NAVIGATING SECURITY OPERATIONS IN THE CLOUD ERA

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ABOUT ME

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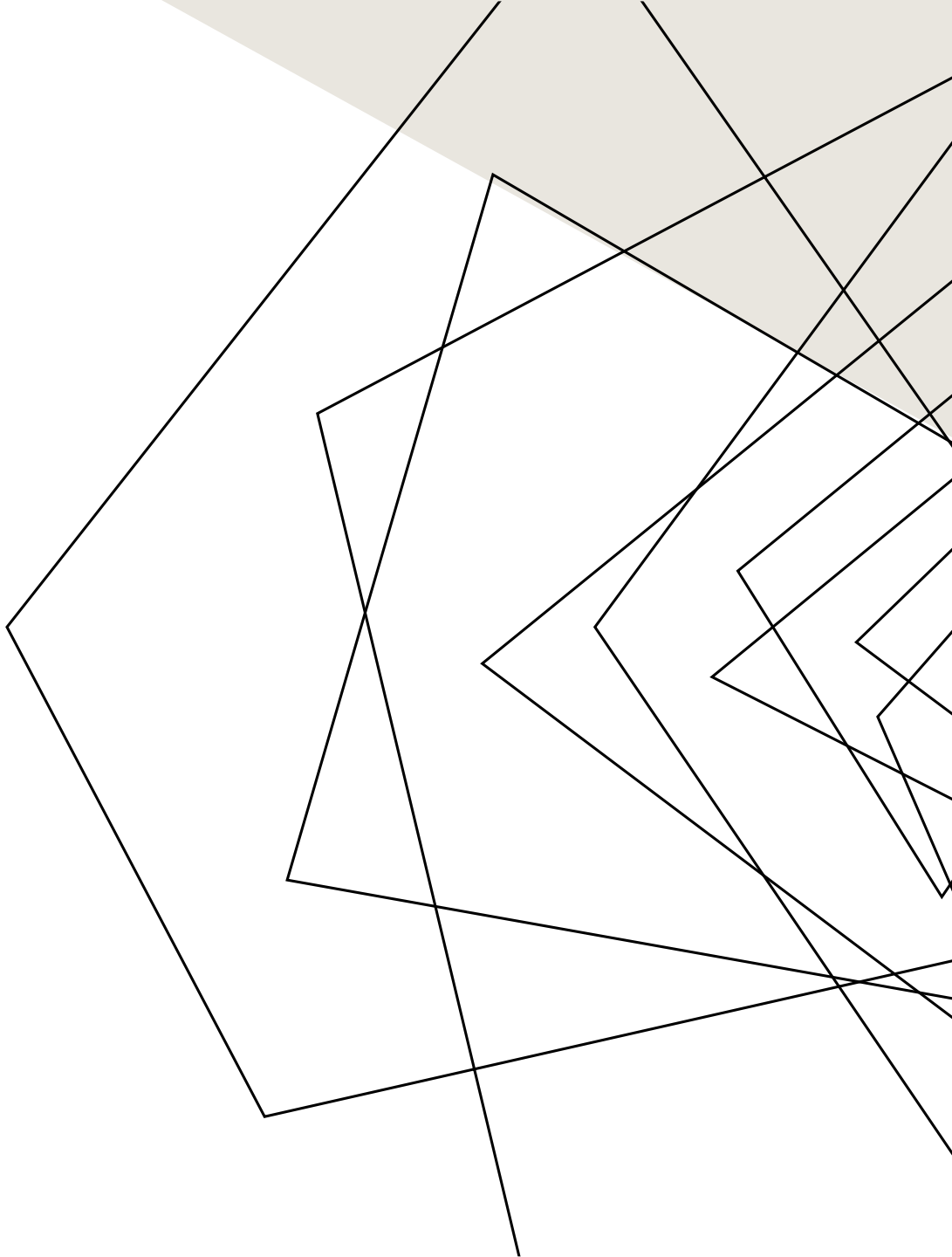
Interests: Cloud Security and SIEM, XDR, CSPM, now AI too



WHAT WE WILL COVER TODAY?

