

Secure Innovation and unified DevSecOps

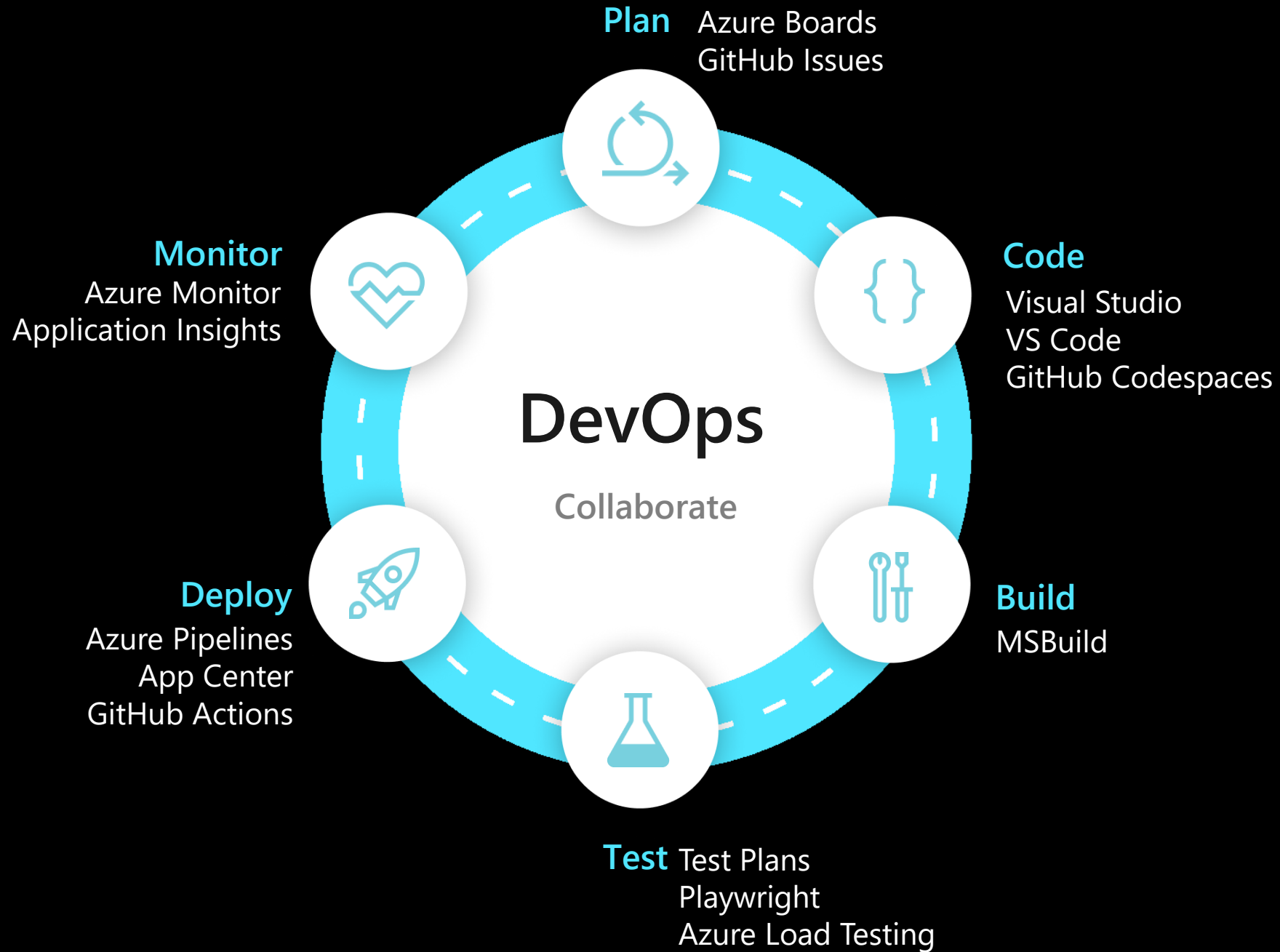
How bad can it get?

