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2018 | 中国·北京站

DevOps 落地，从这里开始

DevOps 国际峰会

暨 DevOps 金融峰会

指导单位：云计算开源产业联盟 OpenSource Cloud Alliance for IndustRy OSCAR

主办单位：DevOps时代　高效运维社区 GreatOPS Community

2018年6月29日-30日

地址：北京悠唐皇冠假日酒店

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DevSecOps的落地实施建议

赵锐（锐少）

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DevSecOps

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2012年，Gartner介绍了DevSecOps的概念（最初使用“DevOpsSec”）

从2017年开始DevSecOps成为热门词汇。

来源：gartner.com, rsaconference.com

DevSecOps的实施调查

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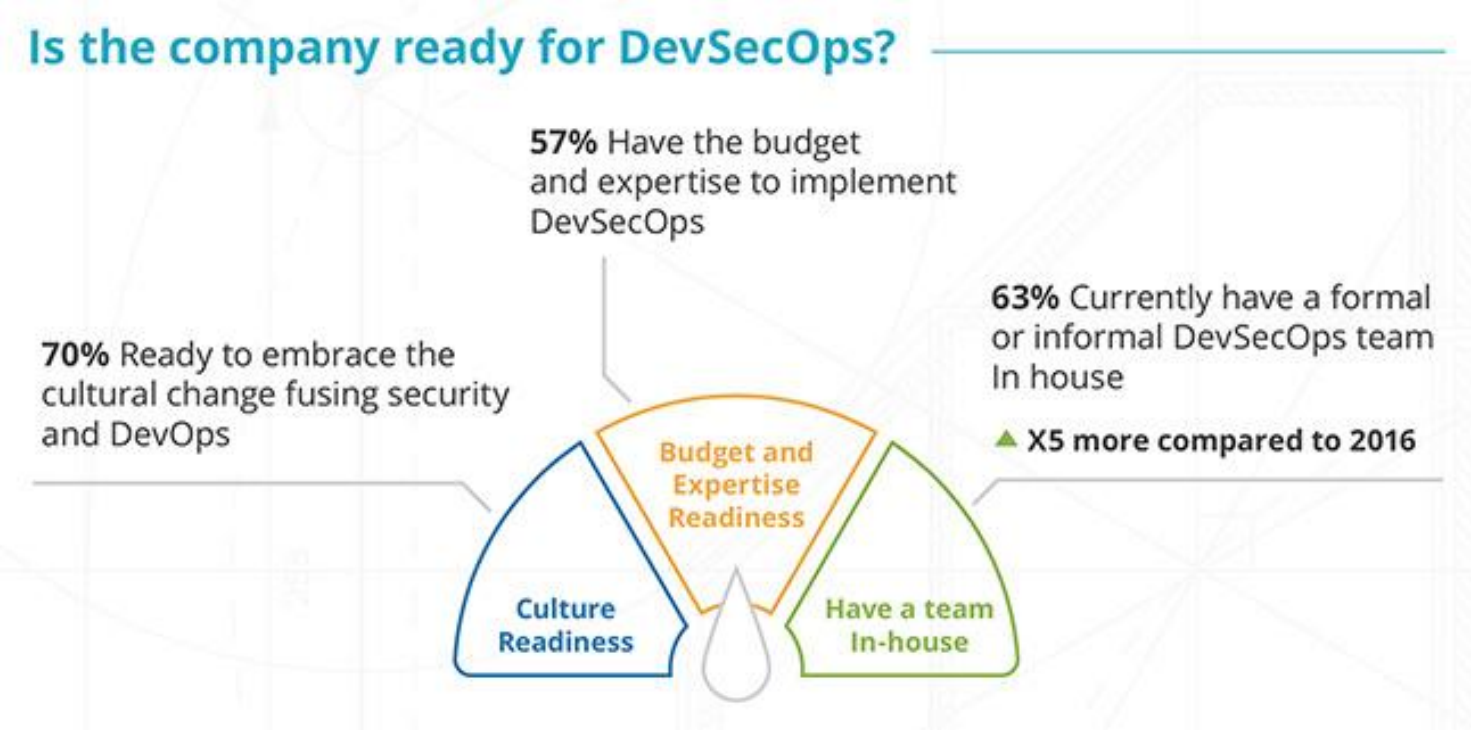

