Global ICT Capacity Building Symposium 2018
Developing Skills for the Digital Economy and Society

Mr. Phillip Stoner, Director, Cyber Solutions Group

AG7
PS7

Why Cybersecurity?

- 75% US households have PC, Laptop, Mobile device w/ broadband Internet – US Census (Sep 2017)
- Ransomware – 39% of malware-related breaches – Verizon DBIR, 2018
  - 68% of breaches took several months to discover
- The increasing theft of PII, Financial, Critical IP and illegal access of the world's critical infrastructure

AG6
PS6

Slide 2

AG6 Top not Topple
Alan Gush, 14/06/2018

PS6 fixed
Phil Stoner, 14/06/2018

AG7 The third bullet doesn't answer why cybersecurity is becoming a core topic. Its a by product of why it's becoming important
Alan Gush, 14/06/2018

PS7 agree, removed
Phil Stoner, 14/06/2018

The Reality Is...

The Current Approach to Capacity Building in Cybersecurity is Broken

But Why?

- **Higher Education = Limited Abilities**
- **Lack of Competent Talent Pool**
- **Poor Candidate Screening and Hiring**
- **Current Workforce Management**

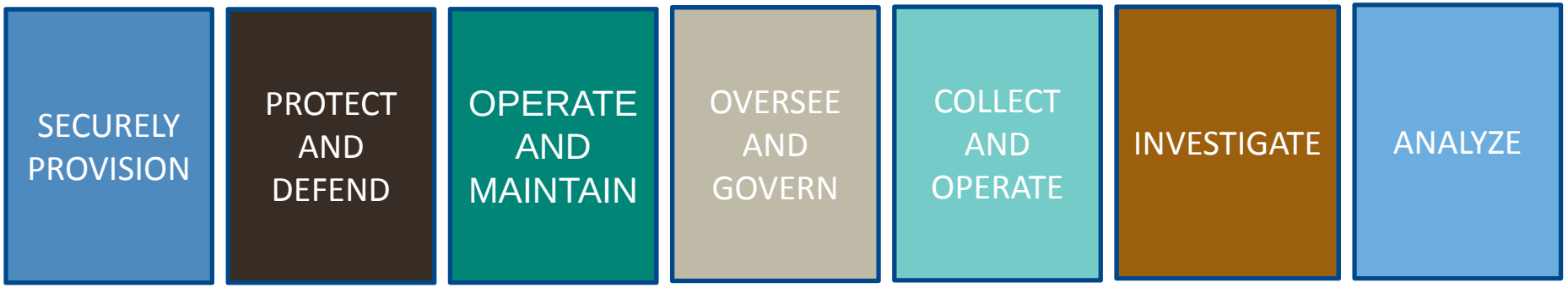
The Solution?

Implement Competency-Based Assessment and Training Solutions!

AG2
PS3

NICE Cybersecurity Workforce Framework (NCWF)

- 7 Categories, 30+ Specialty Areas, 50+ Work Roles
- Baselines Knowledge, Skills, Abilities, Tasks (KSAT's)
- Reference Resource for Cybersecurity Workforce Development



- NCWF Version 1.0 posted in April 2013
- NCWF Version 2.0 posted in May 2014
- Special Pub. 800-181 released Aug 2017

