RSAConference2020

San Francisco | February 24 – 28 | Moscone Center

HUMAN ELEMENT

SESSION ID: TECH-F02

Prioritizing the Top 20 on a Shoestring

William Bailey

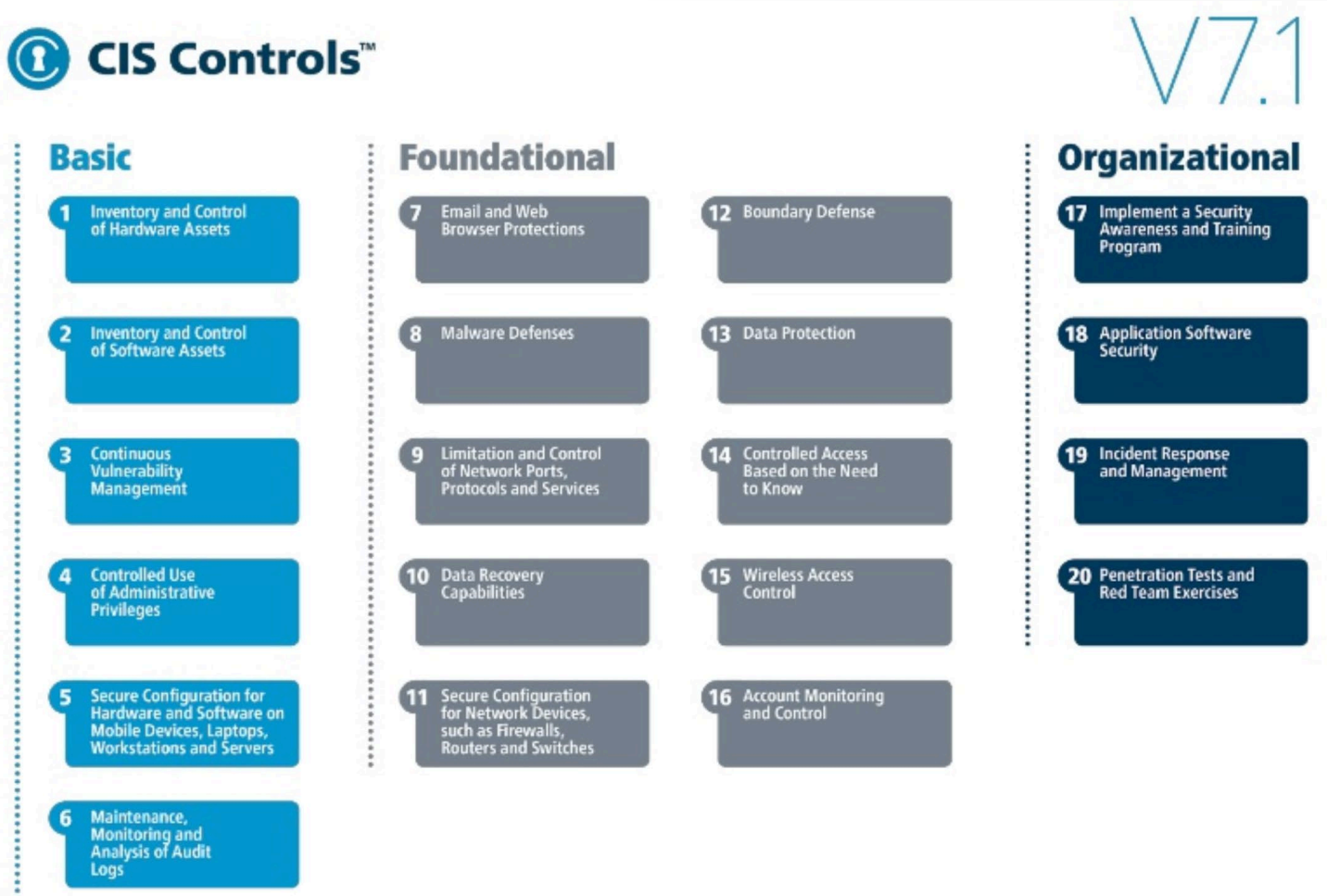
VP Information Security
Police & Fire FCU
@dalanshark

Achieving the Goal

- Need to Protect Systems
  - Regulations
  - Contractual
- Budget is Limited
  - Or, Non-existent
- Want to Adopt Best Practices
  - Read about CIS 20 Critical Controls
- No Strategy Already Exists… Where to Start?

