IT Board Update

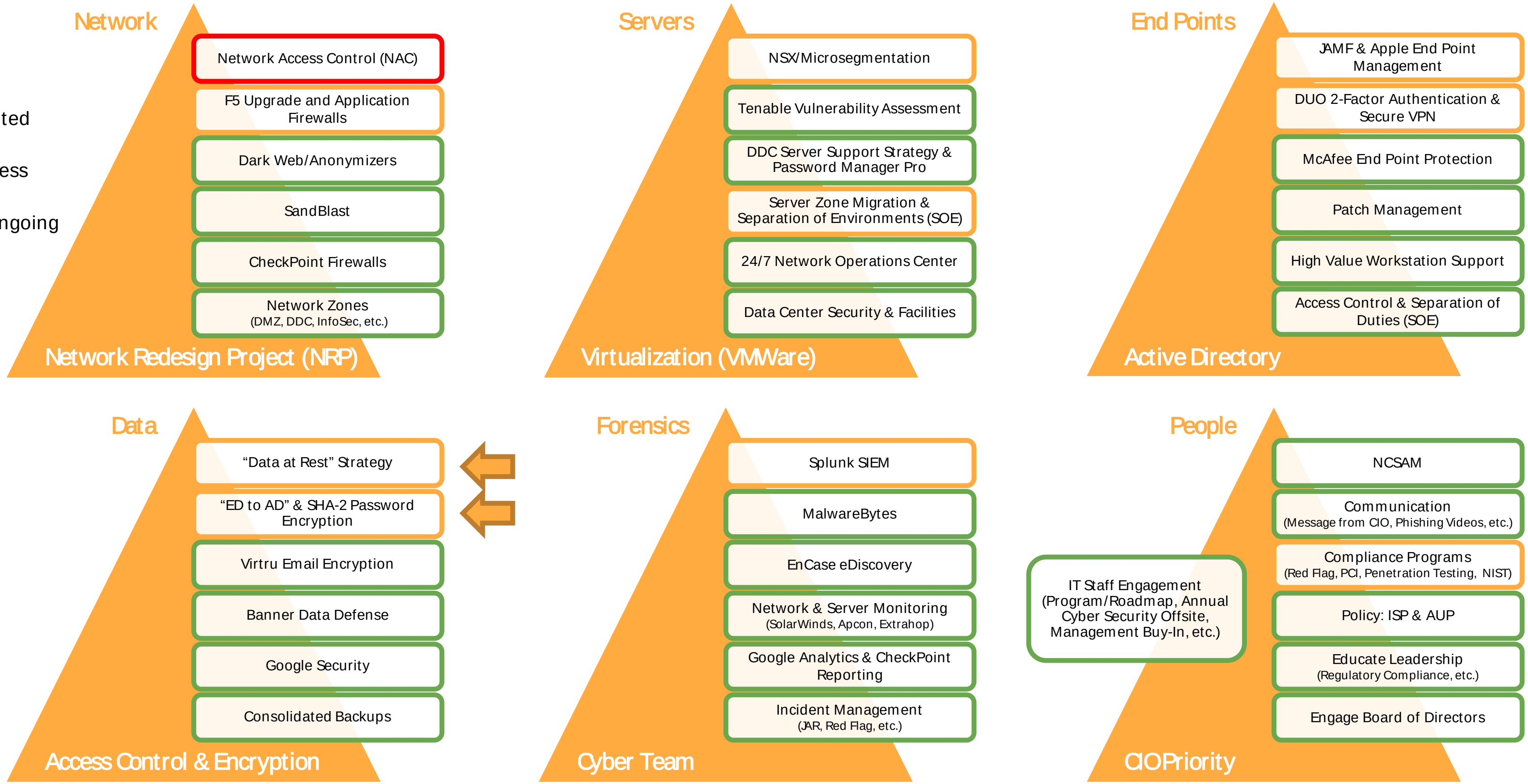
Portland Community College
Q1 2018
Office of the CIO

Agenda

1. Defense in Depth Review
2. 2017 Annual Cyber Security Report (ACSR)
- Threat Landscape
- Highlights
- Concerns

Defense in Depth (InfoSec Roadmap)

- 🟥 Not Started
- 🟧 In Progress
- 🟩 Done/Ongoing



Network

- 🟥 Network Access Control (NAC)
- 🟧 F5 Upgrade and Application Firewalls
- 🟩 Dark Web/Anonymizers
- 🟩 SandBlast
- 🟩 CheckPoint Firewalls
- 🟩 Network Zones (DMZ, DDC, InfoSec, etc.)

