



# Bringing Law and Order to CI/CD

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# Agenda

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- 1** Background
  - 2** RoboCop
  - 3** DevSecOps at Ellucian
  - 4** Lessons Learned
-



**40**  
years



**2,400**  
institutions

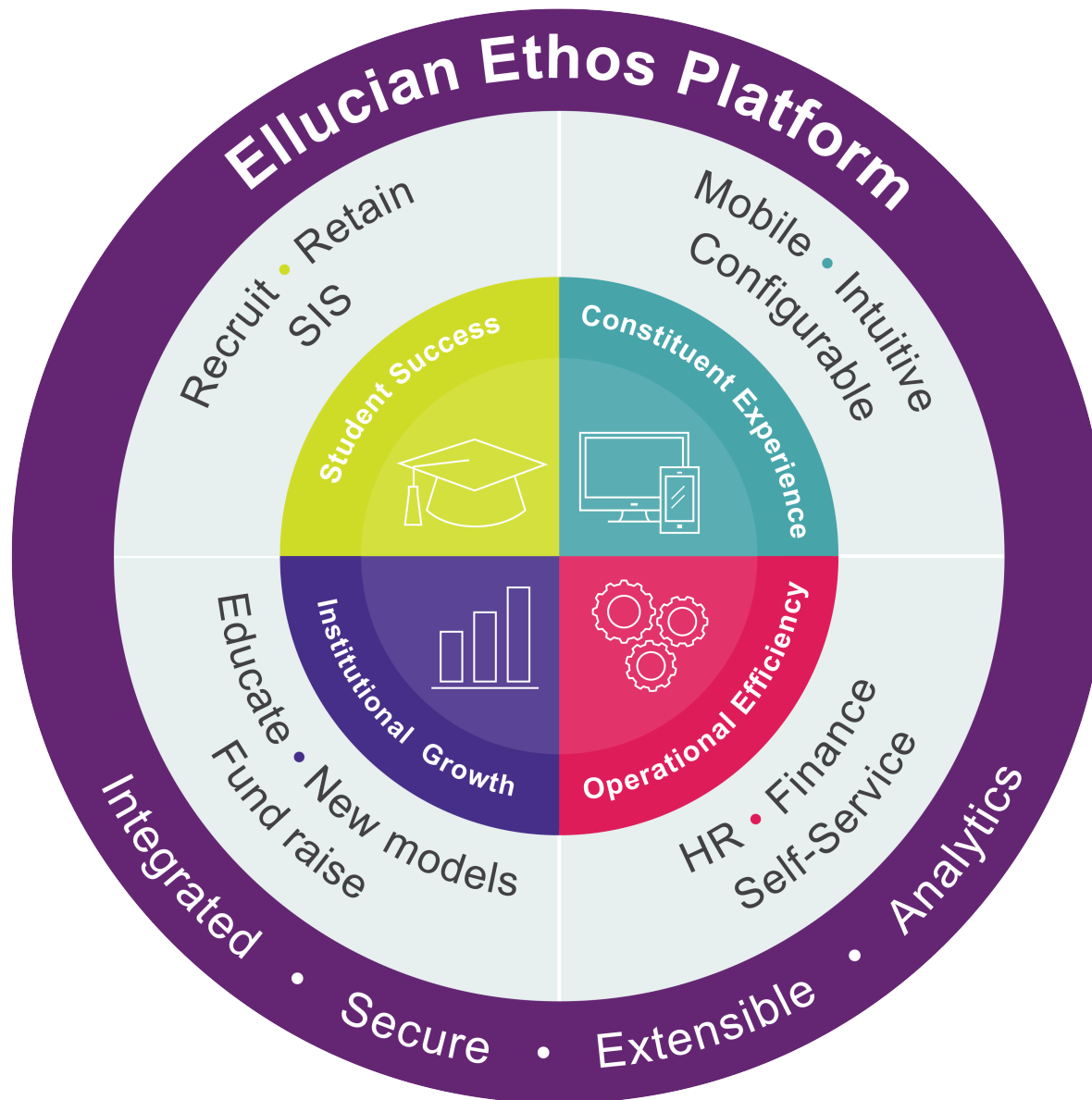


**18,000,000**  
students



**40**  
countries

# Ellucian Ethos Platform



Integrated

Secure

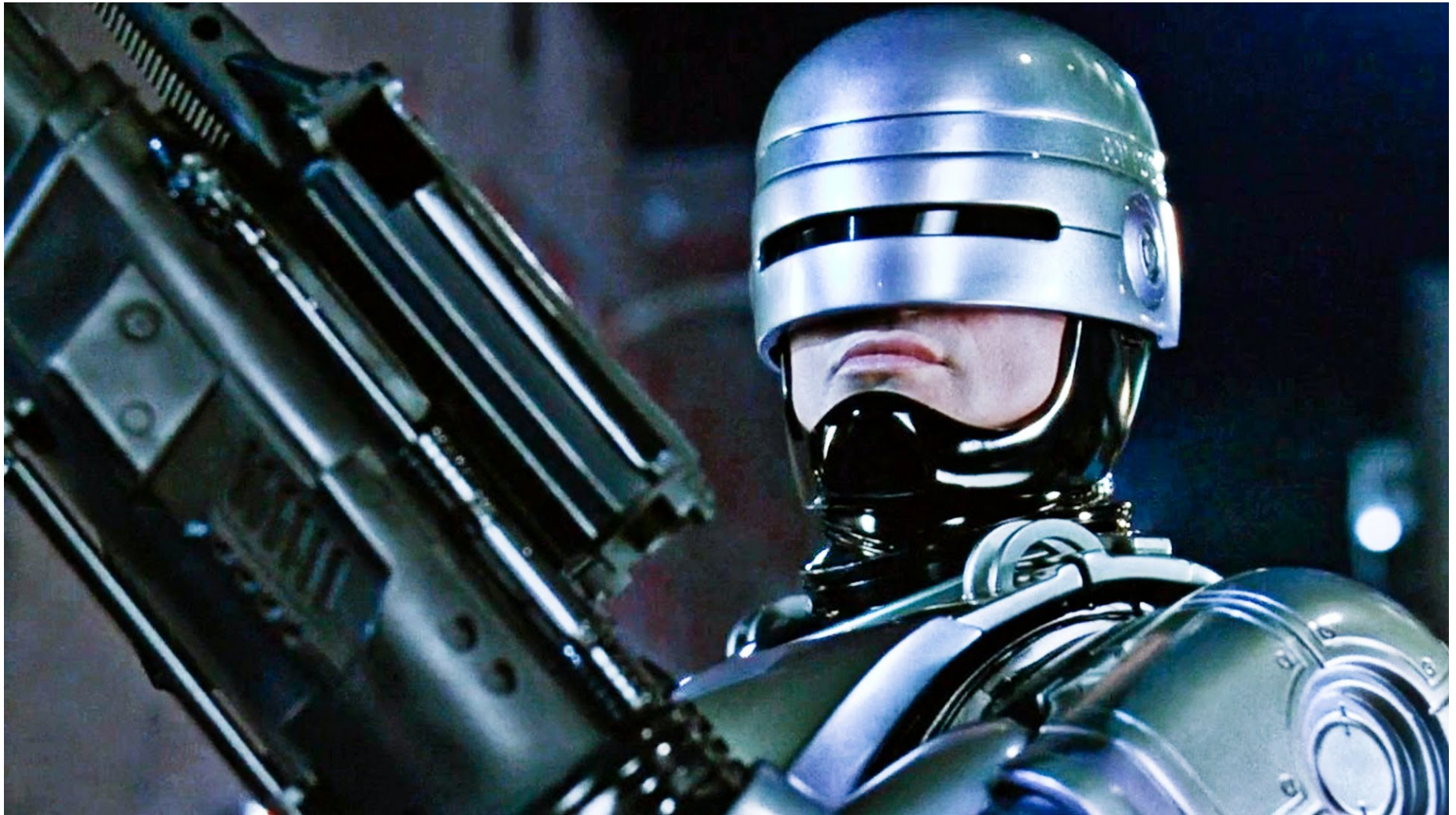
Extensible

Analytics



# RoboCop

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# RoboCop's Prime Directives

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## PRIME DIRECTIVES

- 1: SERVE THE PUBLIC TRUST
- 2: PROTECT THE INNOCENT
- 3: UPHOLD THE LAW



# Serve the Public Trust

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*“Excuse me. I have to go. Somewhere there is a crime happening.”*

RoboCop “RoboCop”

- **Business Driven Security**
- **Open Collaboration**
- **Leaning In**
- **Translate Security for the Layperson**





# Protect The Innocent

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*“Come quietly or there will be... trouble”*

RoboCop “RoboCop”

- Developers are not security experts
- Security can be an afterthought
- Developers are lazy





# Uphold The Law

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*“You are illegally parked on private property. You have twenty seconds to move your vehicle.”*

ED-209 “RoboCop”

