

OCT 29

Washington, D.C

THREAT20 MODCON23

THREAT MODELING IS FOR EVERYONE

Speakers//

Brenna Leath

Software Security Principal
Navy Federal Credit Union

Lisa Cook

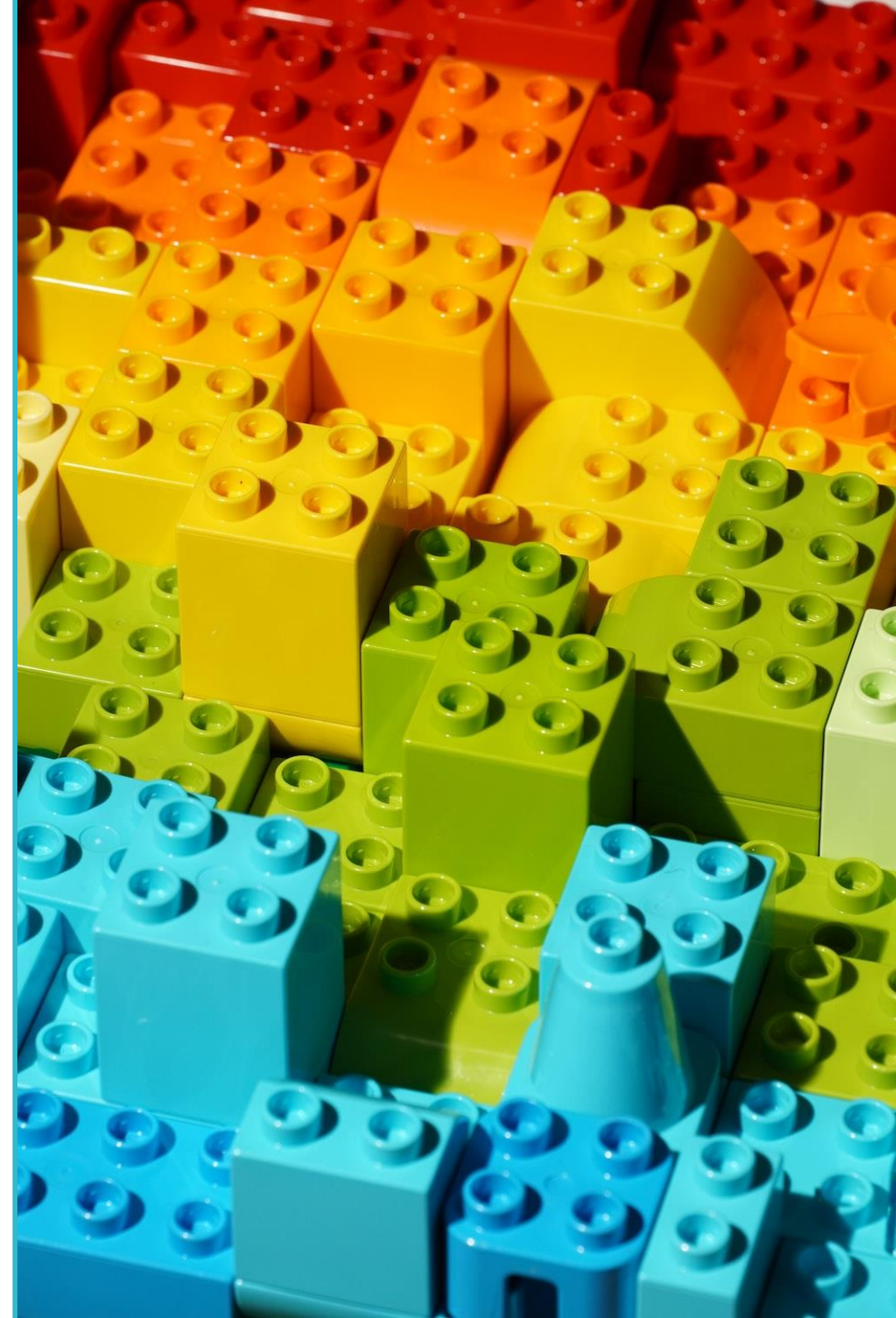
Product Security Lead
SAS

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Threat Modeling Program Milestones

A Journey to Scale



AGENDA

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MODCON 2023



Introductions

The Journey Begins

An Identity Crisis

Our Journey to Scale

0.0 The Checklist

1.0 The Hero

2.0 The Heroes

3.0 Justice League: By Size

4.0 Justice League: By Skill

5.0 Justice League: By Risk

6.0 Self-Defense

Lessons Learned

Q&A

INTRODUCTIONS

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LISA COOK

CSSLP, PMP, CC, CAMS

BRENNA LEATH

CISSP, CSSLP, CISA, PMP, CSM



THE JOURNEY BEGINS

A Disturbance in the Force

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THE BUSINESS

Get this done, we will!

SECURITY

Are we more vulnerable?

LEGAL

Are we compliant?

DEVELOPMENT

Do I have to learn more security tools and more compliance processes?