CIS Controls®

Start → Move Up → Mature



Just the Top Five – 85% of 2017 DBIR Breaches

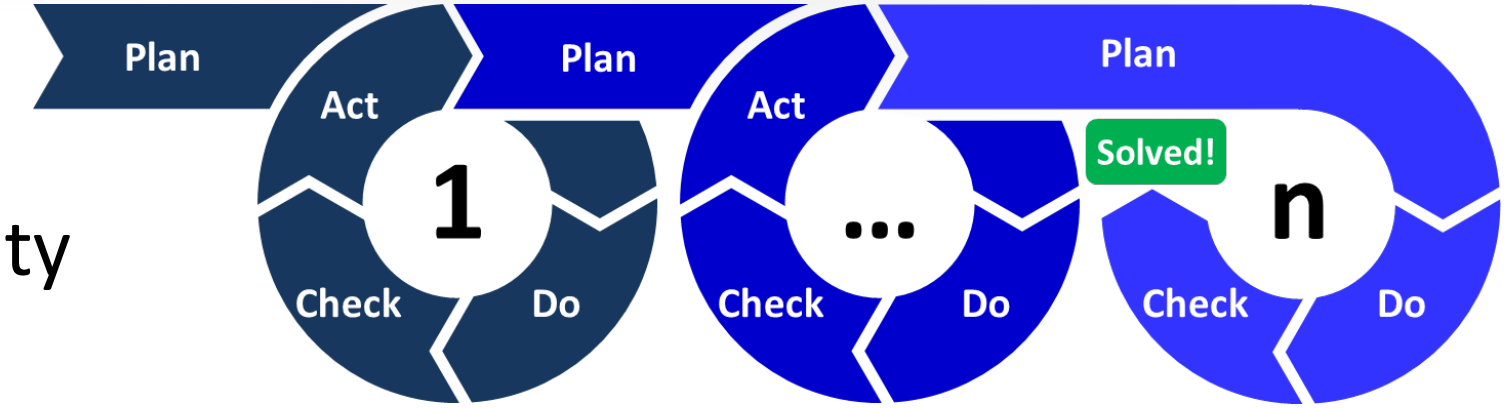
	NIST CSF	ISO
Inventory & Control of Hardware Assets	ID.AM-1 ID.AM-3	A.7.1.1
Inventory & Control of Software Assets	ID.AM-2 ID.AM-6	A.12.5.1
Continuous Vulnerability Management	ID.RA-1 ID.RA-2	A.12.6.1
Controlled Use of Administrative Privileges	PR.AC-4	A9.1.1
Secure Configuration of HW & SW	PR.IP-1	A14.2.4 A14.2.8

Building Blocks

- Policies
- Know What You Have
- Don’t Use Defaults
- Create Standards
- Protection – 100%?
- Follow Procedures
- “Social Networking”
- Learn

Policies

- Going Forward…
- Match Your Capability
- Measurable
- Incremental Changes, Reviewed Annually
- Exceptions Possible, Exceptions Reviewed
- Just enough specifics
  - Standards, baselines, procedures, guidelines