- What are your policies?
- What are your standards?
- Security Gates



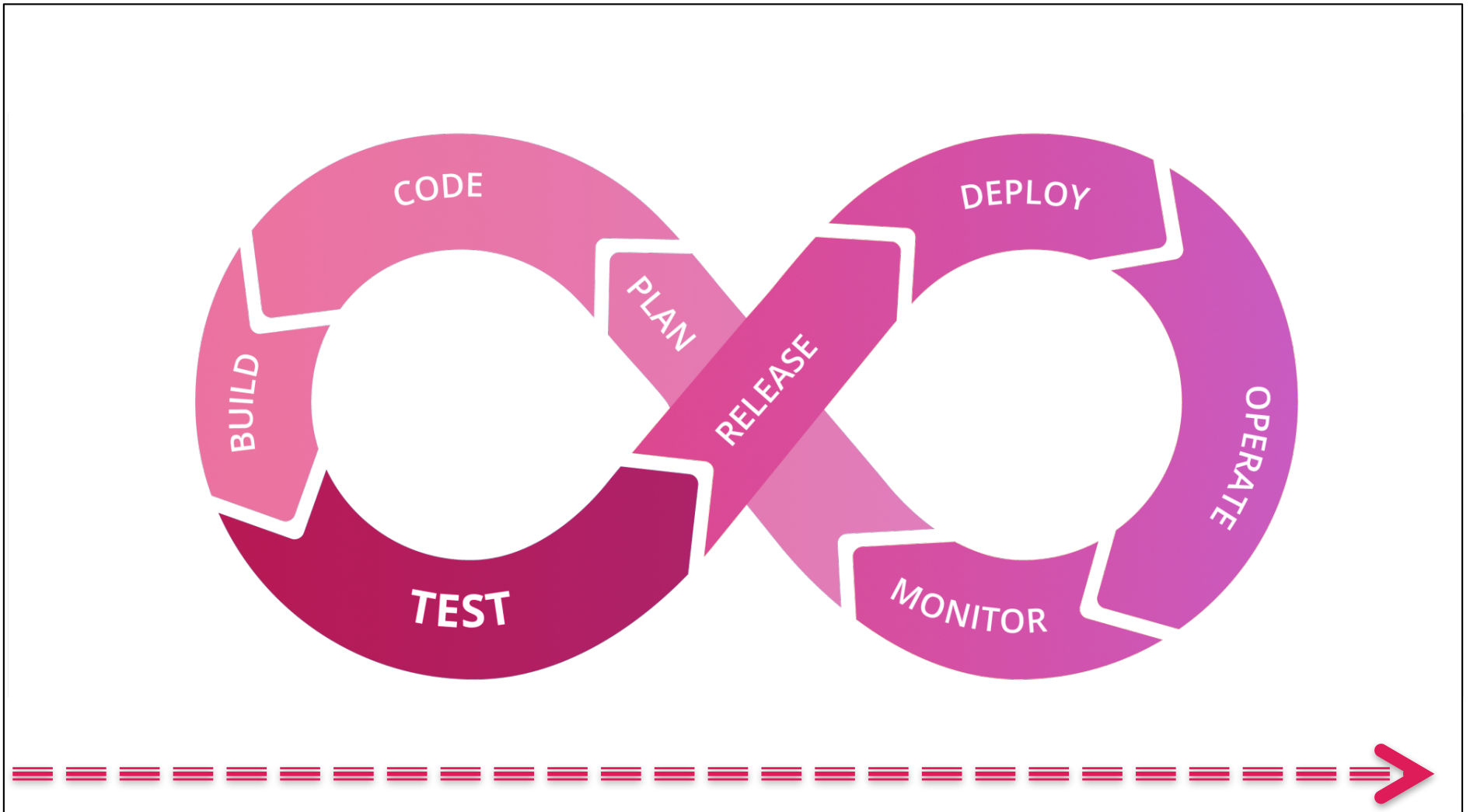
**ED-209**

ENFORCEMENT DROID SERIES 209

OMNI CONSUMER PRODUCTS  
DETROIT, MI



# How We Define DevOps

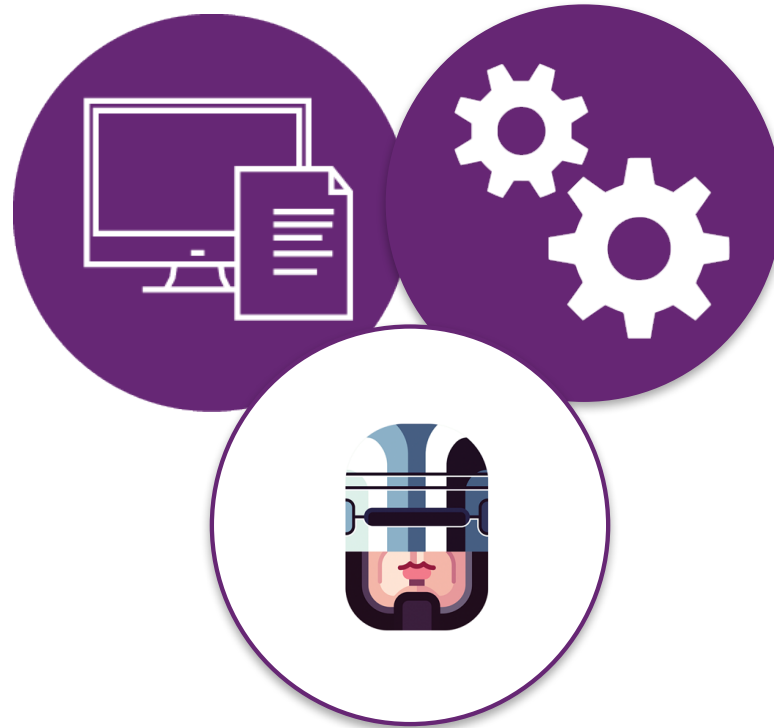


# Scaling Application Security

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# DevSecOps



**DevSecOps:** automation of security tasks by embedding security controls and processes into the DevOps workflow



# Application Security Testing Technologies

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**Static**



**Dynamic**



**Infrastructure**

# Static Application Security Testing (SAST)

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# Dynamic Application Security Testing (DAST)