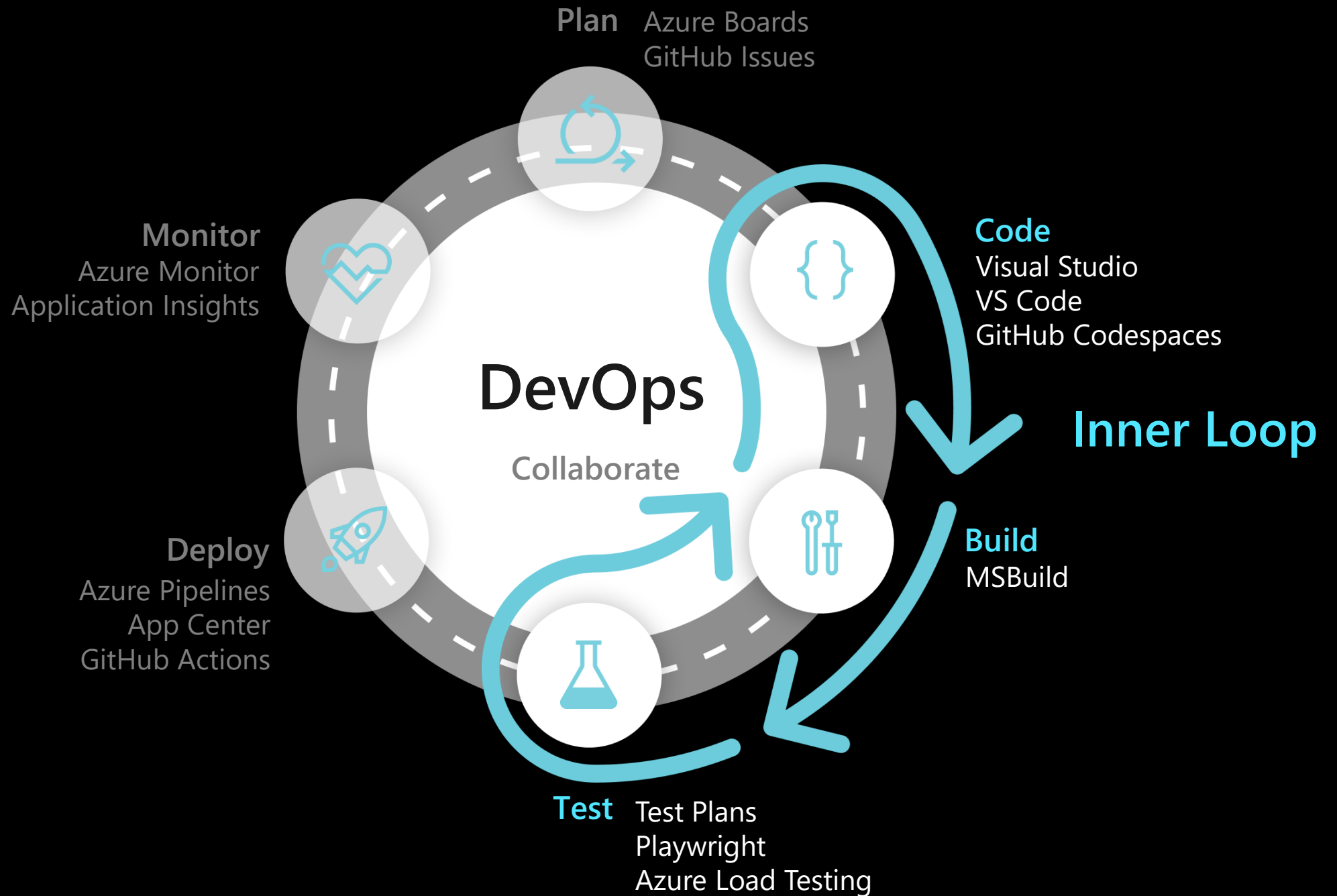
Eric Laan (ericlaan@microsoft.com)
Digital and Application Innovation specialist

