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we break security to bring clarity

Red on Blue – Infinity war

@ The Future of Cyber Risk

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- **Founded: 2011**
- **CEO: Mehis Hakkaja**
- **Employees: 17**

- **Penetration testing (WebApps & Networks & special) - ~100 applications per year**

"We break security to bring clarity" | “What can we break for you today?”| “You buy it, we break it!”

- **Hands-on Hacking Series | Web Application Security | Secure Logging | Hunt the Hacker**

- **Red Teaming for NATO CCDCoE live fire Cyber Defence Exercises (CDX) Locked Shields and Cyber Range eXercises (CRX):**
  - **2010 May, CDX10 "Baltic Cyber Shield" - 20 RT members & 6 Blue Teams**
  - **2019 April, LS19 – 77 RT members & 23 Blue Teams**
  - **2015 - … - CRXs for 1-2 Blue Teams**

- **Red Teaming on production**

  “Play for real” - adversary simulation

@Locked Shields you see the RT impact but not RT itself

- **Red Team (RT)** – Attackers
- **Blue Team (BT)** – Defenders
- **Green Team (GT)** – Infrastructure, BT systems development
- **White Team (WT)** – Communications, User Simulation, Media, Legal, Strategical, Operational
- **Yellow Team (YT)** – Situation awareness
- **Purple Team (PT)** – integrating the defensive tactics and controls from BT with the threats and vu by the RT into a single narrative

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Red Team

An independent group

that challenges an organization to improve its effectiveness

by taking an adversarial role.

Threat Hunting

Pro-actively searching for attack indicators & attackers that could be lurking in your network.

Always assume that you either already are or will get compromised!

Voluntarily getting attacked? But WHY?!

- Highlight "viable attack vectors as paths of least resistance" **against YOUR own and very real company** and its current security situation

- Your employees get the experience to detect, respond and defend as they would in case of a real incident BUT with the benefit of **comparing notes with your adversary!** Various iterations: mitigate your weak spots together with the RT:
  - replay successful attack phases (in plain sight)
  - fine-tune your detection and response
  - verify fixes and improvements
  - verify internal procedures
  - not limited to cyber only

- Iterative simulated intrusions will be cheap and effective training compared to “learning the hard way with possibility of actually losing your business gems” '

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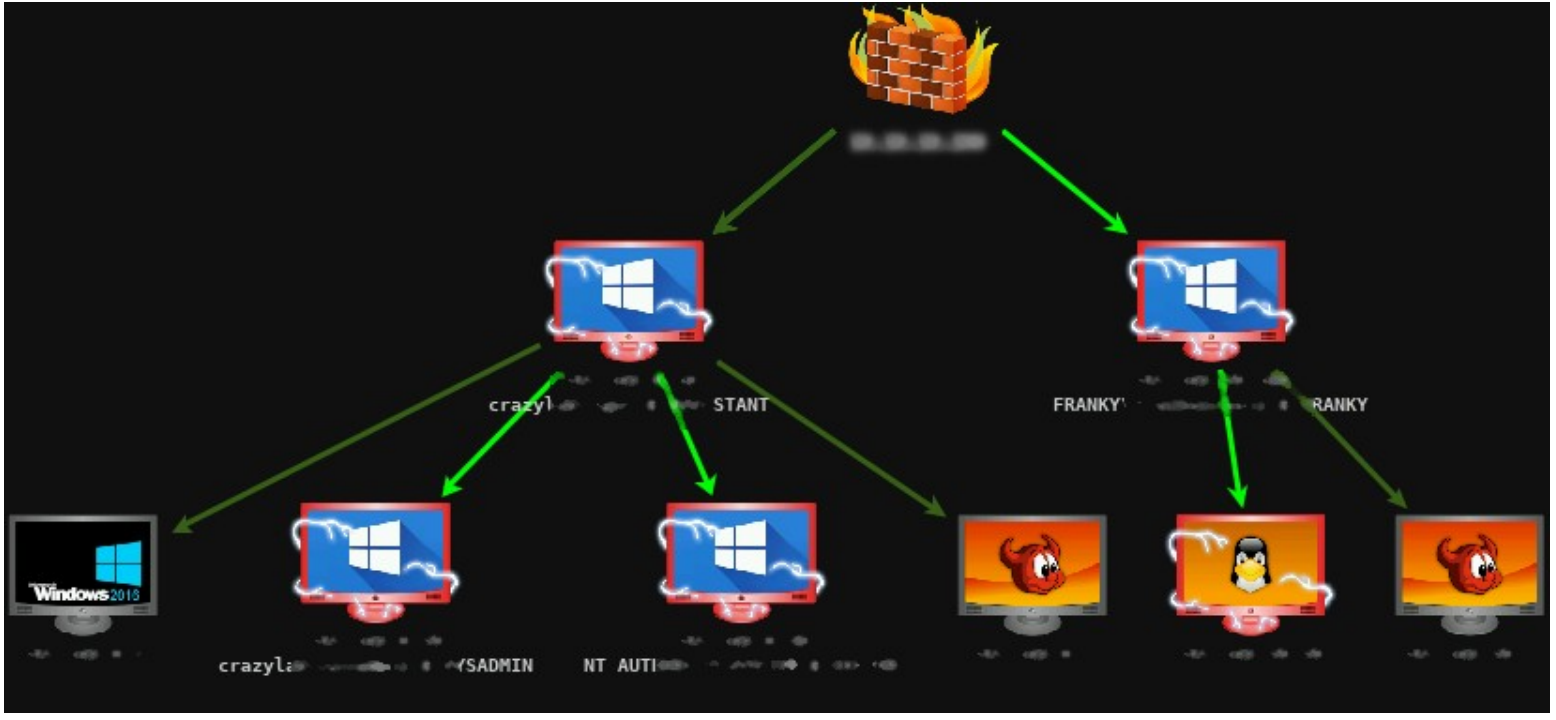
Blue Teams
through
Red Team's
RDP



