8 Real-World Use Cases for Security Orchestration, Automation and Response (SOAR)

Introduction

Security operations present an escalating series of management challenges. As the frequency and variety of attacks accelerate, even the best teams can get overwhelmed.

Security orchestration, automation and response (SOAR) offers a solution. Eighty to ninety percent of most security operations' tasks can be automated to some extent, and the data that disparate tools create can be distilled into a single pane of information. The resulting efficiency gains allow security teams to handle vastly **more** tasks while significantly **decreasing** mean times to resolution (MTTR).

Sounds good in theory, but how do security operations teams use SOAR in the real-world?

- Phishing Attacks
- SIEM Triage
- Threat Hunting
- Insider Threat Detection
- Threat Intelligence
- Identify Verification/Enforcement
- Endpoint Protection
- Forensic Investigation

Read on to learn how SOAR can help *your* team stay ahead of the bad guys.

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Phishing Attacks

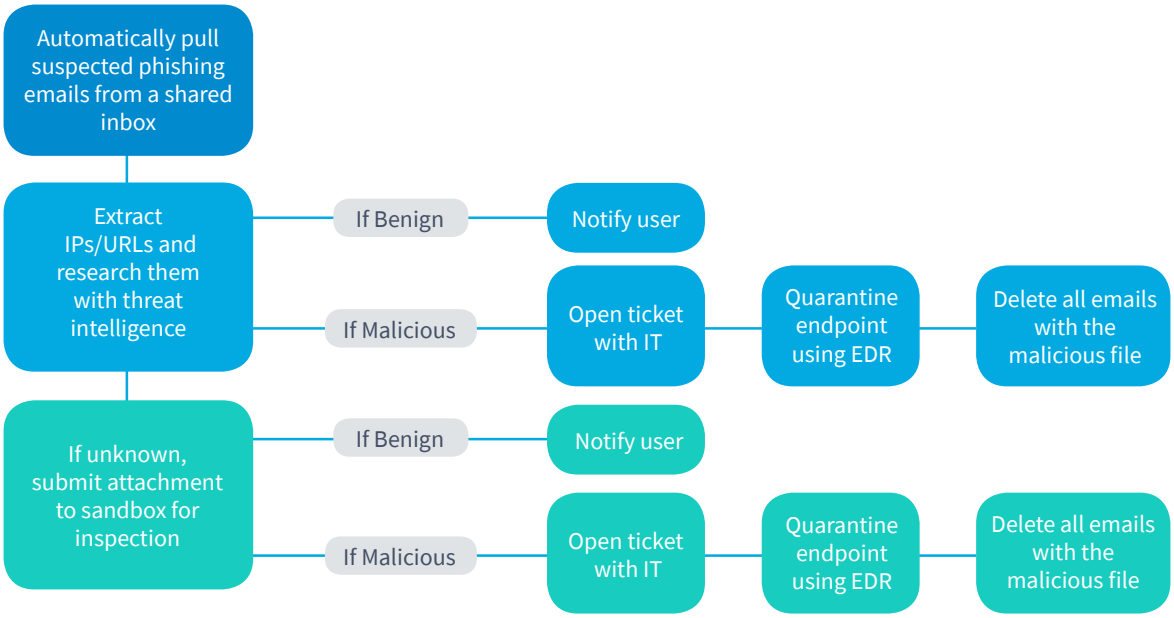
With millions of phishing emails sent out daily, it should be no surprise that there are new and increasingly-damaging attacks making headlines on a regular basis.

Problem

1. Too many potential phishing emails every day to investigate.
2. Investigations typically require the use of multiple security platforms.
3. Manual processes can take between 10-45 minutes per threat.
4. Most organizations lack the necessary personnel to investigate the high volume of daily phishing attempts.
5. Slow MTTRs increase risk and potential damages.

Solution

Automate the investigation and quarantine of suspected emails.



Benefit

Security analysts can research and resolve the high volume of phishing attacks with minimal effort. Analysts can **automate 80-90 percent of the repetitive tasks** immediately. **MTTR is reduced** with responses initiated immediately upon an alert. Containment is performed at machine speeds.

Incident response processes are **clearly defined and consistently executed.** All suspicious emails are investigated properly, while human error is minimized at every step. Workflows can be easily adapted to incorporate new anti-phishing processes and technologies.