Slide 6

AG2 There is update 800-181 i believe
Alan Gush, 30/05/2018

PS3 done
Phil Stoner, 30/05/2018

NCWF – Core to Capable & Ready Cybersecurity Workforce

AG3
PS2

Work Role Example

Work Role Name	Cyber Defense Analyst
Work Role ID	PR-CDA-001
Specialty Area	Cyber Defense Analysis (CDA)
Category	Protect and Defend (PR)
Work Role Description	Uses data collected from a variety of cyber defense tools (e.g., IDS alerts, firewalls, network traffic logs.) to analyze events that occur within their environments for the purposes of mitigating threats.
Tasks	T0020, T0023, T0043, T0088, T0155, T0164, T0166, T0178, T0187, T0198, T0214, T0258, T0259, T0260, T0290, T0291, T0292, T0293, T0294, T0295, T0296, T0297, T0298, T0299, T0310, T0332, T0469, T0470, T0475, T0503, T0504, T0526, T0545, T0548
Knowledge	K0001, K0002, K0003, K0004, K0005, K0006, K0007, K0013, K0015, K0018, K0019, K0024, K0033, K0040, K0042, K0044, K0046, K0049, K0056, K0058, K0059, K0060, K0061, K0065, K0070, K0074, K0075, K0093, K0098, K0104, K0106, K0107, K0110, K0111, K0112, K0113, K0116, K0139, K0142, K0143, K0157, K0160, K0161, K0162, K0167, K0168, K0177, K0179, K0180, K0190, K0191, K0192, K0203, K0221, K0222, K0260, K0261, K0262, K0290, K0297, K0300, K0301, K0303, K0318, K0322, K0324, K0332, K0339, K0342, K0624
Skills	S0020, S0025, S0027, S0036, S0054, S0057, S0063, S0078, S0096, S0147, S0156, S0167, S0169, S0367, S0370
Abilities	A0010, A0015, A0066, A0123, A0128, A0159

K0167	**Knowledge of system administration, network and operating system hardening techniques**
S0057	**Skill in using protocol analyzers**
A0128	**Ability to apply techniques for detecting host and network-based intrusions using intrusion detection technologies**

