# Checkmarx

**The world runs on code. We secure it.**

**Modernization Brief**

# Modernizing AppSec Practices with Checkmarx One™ Platform

## Why a New Approach is Required

Most organizations today build security into their application development, using SAST solutions to identify vulnerabilities. However, remediating vulnerabilities in the development phase requires a handoff between AppSec and developers.

Today, AppSec teams typically provide developers with a list of vulnerabilities once scans are complete. Because SAST scanning is traditionally run during the CI/CD process, this can be hours, days, or weeks after the developer has checked in their code and moved on to other projects.

In addition, developers often must leave their development environments to review the discovered vulnerabilities. Depending on the developer, they also may not be security experts with knowledge of how to fix the vulnerabilities. All of this means that it takes developers longer to fix vulnerabilities, takes them from their other priorities, and impacts their productivity.

## The Platform You Can Trust

The **Checkmarx One Application Security Platform** makes it easier to shift left and secure modern application development earlier in the SDLC. The platform is designed to integrate seamlessly with your SDLC, to align AppSec and development teams, and bring developers into your AppSec practice.

## Enabled by Checkmarx One

### Get Closer To Developers
Shifting left with SAST from build (CI/CD) to check-in (SCM)

### Cloud-Native Approach
Shift your AppSec to the cloud along with your applications

### Platform Integrations
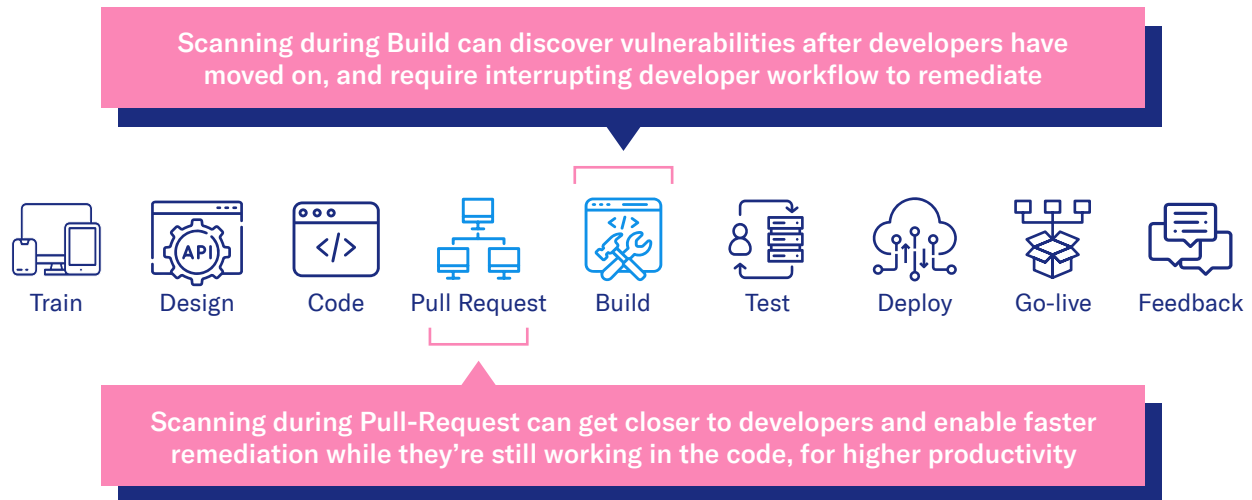Easy integrations with SCM and feedback tools to streamline developer workflow

