Emerging Threats – Turning from the hunter to the hunted

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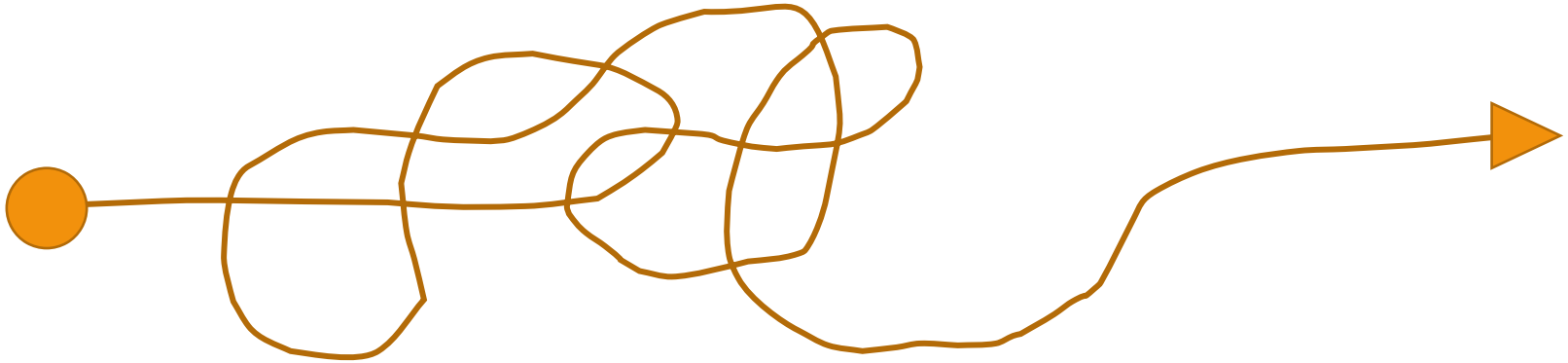

Effective and Simple

About me...

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SECURE & MODERN ENDPOINT MANAGEMENT