AN IDENTITY CRISIS

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COMPLIANCE

SECURITY

...NO MORE BAD COP



Compliant but Insecure

- “The Destination”
- Control focused
- Standards focused
- “Check the Box”
- Audit traceability

Secure but Non-Compliant

- “The Journey”
- Practice focused
- Results focused
- Development Partner
- Deep understanding of design weaknesses

OUR JOURNEY TO SCALE

The Checklist, The Hero, and The Heroes

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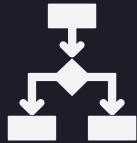
OUR JOURNEY TO SCALE

Introducing... The Justice League

3



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Who Participates – and Who Drives



Product Mgt



R&D Mgt



Dev Mgt & Leads

Perspective of use and abuse, misuses, etc.;
DAST, IAST, AAST
Understanding configuration complexity
mgt requirements, Architecture and design choices, maintenance, expectations
Tooling and coding, and threat landscape, integration, attack surface knowledge; SCA & SAST, security SMEs



Test Leads



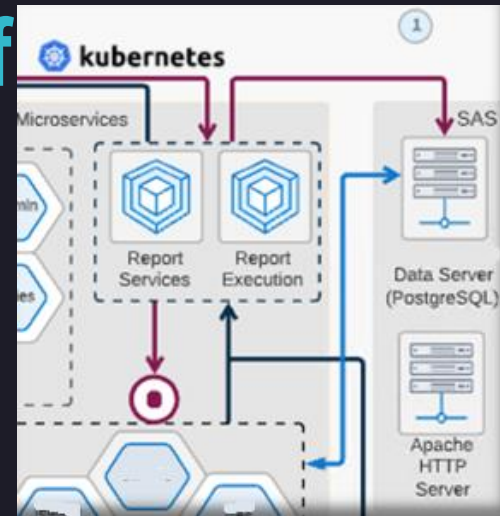
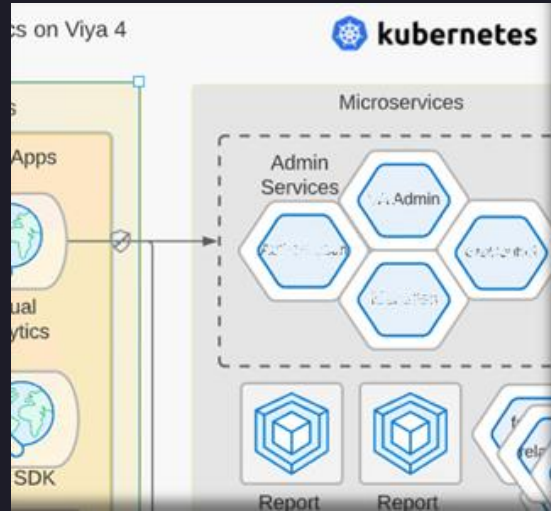
Build & Deploy



Security Specialists



Security Reqs, Use & Abuse Cases

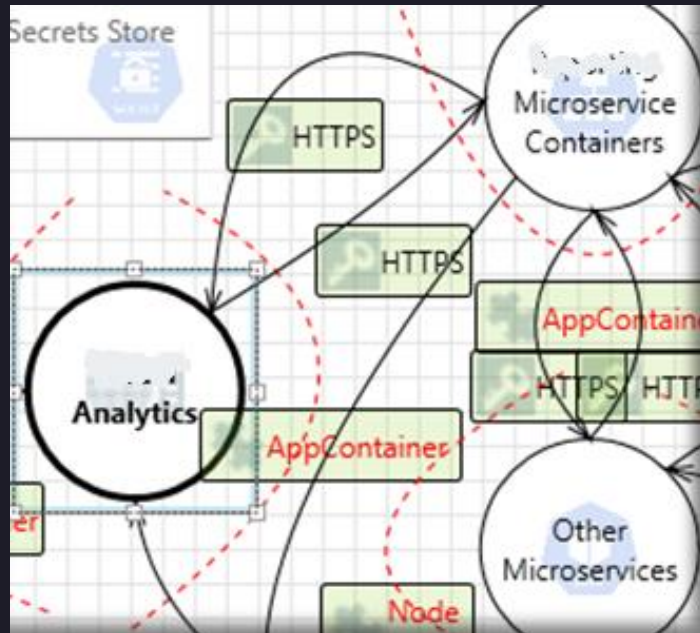


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Ports & Protocols IAST/DAST PenTest and CRPs

- Product Overview; Fxl, non-fxl, and Security Requirements



- Security Architecture Diagram
- Data Flow & Persistence
- Technical Analysis
 - Threat Model
- Risks & Recommendations

Identified Risk	Risk Resolution	Tracking Ticket	Target Cadence
Information Disclosure – API response contains more data than context warrants.	Mitigate via API filtering.	JIRA-43245	2022.09
Uploaded user file may contain malicious code	Mitigate: Verify file type by content; Segregate uploads to quarantine.	NCC-1701	2022.12

 **AIM: What do we want to accomplish?**

Product Decomposition, Inherent Security & Compliance Reqs

 **VISUALIZE: What are we building?**

Architecture and Sequence Diagrams, Data Flow & Persistence

 **IDENTIFY: What can go wrong?**

Threat model, security scans, pen-test results

 **MITIGATE: What are we going to do about it?**

Risk Identification & classification, recommended treatment

 **VALIDATE: Did we do a good job?**

Track issues to resolution, update reviews and findings

THE JUSTICE LEAGUE

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3

By Size



4

By Skill



OUR JOURNEY TO SCALE

5 By Risk



6 Self Defense (Future State)



Threat Modeling Journey to Scale

From Hero to League of Champions

Lessons Learned

The Journey Continues



Q&A



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