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# Infrastructure





# DevSecOps at Ellucian



DevOps Tools  
↕  
Security Tools



Jenkins



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# DevSecOps at Ellucian

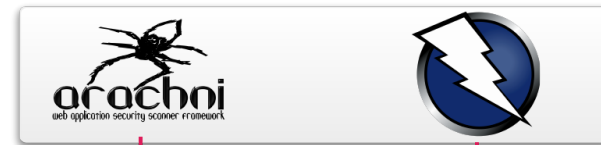


DevOps Tools  
↕  
Security Tools

## Source Code Scanning



## Application Scanning



## Container/AMI Validation



Production



Code



Build/Test



Provision/Deploy



Test



Staging



Jenkins



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# DevSecOps at Ellucian

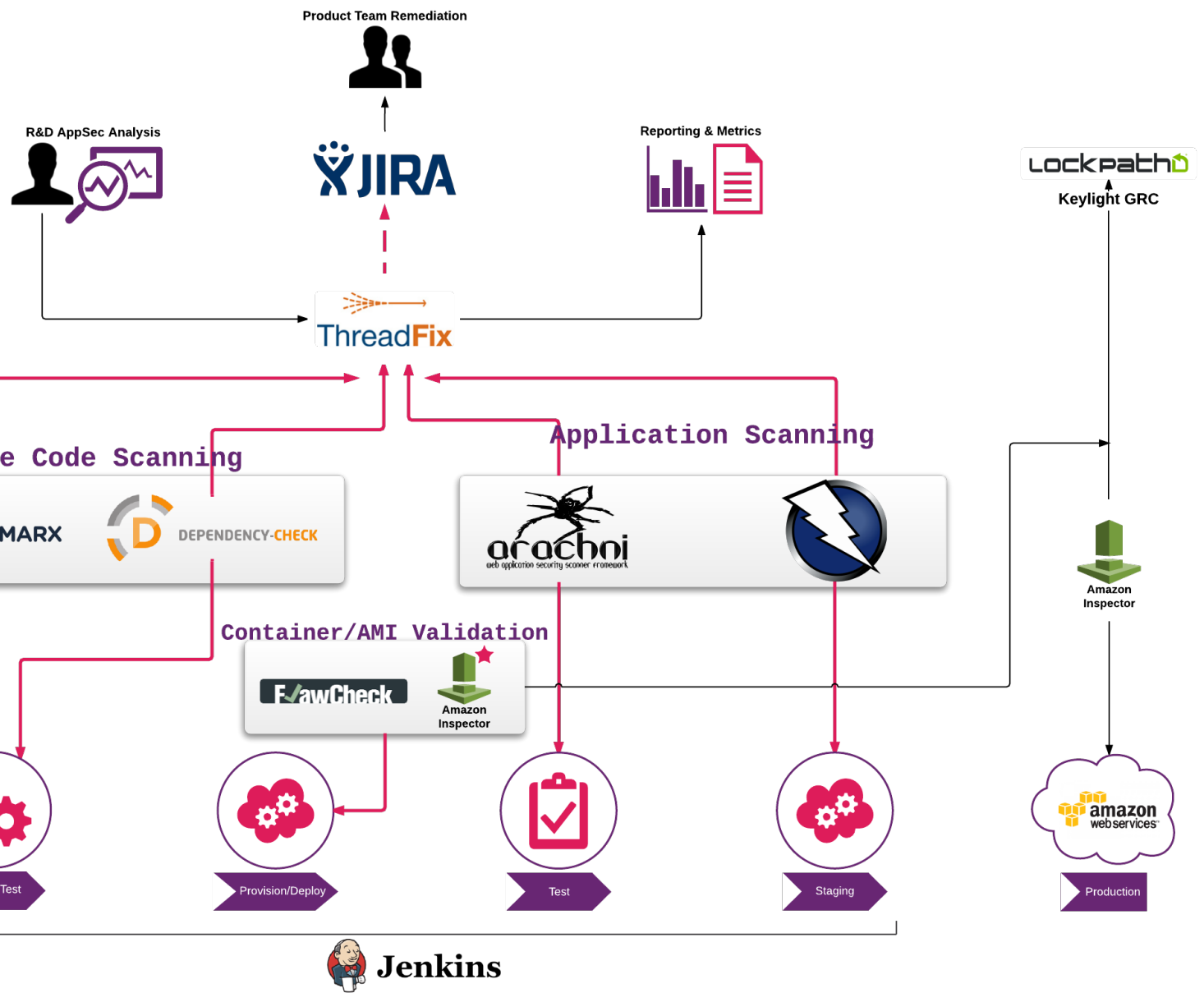


DevOps Tools  
↕  
Security Tools

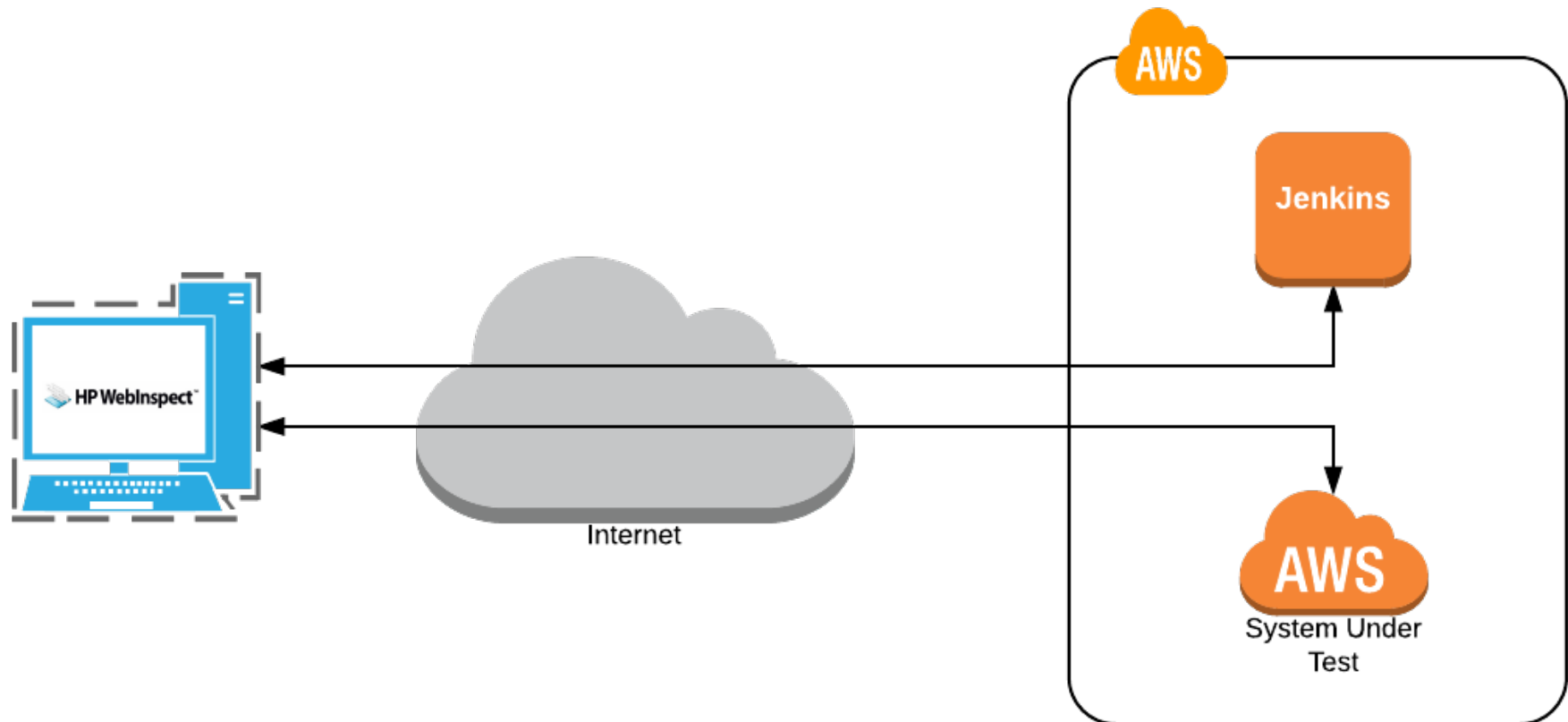


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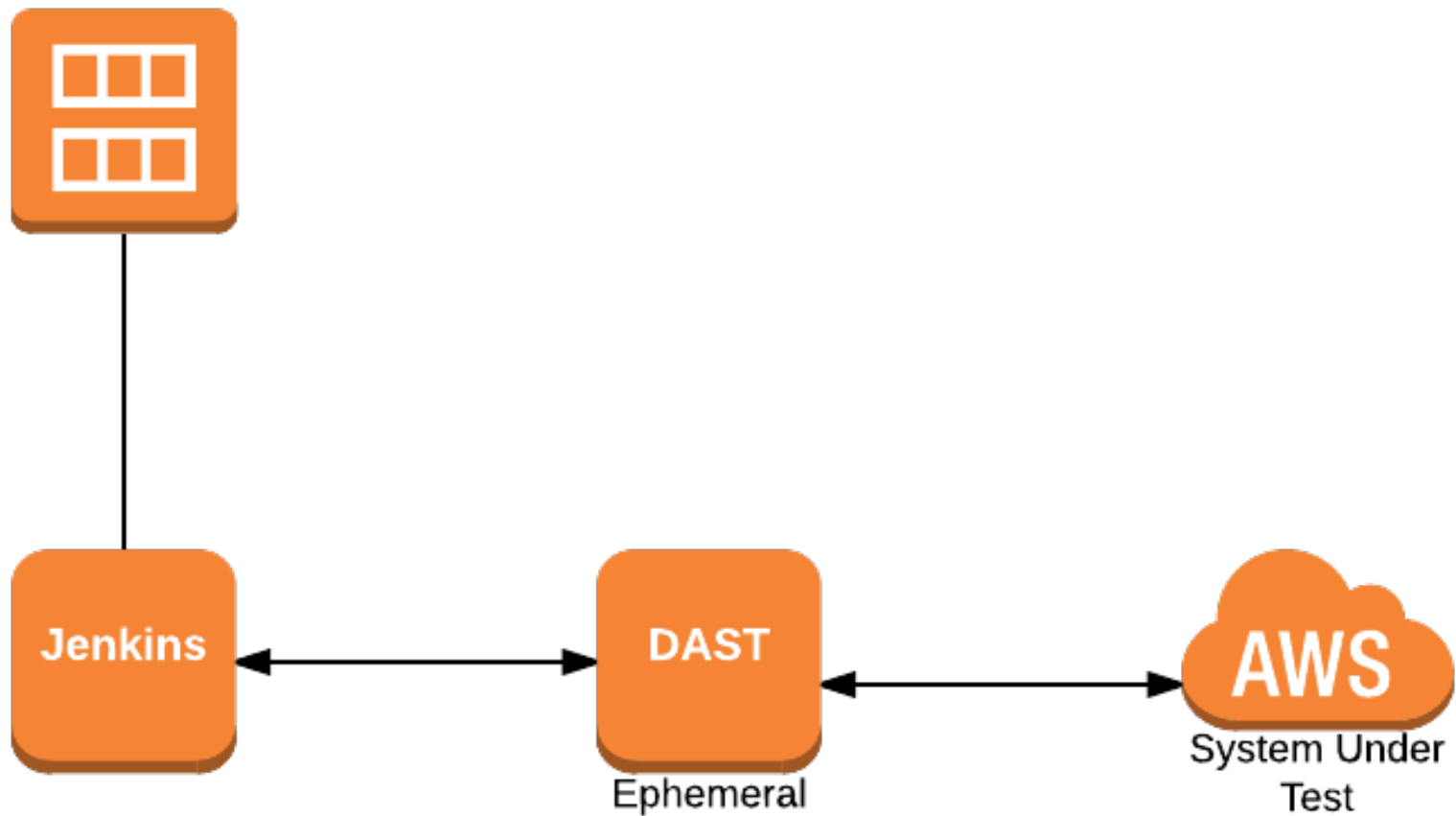
# DAST Evolution