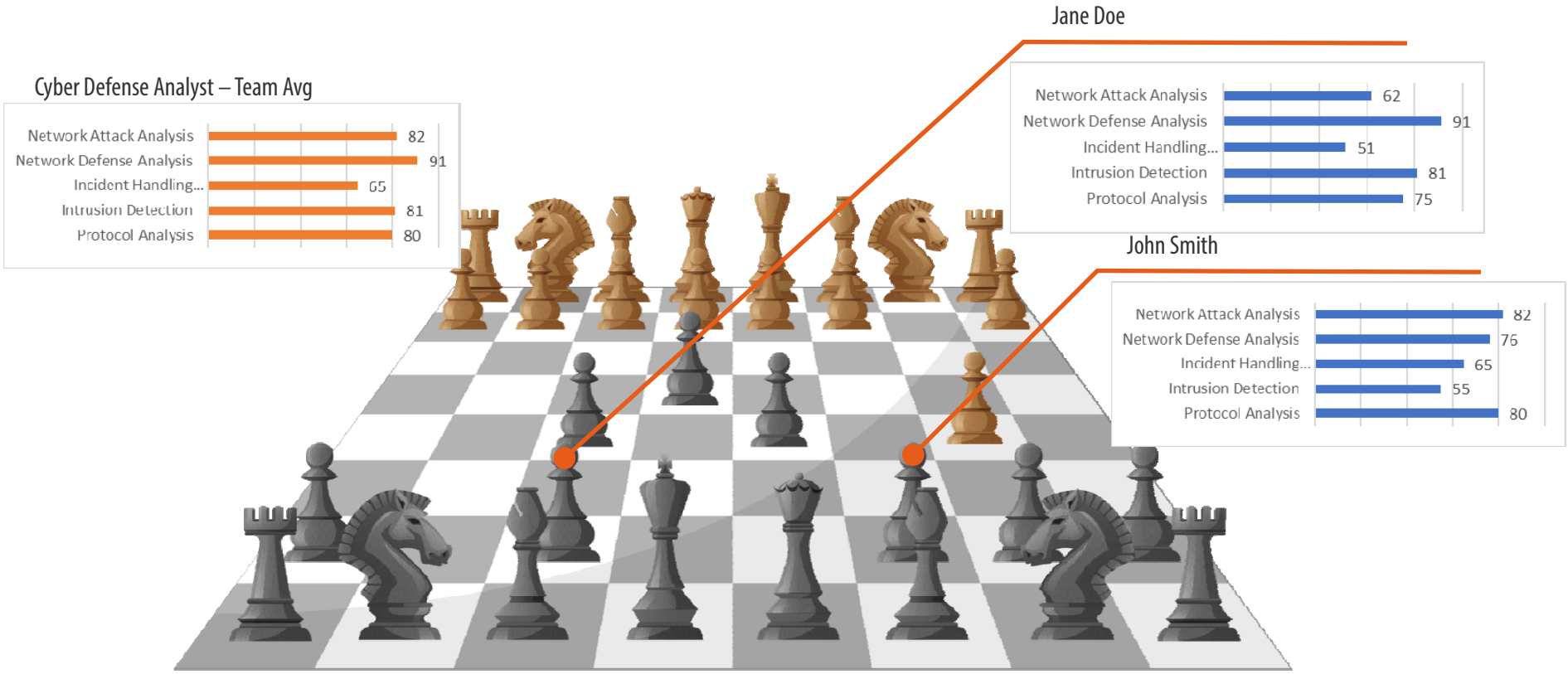
Slide 8

AG3 Give example of a KSAT..
Alan Gush, 30/05/2018

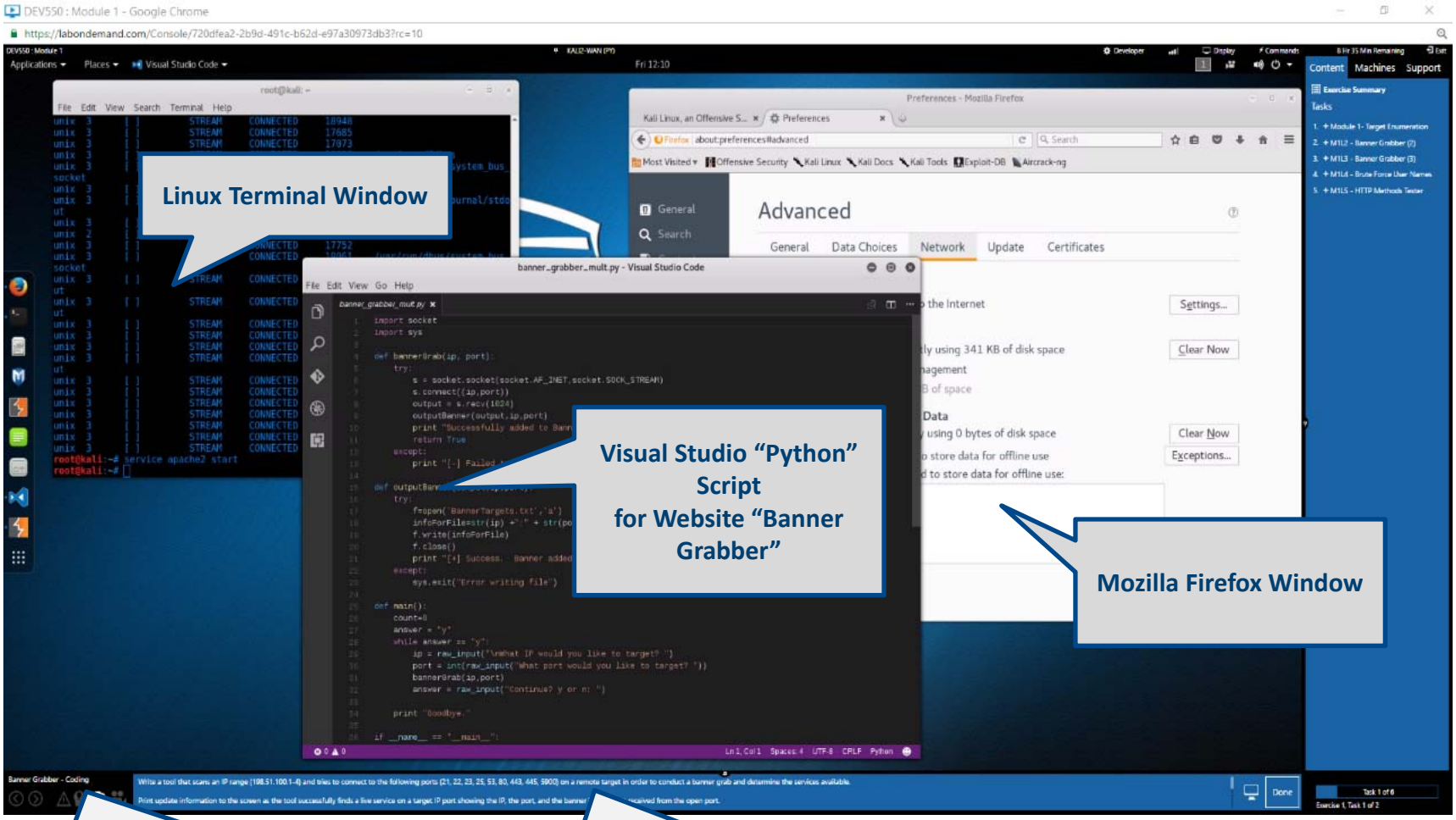
PS2 done
Phil Stoner, 30/05/2018

Individuals

Example: Cyber Defense Analyst



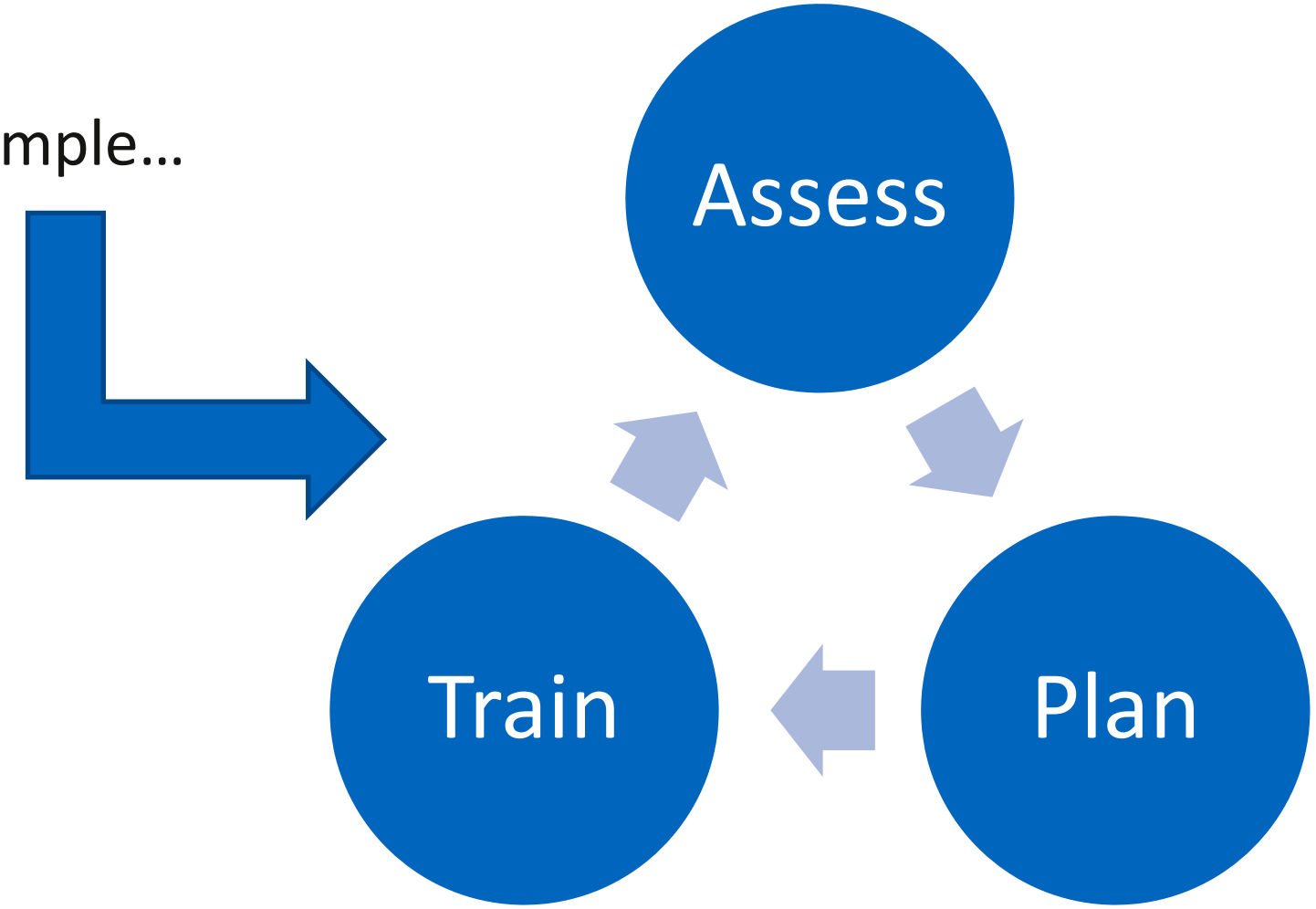
Methodology



AG4
PS4

Skills Assessment Goal

It’s really simple…



Slide 12

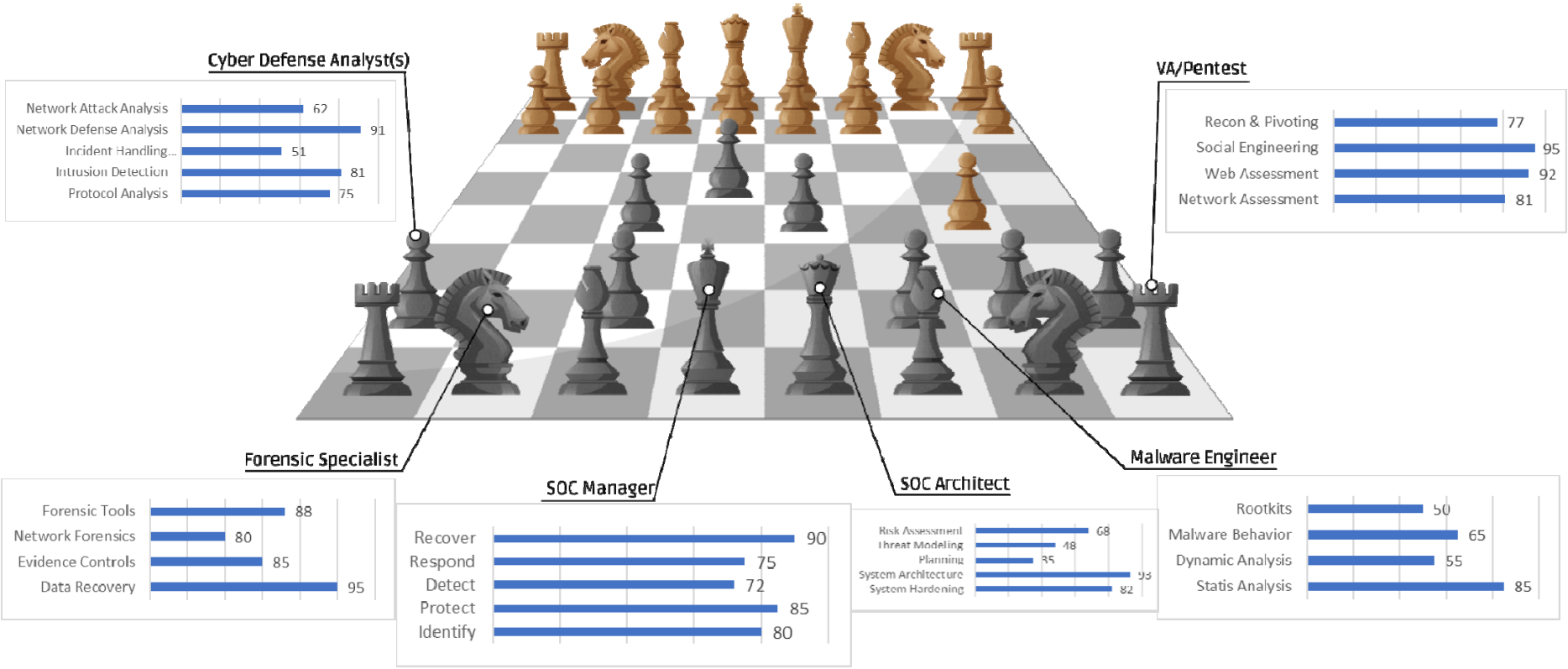
AG4 Add arrow to show circular flow..
Alan Gush, 30/05/2018

PS4 done
Phil Stoner, 30/05/2018

Team

AG5
PS5

Example: SOC Team



Slide 14

AG5 Increase size of boxes so you can actually see the descriptions
Alan Gush, 30/05/2018

PS5 best i can do the shit is all linked
Phil Stoner, 30/05/2018

Conclusion

Cybersecurity is now at the forefront of concerns for Government and Commercial Enterprise across the globe

Current Size of Competent Workforce is Woefully Inadequate

Hands-on Competency-based Solutions can Quickly and Effectively Assist to Solve this

Higher Education Needs to Adapt to Produce Job-Ready Cybersecurity Professionals

ntact Us

Phillip Stoner
Director, Cyber Solutions Group
(Whatsapp) +1 443 591 4135

275 West Street
Annapolis, MD 21401
United States

phillip.stoner@
comtechtel.com

@CYBRScore.io

CYBRScore.io