#AINativeWorkplace 2025

Time to supercharge your SecOps with AI!

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Hello! 👋

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MVP Microsoft® Most Valuable Professional

What I want to talk about

State of AI in Cybersecurity

Why using AI in SecOps is not easy

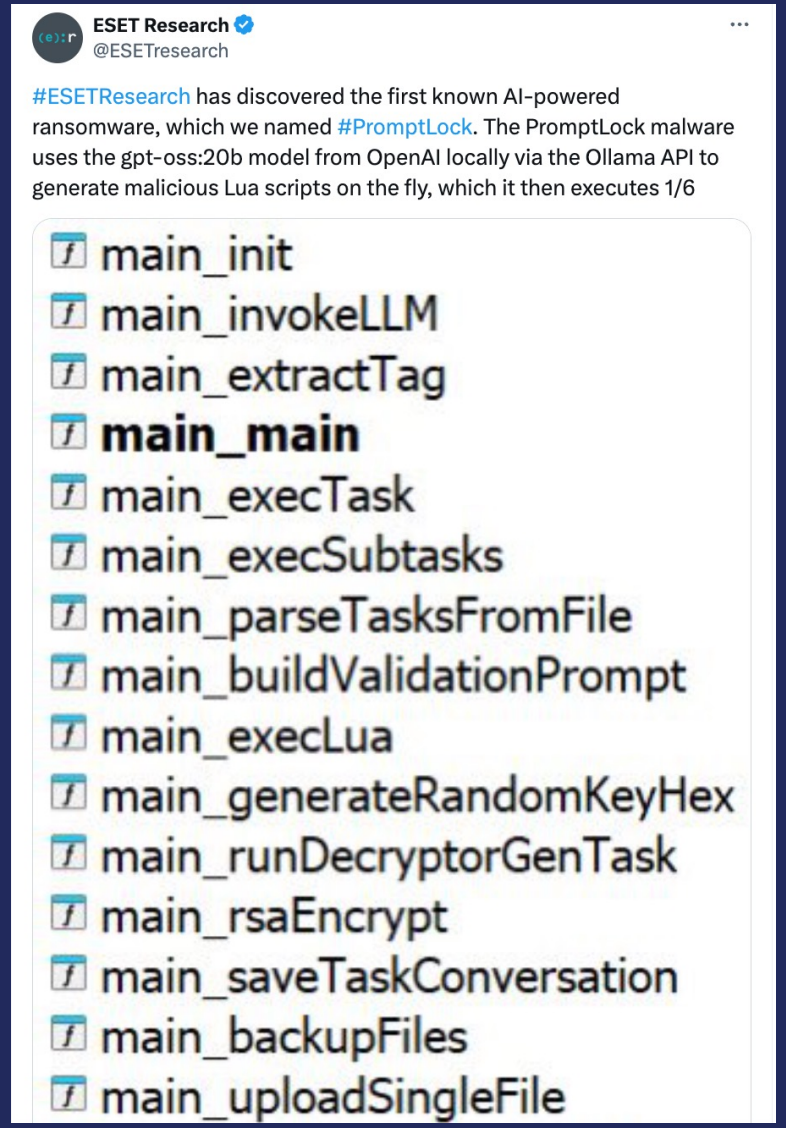
How to do it anyway

What is Security Operations?

- The people and processes keeping organizations safe.
- Responding to threats and incidents related to cybersecurity.
- Usually organized into a SOC (Security Operations Center)
  - Classically 24/7 operation

State of AI in Cybersecurity

- AI has become a staple in the modern work industry
- Attackers also utilize more and more AI
  - More targeted content
  - Better AV evasion
- In cybersecurity, tools are still taking shape
  - Microsoft's Security Copilot a big part of the progress



State of Security Copilot

- Has improved since release
- Agents seem like a step forward
- Still hampered by pricing decisions
  - Too expensive for small companies (which would benefit from it the most)

Why is using AI in SecOps hard?