Technologies being used

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SIEM Triage

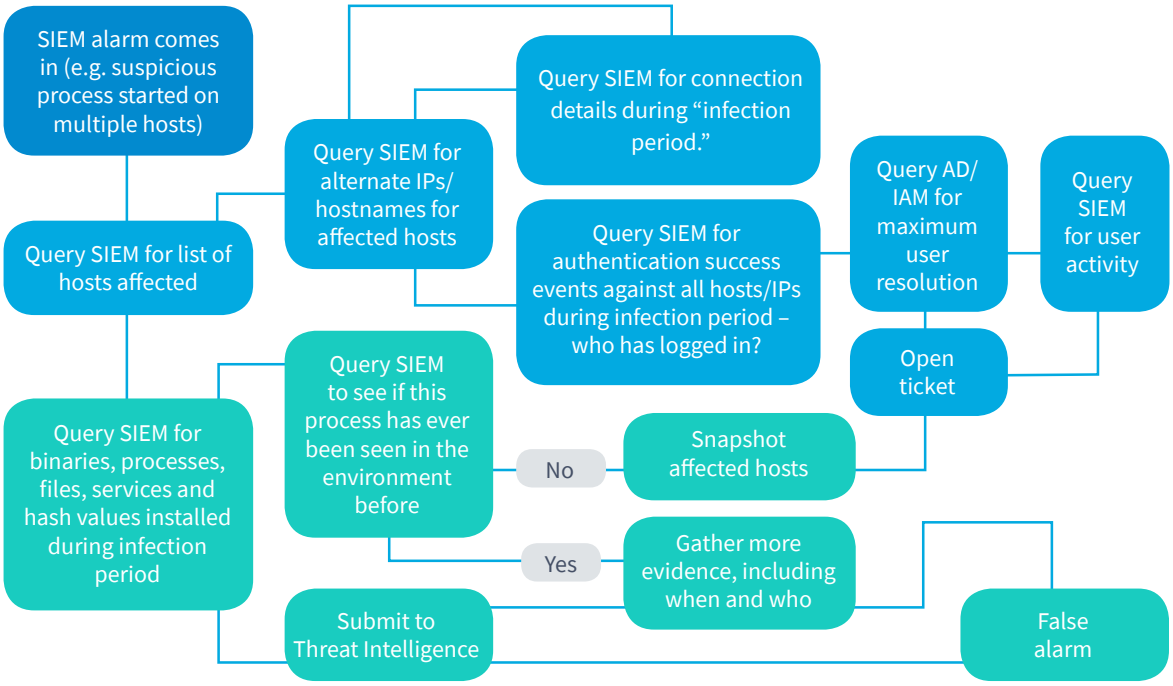
Less than one percent of severe/critical security alarms are ever investigated—and in many organizations, the majority are being generated by their SIEM. Security teams need to triage all alarms and potential threats—not just the highest rated.

Problem

1. Manually reviewing and investigating all SIEM alarms is logistically impossible.
2. SIEM alarms often lack necessary event context, requiring additional, time-consuming research.
3. SecOps are only able to investigate a small percentage of alarms, increasing the likelihood of missed attacks.

Solution

Automate as much of the process as possible while providing context to investigations.



Benefit

The overwhelming number of SIEM alerts means **many alerts aren't investigated promptly, if at all.** By automating as much as 80-90 percent of the incident response process, SOAR enables security teams to address the high volume of alerts faster, without requiring more resources. The remaining tasks that need human intervention benefit from enhanced context and improved consistency.

SOAR radically improves security operations efficiency, while reducing risk and increasing threat protection. Quickly respond to *all* of your SIEM alerts.

