How to Use MITRE ATT&CK in SOC

Using MITRE ATT&CK in a Security Operations Center (SOC) can greatly enhance threat detection and response capabilities. Here are the steps to effectively utilize MITRE ATT&CK framework in a SOC:

▼ Familiarize Yourself with MITRE ATT&CK

- Understand the purpose and structure of the MITRE ATT&CK framework.
- Explore the ATT&CK website (https://attack.mitre.org/) and review the ATT&CK matrix, techniques, tactics, and sub-techniques.

▼ Map ATT&CK to Your Environment

- Identify the relevant MITRE ATT&CK techniques and tactics that align with your organization's infrastructure, applications, and data.
- Map the MITRE ATT&CK techniques to your existing security controls, such as firewalls, intrusion detection systems, and endpoint protection solutions.

▼ Create Detection Rules

- Develop detection rules and use cases based on specific MITRE ATT&CK techniques and tactics.
- Leverage your security information and event management (SIEM) system or threat intelligence platforms to create rules that trigger alerts when suspicious activities related to specific ATT&CK techniques are detected.

▼ Implement Threat Hunting

- Utilize MITRE ATT&CK as a guide for proactive threat hunting exercises.

- Search for indicators of compromise (IOCs) associated with known ATT&CK techniques and use them to identify potential threats within your environment.

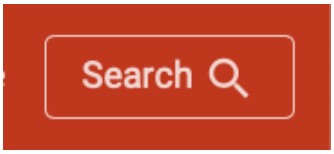
▼ **Enhance Incident Response**

- Incorporate MITRE ATT&CK into your incident response procedures
- Develop playbooks and response plans that align with specific ATT&CK techniques and tactics to effectively handle and mitigate threats.

▼ **Collaborate with Threat Intelligence**

- Leverage external threat intelligence sources that align with MITRE ATT&CK.
- Stay updated on the latest threat intelligence reports that reference ATT&CK techniques and tactics.

🔍 You can search things on MITRE ATT&CK website search box like tools or attack TTP



▼ How to use MITRE ATT&CK in action

▼ Step 1 : Find what you looking for 🔎

- Find **Tactics, technique**, **Sub-technique or** ID
  - Example : **Scheduled Task/Job: Scheduled Task**
    - **ID:** T1053.005
    - **Sub-technique of:** T1053
    - **Tactics:** Execution, Persistence, Privilege Escalation

> Scheduled Task/Job: Scheduled Task, Sub-technique T1053.005 - Enterprise | MITRE ATT&CK®
> https://attack.mitre.org/techniques/T1053/005/

▼ Step 2 : Learn about it 📖

- **Understand ATT&CK**

    - Familiarize yourself with the overall structure of ATT&CK
- **Find the behavior**
    - Find parameters and tools attacker should use to implement the ATT&CK
- **Research the behavior / tools**
    - Search about the **technique** or **Sub-technique** on the other resources
- **Read Procedure Examples section**
    - Learn how Groups or tools use the **technique** or **Sub-technique**

▼ Step 3 : Defeat it 🗡️

- **Mitigations section**
    - Find the **Mitigation**
- **Detection section**
    - Find the **Detection**

▼ Step 4 : Convert TTP to SIEM rule / use case

- Find Detection rule at MITRE CAR project
    - Example : **Scheduled Task Creation or Modification Containing Suspicious Scripts**

▼ Data Sources

> You can identify **technique** or **Sub-technique** based on data source that you have like Windows Registry or Network Traffic
>
> Data Sources | MITRE ATT&CK®
> https://attack.mitre.org/versions/v13/datasources/

Examples

▼ Process and process command line monitoring

- Often collected by Sysmon, Windows Event Logs

Command, Data Source DS0017 | MITRE ATT&CK®

https://attack.mitre.org/versions/v13/datasources/DS0017/

▼ **Registry monitoring**

- A Windows OS hierarchical database that stores much of the information and settings for software programs

Windows Registry, Data Source DS0024 | MITRE ATT&CK®

https://attack.mitre.org/versions/v13/datasources/DS0024/

▼ **Network Traffic**

- such as capturing socket information with a source/destination IP and port(s) (ex: Windows EID 5156, Sysmon EID 3, or Zeek conn.log)

Network Traffic, Data Source DS0029 | MITRE ATT&CK®

https://attack.mitre.org/versions/v13/datasources/DS0029/

▼ ATT&CK Navigator

The ATT&CK Navigator is a web-based tool for annotating and exploring ATT&CK matrices. It can be used to visualize defensive coverage, red/blue team planning, the frequency of detected techniques, and more.

https://mitre-attack.github.io/attack-navigator/

Credit by Sina Mohebi & blog.sinamohebi.com