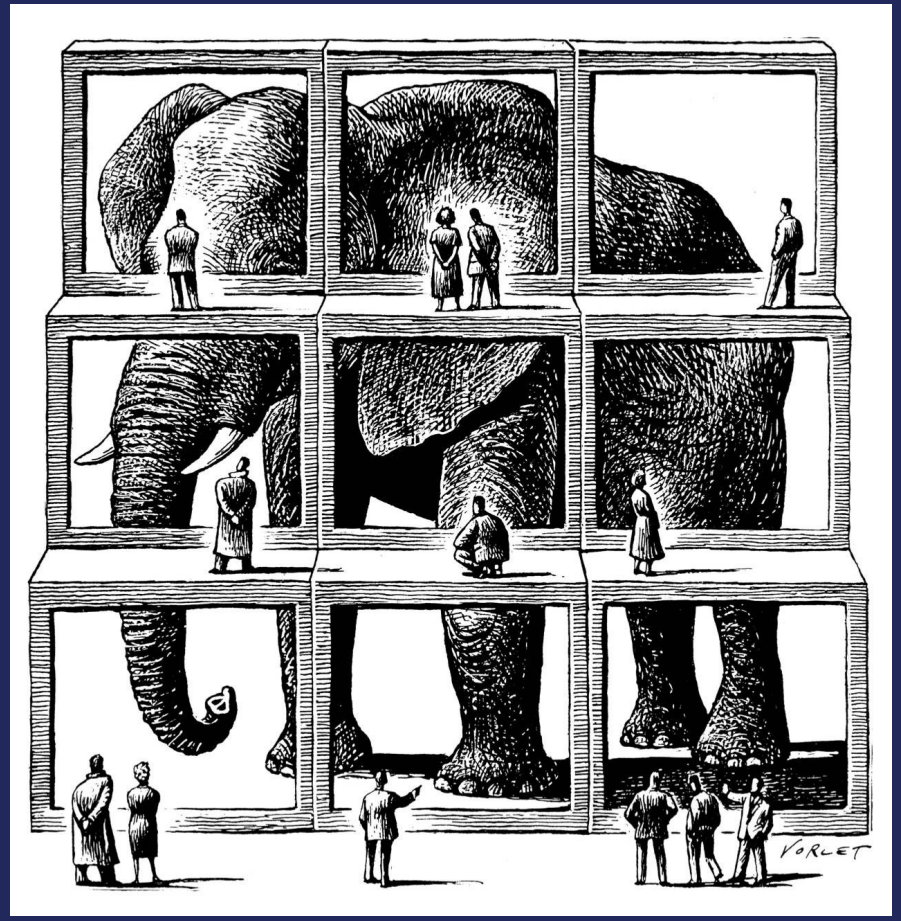
- Security Operations is a field fueled by experience
- The differences can be hard to spot
  - The difference between a false positive and a true positive can be easy to miss
- Accountability of decision-making
  - Who is responsible for the decisions AI makes?

Where AI usually fails in SecOps

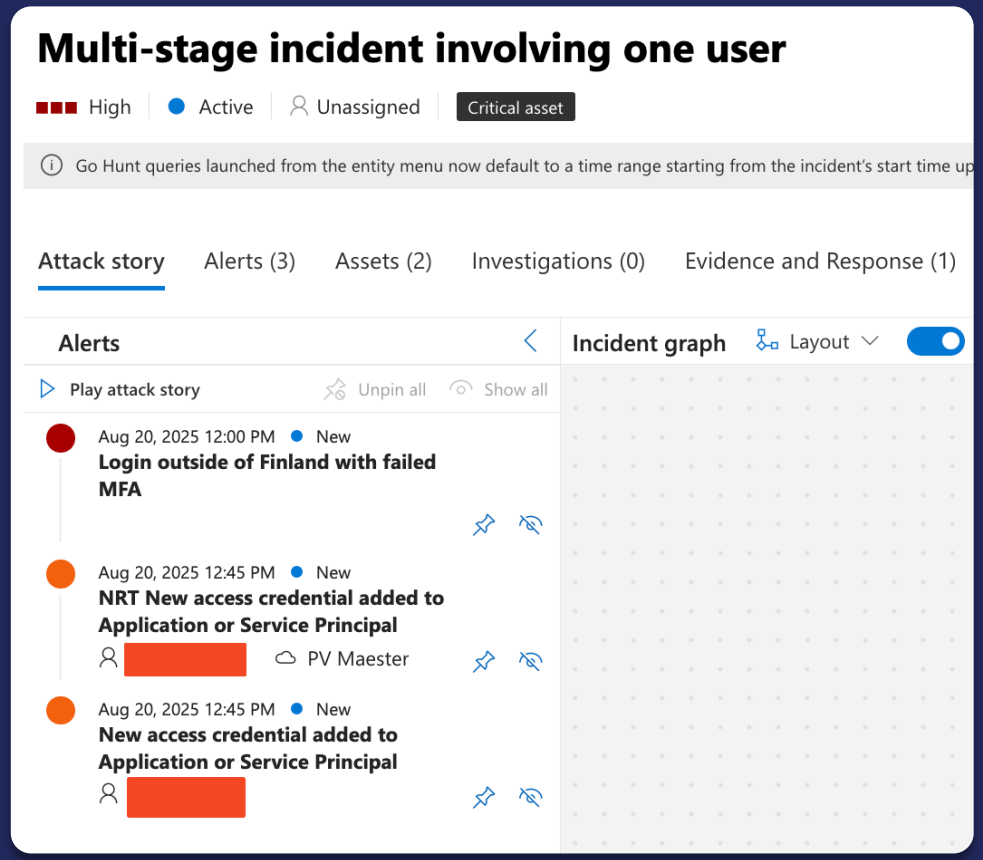
- Bad decision-making
  - Fueled by not having enough context
- Hallucination
  - Fueled by not having enough context or content
- Not able to access the right data
  - Fueled by not having the required integrations