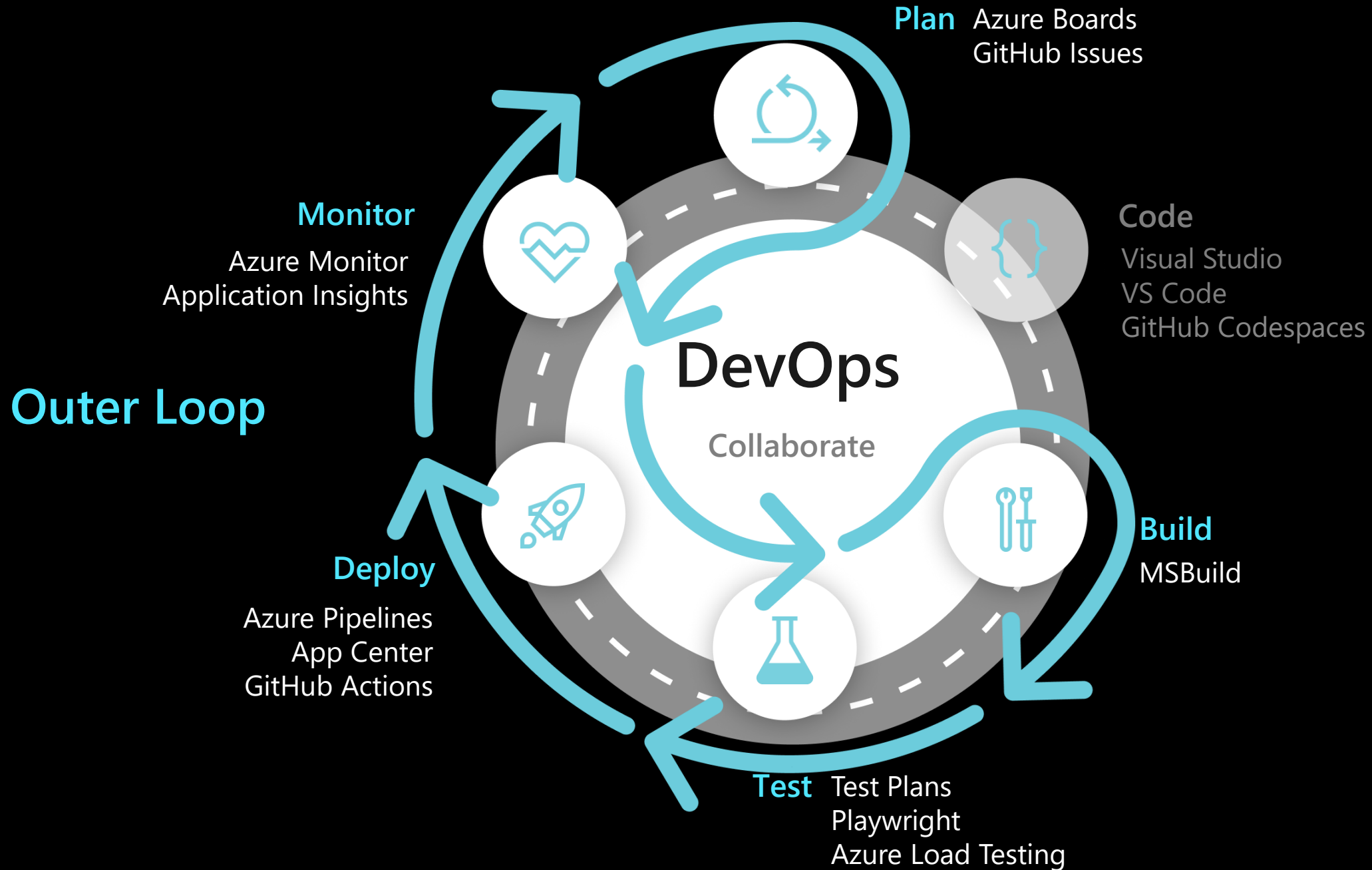
Remco Brosky (remcobrosky@microsoft.com)
Cloud Solution Architect