Know What You Have

Assets

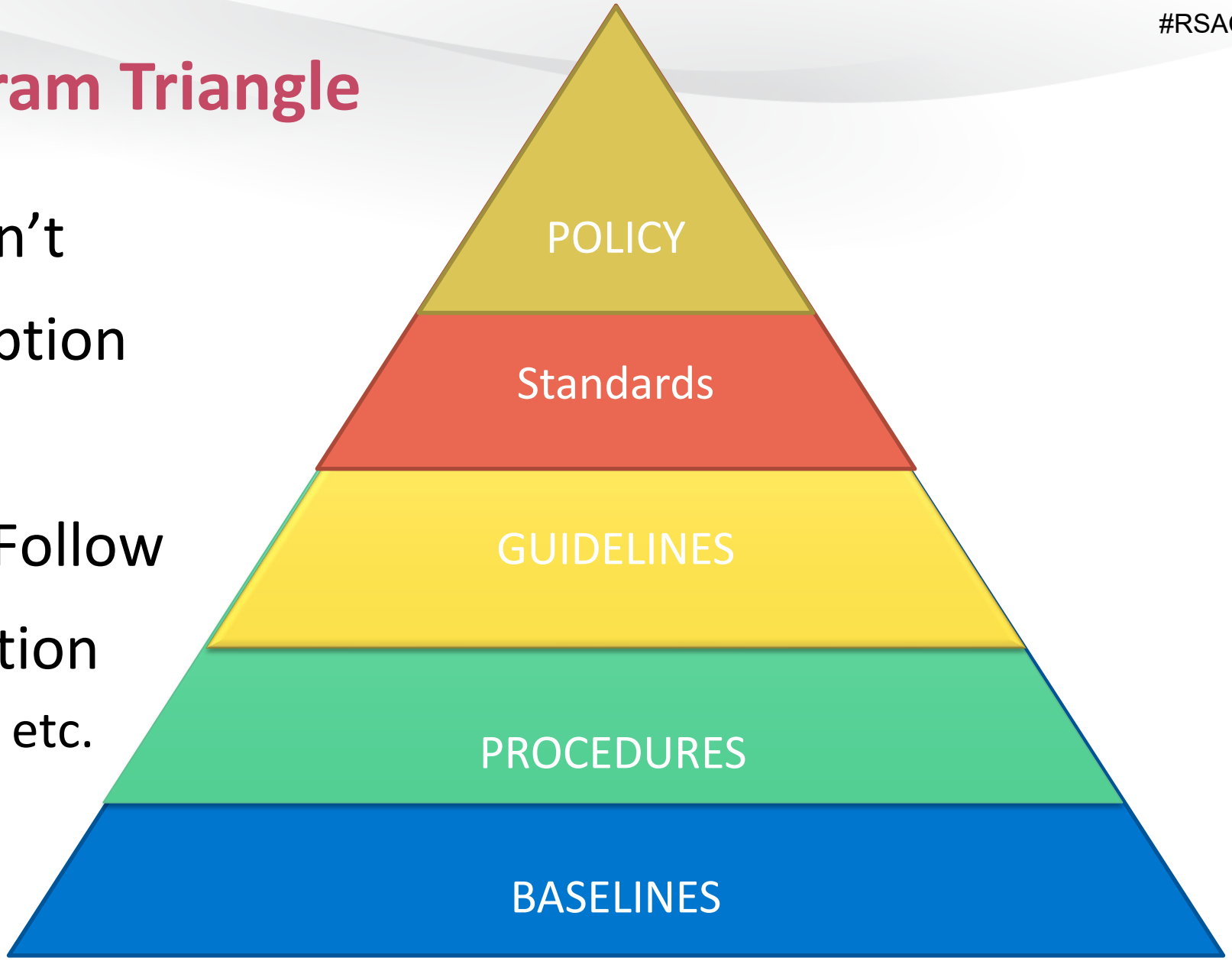
- Hardware
- Software
- Information
- Vendors

Tools (examples)

- Nmap / ZenMap
- BRO / Zeek
- Spreadsheets (ugh)
- Fun with Scripts
- Learn the Business
- Talk with Accounting / Contracting

Cybersecurity Program Triangle

- High-Level Do or Don't
- Must Use XYZ Encryption
- "Least Privilege"
- Recipe Anyone Can Follow
- Allow for Customization
  - Windows 1903, 2003, etc.



Don’t Use Defaults - RTFM

- Built-in Accounts
- Password(s)
- Port(s)
- Logging options

Create Standards

Why?

- Assist Troubleshooting
- Consistency of Experience
- Easier to Secure
- Less “Whack a Mole”
- Don’t Have to Support Everything

How?

