



ACTIONABLE Cybersecurity Insights

Presented by:

Fernando Martinez PhD CISSP CISA CISM

Center for Technology Innovation

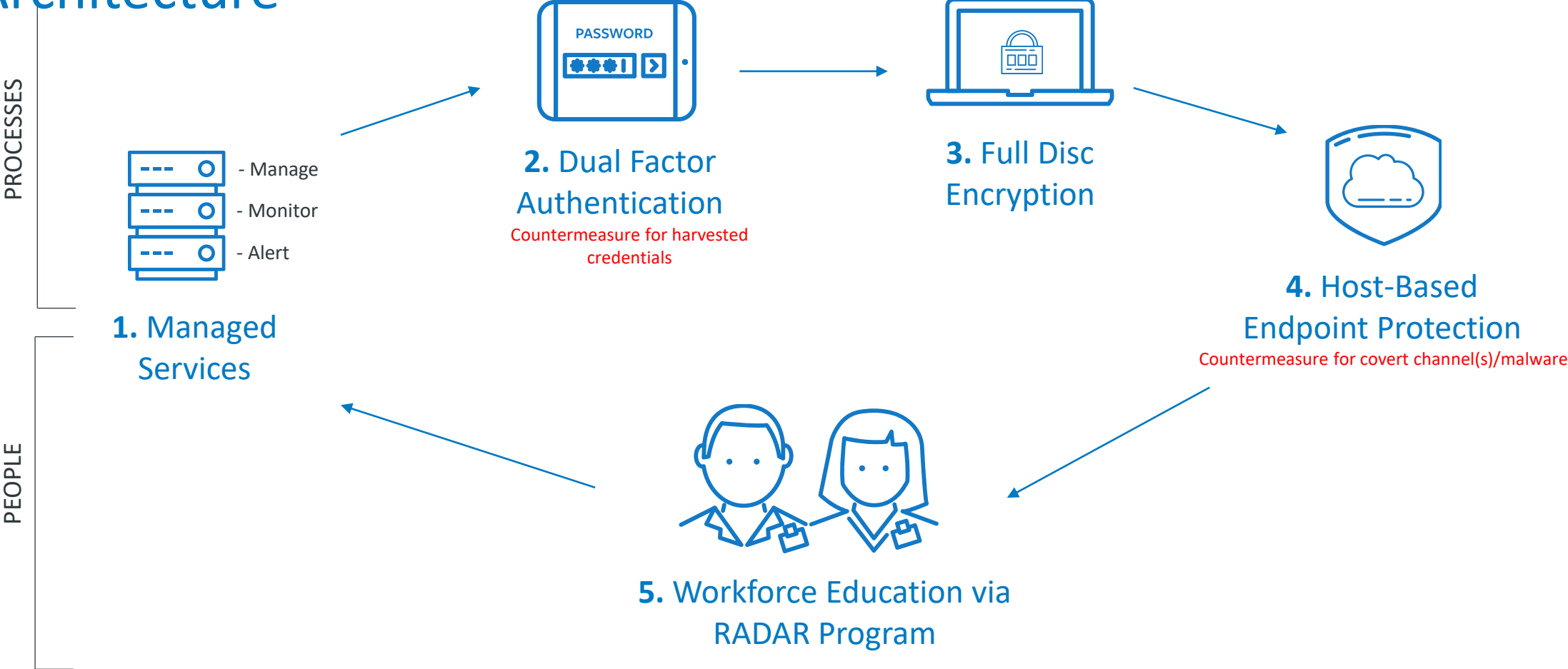
Texas Hospital Association Foundation

We're not doing enough

State	Entity Type	# of Individuals	Date	Type of Breach
TN	Healthcare Provider	9624	09/29/2016	Theft
TX	Healthcare Provider	653	09/26/2017	Unauthorized Access/Disclosure
TX	Healthcare Provider	1359	09/25/2017	Unauthorized Access/Disclosure
TX	Healthcare Provider	500	08/28/2017	Hacking/IT Incident
TX	Healthcare Provider	19114	08/22/2017	Hacking/IT Incident
TX	Healthcare Provider	10198	08/18/2017	Hacking/IT Incident
TX	Healthcare Provider	15761	08/18/2017	Hacking/IT Incident
TX	Business Associate	1396	08/10/2017	Unauthorized Access/Disclosure
TX	Healthcare Provider	5000	07/05/2017	Hacking/IT Incident
TX	Healthcare Provider	13402	06/19/2017	Hacking/IT Incident
TX	Healthcare Provider	542	06/16/2017	Theft
TX	Healthcare Provider	2000	06/05/2017	Unauthorized Access/Disclosure
TX	Healthcare Provider	17090	05/18/2017	Hacking/IT Incident
TX	Healthcare Provider	5000	05/12/2017	Hacking/IT Incident
TX	Healthcare Provider	521	04/26/2017	Hacking/IT Incident
TX	Healthcare Provider	8449	04/21/2017	Hacking/IT Incident
TX	Business Associate	9129	04/12/2017	Unauthorized Access/Disclosure
TX	Healthcare Provider	55447	03/26/2017	Hacking/IT Incident
TX	Healthcare Provider	279663	03/22/2017	Hacking/IT Incident

https://ocrportal.hhs.gov/ocr/breach/breach_report.jsf

Security-Focused Enterprise Technology Management Architecture



Humans are the target

Human Attack surface to reach 4 billion people by 2020

Microsoft estimates that by 2020 4 billion people will be on line, twice as many as today. As the digital footprint grows, humans have become the primary target, ahead of machines.