- OS?
- AV?
- Browser?
- Office?
- MFA?
- VPN?
- E-mail?
- Communication channels?
- Monitoring?

Red Teaming

- 3-4 weeks of work, 3-4 months period
- A lot of red teams start from "*assumed compromise*"
- We prefer to execute the entire attack life-cycle:
  - *OSINT, phishing x many, (spear)phishing, watering hole & supply chain attacks*
  - *living off the land, escalation, lateral movement … **repeat** → "crown jewels"*
  - *Not limited to cyber only (depending on ROE)*
- = more realistic, more lessons learn for the whole organization

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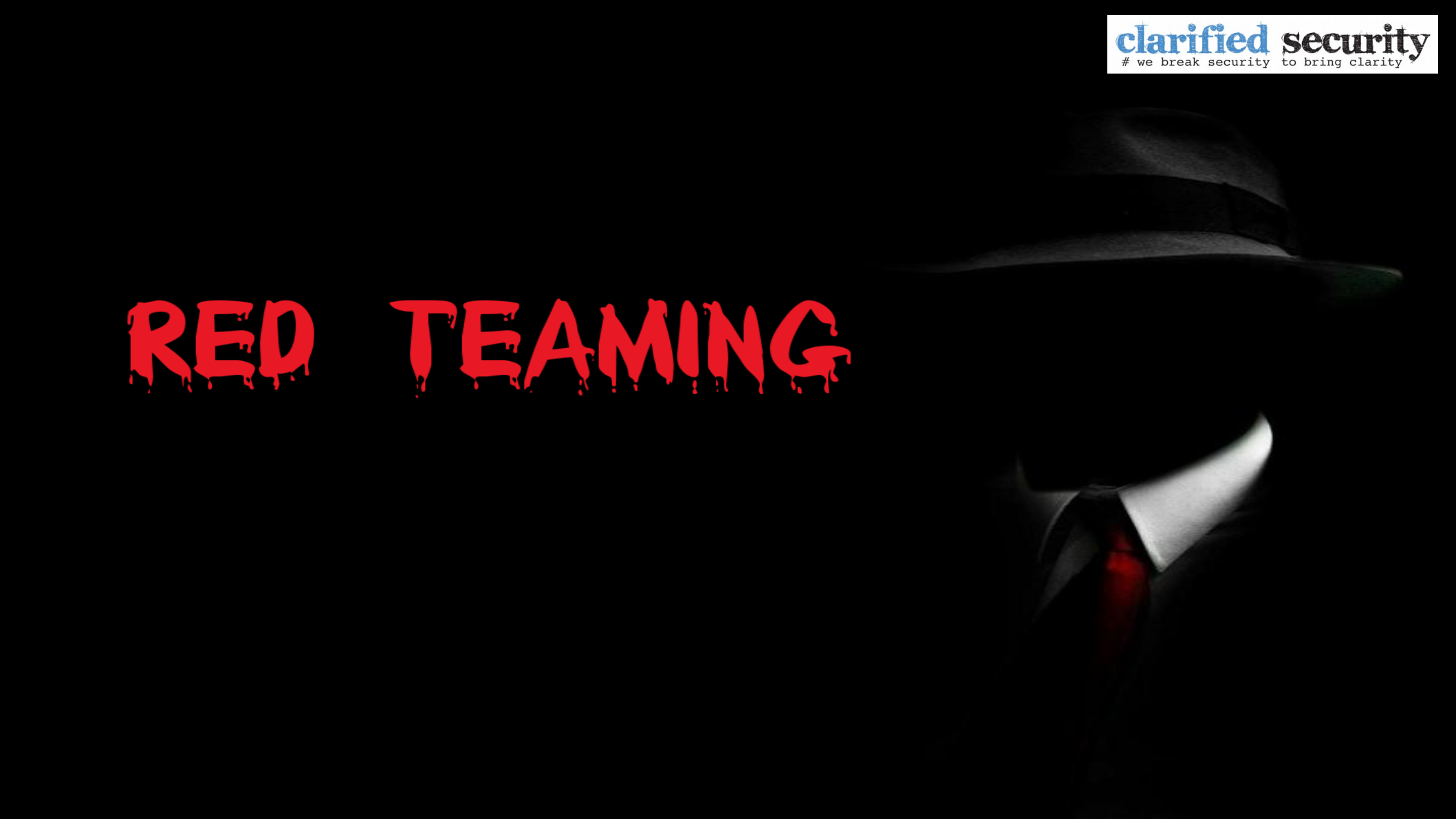
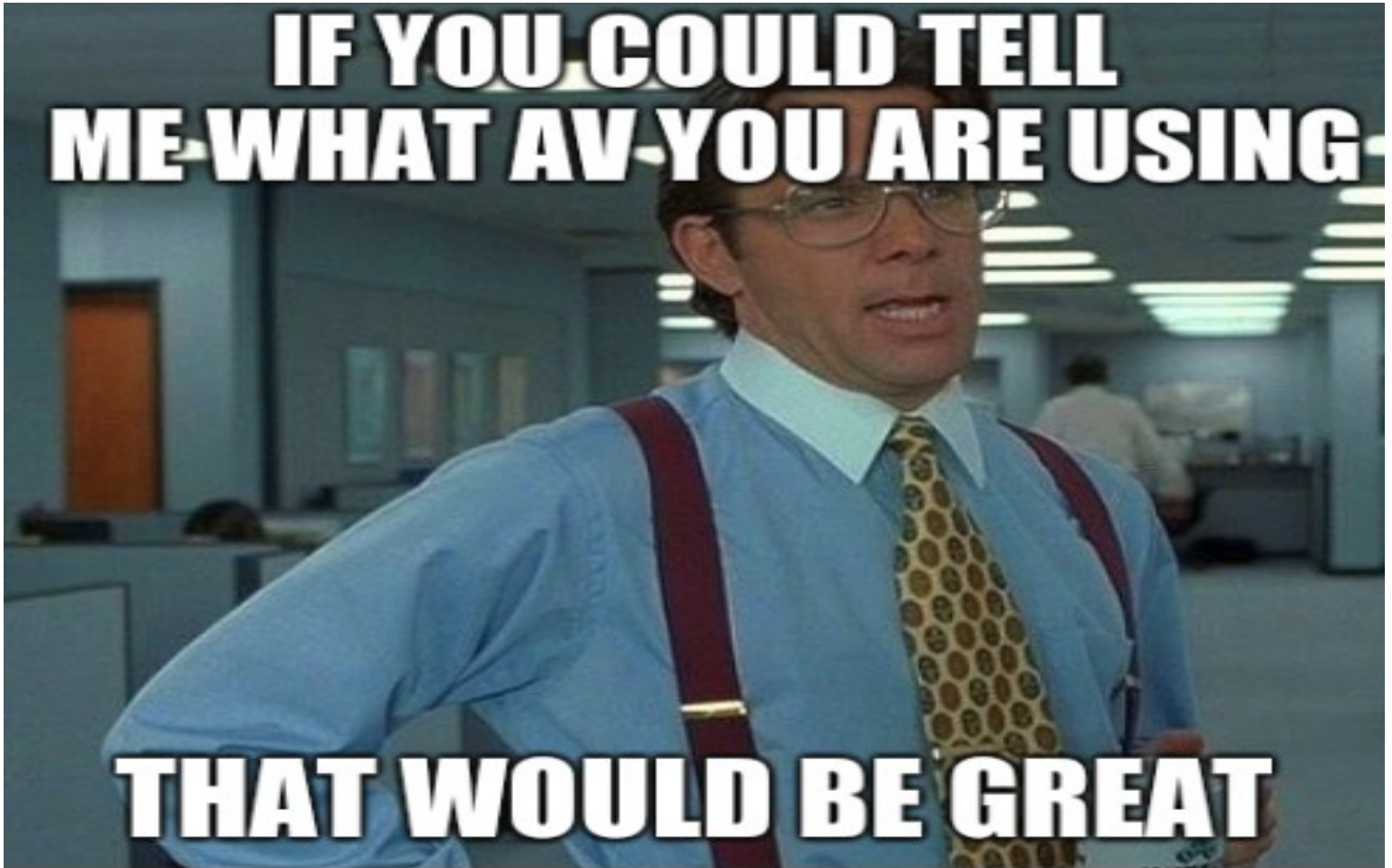
RED TEAMING