Technologies being used

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Threat Hunting

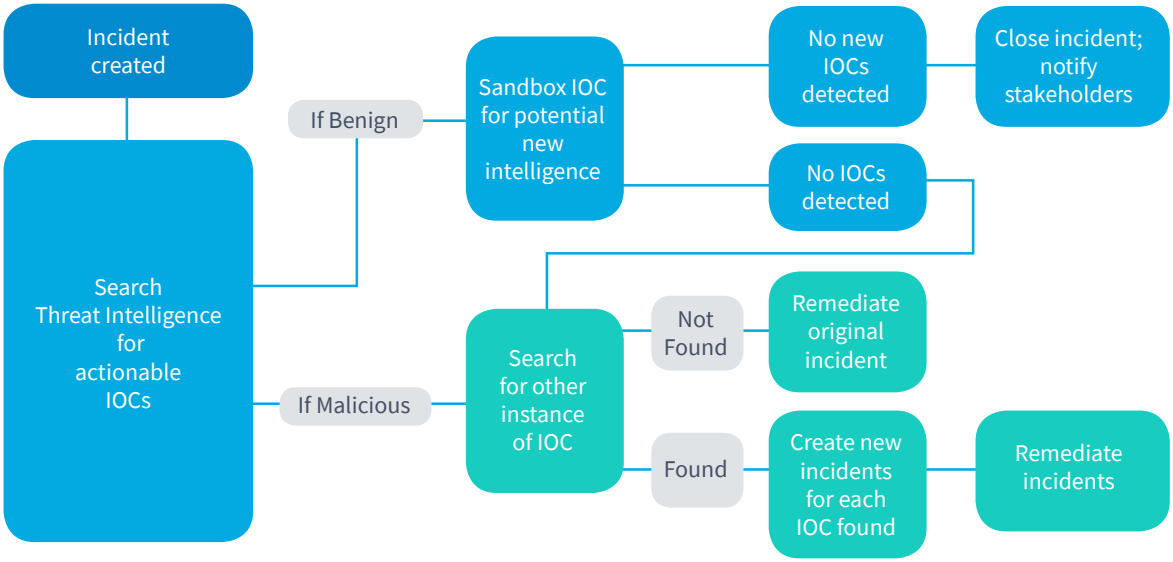
In today's threat environment, it's no longer enough to be passively vigilant. True protection requires proactively identifying and hunting for threats.

Problem

1. Slow, manual processes limit hunting frequency.
2. Collecting evidence requires manually drilling down into logs or packet captures.
3. Threat research validation requires accessing multiple third-party systems.

Solution

Automatically search indications of compromise (IOC) against threat intelligence.



Benefit

Integrating security technologies and taking advantage of a comprehensive and centralized view into all relevant threat data means that **analysts now have a clear picture of the complete landscape of an alert or incident without having to manually hunt** for this information. By automating time-consuming and repetitive tasks, analysts can spend more time hunting new threats and getting ahead of advisories.

Continuous hunting using automated workflows and a fully integrated security infrastructure empowers proactive protection by helping security teams stay on top of threats and understand all **integrated threat information.**

Technologies being used

SIEM · Threat Intelligence · Packet Capture · Sandboxing · EDR

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Insider Threat Detection

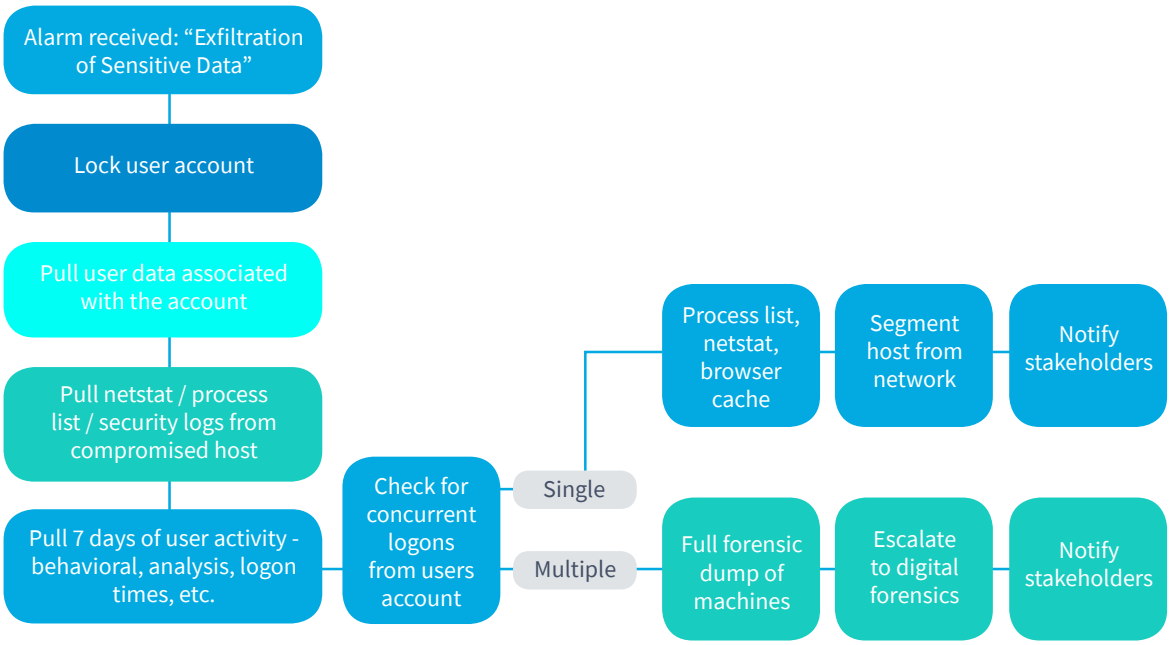
Malicious and negligent acts from insiders and attacks using stolen credentials are a major source of successful breach attempts. But quickly identifying insider threats is a challenge for security operations teams.