EC-Council CEH CERTIFIED

Microsoft 365 CERTIFIED SECURITY ADMINISTRATOR ASSOCIATE

Microsoft CERTIFIED AZURE SECURITY ENGINEER ASSOCIATE

Microsoft CERTIFIED IDENTITY AND ACCESS ADMINISTRATOR ASSOCIATE

Microsoft CERTIFIED SECURITY OPERATIONS ANALYST ASSOCIATE

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Content

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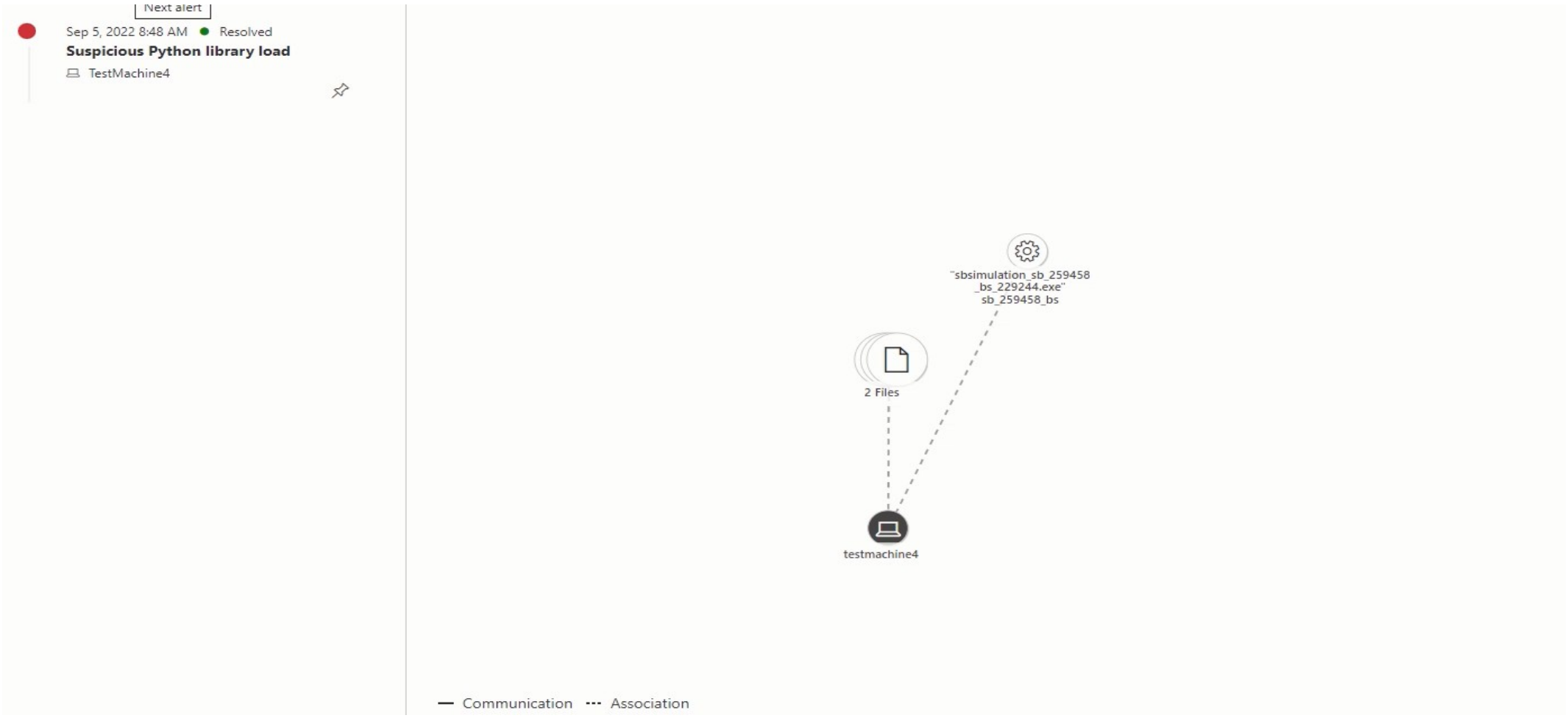
- Is it over already?
- Table’s turning – from the hunted to the hunter

Leftovers – when it’s too late

Crime scene


Next alert
Sep 5, 2022 8:48 AM
Resolved
Suspicious Python library load
TestMachine4
"sbsimulation_sb_259458
_bs_229244.exe"
sb_259458_bs
2 Files
testmachine4
Communication
Association

Post Breach investigations – Thesis confirmation

During an Incident
- Active attack remediation
- Prioritization of critical operations

Before an Incident
- Business impact limitation
- Prevent attacks at earliest possible stage
- Hygiene
- Advanced Hunting

After an Incident
- Full business operations restoration
- Detection

Feedback loop
- Lessons learned, change integration

Visualization based on:
Design security for a resiliency strategy - Training | Microsoft Learn