DevSecOps的实施调查

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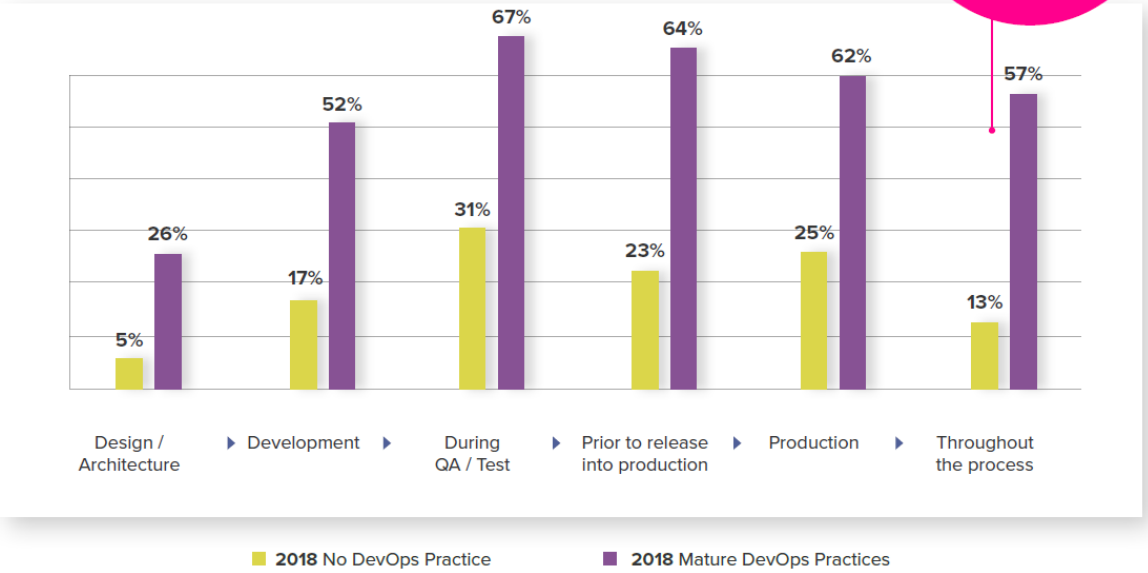
At what point in the development process does your organization perform automated application security analysis?

Mature DevOps practices are 338% more likely to integrate automated security.



DevSecOps的实施调查

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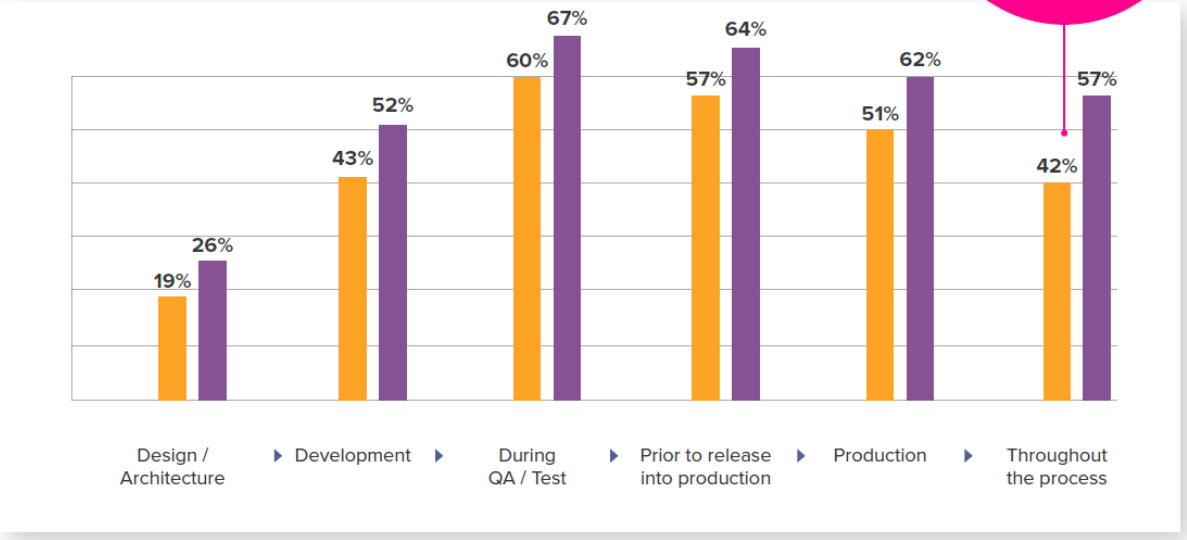
At what point in the development process does your organization perform automated application security analysis?

Mature DevOps practices ramped their investment in automated security by 15%.