- Gold Images
- Hardware Platforms
- Software Platforms
- Process to Introduce New Technologies

Protection – How Much?

- Anti-malware – managed
- Backups – encrypted
- Encryption – in motion, at rest
- Limit Sessions
- Passwords
- Remember “Best of Breed” vs. What You Need
- Updates – Install them

Don’t Have What You Don’t Need

- Privileges – Remove Admin, Ability to Install Software
- User Accounts - Set Expiration Dates Before, Not Later
- Software – Remove Bloatware, Components
- Data – Move from endpoint to server, and dispose at end of life
- Extra Features = Extra Bugs!

Follow Procedures

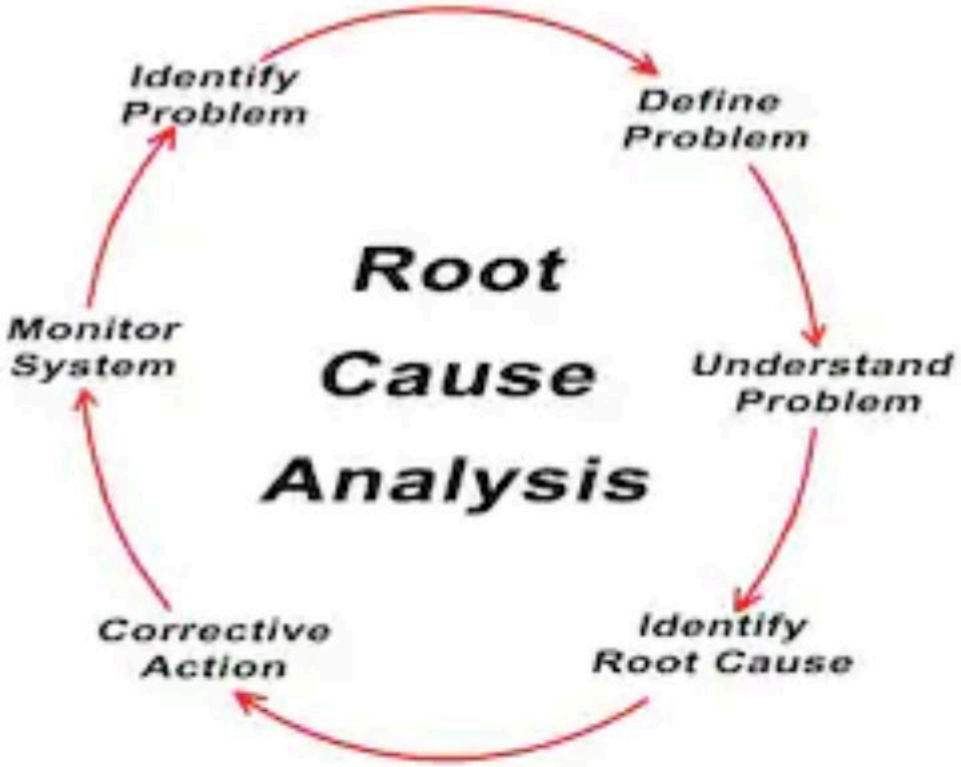
- Can’t document everything on the first day,
- But you can require better documentation for any new:
  - Hardware implementation
  - Software deployment
  - Vendor selection

“Social Networking”

- Discussions
  - These may be informal
- Interviews
- Survey(s)
- Walkthrough(s)
- Industry