Problem

1. Researching and validating potential insider threats require extensive manual effort.
2. A disparate set of security tools is necessary to verify potential insider threats, requiring analysts to investigate in each tool to get a complete picture of the incident.
3. Insider threat activity frequently emulates normal behavior and is spread out over multiple systems, making it hard to detect and understand the scope of an attack.
4. Reducing MTTD and MTTR is critical for minimizing the damage tied to insider threats.

Solution

Integrate multiple tools for rapid insider threat detection and response.



Benefit

By using SOAR platforms, you can easily reduce MTTR and further protect your organization by making it possible to identify and stop insider **threats before they cause major damage.**

Integrating your security toolset and orchestrating threat detection gives your security team a **complete understanding of all insider threat detection alerts.** Automating significant components of the detection and response process makes your entire security infrastructure more effective without adding overhead.

Technologies being used

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Threat Intelligence

Effectively leveraging comprehensive IOC data throughout your security infrastructure is inefficient and time-consuming without orchestration and automation.

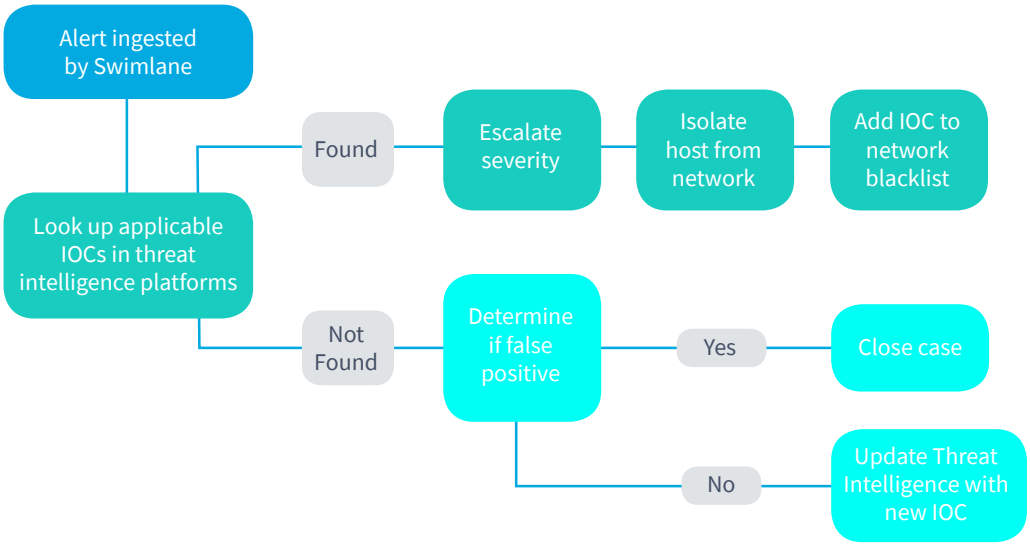
Problem

1. Threat intelligence feeds are constantly evolving to accommodate new and updated indicators of compromise (IOCs). Ensuring accurate validation of security alarms requires continuously checking them against up-to-date IOCs to ensure that they are real—a time consuming and inefficient manual process.

2. In the amount of time it takes for an analyst to get the alert, check threat intelligence feeds, make a decision, and submit network change requests, the malicious actor will have plenty of time to gather information and perform any tasks necessary.

Solution

Automate the lookup of IOCs in all threat intelligence platforms.



Benefit

SOAR solutions provide security teams with an efficient and nearly instantaneous way of ensuring their security infrastructure is **leveraging the most current threat intelligence data at all times.** By operating with an accurate and up-to-date understanding of IOCs, **analysts are able to respond faster to real threats,** drastically reducing MTTR and minimizing risk.