The search for Patient Zero, IOCs and patterns

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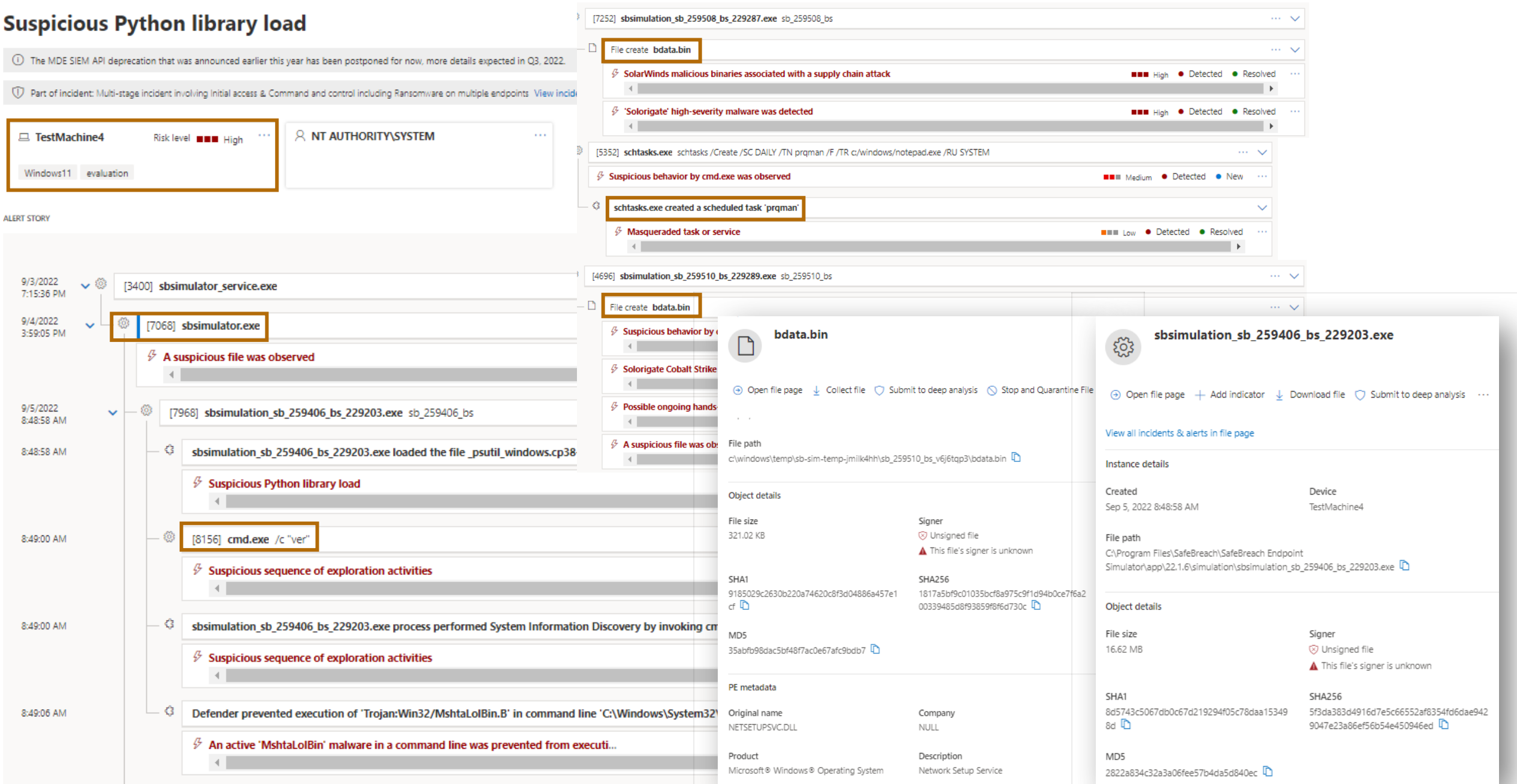