How security operations is affected from cloud transformations?

- Top 5 security risks in the cloud
- Challenges and opportunities
- Real world examples
- Q&A

1. ATTACK SURFACE X

On-prem:

- Well-defined
- Limited by the organization's physical network
- Stable number of assets

Cloud:

- Multiple cloud vendors
- External resources and apps such as SaaS
- Rise of AI

Risk: Growing Attack Surface

- Assets are scattered all over the internet with many dependencies.
- Lack of standardization, losing control and visibility.

2. DIFFERENT TYPE OF WORKLOADS
(UNFAMILIARITY)

On-prem:

- Well-known
- Limited number of long-lived assets
- VMs, Networks, Databases, etc.

Cloud:

- New workload types, new risks
- Cloud control plane, layers like identity, network
- Serverless functions, APIs
- Short lived assets

Risk: Unfamiliarity

- “You can’t protect if you don’t know what you are protecting”
- Lack of context for the security teams

3. IDENTITY & ACCESS MANAGEMENT

On-prem:

- Network perimeter
- Design, deploy, maintain

Cloud:

- Identity perimeter, adoption of Zero Trust
- IAM complexity – within across CSPs
- Management of user and machine identities

Risk: Easier to login than hack in

- If you have the keys to the kingdom, you can’t just enter it but reconfigure it

4. MISCONFIGURATIONS

On-prem:

- Not easily reachable
- Done by a central team

Cloud:

- Examples: excessive permissions, leaving ports unrestricted, etc.
- Configuration drifts
- Drifting to Non-compliance

Risk: By far cloud misconfigurations are the biggest threat in the cloud world.

- Misconfigured assets can be an easy way for the attackers to gain access
- It can cause an organization to fall into a non-compliance causing legal/regulatory issues

5. SHARED RESPONSIBILITY

On-prem:

- Well known boundaries
- Most work is done by the organization itself

Cloud:

- Vague boundaries of control and responsibilities
- Lack of visibility
- Knowledge gaps

Risk: Moving workloads to cloud does not guarantee security per default

- Lack of visibility and knowledge gap in terms of who is responsible for security – CSP vs Organizations

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  – Attack Surface, Different Workloads, IAM, Misconfigurations, Shared Responsibility Model
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SPEED AND AUTOMATION + AI TOO

Challenge:

- Things are scalable and fast
- Attack surface x -> Increasing number of alerts

Opportunity:

- Automation, integration and machine learning
- Shift to a more unified/platform approach
- Support of AI

Technology used by the modern SOCs needs to be more “smart” to support the operations

HARDENING AND PREVENTION FIRST

Challenge:

- More reactive mindset
- Detection and Response > value

Opportunity:

- Proactiveness
- Predict and prevent > value
- Influence the design decisions
- Understanding secure IAC

The ability of SOC teams to influence the design decisions from the beginning will reduce the likeliness of an attack dramatically

VULNERABILITIES – WHAT TO FIX FIRST

Challenge:

- Fluctuating number of assets
- Misconfigurations and security drifts
- What to fix first?

Opportunity:

- Automated patching
- Configuration Management is a new “discipline”
- Ability to collect and correlate data
- Contextual posture management

Vulnerability management is rising and changing – new roles and discipline

Using power of cloud for intelligent prioritization and remediation

PEOPLE

Challenge:

- Close as many ticket as possible as soon as possible

Opportunity:

- Proactiveness and breaking the silos
- Co-work cross-functional security teams
- Distributed workforces

A chance to glue security to the foundation

Breaking the isolation results in faster feedback cycles that will enhance the quality of detections and responses.

It is getting more important to employ people who can creatively solve security problems, rather than buying the best-in-class security technology and relying on the technology (not the people).