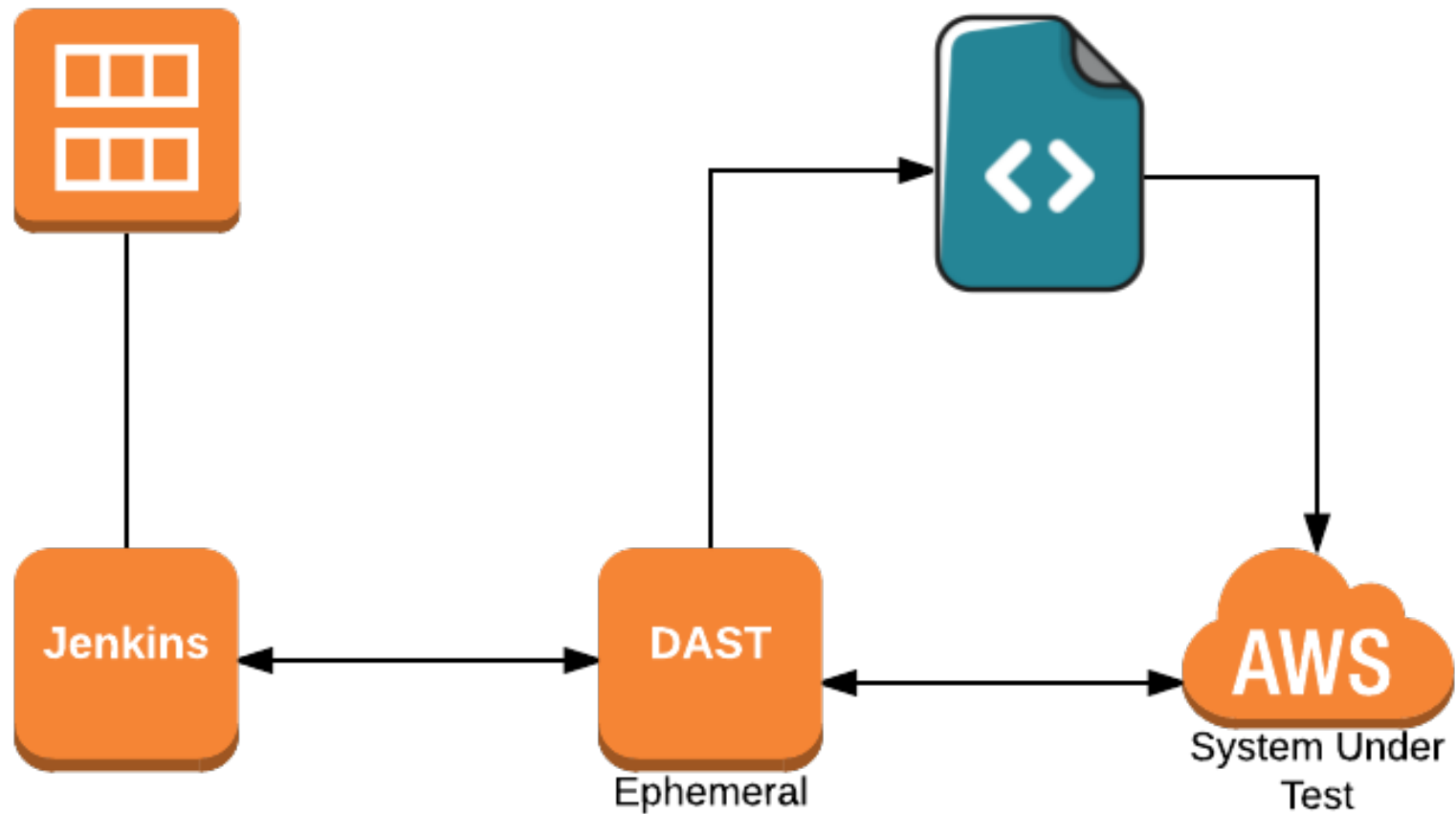


# DAST Evolution

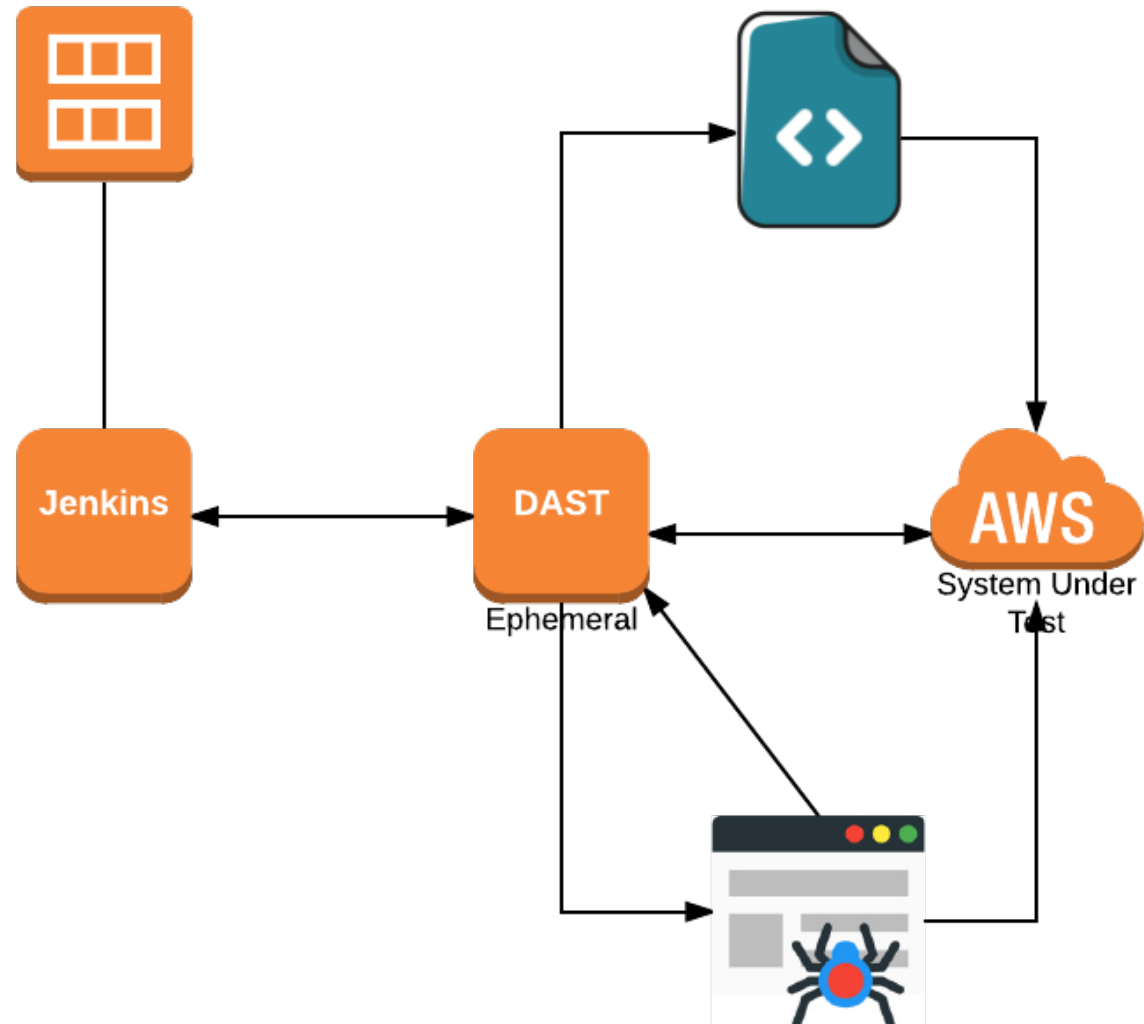