If you don't know the answer - ASK



< This slideset has been modified from its original version to ensure the
continuity of successful RT on production >


ACCESS GRANTED

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The future - S in IoT stands for security

Q & A

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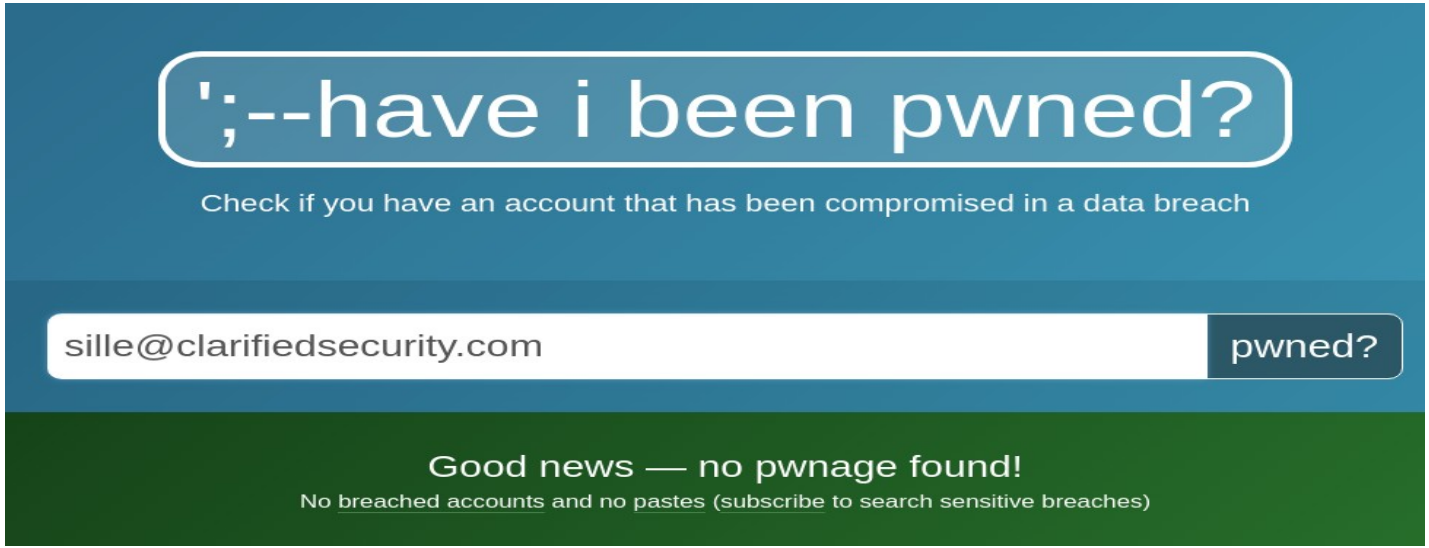

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Thank you!