The search for Patient Zero, IOCs and patterns

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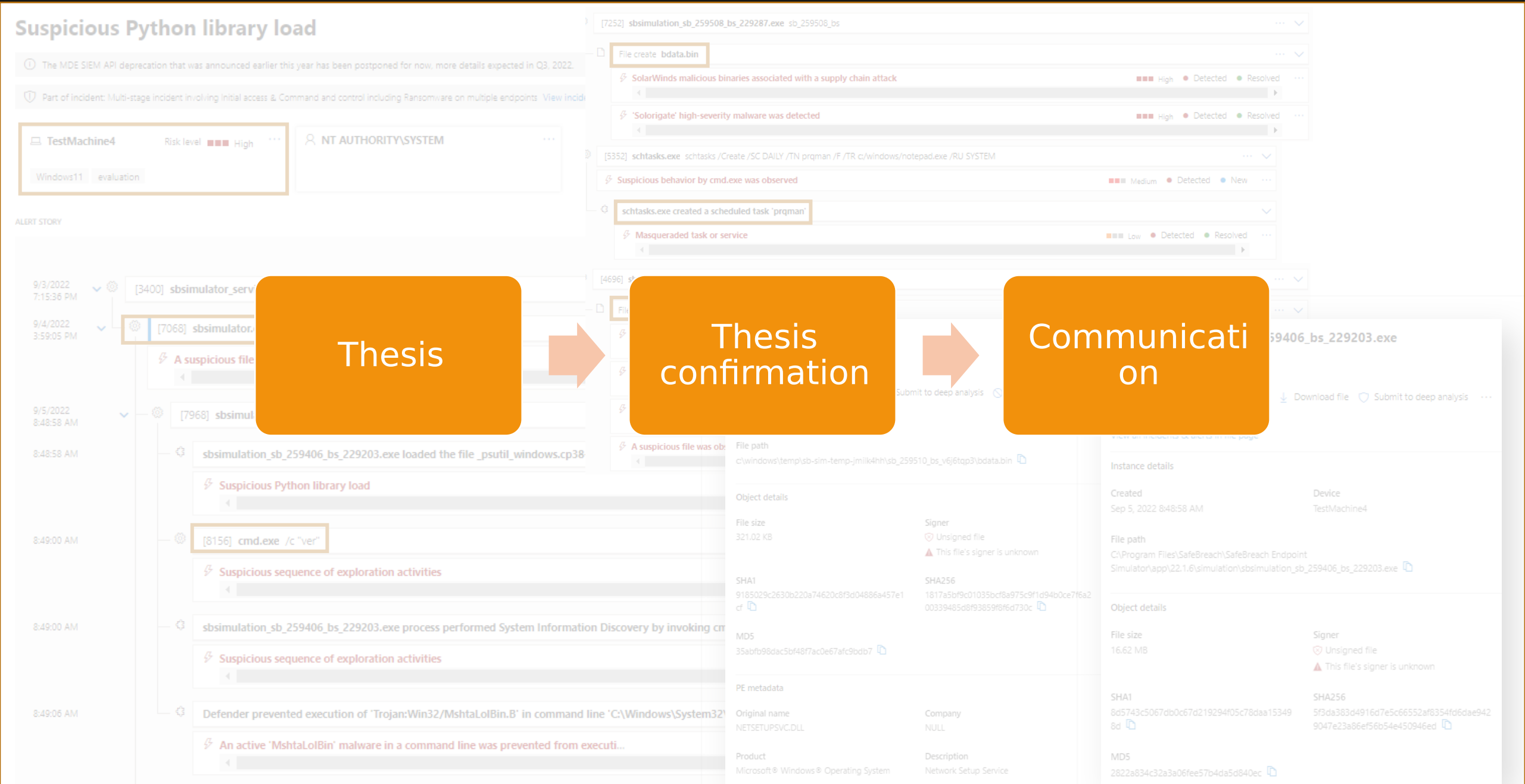

Is it over already?