Day 2, Developer Experience Days, Apr 2023







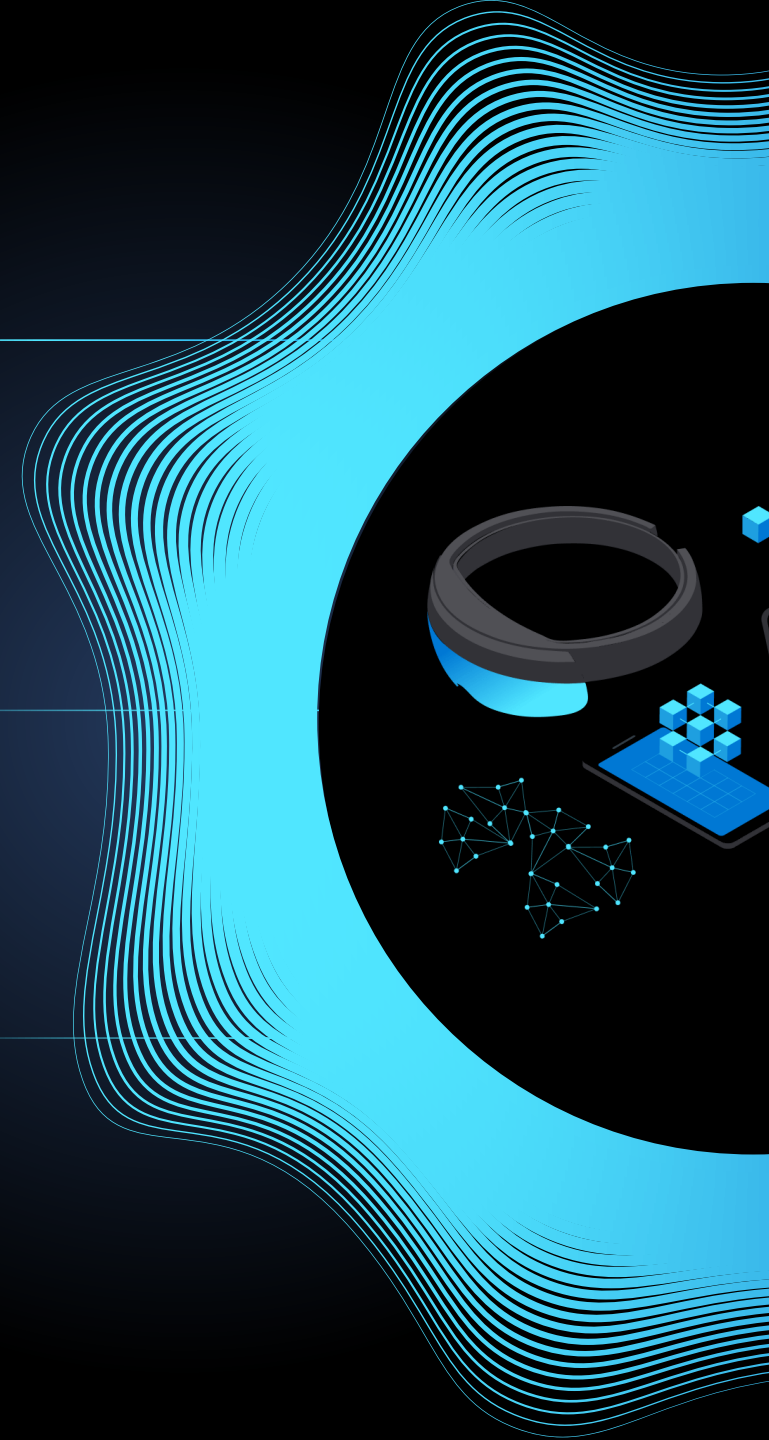


Agenda

+ Introduction

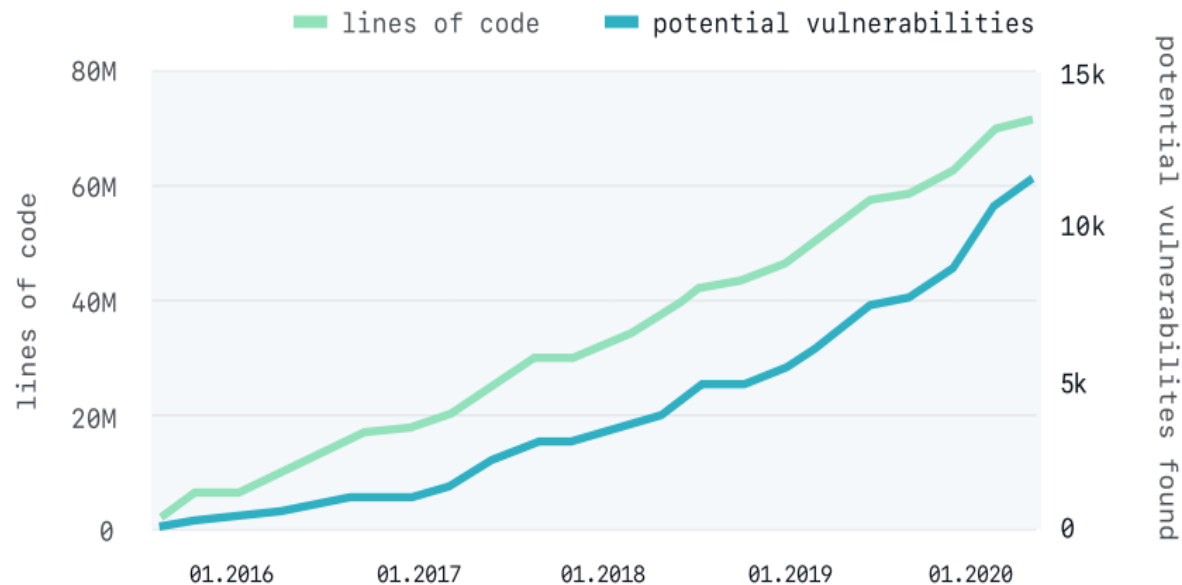
+ Defender for DevOps

+ GitHub Advanced Security



The state of AppSec

Potential vulnerabilities found in source code scale with lines of code written



**Despite
billions of dollars
of investment...**

85% of applications still contain
a security issue

Code written in 2020 is just as
likely to introduce a security
issue as code
written in 2016

Flaws in applications are consistently the #1 attack vector for breaches

Source: Verizon Data Breach Investigations reports 2016, 2017, 2018, 2019 and 2020.

The state of AppSec

Is falling further behind the current state of Development



1:100 Security team members to developers



Lack of knowledge voted the main AppSec challenge



Remediation trends are stagnant

“

Security at the expense of usability
comes at the expense of security.



Avi Douglen

OWASP Board of Directors

How security fits in the development lifecycle

PRE-COMMIT

- Threat modeling
- IDE security plug-in
- Pre-commit hooks
- Secure coding standards
- Peer review

