

SOC Analyst

- SIM stands for security information management
- SEM stands for security event management
- SIM + SIEM stands for security information event management

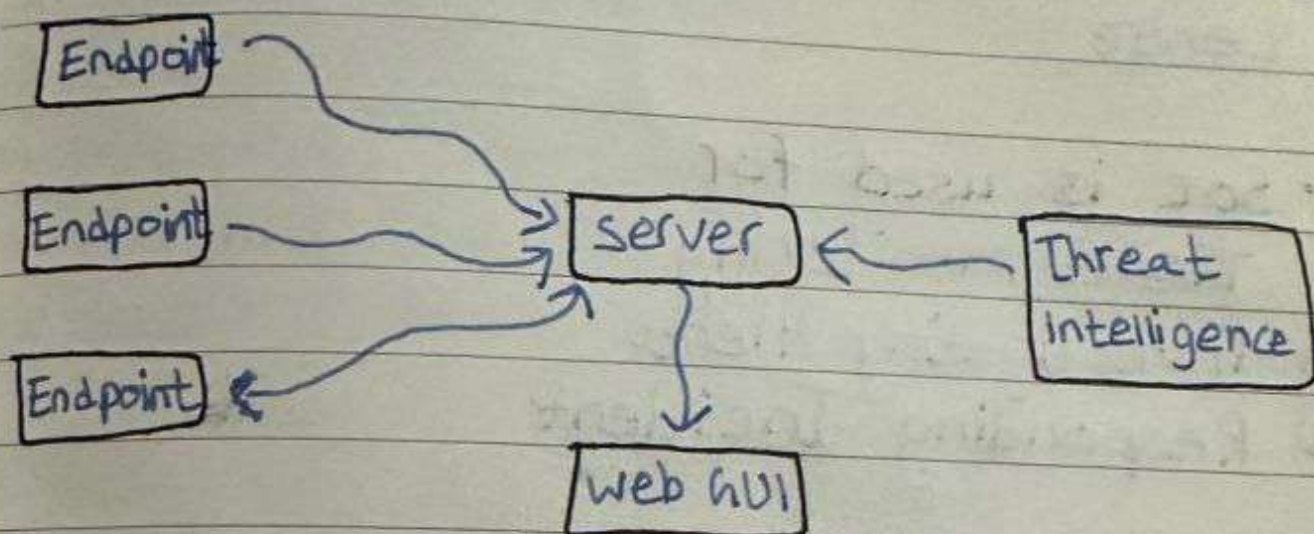
• Siem is used for

- | | |
|----------------------------|-------------------|
| 1) Log collection | 8) categorization |
| 2) Log Aggregation | 9) Enrichment |
| 3) Rule based alert | 10) Indexing |
| 4) Artificial intelligence | 11) storage |
| 5) Response | |
| 6) Parsing | |
| 7) Normalization | |

• EDR stands for Endpoint detection and response

EDR collects only single source logs unlike SIEM which collects from multiple sources.

EDR Architecture



• EDR is used for

- 1) Real-time continuous monitoring (online/off-line)
- 2) Endpoint data collection
- 3) Signature-less detection
- 4) Rules based Automated Response (Real-time)

• EDR is collecting

- 1) Network connections
- 2) Process execution
- 3) Registry modification
- 4) Currently running process
- 5) cross Process Events

- SOC stands for security operation centre

- SOC is used for

- 1) Threat Monitoring
- 2) Investigating Alerts
- 3) Responding Incident

- Technology used in SOC

- 1) SIEM
- 2) EDR - End point detection and response
- 3) TIP - Threat Intelligence Platform
- 4) SOAR (security orchestration automated response)
- 5) Ticketing system - Service Now / Jira
- 6) MDR (Managed detection and response)

- Task of L1 SOC Analyst

- 1) Alert Triage
- 2) 1st Line of Defense
- 3) Identifying anomalies
- 4) Raising request for whitelists
- 5) Performing Investigation

• Task of L2 Soc Analyst

- 1) Monitoring Alerts
- 2) Threat Hunting
- 3) Resource Mentoring
- 4) creating and approving whitelists
- 5) Handling Escalated investigations

• Task of L3 soc Analyst

- 1) client Onboarding
- 2) Incident Management
- 3) Report and Documentation
- 4) stakeholders Communication (Technical)

SOAR

• Security technologies used in soar

- 1) Ticketing
- 2) DLP
- 3) SIEM
- 4) EDR
- 5) CTI (TIP)
- 6) Email and web gateways
- 7) Network security
- 8) Vulnerability Management
- 9) cloud Tools
- 10) IAM / PAM

- Automation to protect environment

- 1) Triage
- 2) Enrichment
- 3) TI Gathering
- 4) Validation across detection tools
- 5) Close False positives
- 6) Email users
- 7) Block IOCs
- 8) Alert Administrators

- NIST Incident response Framework

- 1) Preparation
- 2) Detection and Analysis
- 3) containment, Eradication and Recovery
- 4) Post Incident Activity

- SANS incident response Framework

- 1) Preparation
- 2) Identification
- 3) containment
- 4) Eradication
- 5) Recovery

• Eradication is used for

- 1) Removing Artifacts
- 2) Identify ALL Hosts
- 3) updating configuration
- 4) Patches
- 5) Documentation

• Recovery

- 1) Restoration
- 2) Normal operations
- 3) Activities
- 4) Monitoring
- 5) Documentation
- 6) Prevent reinfection

• Lesson learned

- 1) Meeting
- 2) 5 W1H
- 3) way forward
- 4) Documentation

- Website to practise : free blue team Labs

- 1) cyber defenders
- 2) Blue team Level 1
- 3) Let defend

* Cyber defenders

- For Network security we can use

- 1) webstrike
- 2) Hawk-Eye
- 3) Nuke Browser

- For Malware Analysis

- 1) netPDF
- 2) MalDoc101
- 3) obfuscated

* Blue team cyber range

- For Network Analysis

- 1) webshell
- 2) Ransomware
- 3) Malware compromise

- For Endpoint

- 1) sysmon
- 2) Brute Force
- 3) Compromised wordpress

- For Malware

- 1) Ransomware script

- 2) Melissa

- 3) I Love You

- For Phishing Analysis

- 1) Phishing Analysis 1 and 2

* Lets Defend

- For Malware

- 1) Powershell script

- 2) Pdf Analysis

- For Phishing

- 1) Phishing Email

- 2) Email Analysis

- For Endpoint

- 1) Investigate web Attack

- 2) Conti Ransomware

- For Network

- 1) Port scan Activity

- 2) Infection with cobalt strike