Technologies being used

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Identity Verification/ Enforcement

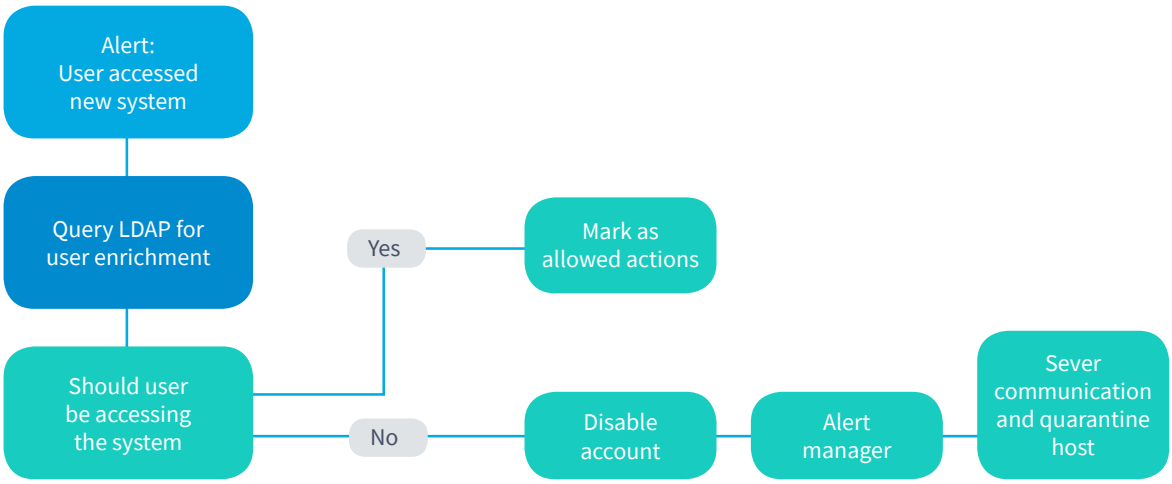
The smooth and rapid verification of privileged credentials is critical to maintaining good security hygiene. Security operations is challenged to ensure easy access by legitimate users while also protecting against stolen or improper use of credentials.

Problem

1. Large organizations can't feasibly validate all user activity at all times.
2. Security teams need to quickly determine if new user behavior is legitimate or malicious.
3. Manually checking user permissions to identify aberrant behavior is slow and time consuming.

Solution

Automatically validate user permissions for specific resources.



Benefit

It is important that enterprises can verify and control the access of confidential information to protect against data breaches. If verification shows a high likelihood of unauthorized behavior, **automatic actions** can disable the user account and quarantine the host from the network to avoid further malicious activity.

Security analysts can also automate other protective actions like running AV scans and disabling AD accounts, so the **effects of the malicious activity can be mitigated as quickly as possible.**

Technologies being used

Active Directory/LDAP | EDR | UEBA

Endpoint Protection

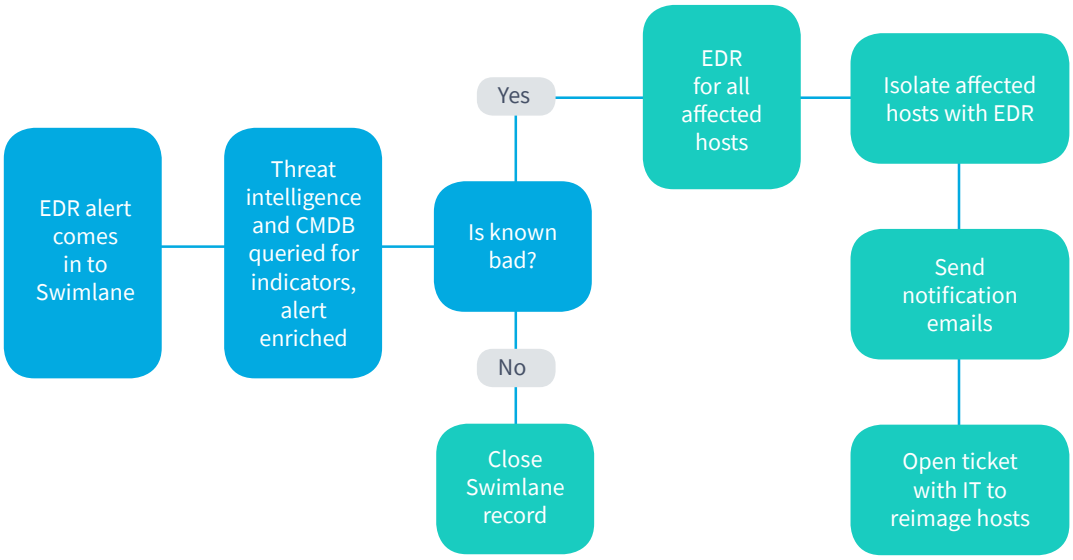
Endpoint related alerts can quickly overwhelm a security operations team and prevent an effective alert response.