What is the important part?

CONTEXT MATTERS.



Example of “context matters”



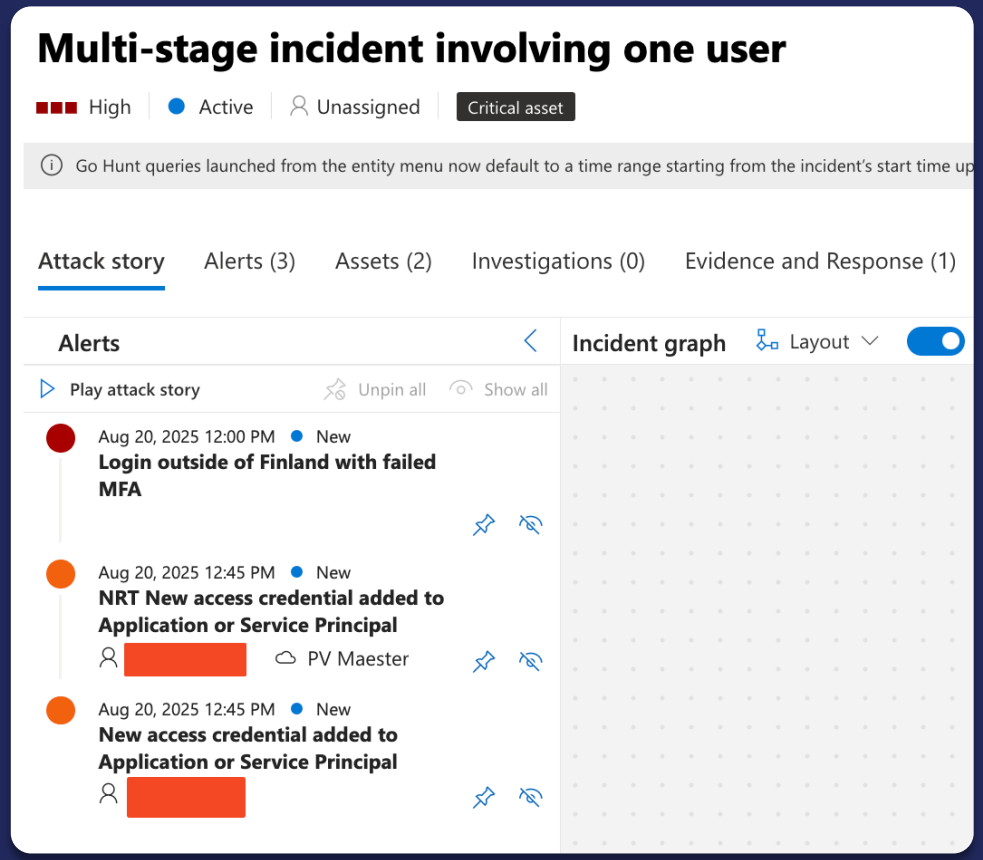
ChatGPT 5

This one is **high-risk and should be treated as a **true positive**.