Network Redesign Project (NRP)

Servers

- 🟧 NSX/Microsegmentation
- 🟩 Tenable Vulnerability Assessment
- 🟩 DDC Server Support Strategy & Password Manager Pro
- 🟧 Server Zone Migration & Separation of Environments (SOE)
- 🟩 24/7 Network Operations Center
- 🟩 Data Center Security & Facilities

Virtualization (VMWare)

End Points

- 🟧 JAMF & Apple End Point Management
- 🟧 DUO 2-Factor Authentication & Secure VPN
- 🟩 McAfee End Point Protection
- 🟩 Patch Management
- 🟩 High Value Workstation Support
- 🟩 Access Control & Separation of Duties (SOE)

Active Directory

Data

- 🟧 "Data at Rest" Strategy
- 🟧 "ED to AD" & SHA-2 Password Encryption
- 🟩 Virtru Email Encryption
- 🟩 Banner Data Defense
- 🟩 Google Security
- 🟩 Consolidated Backups

Access Control & Encryption

Forensics

- 🟧 Splunk SIEM
- 🟩 MalwareBytes
- 🟩 EnCase eDiscovery
- 🟩 Network & Server Monitoring (SolarWinds, Apcon, Extrahop)
- 🟩 Google Analytics & CheckPoint Reporting
- 🟩 Incident Management (JAR, Red Flag, etc.)

Cyber Team

People

- 🟩 NCSAM
- 🟩 Communication (Message from CIO, Phishing Videos, etc.)
- 🟧 Compliance Programs (Red Flag, PCI, Penetration Testing, NIST)
- 🟩 Policy: ISP & AUP
- 🟩 Educate Leadership (Regulatory Compliance, etc.)
- 🟩 Engage Board of Directors
- 🟩 IT Staff Engagement (Program/Roadmap, Annual Cyber Security Offsite, Management Buy-In, etc.)

CIOPriority

2017 ACSR: Threat Landscape

1. Largest losses to date globally: identity & financial
2. Higher Education is #3 target (after Finance, Healthcare)
3. Increased regulations & laws: PCI, GDPR
4. Equifax! Uber, Google Ole…
5. New threats: WannaCry, Kaiser, Hidden Cobra
6. Increased Sophistication: phishing, BEC, etc.
7. FAFSA (Application for Federal Student Aid) - 20 to 80 million students' records
8. North Korea, Russia, China and India are worst state offenders

2017 ACS Report: Highlights

2017 was PCC's "best year ever":

1. Formally adopted *B710 "Identity Theft Prevention Program" (2009)*
2. Established Red Flag committee
3. Gartner IT Score: 3.1 to 3.8
4. No reportable events (defended against new threats: WannaCry, etc.)
5. Completed NIST "dry run" – audit in Q1 2018
6. 2nd Annual "National Cyber Security Awareness Month"
7. Encryption of PCC's "system of record" (Banner data Defense)
8. Implemented district-wide Patch Management
9. Began implementation of Splunk SIEM
10. Virtru email encryption for the Dental Division (HIPAA protection)
11. Expanded network and server monitoring capabilities

All *keystone* objectives identified in last year's report (e.g. block USA dark sites and outbound traffic, implement Sandblast, Banner Database Encryption, etc.) were successfully met.

2017 ACS Report: Concerns

1. REN-ISAC[1] Dark Web database
2. Google's Ole breach
3. Dropbox, Yahoo, other cloud services breached throughout 2017
4. North Korean "Hidden Cobra"
5. Chief Information Security Officer (CISO)
6. Budget

[1] The Research and Education Networking Information Sharing and Analysis Center (REN-ISAC) serves the entire EDU space in the United States: "In this role, we work with trusted third parties to notify higher education institutions of infected hosts and suspicious network traffic."

Questions?

Michael Northover, CIO