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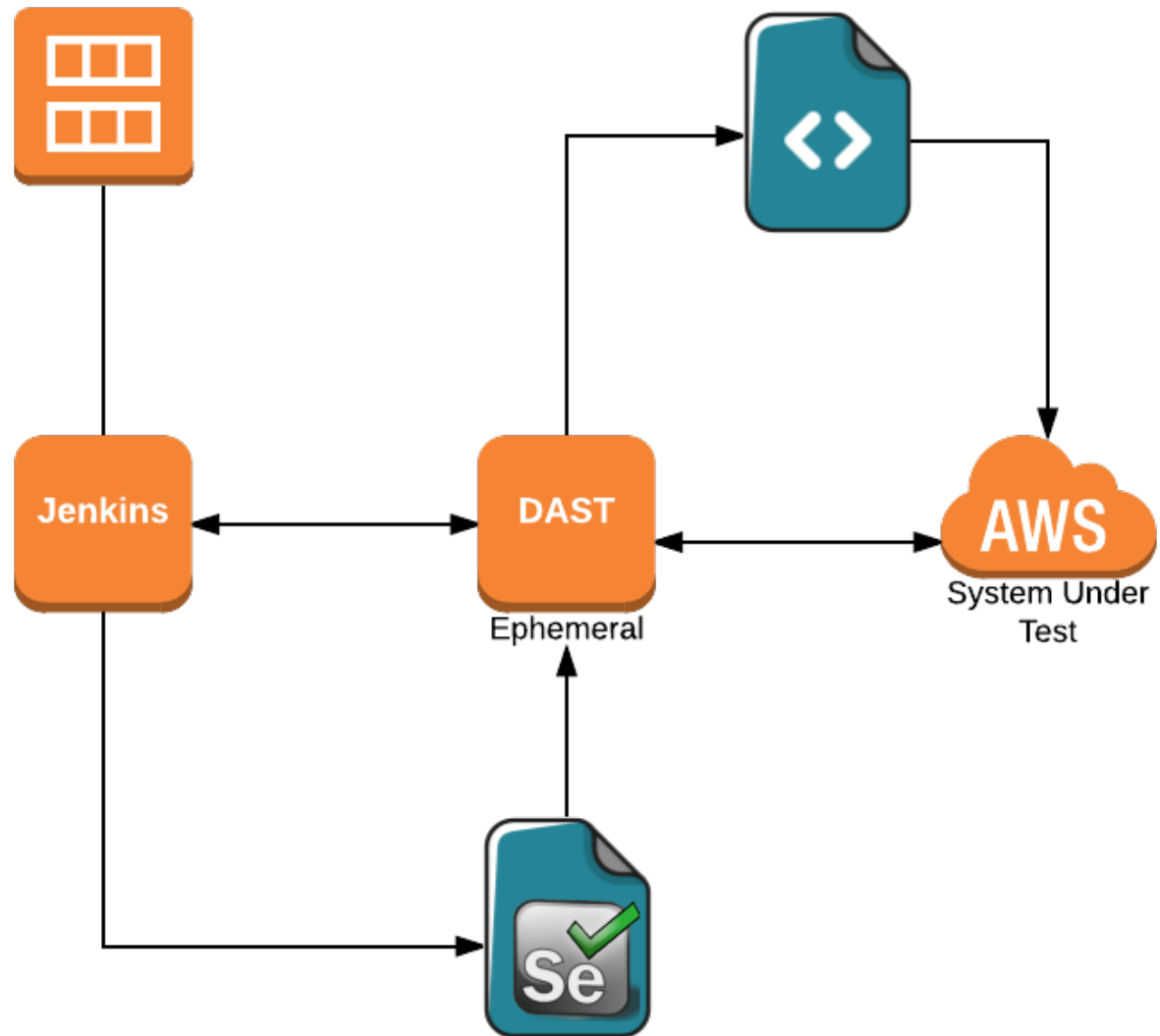
# DAST Evolution