Here’s why:

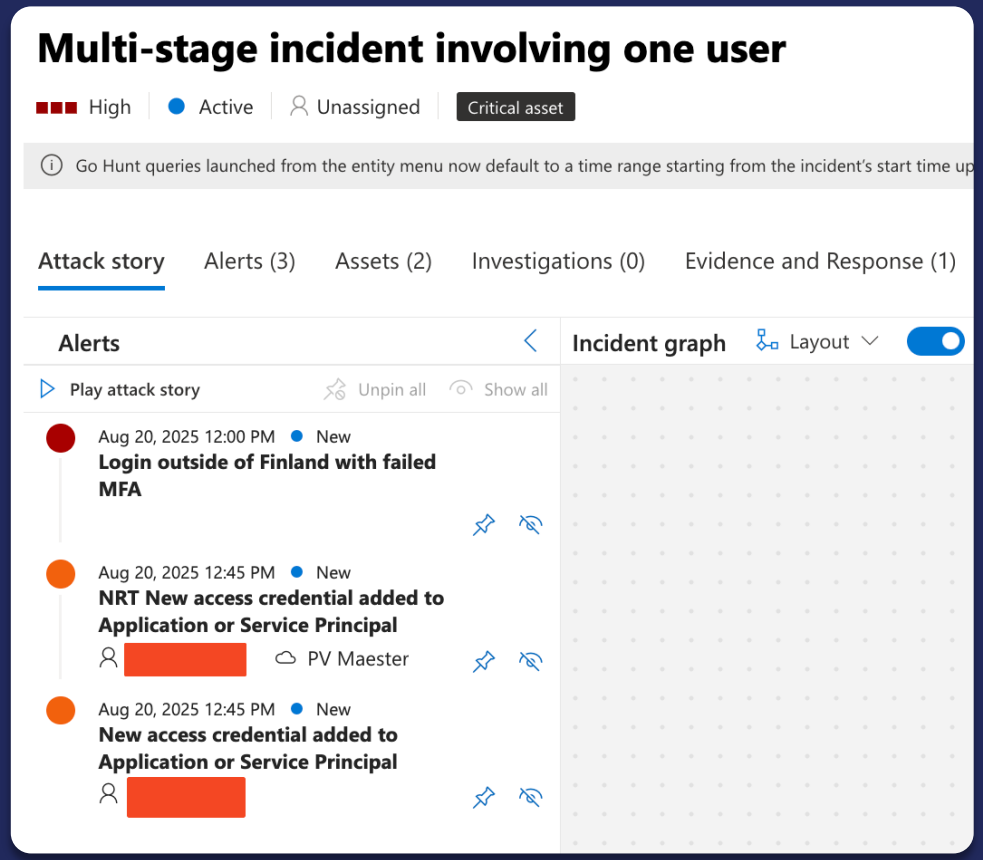
1. **Stage 1 – Failed MFA login attempt from outside Finland**
   - UPN: `bca4d8d1-65f7-4c35-a9c7-4ef98ba0db4a`
   - MFA failed because the user was not enrolled → adversary attempted login.
   - Source IP: [redacted] (foreign, not normal Finland logins).
2. **Stage 2 – Application credential modification**
   - Same user ID (`bca4d8d1-65f7-4c35-a9c7-4ef98ba0db4a`) is now observed successfully adding a new certificate credential to the **“PV Maester” application**.
   - This is a **privilege escalation / persistence technique**: adding new credentials to a service principal lets an attacker silently authenticate later, bypassing user MFA.
   - Operation was successful.
3. **Correlation**
   - Both activities tied to the same object ID.
   - Same source IP.
   - Timeline matches: failed login → shortly after, successful sensitive update.
   - Strong indication of **compromise**.

Example of “context matters”



- What a human analyst would ask?
  - What has this user done before?
  - How are the rules configured?
  - How have these kind of incidents been handled in the past? (“Has this been a false positive before?”)
  - What is the role of this user in the organization?
  - What is the application used for?