Is it over already? Detections

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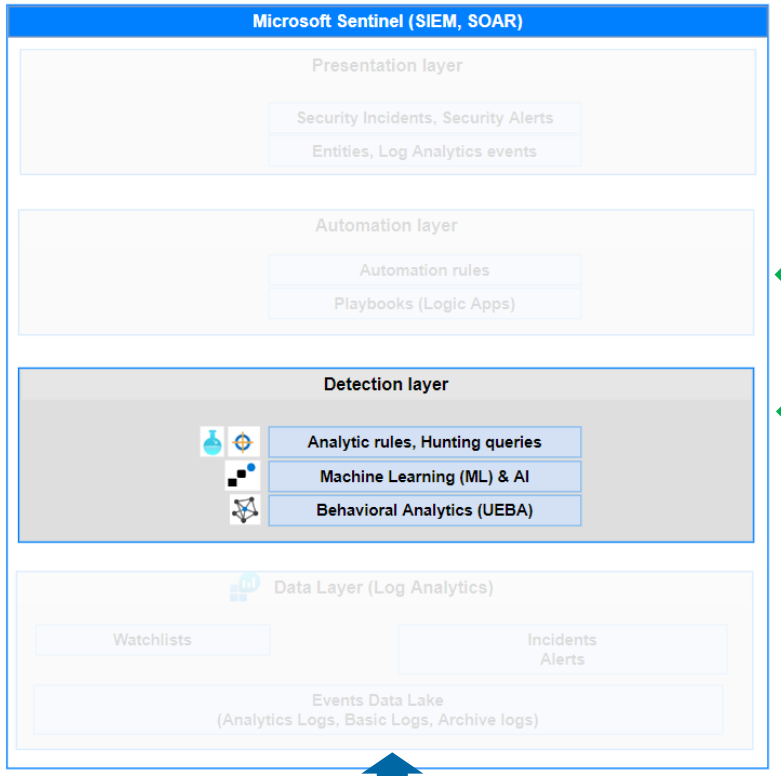
Break the chain – Detections



Analytic rules

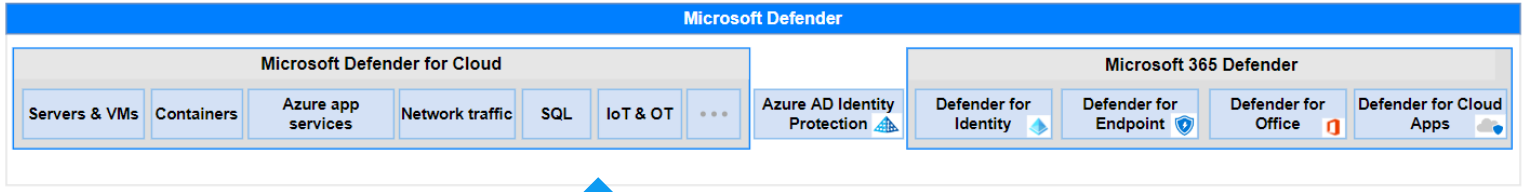
- Detection logic correlates data from Log Analytics tables (**KQL**)
- Trigger for Automation (Automation rules/Playbooks
- Query schedule: 1 minute – 14 days
- Can include external IOC data during runtime
- Detection results (entities) summarized in security incidents
- Community contributions

Hunting queries

- Proactive Hunting for specific use cases/patterns (MITRE ATT&CK) Techniques)
- Manual Bulk-run
- Hunting query logic (**KQL**) can be migrated to an Analytic rule
- Livestream
- Community contributions

Microsoft Detection

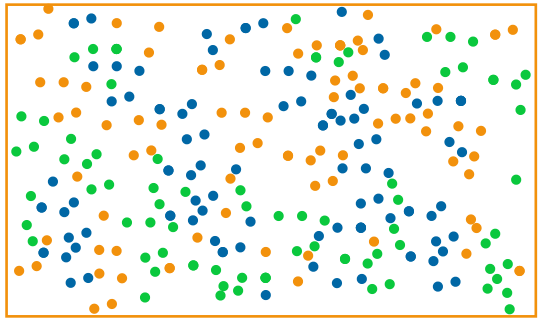
- AI, ML
- Correlation of events and entity behavior patterns
- Microsoft Detection logic
- Custom detection rules (running on **KQL**) in Microsoft 365 Defender



Break the chain – Detections

Detect future malicious patterns/IOC

Events

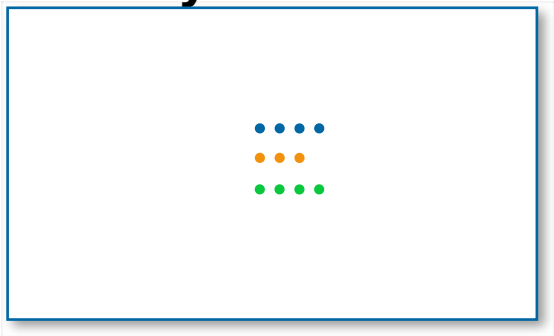


System/user-driven events stored in multiple tables

Detection

Custom queries searching for **identified malicious patterns/IOC** in Sentinel Tables