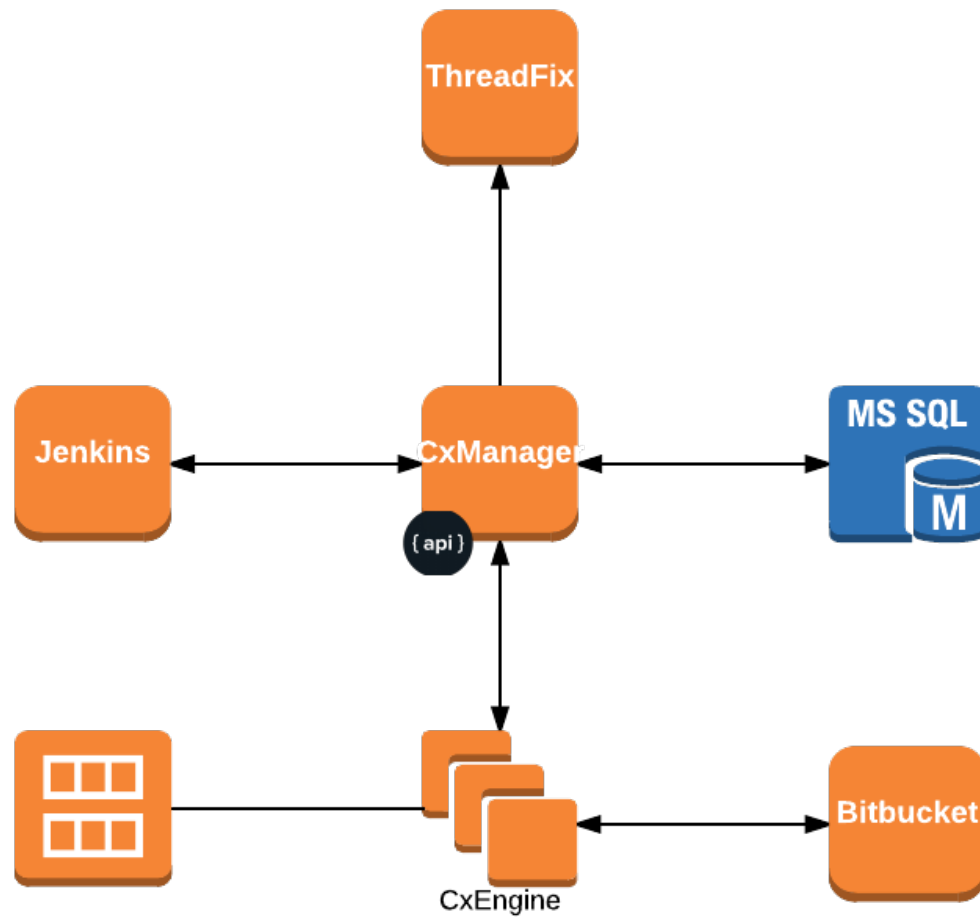
# DAST Evolution



# DAST Evolution



# SAST Approach



# Mindset is critical

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You have to get your hands dirty





Don't let perfect be the enemy of good

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When all you have is a hammer...





# Invest for the future

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# Summary

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People and culture  
not tools and  
technology

Be an enabler not a  
barrier

Make security a  
feature

# Acknowledgements

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## **My team:**

- **Arjun BM**
- **Mehul Gadhia**
- **Franklin Mosley**
- **Swayam Sarangi**

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Thank you.

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ellucian.

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