Example of “context matters”



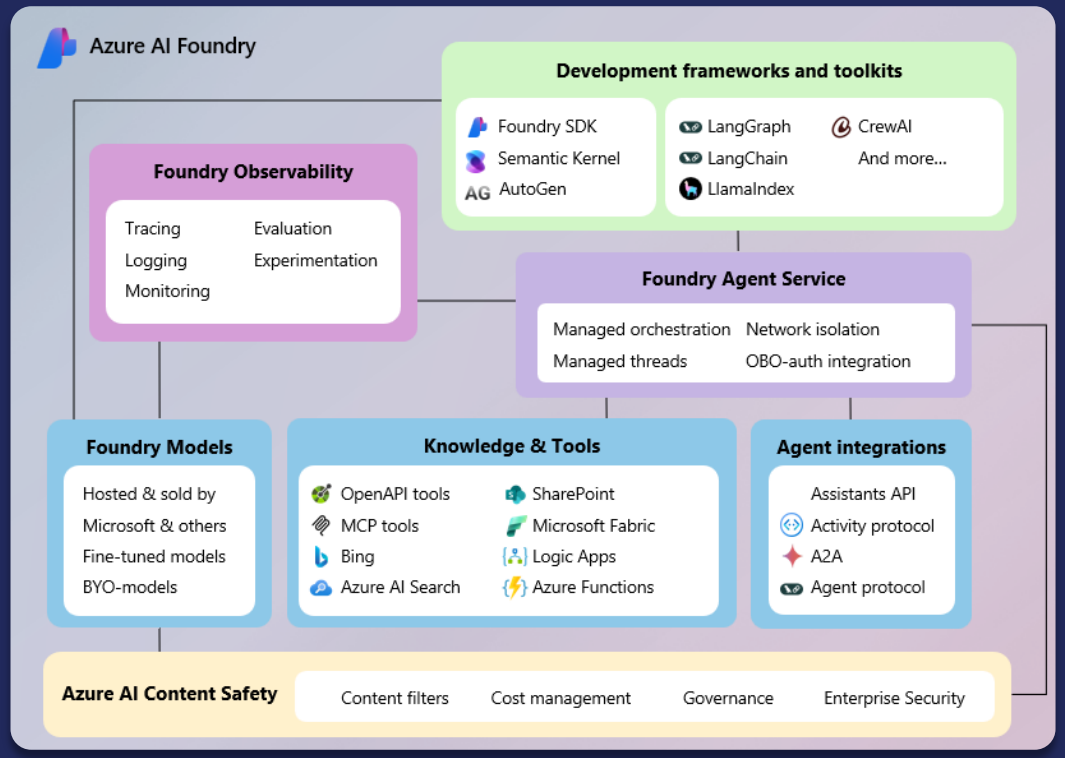
- What a human analyst would have found out
  - What has this user done before?
    - It is a developer creating an audit product
  - How are the rules configured?
    - The Login rule has not been configured well, gives a lot of false positives
  - How have these kind of incidents been handled in the past? (“Has this been a false positive before?”)
    - New Access Credential alerts been ruled as BTP before
  - What is the role of this user in the organization?
    - Developer
  - What is the application used for?
    - App is used for testing audit automation rules

Don’t try to replace the human

Empower them to do things they couldn’t before

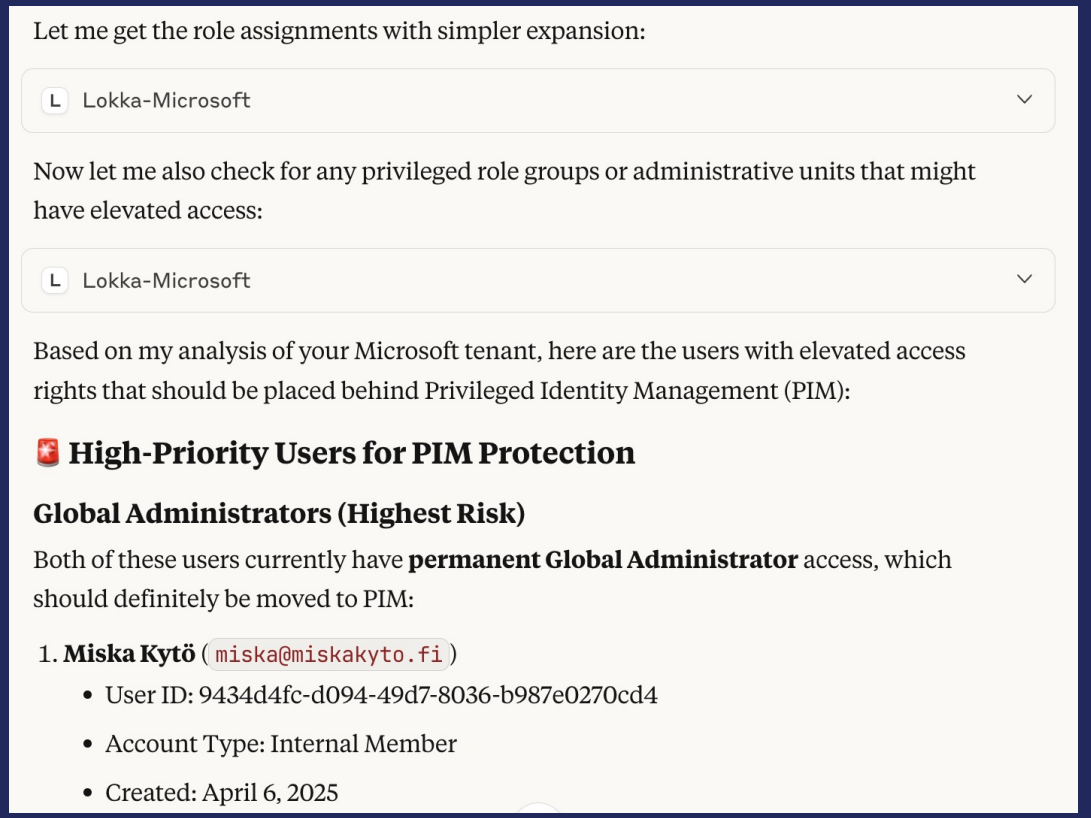
How could you do it?

