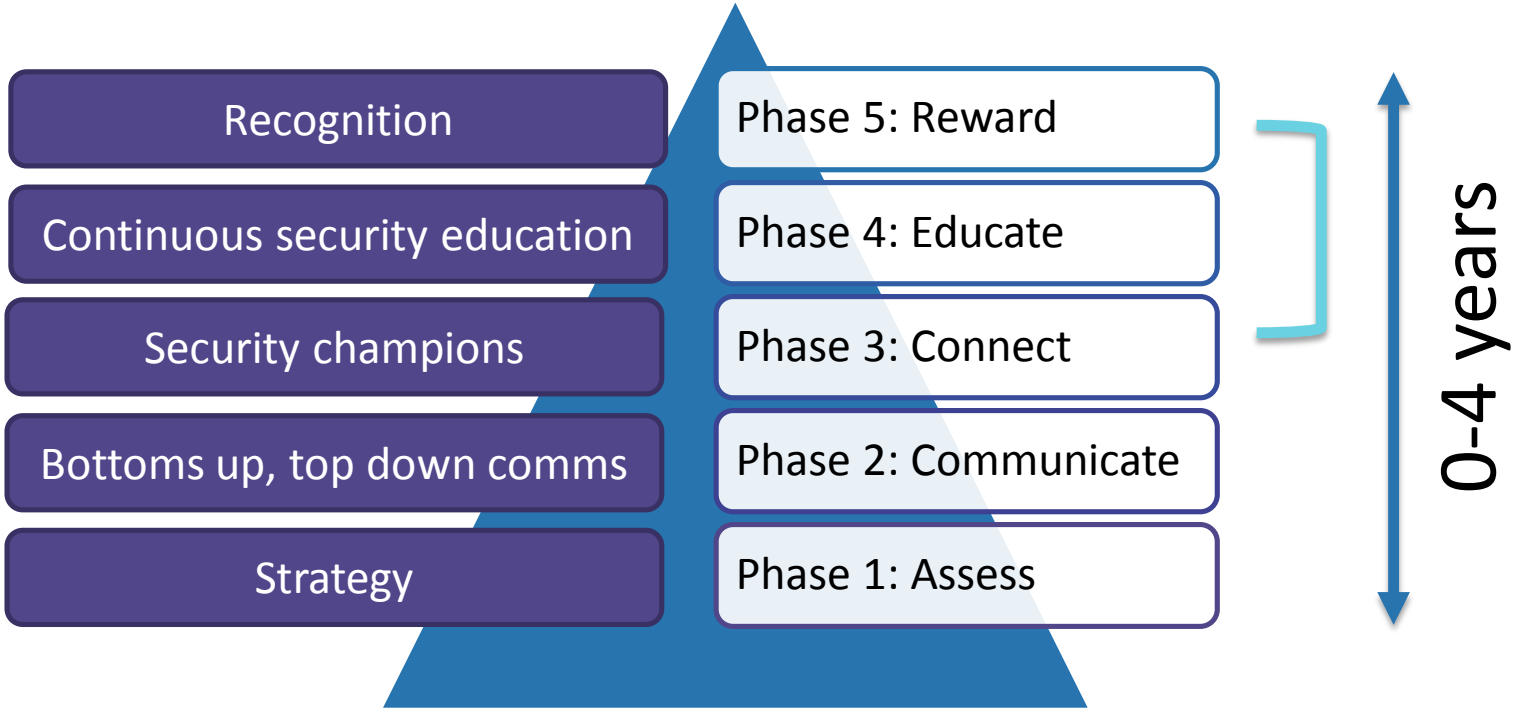
Rewards tips for success

- Ask team members for reward ideas
- Plug into existing organizational rewards and recognition programs
- Reward early and often; a rewards program is not a place to by stingy

Data (Metrics)

- Flaw prevalence -- lower count of vulnerabilities and security bugs
- Security bug fix rate
- Physical security incidents (tailgating)
- Total number of people that reach each education level
- Total number of security activities
- Security community engagement
- Positive engagements with the security team

A ”hacked” security culture



“Apply” Slide

- Next week you should:
  - Begin the security culture assessment process and build out a culture strategy
- In the first three months following this presentation you should:
  - Begin the communicate phase (ongoing forever), and connect at grass roots and Executive levels
  - Begin the process of identifying rewards and recognition
- Within six months you should:
  - Launch your Security Champions program
  - Deploy continuous security education
  - Continue rewards and recognition roll-out

Q+A and Thank you!

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