MITRE



Who is MITRE?

- •Non-for-profit private company operating in the public interest.
- •Created after the 2nd WORLD WAR and rising on the Cold War.
- •Focuses on R+D for EE.UU. Nation Security working on Federally Funded Research and Development Center(FFRDC)
- •From Air Defense System in the Cold War to GPS, Air Traffic Collision Avoidance Systems and others.
- •1.800.000\$ revenue / 8.200 employees / 60 locations in EEUU.
- •Operates in different segments (Security, Healthcare, etc)



CYBERSECURITY

AVIATION

defense methods

MODERNIZATION

MITRE | ATT&CK*

Knowledge Database of Adversary Tactics & Techniques

FROM:

Looking at attacker methods and behaviors



TO: Applying active Active Defense Knowledge Database



TACTICS (TA00xx)

- ➤ TECNICS (T1xxx) ←
 - > Subtecnics (T1xxx.0xx)
- > Mitigation (M10xx)
- > Group (string name)

MAPPING !

DEFENSIVE TACTICS (DTA000x)

DEFENSIVE TECNICS (DTE00xx)

- > Defen.Opportunities (DOS0xxx)
- > Defen.Use Cases (DUC0xxx)
- > Defen.Procedure (DPR000x)

Definitions:

- <u>TActics</u>: Adversary "High-Level" technical goal / target
- Tecnics Subtecnics: How the goal is achieved
- <u>Mitigations</u>: the action of reducing the severity, seriousness, or painfulness of the attack
- <u>Groups</u>: Sets of related intrusion activity that are tracked by a common name in the security community
- <u>Defense Opportunity</u>: What to learn or achieve
- <u>Use Case</u>: What can be done or executed
- Procedure: Take action!!

ATT&CK Technique	Opportunity Space	AD Technique	Use Case
T1001 - Data Obfuscation	There is an opportunity to detect adversary activity that uses obfuscated communication.	DTE0028 - PCAP Collection	A defender can capture network traffic for a compromised system and look for abnormal network traffic that may signal data obfuscation.
T1001 - Data Obfuscation	There is an opportunity to reveal data that the adversary has tried to protect from defenders	DTE0031 - Protocol Decoder	Defenders can develop protocol decoders that can decrypt network capture data and expose an adversary's command and control traffic as well as their exfiltration activity.
T1003 - OS Credential Dumping	There is an opportunity to deploy a tripwire that triggers an alert when an adversary touches a network resource or uses a specific technique.	DTE0012 - Decoy Credentials	A defender can seed systems with decoy credentials in a variety of locations and establish alerting that will trigger if an adversary harvests the credentials and attempts to use them.