- Security Copilot
  - Integrations already exist
  - Expensive
- Azure AI Foundry Agent Service
  - Choose your own model
  - Integrations / Tools have to be built (or use MCP)
  - Company Knowledgebase
- Copilot Studio
  - MCP Servers (Lokka, Sentinel)
  - Company Knowledgebase



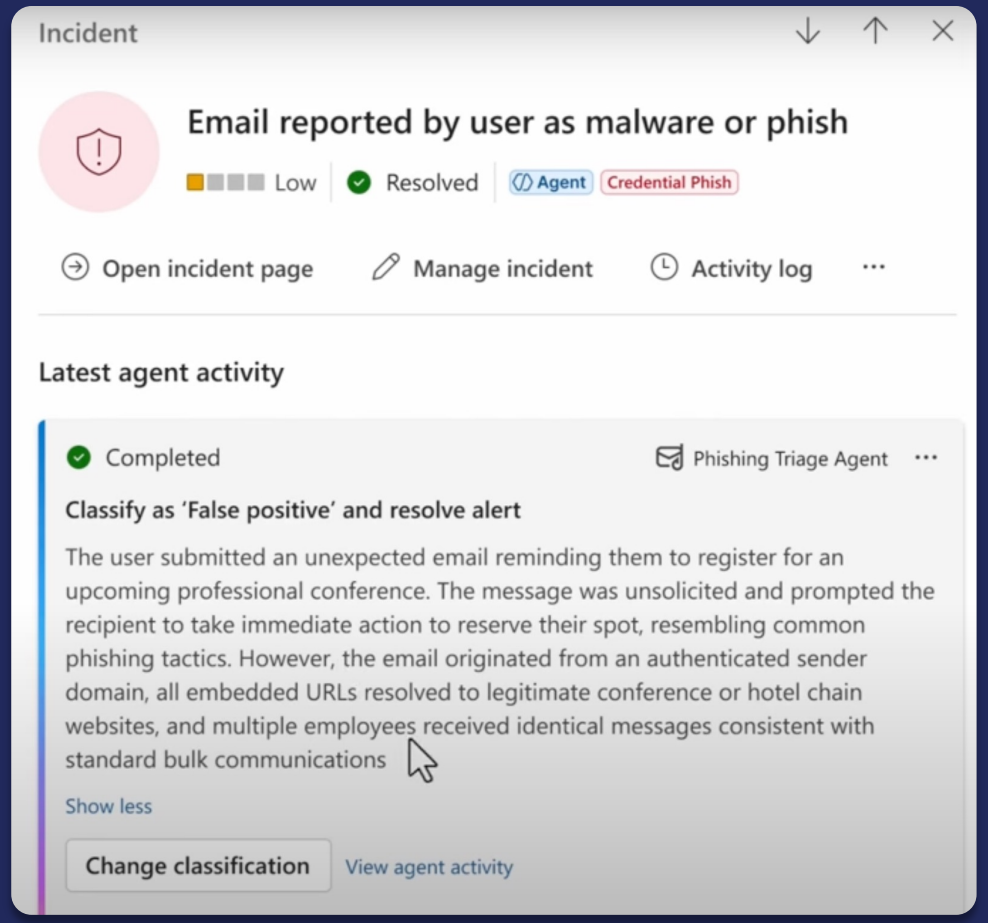
Lokka MCP Server

- MCP Server for interacting with Graph API
- Works surprisingly well
- Can speed up investigation work
  - Especially in large environments
  - In many cases, the question is simple, which is great for a Natural Language Interface

