War Games, Simulations, and Scenarios: Preparing Organisations for Long Term Cyber Resilience

Justin Clarke-Salt

The Future of Cyber Risk Conference
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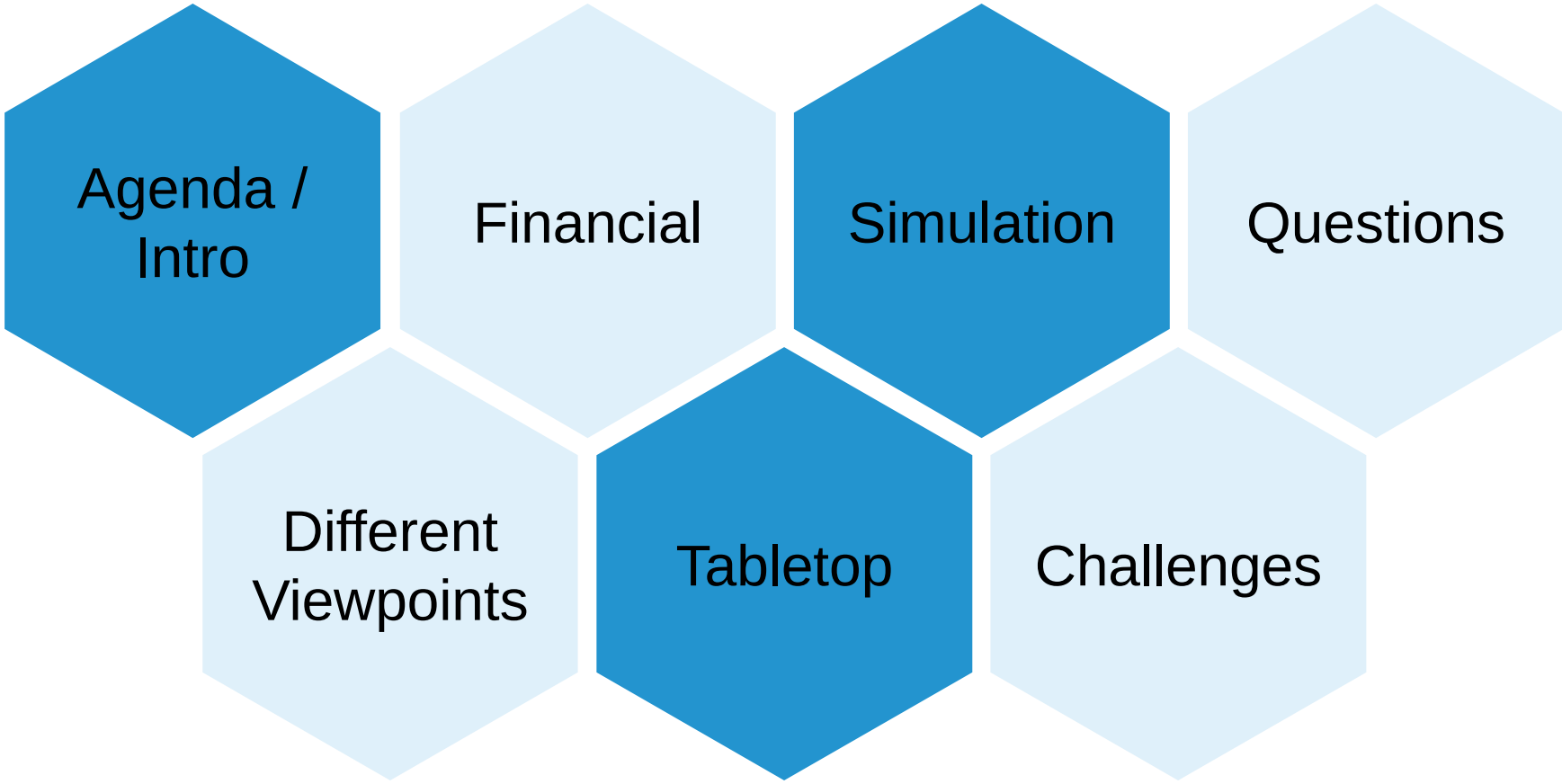
Agenda for today



Different Viewpoints

- What question are you looking to answer?
  - If X happened, how much could it cost?
  - If X happened, could we effectively respond?
  - If X hacked us, could we detect it and respond effectively?

- Scenario design and exercise impartiality are important
  - Make it hard – it may well pay off
  - Debrief thoroughly

- Examples we'll talk about
  - Financial modelling
  - IR Tabletop
  - Red Team testing (CBEST etc)

Financial

“So, how much could this cost???”

Why are we talking about Financial models? Isn't this a cyber conference?

- Scenario development:
  1. Technology asset (mission critical technology)
  2. Cyber event happens (technology compromised)
  3. Threat actors/triggers (how does the threat cause the event?)
  4. Areas of impact (what are the commercial ramifications?)
  5. What are the risk mitigation strategies given the described scenarios?

- Keeping the physical and non-physical in mind

Commercial Impacts

How can we analyse our economic exposure from the risk scenarios identified?

What are the commercial impacts of each scenario modelled?

Case Study: Wind Farm Operator

“About €200 million”

Tabletop

“If that happened to us, would we be able to respond?”

Why Tabletop?

- After everything has gone wrong is not the time to be learning what to do in an emergency
  - Make sure you debrief and learn though
- People / Process / Technology
- Key stakeholders and key decisions
- Cyber risk is evolving – are your plans?

Case Study: Mid-sized Organisation

“We should figure out who should make that decision”

Simulation

“Could we be hacked like them?”

Simulate what?

- Test / Simulation / whatever
- Common elsewhere – not necessarily in Cyber
- Two common/popular approaches
  - Red Team
    - CBEST, iCAST, TIBER, GBEST, TBEST, SpaceBEST
  - Breach Simulation
- Purple Team

Case Study: CBEST

”APT simulation, Bank of England style”

Regulatory Red Team (Insurance Company)

Scenario 1 (Organised Crime Group)

- OCG with links to FIN7, targeting payment systems for payment redirection
- Infiltration via spear phishing, posing as a partner organisation
- Use of access to insurance policies to update bank details and redeem/refund policies to accounts under the OCG's control

Scenario 2 (Cyber Extortion Group)

- Extortion group with ransomware similar to SamSam targeting company for large ransom over critical business functions
- Infiltration via gaps in perimeter network security
- Targeting the main quotation generation system and demanding a ransom in cryptocurrency

Scenario 3 (Nation State Actor)

- Simulating a Chinese Ministry of State Security actor
- Infiltration via compromising a trusted third party – e.g. managed service provider
- Thefts of PII for large data sets of customers for organisations in potential geopolitical rival states.

Contact List

Justin Clarke-Salt
Managing Director
Aon
Cyber Security
+44 (0) 7538 823 165
justin.clarke-salt@aon.co.uk

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