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- Challenges and opportunities – Automation and Speed, Hardening and Prevention, Changing Vulnerability Management, People
- Real world examples
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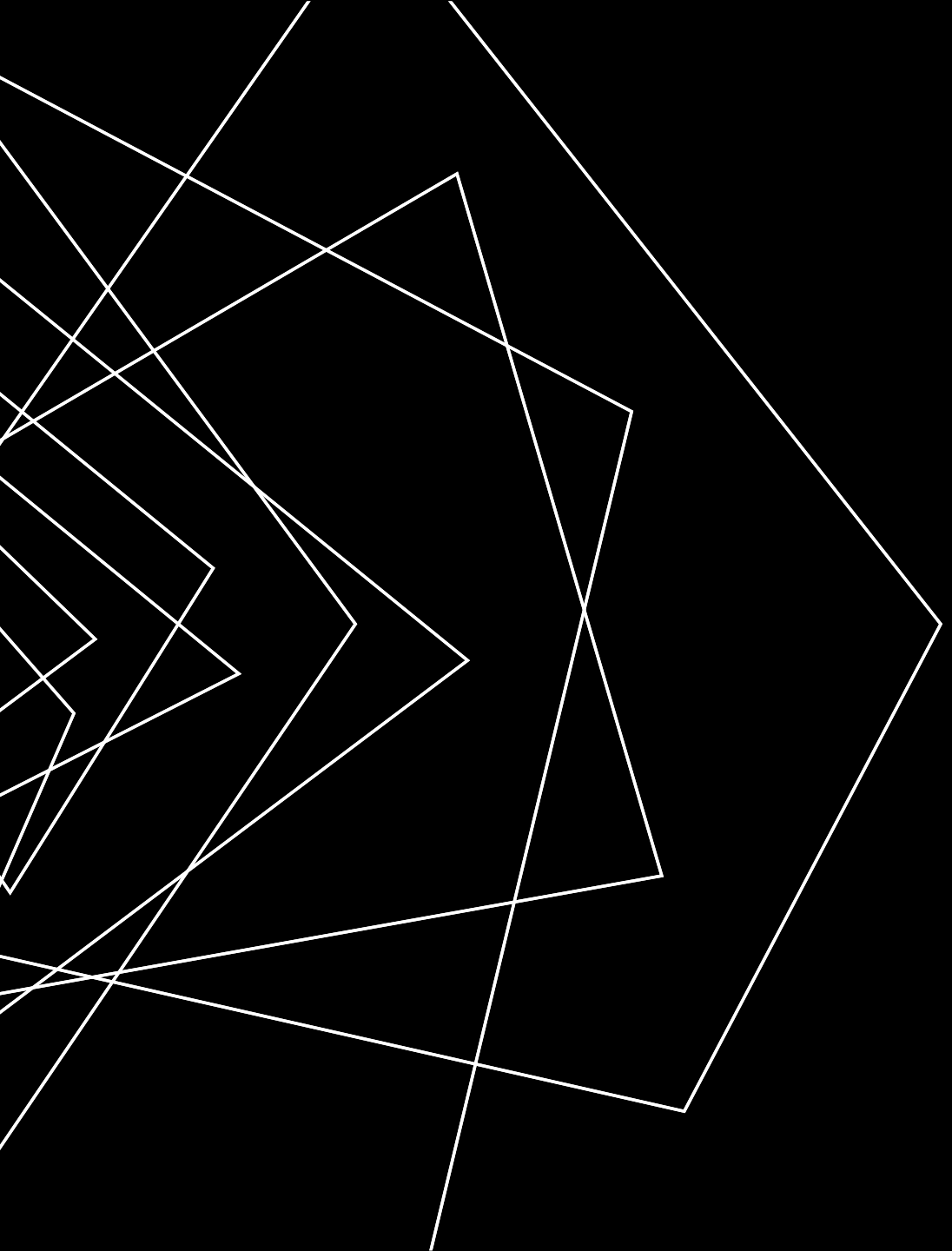
REAL WORLD EXAMPLES

1.) As the SecOps team member, what are the 3 challenges you are facing when moving to cloud?

2.) How do you think the SecOps would look like in 5 years?

THE FUTURE

- AI for Security and Security for AI
- Platformization & Information Sharing
- New acronyms like
  - CDR – Cloud Detection and Response
  - CIRA – Cloud Incident Response Automation



THANK YOU

QA