Ransomware is big business

Global ransomware damage costs are predicted to exceed \$5 billion in 2017

That's a 15X increase in two years. Ransomware attacks on healthcare organizations – the No. 1 cyber-attacked industry – will quadruple by 2020

The real objective

The real objective, the real value, is to get in, dig in and learn. Equifax was breached TWICE in 2017. Once in March and then again in July. It was the July breach that impacted 143 million U.S. consumers

Leading researches think that this is what nation states are doing.

<https://www.cnbc.com/2017/09/18/equifax-acknowledges-second-security-incident-march.html>

Equifax

- Exploit to a web page – online dispute portal – missing patch
- Equifax discovered the breach on July 29th
- Took the web application offline July 30th
- Hired Mandiant on August 2nd, subsequently determined that breach took place from May 13th through July 30th
- CIO and CISO “retired”

Dealing with the risk

- Know your landscape
 - Security sprawl is a challenge
 - Too many vendors to manage
 - Complex security architecture
- Comprehensive inside/outside security review
 - Are you susceptible to an outside attack
 - Are there any flaws
 - Can any internal systems be breached (are they already?)

Dealing with the risk

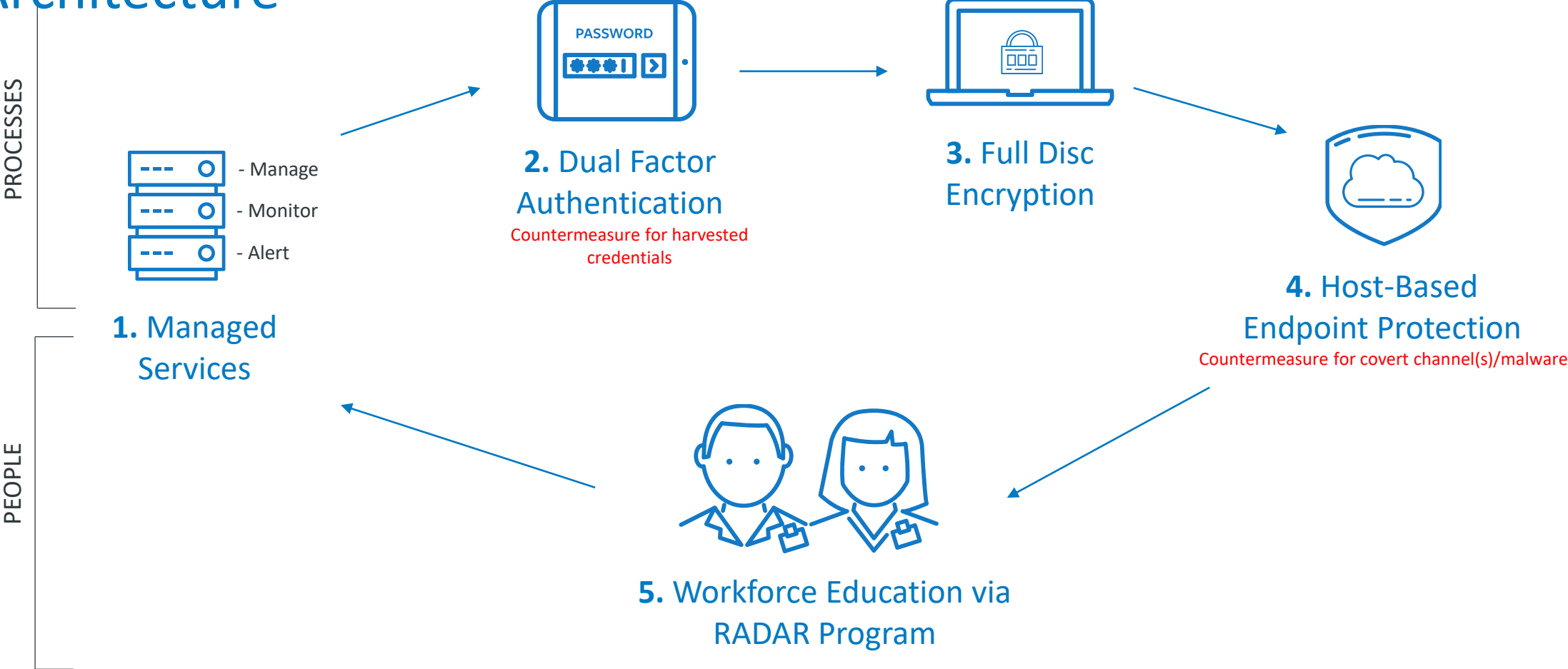
- Can my employees or processes be compromised?
 - Social engineering
 - Most exploits are via phishing
 - Local or national activity, discount coupons are the best bait
- Vulnerability scanning and patch management
 - Risk summary
 - Closed loop controls
 - Insist on accountability

Dealing with the risk

Cyber-liability Insurance

- Does not transfer the risk but rather augments your ability to manage it
- How does your cyber liability policy payments work? Who gets paid and how?
- What do they take into account before paying?

Security-Focused Enterprise Technology Management Architecture



Educate and Communicate

- Please cascade this message down to your IT, risk management and Internal Audit team. Encourage your leaders to “connect” with me and with the Texas Hospital Association via LinkedIn or in-person visits.
- The THA Foundation is hosting the 1st annual Texas Healthcare Security and IT conference in Austin on April 19th and 20th 2018
 - Cyber incident simulated table-top exercises
 - Case study based education around threats and responses
 - IT risk management, audit and control
 - Practical learning sessions with an emphasis on techniques and tools which can be immediately put to work to help our member hospitals

Questions? Comments??

Fernando Martinez PhD CISSP CISA CISM
fmartinez@tha.org

LinkedIn:

<https://www.linkedin.com/in/mrfernandomartinez>

Tech Conference: <http://www.tha.org/techconference>