Problem

1. Large organizations have hundreds or thousands of endpoints generating alarms tied to potential threats every day.
2. Manually executing high volume endpoint actions in an enterprise environment is time consuming and ineffective.
3. Slow MTTR leads to broader threat proliferation and greater risk.

Solution

Automatically triage endpoint-related alerts and take appropriate remediation action.

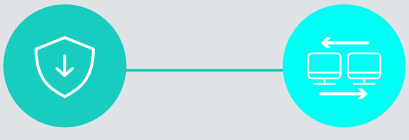


Benefit

Swimlane can **automatically triage** endpoint-related alerts by enriching the data with external Threat Intelligence sources, internal sources like a CMDB, or querying an EDR tool for additional context, find other affected endpoints by querying the EDR tool, and **take appropriate remediation actions** like isolating an endpoint, killing processes, etc.

Using security automation and orchestration ensures that **all endpoint-related alerts are addressed.** Response and remediation actions can be taken in real-time, helping **prevent incidents from escalating into full-fledged security breaches.**

Technologies being used



SIEM EDR

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Forensic Investigation

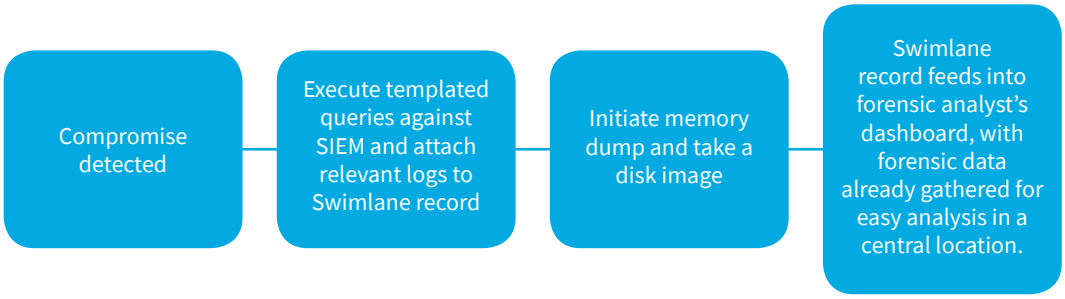
SOAR platforms streamline investigations by automating forensic data collection from disparate tools and providing a centralized repository for all collected evidence. Integrated case management provides immediate, intuitive access to all forensic detail necessary to rapidly conduct an investigation.

Problem

1. Gathering forensic detail post-incident is a cumbersome manual task.
2. Investigators are typically required to access evidence from multiple 3rd party systems.
3. Evidence is often stored in multiple locations.

Solution

Automatically centralize relevant forensic data.

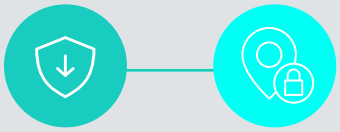


Benefit

Swimlane can automatically query a SIEM tool to gather relevant forensic log data and automatically initiate actions in forensic software to gather endpoint data, such as memory dumps and disk images. All of this data can be automatically centralized within Swimlane until the forensic investigator performs more detailed analysis.

Analysts don't have to waste time gathering information from a variety of sources; security orchestration centralizes this information. A forensics investigator **doesn't have to manually leverage different tools** to gather the forensic detail required for an in-depth investigation, allowing them to spend more time **analyzing and less time performing administrative functions.**

Technologies being used



SIEM Forensic Software

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About Swimlane

Swimlane is at the forefront of the growing market of security automation, orchestration and response (SOAR) solutions and was founded to deliver scalable and flexible security solutions to organizations struggling with alert fatigue, vendor proliferation and chronic staffing shortages.

Swimlane's solution helps organizations address all security operations team needs, including prioritizing alerts, orchestrating tools and automating the remediation of threats—improving performance across the entire organization.

To arrange a demo of Swimlane or to speak with one of our security architects to see if security orchestration, automation and response would be helpful to your organization, please contact us at 1.844.SWIMLANE or www.swimlane.com