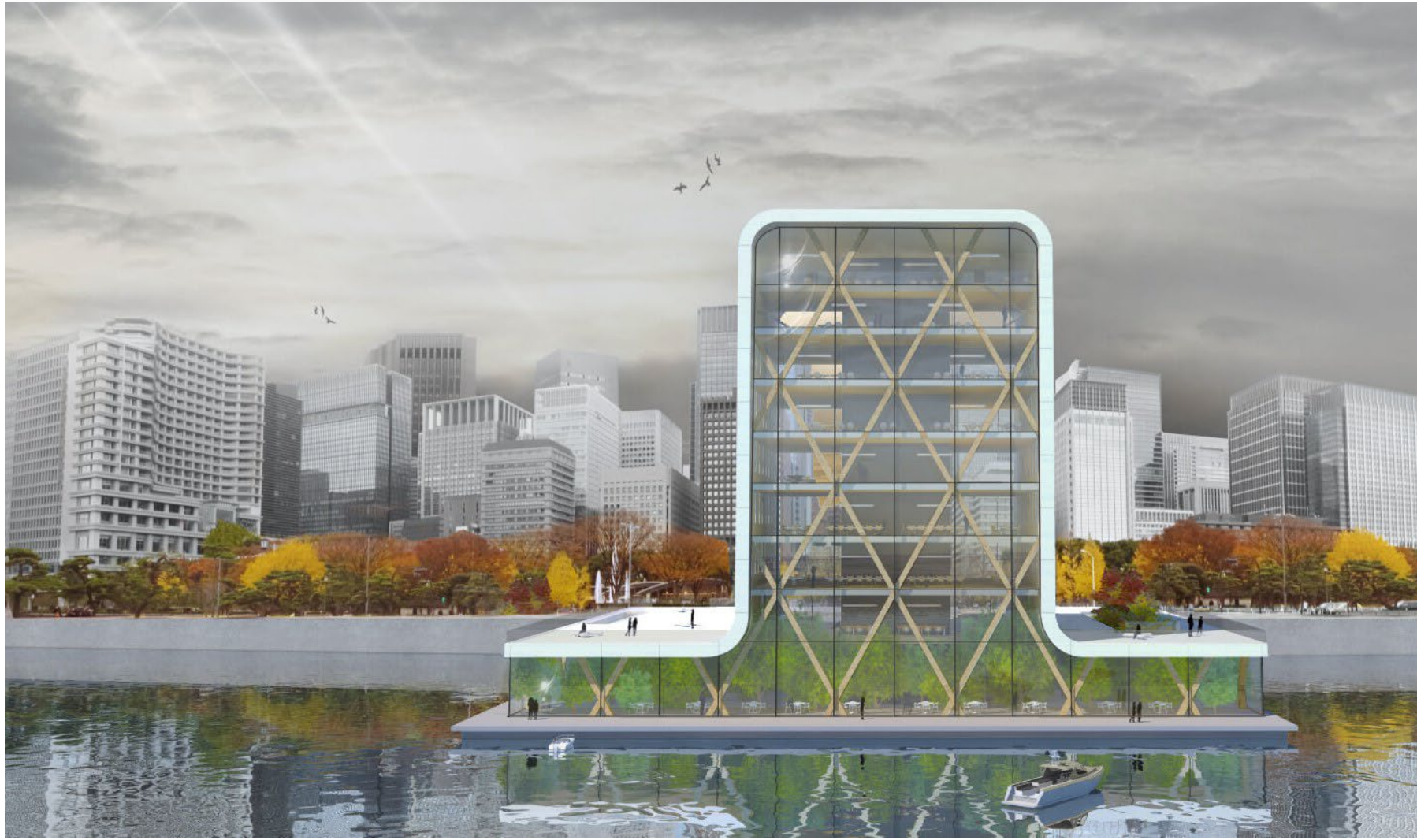
Learn

- Perform Root Cause Analysis
- Look at Threat Intelligence – use low-cost resources
  - Information Sharing (ISACs) – e.g. FS-ISAC, H-ISAC, MS-ISAC
    - Volunteer at the event = Reduced Admission
  - Mailing List(s)
  - Vendor(s)
- Vendor Training
- What or Who is on the News?



Summary

- Policies Drive the Effort
- Small Elements Bring Great Benefits
- Remember that “Rome Wasn’t Built in a Day”



Apply

- Request the CIS 20 Controls Document(s)
  - https://www.cisecurity.org/controls/cis-controls-list/
- Dust off your organization's policies
- Look around at your organization. Learn at first
- Look at peers
- Draft *incremental* project plans / business plans by year

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“Apply” Slide

- Bullet point here (see slides 5 – 8 for instructions)
- Bullet point here
- Bullet point here

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