Security Incidents



Security incidents with aggregated detection results visible to the customer / SOC

Table’s turning – from the hunted to the hunter

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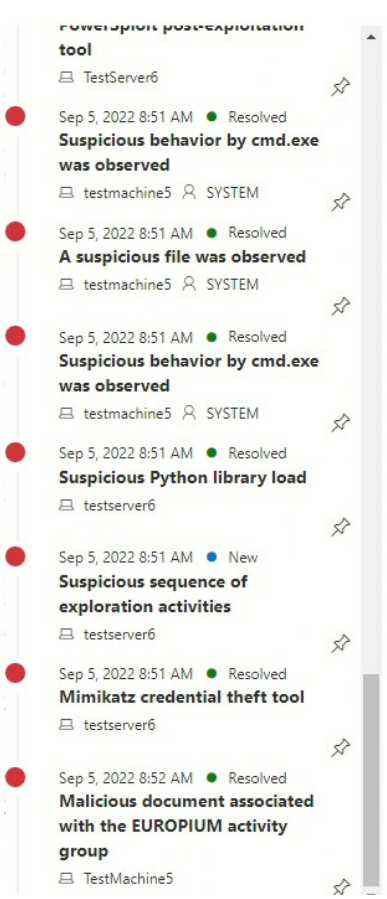
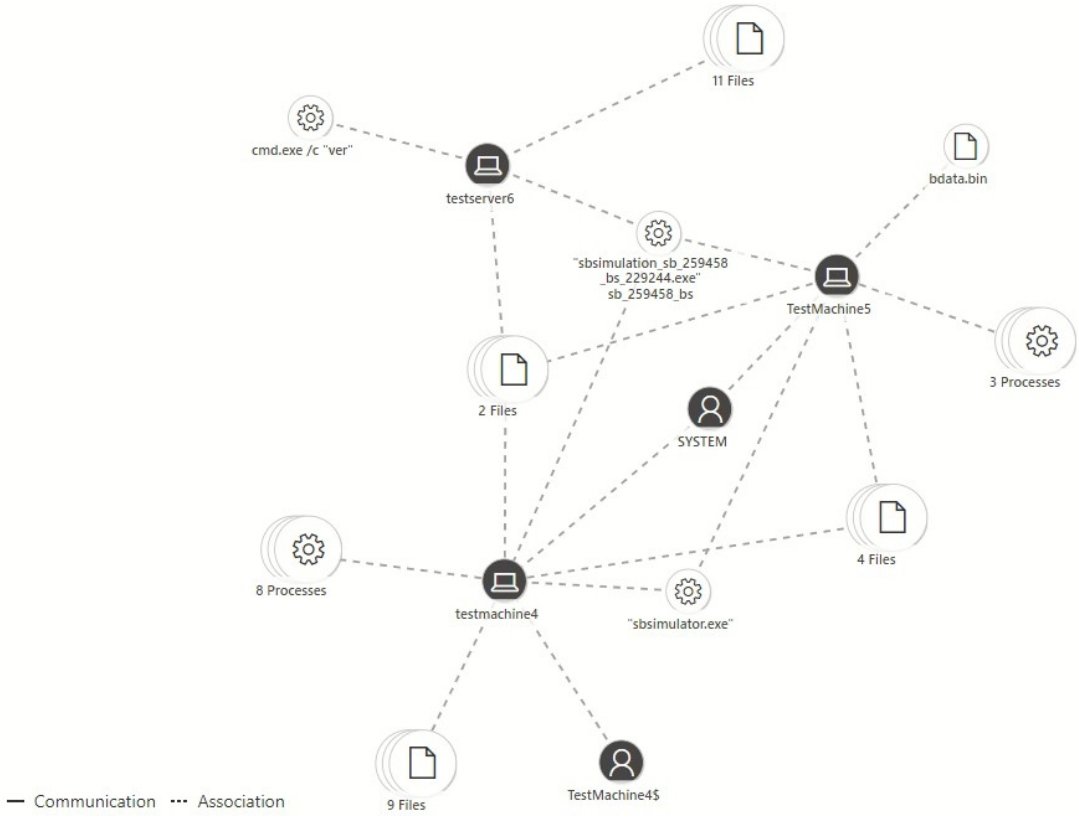
Table's turning – Proactive Threat Hunting