OPERATE & MONITOR

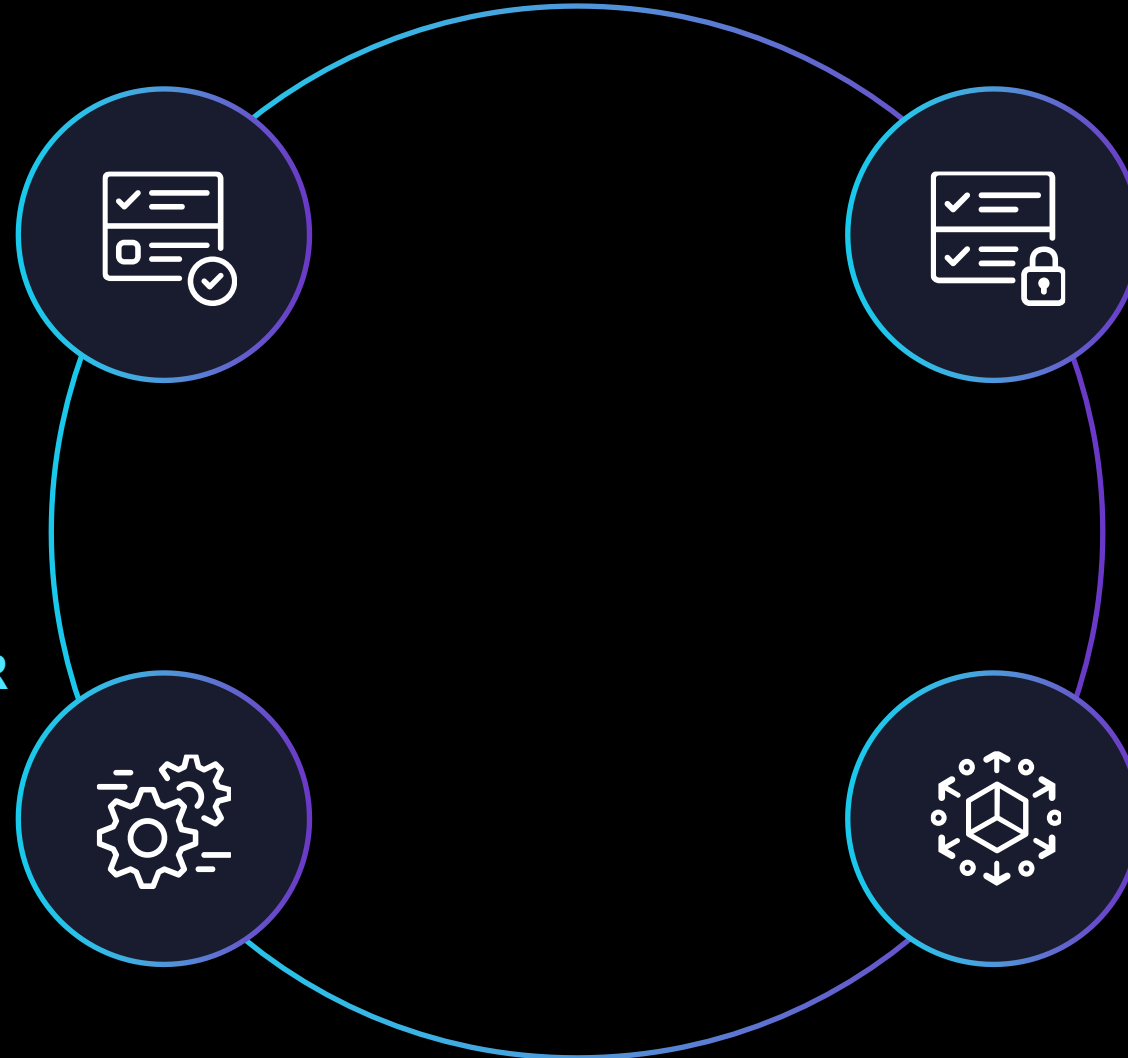
- Continuous monitoring
- Threat intelligence
- Blameless post-mortems

COMMIT (CI)

- Static code analysis
- Security unit tests
- Dependency management
- Credential scanning

DEPLOY (CD)

- Infra as code (IaC)
- Dynamic security scanning
- Cloud configuration checks
- Security acceptance tests