### Continued Innovation
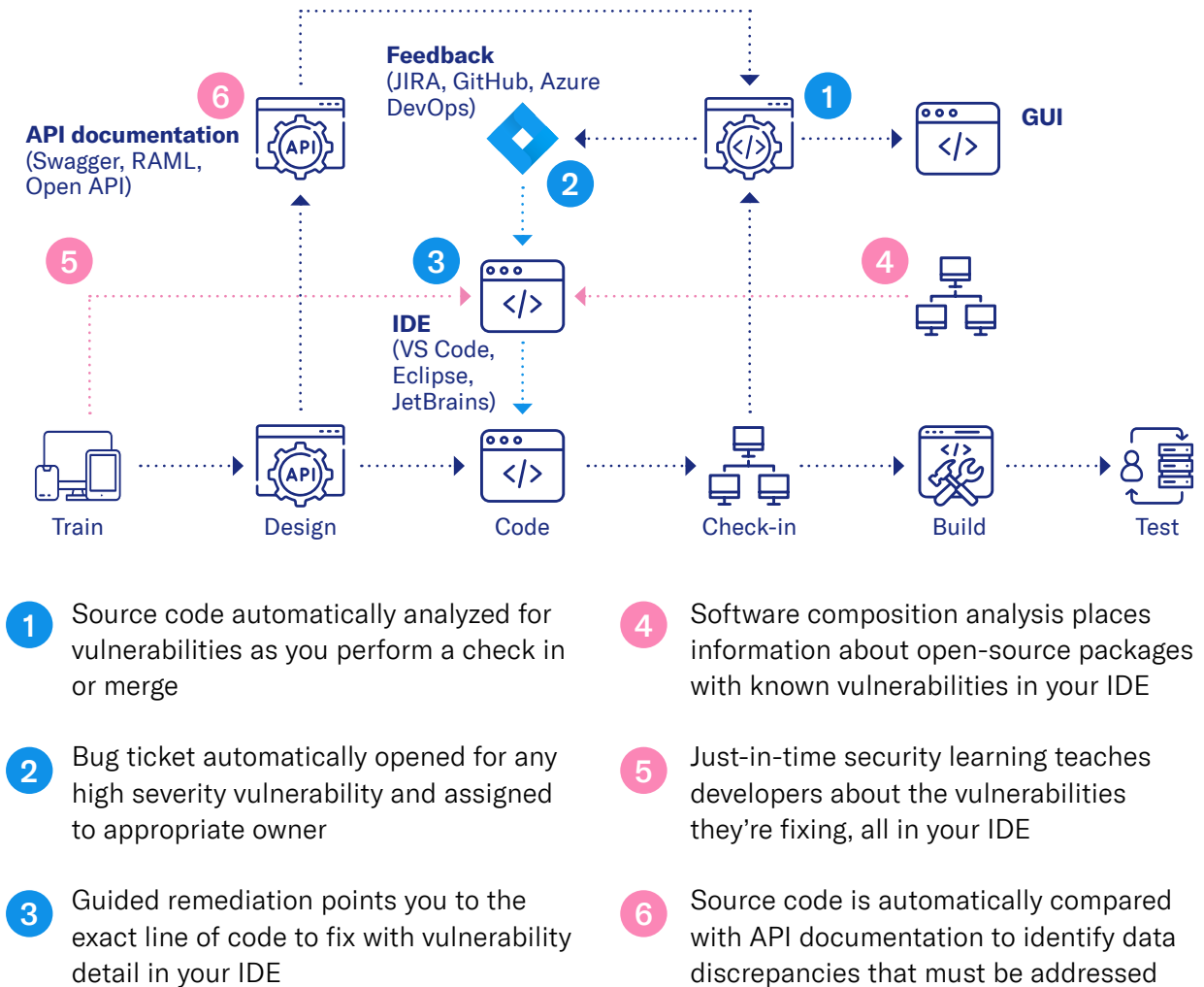Protect your applications as they continue to transform

# Challenge = Align Developers and Security

Discovering vulnerabilities is just the first step. Getting the most out of any SAST solution requires remediation and removing friction from your developers' workflow.

Scanning during Build can discover vulnerabilities after developers have moved on, and require interrupting developer workflow to remediate

| Train | Design | Code | Pull Request | Build | Test | Deploy | Go-live | Feedback |
|-------|--------|------|--------------|-------|------|--------|---------|----------|

Scanning during Pull-Request can get closer to developers and enable faster remediation while they're still working in the code, for higher productivity

# Solution = Integrating Earlier in the SDLC

**Feedback** (JIRA, GitHub, Azure DevOps)

**API documentation** (Swagger, RAML, Open API)

GUI

**IDE** (VS Code, Eclipse, JetBrains)

| Train | Design | Code | Check-in | Build | Test |
|-------|--------|------|----------|-------|------|

**1** Source code automatically analyzed for vulnerabilities as you perform a check in or merge

**2** Bug ticket automatically opened for any high severity vulnerability and assigned to appropriate owner

**3** Guided remediation points you to the exact line of code to fix with vulnerability detail in your IDE

**4** Software composition analysis places information about open-source packages with known vulnerabilities in your IDE

**5** Just-in-time security learning teaches developers about the vulnerabilities they're fixing, all in your IDE

**6** Source code is automatically compared with API documentation to identify data discrepancies that must be addressed

# Checkmarx One Out-of-the-Box Integrations

## IDE

Enable developers to review and fix vulnerabilities in their preferred IDE

- Visual Studio Code
- JetBrains
- Visual Studio
- Eclipse
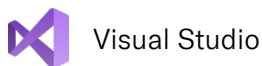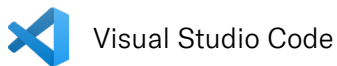
## Feedback

Put vulnerabilities in developer context and workflow

- JIRA
- Slack
- Teams
- GitHub Issues
- Azure DevOps

## SCM

Automate scanning as code is checked in or merged

- GitHub
- GitLab
- Azure DevOps
- BitBucket

## CI/CD

Automate scanning as part of your CI/CD pipeline

- Maven
- Jenkins
- Bamboo
- TeamCity
- AWS CodeBuild
- Azure DevOps
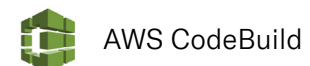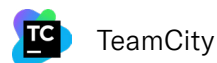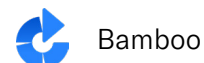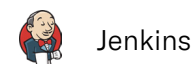
## PLATFORM

### Software as a Service (SaaS)
Industry-leading application security testing as a cloud-based service, so you can better focus on building secure applications instead of managing infrastructure

### Cloud-native development
Secure applications through their digital transformation, including the evolving technology stack, architecture, and infrastructure, as well as development processes

### Single pane of glass
Deploy, manage, and correlate security findings across multiple application security testing engines for higher accuracy with lower operational overhead

## INNOVATION

### Multiple engines, one platform
Stay ahead of modern application development with the latest AST engines for SAST, SCA, API, IaC, containers, and more, on a single unified platform

### Protect your entire application
Secure your applications as your developers incorporate new technologies, design with new architectures, and deploy on new infrastructure

### Improved accuracy and actionability
Coordinate scanning and correlate findings across multiple different AST engines to identify and focus on vulnerabilities that really matter

## DEVELOPER

### Developer-friendly AppSec
Put application security in the context of your developers, with automatic bug ticketing, best-fix location, and just-in-time security learning

### Easy integrations w/SDLC
Customize Checkmarx One to your development processes, shift left, and bring security closer to your developers with integrations with all your SDLC tooling

### Developer productivity
Deploy, manage, and correlate security findings across multiple application security testing engines for higher accuracy with lower operational overhead

## SIMPLIFICATION

### Lower TCO
Industry-leading application security testing as a cloud-based service, so you can better focus on building secure applications instead of managing infrastructure

### Seamless upgrades
Always have the latest product capabilities at your fingertips, without needing to upgrade software or deployment configuration

### Better, closer, proactive support
End-to-end support – including deployment, onboarding, integration, and automation – to support you through every step of your modernization efforts