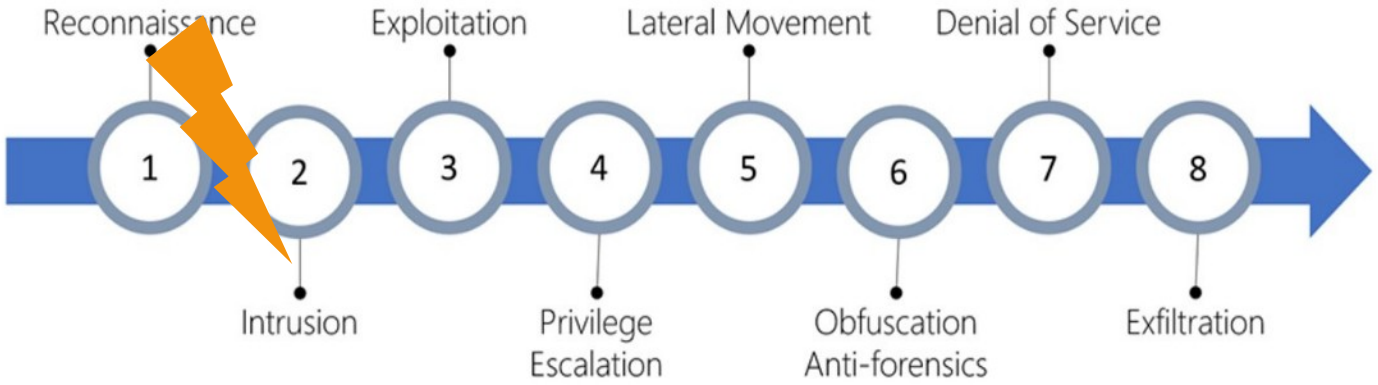


Table’s turning – Proactive actions

- Proactively and continuously searching for malicious patterns and IOCs to **prevent** adversary activities
- **Proactive Threat hunting** based on hypothesis, threat intelligence data
- Searching for gaps (configuration, hygiene, vulnerabilities, identity behavior, …)

Goals:

- Detection of anomalies, attacks and attack vectors at the earliest possible stage
- Disruption of human-operated/sophisticated attacks exploiting vulnerabilities



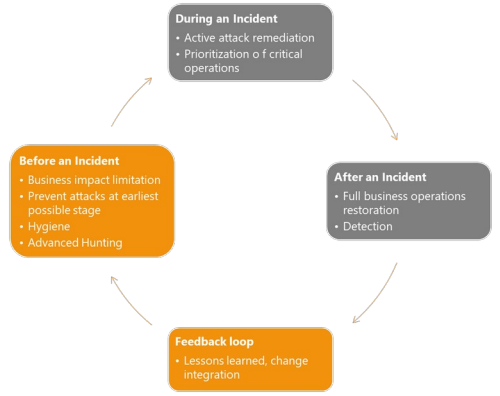


Image source: Understand security operations frameworks, processes, and procedures - Training | Microsoft Learn
Image based on MITRE ATT&CK ™ framework

Effective and Simple Security

- Coverage
- Integration
- Microsoft as Security and Threat Experts
- Efficient Operation

Thank you!

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