Three themes for successfully securing the developer workflow



**Developer –
First
Tooling**



**Native and
built-in
security
capabilities**

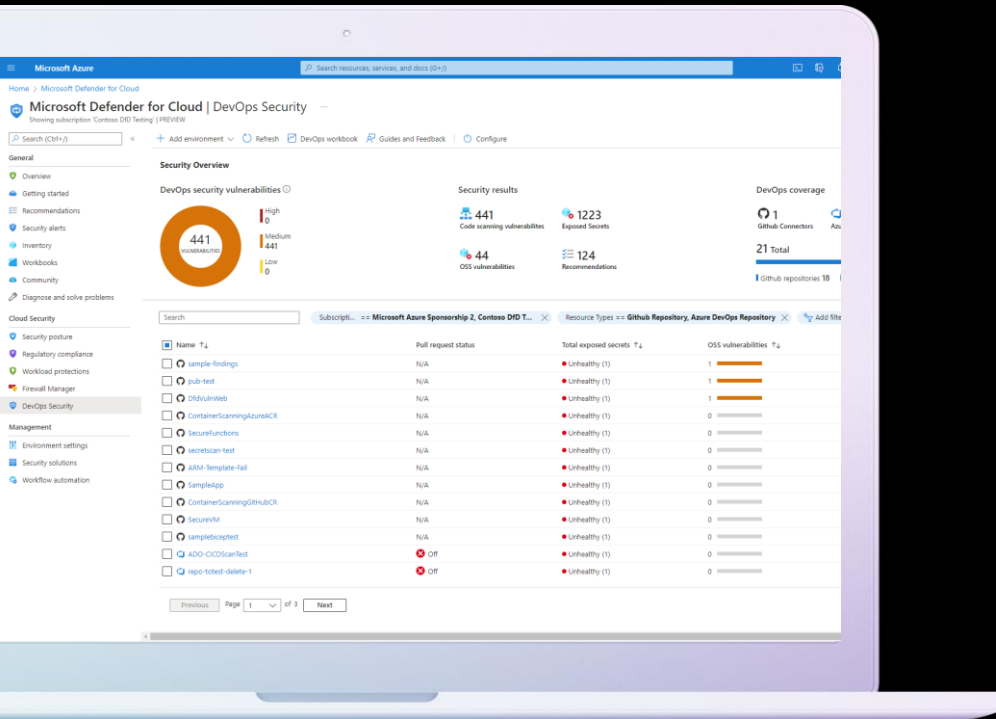


Automation

Microsoft Defender for DevOps

DevOps Security Management

DEVOPS INSIGHTS ACROSS MULTI-PIPELINE ENVIRONMENTS TO
PRIORITIZE REMEDIATION AND APPLY SECURITY GUARDRAILS



Strengthen configuration of cloud resources throughout the development lifecycle







Provide unified, end-to-end visibility across departments in a central view

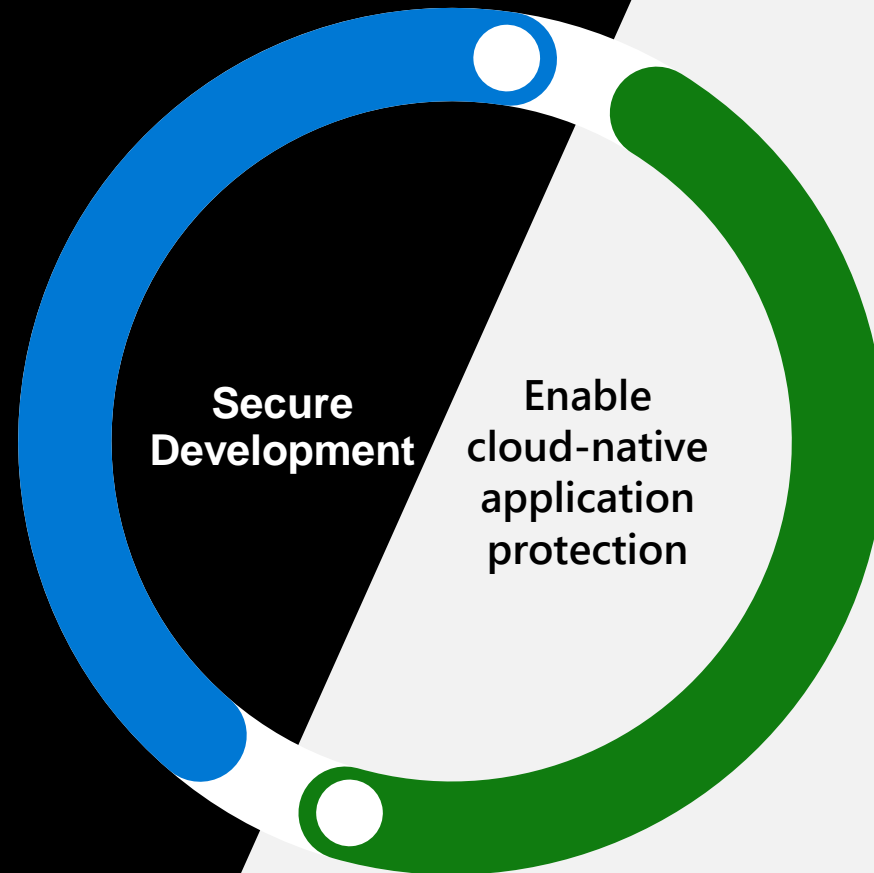


Prioritize remediation of critical code issues using actionable feedback

Better Together

GitHub Advanced Security
GitHub Advanced Security for Azure DevOps
