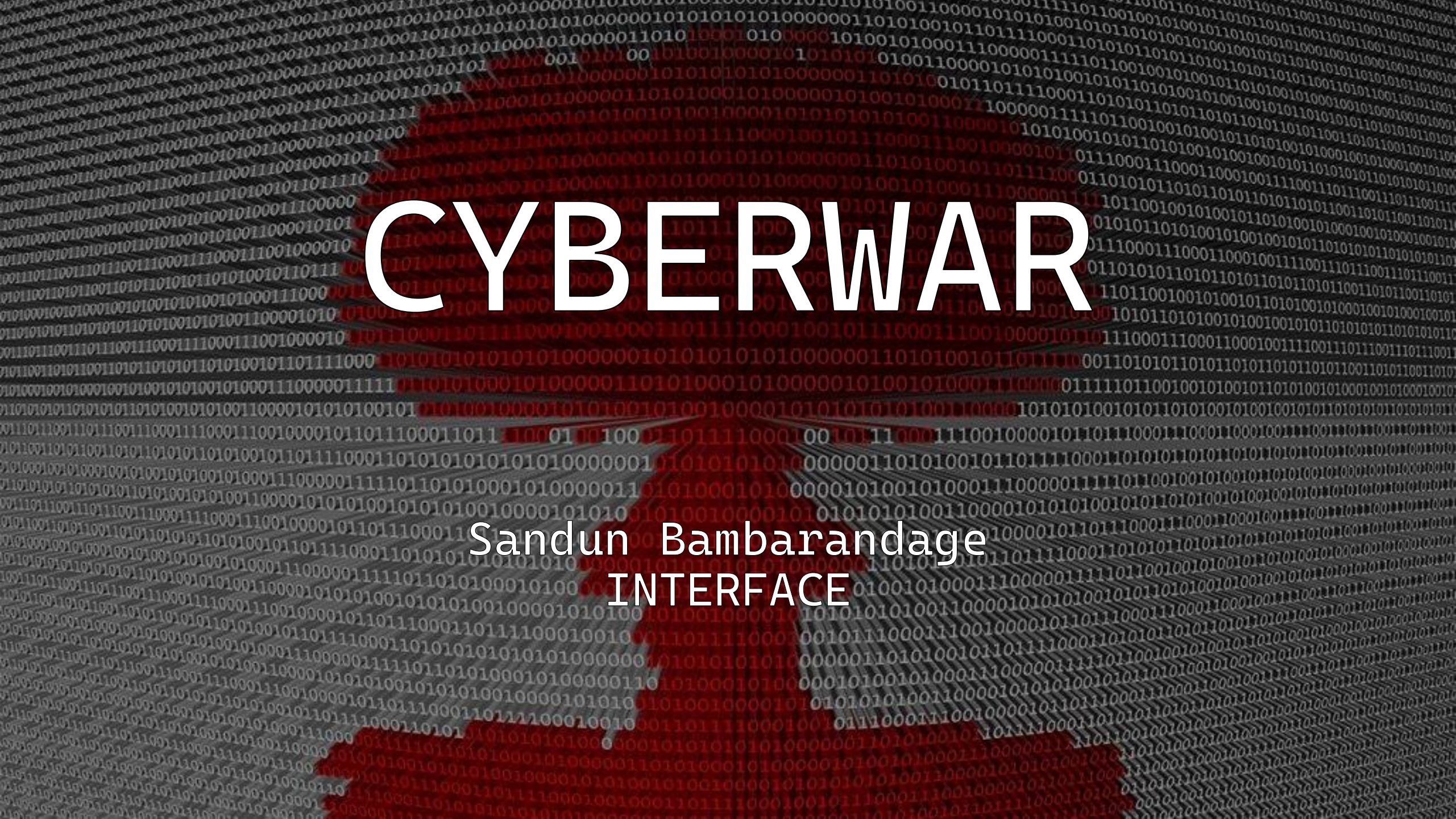

CYBERWAR
Sandun Bambarandage
INTERFACE

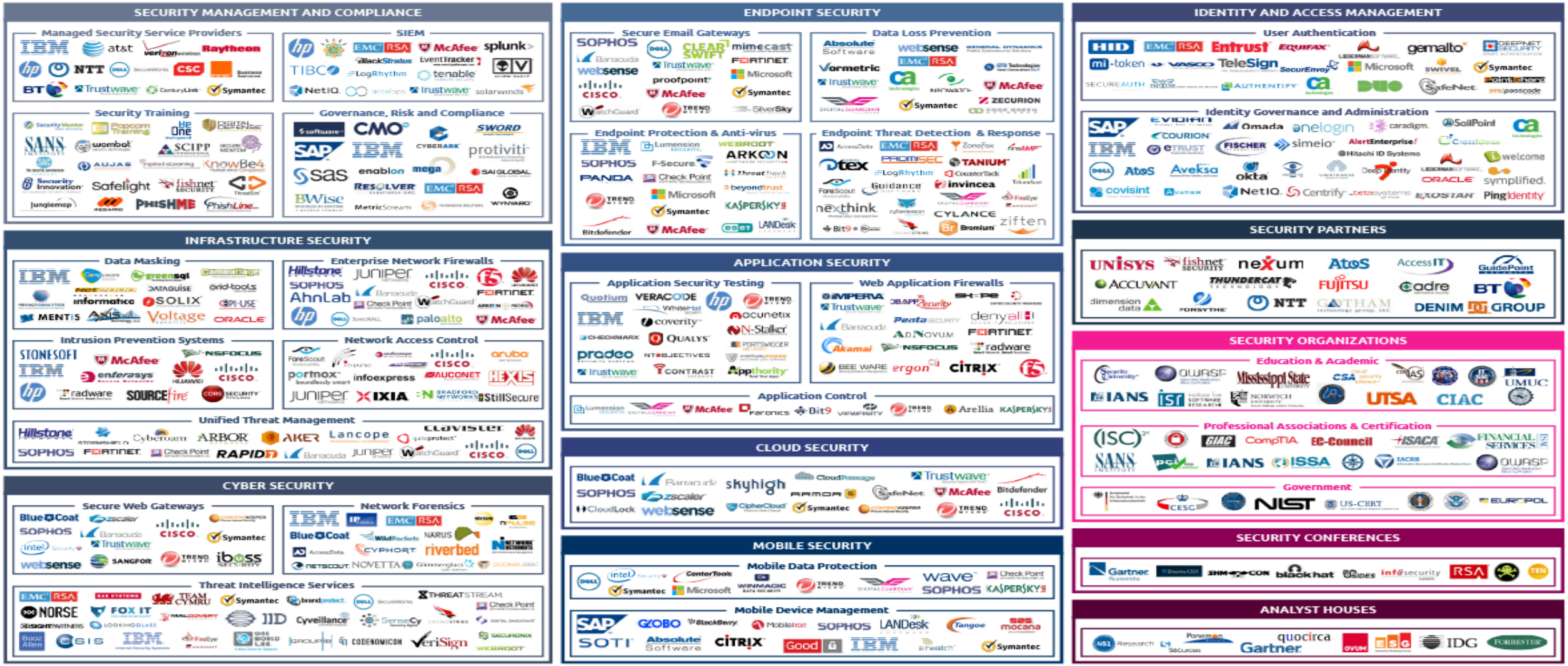
WHAT'S IN A NAME?

- 'Cyber' vs. 'Kinetic'
- Information Warfare
- Cyberattack vs. Cyberwarfare
- Opinion 1 – Cyber actions that cause damage comparable to kinetic warfare
- Opinion 2 – No cyber actions to date count as 'war' (Iran 2010, DPRK 2014)

THE NEW KID ON THE BLOCK

- Technology
  - (Relatively) low RD&A costs
  - (Relatively) cheaper to acquire/train personnel
- Use
  - Easy force projection
  - Deterrence is complicated
    - Weapon value significantly falls after use
  - Non-state actors are major players
- Attribution is hard

Information Security IndustryScape



Version 1
November 2014

DIGITAL GUARDIAN
Formerly VERDASYS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WEAPONS OF WAR

- What does a cyberweapon look like?
- Vulnerability, Exploit, Payload
- Holy Grail: 0-days
- Many, many publicly available tools…
- State/Agency owned software (Ghidra etc.)

THE ART OF WAR

- Stuxnet
- Mirai Botnet
  - Logged onto vulnerable IoT devices with default credentials
  - DDoS attacks on Dyn – DNS service provider
  - Netflix, Github, Reddit, Xbox Live down
- NotPetya
- Olympic Destroyer

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INTELLIGENT SHIPS: THE FUTURE OF NAVAL WARFARE

THE UK'S 'INTELLIGENT SHIP – THE NEXT GENERATION' COMPETITION OFFERS A GLIMPSE INTO THE FUTURE OF THE ROYAL NAVY

DSEI PREVIEW: THE TECH AND TOPICS WE EXPECT TO SEE THIS YEAR

A YEAR IN CYBERSECURITY WITH THE UK NATIONAL CYBER SECURITY CENTRE

MANAGING BIG DATA FOR BETTER DEFENCE AND INTELLIGENCE COMMS

F-16 Block 30

F/A-18F Super Hornet

F-35 Lightning

THE RULES OF WAR

- Government agencies and vulnerabilities
  - Classified as weapons, prevent disclosure?
- Build separate Internets?
- Counter cyberattacks with conventional weapons?
- ‘Geneva Convention’ for cyberwarfare?