

Finance 5.0 – A Challenge for Cyber Security



Finance and Security – A Reality Check

Finance 5.0 – a challenge for cyber security?

Extract from the program:

The financial sector has been a driver of technological innovation while being a frontrunner on security standards.

Fact 1: Successful IT Attacks on Financial Institutions Are A Reality

In the past years various high profile hacks were reported by media:

- IT systems of financial Institutions are far from perfect security wise.
- Attackers were able to steal money on a large scale.



The screenshot shows a web browser displaying a ZDNet article. The URL in the address bar is <https://www.zdnet.com/article/carbanak-hacking-group-steal-1-billion-from-banks-worldwide/>. The page features the ZDNet logo and navigation links for various regions: CENTRAL EUROPE, MIDDLE EAST, SCANDINAVIA, AFRICA, UK, ITALY, SPAIN, and MORE. A search bar is visible in the top right. The main headline reads: **Carbanak hacking group steal \$1 billion from banks worldwide**. Below the headline, a sub-headline states: "Carbanak malware offered criminals the chance to steal up to \$10 million per heist." A "MUST READ" banner above the headline says: "THIS IS HOW IT FEELS TO FACE A MAJOR CYBER ATTACK".

<https://www.zdnet.com/article/carbanak-hacking-group-steal-1-billion-from-banks-worldwide/>

Fact 2: Attackers are Already Inside Your Organisation – Accept That!

- Be aware that there will be attackers in your IT environments at any given point in time.
- This is a fact and should be fully accepted and considered by the organisation.
- Microsoft included the following quote in its official Red Team Manual:

*"FUNDAMENTALLY, IF SOMEBODY WANTS TO GET IN,
THEY'RE GETTING IN...
ACCEPT THAT.*

*WHAT WE TELL CLIENTS IS:
NUMBER ONE, YOU'RE IN THE FIGHT, WHETHER YOU
THOUGHT YOU WERE OR NOT.*

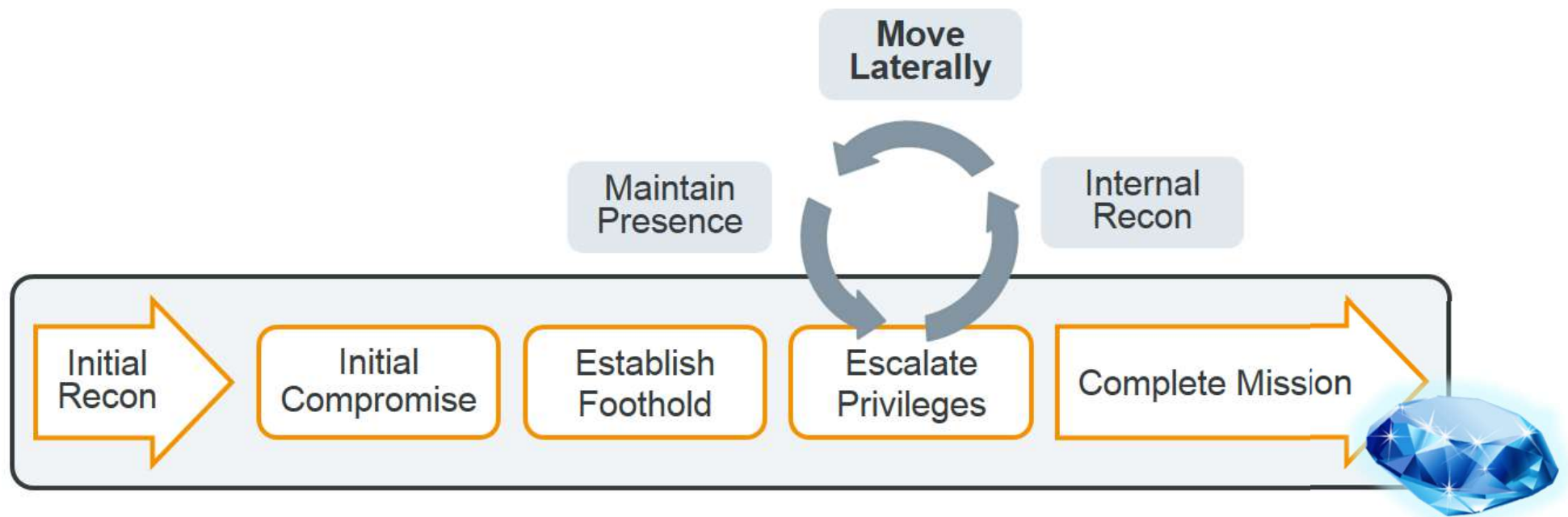
*NUMBER TWO, YOU ALMOST CERTAINLY ARE
PENETRATED. "*

*MICHAEL HAYDEN
FORMER DIRECTOR OF NSA & CIA*

https://download.microsoft.com/download/C/1/9/C1990DBA-502F-4C2A-848D-392B93D9B9C3/Microsoft_Enterprise_Cloud_Red_Teaming.pdf

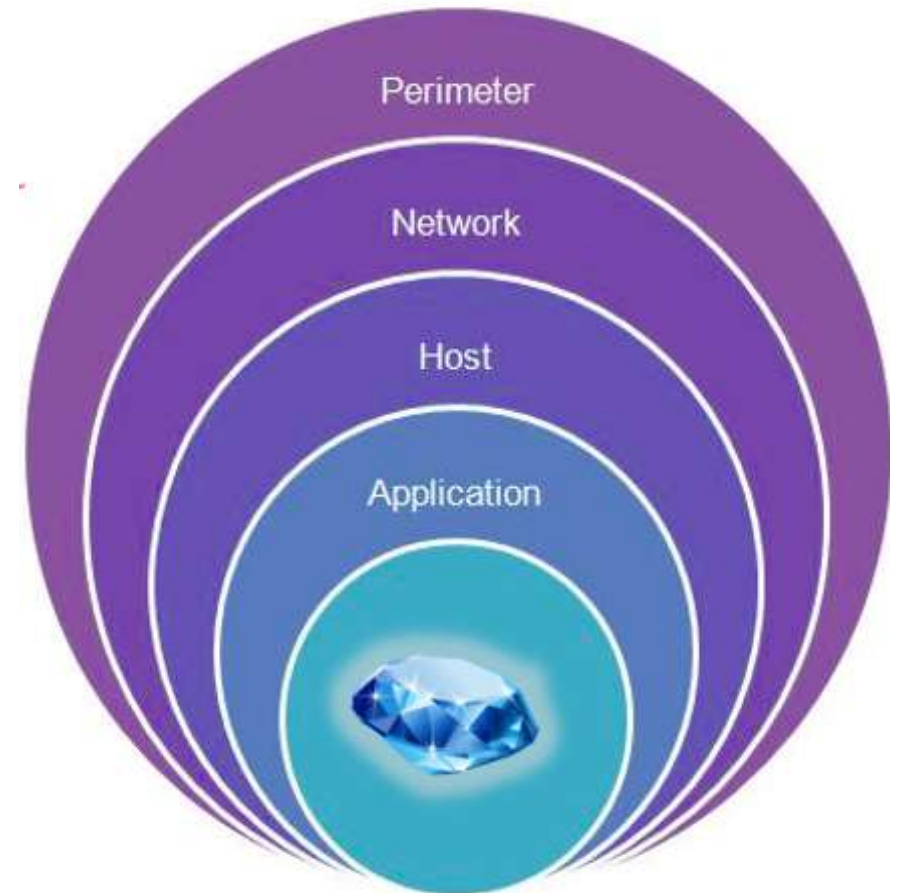
Fact 3: Attackers Do Spend Significant Resources To Reach Their Goal

- There is no such thing as a “magic hack” to break an IT system. Multiple Steps are needed by the attacker to achieve their goal!
- Attacker are willing to invest significant **know how & time** to reach their goal!



Fact 4: There is No Magic Bullet for IT Security – Implement “Defence in Depth”

- There is no such thing as a single magic bullet to create a secure IT environment.
- “Defence in Depth” needs to be implemented!
 - Use a multi layered security approach!
 - This includes measures on all layers:
 - Process Level
 - Technical Level
 - Employee Level



Defence in Depth



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