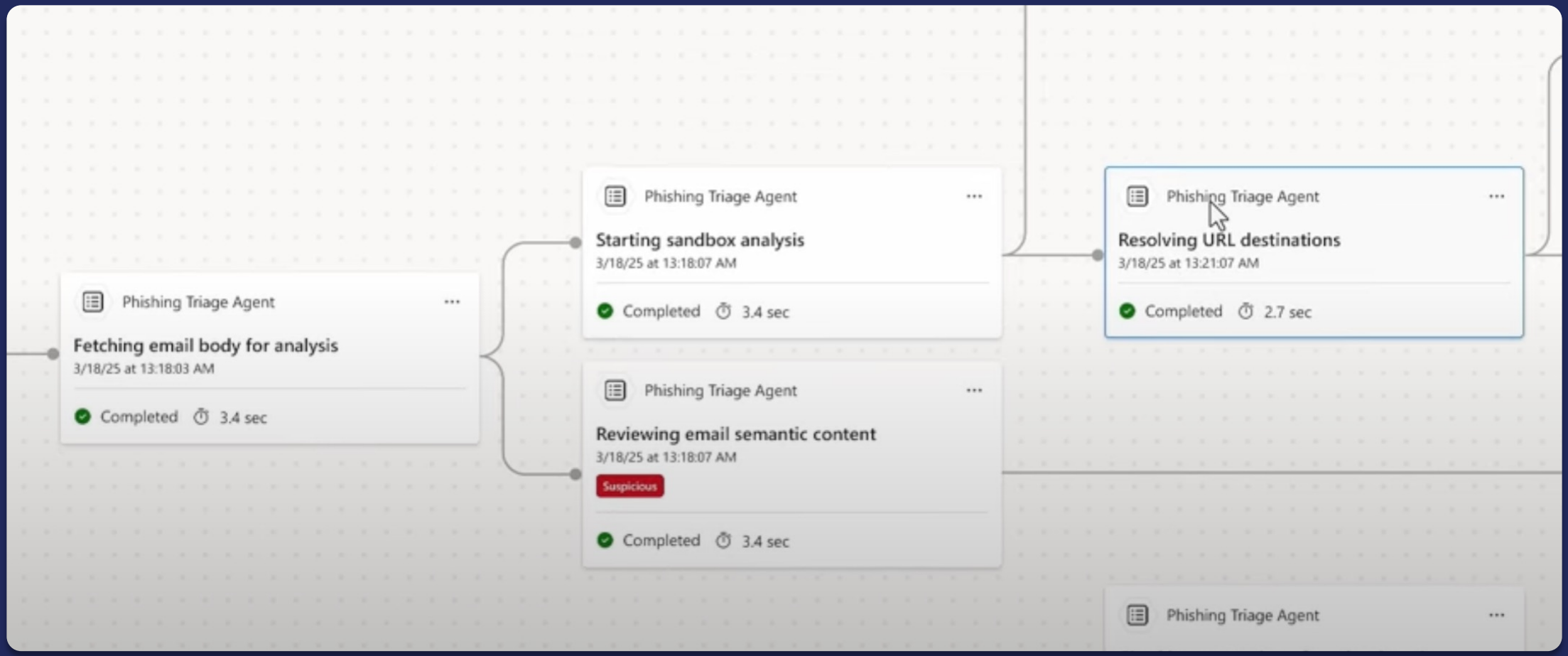


Phishing Triage Agent

- Part of Security Copilot Agents
- Automatic triage of phishing emails
- Can be trained and customized!
- Connected to MDO, if Agent thinks an email is malicious, it gets deleted
- *Doesn’t replace a human, rather saves them time by giving a second opinion*
- Pricing?



Phishing Triage Agent



Conclusion

- We might not be replacing SecOps people just yet…
- However, using AI is becoming a must for efficiency
- Easier for new people to enter the field
  - SecOps has always been difficult to enter
- *Security Copilot might become something after all…*

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