Developer first. Community driven

-  Code security
-  Dependencies security
-  Embedded secrets protection
-  Developer remediation



Defender for DevOps
Unify multi-pipeline DevOps security

Multi-pipeline DevOps
security management



Infrastructure-as-Code
security



Code to cloud
contextualization



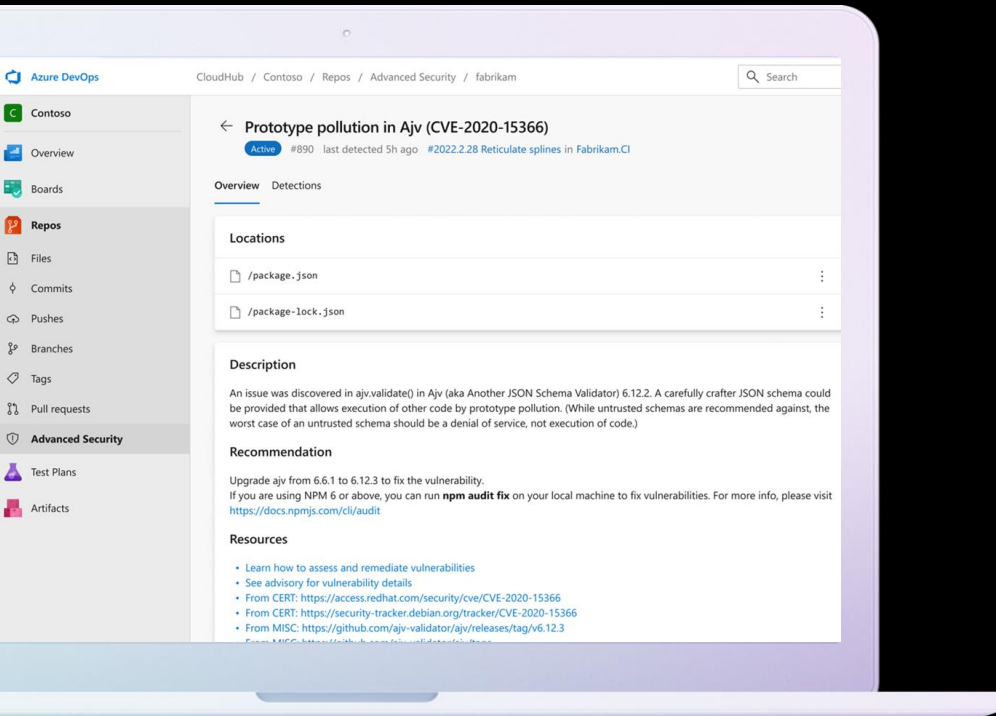
Automated workflows



GitHub Advanced Security (for Azure DevOps)

Security Posture Management

ADVANCED SECURITY CAPABILITIES NATIVELY INTEGRATED INTO
AZURE PIPELINES AND REPOS



Scan code for vulnerabilities with industry-leading CodeQL analysis engine



Prevent exposed credentials with security checks for 100+ different token types



Secure dependencies with automated alerts to fix vulnerabilities