DevSecOps的实施调查

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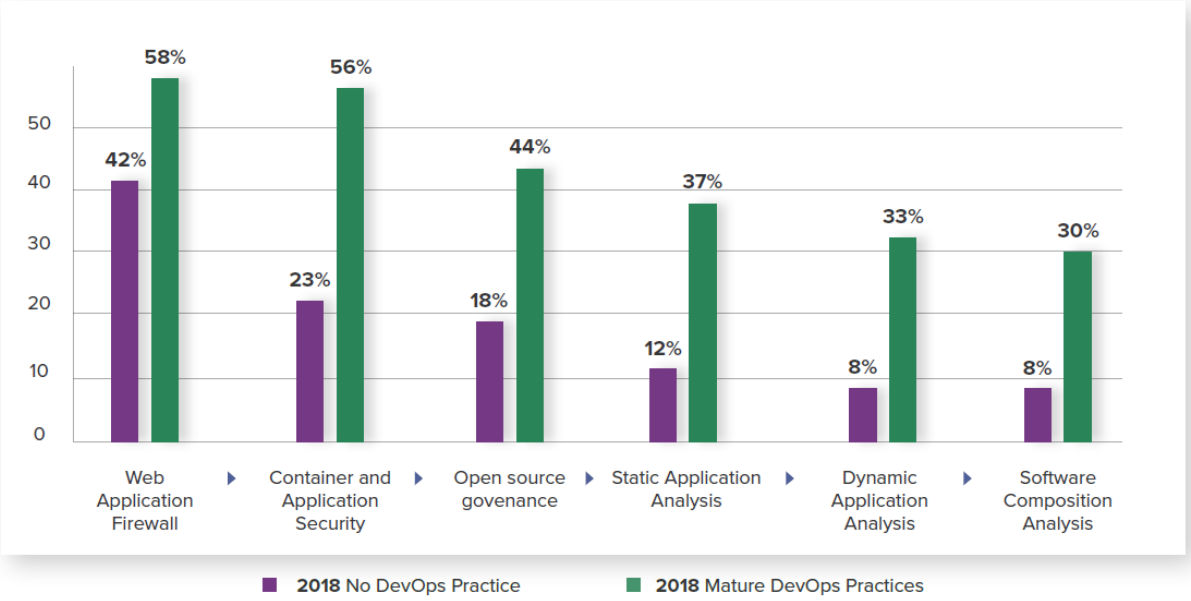
Which application security tools are critical to your organization?



DevSecOps的实施调查

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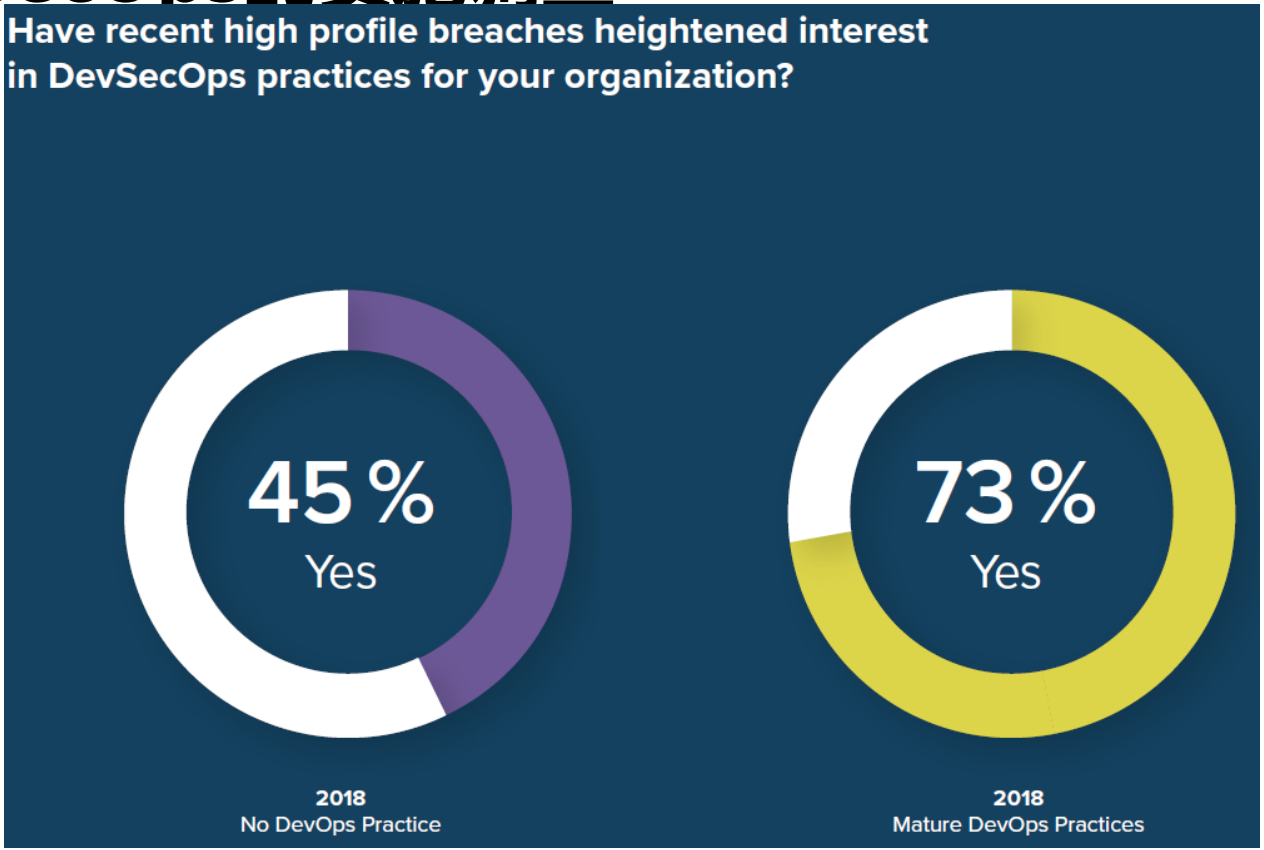

DevSecOps的实施调查

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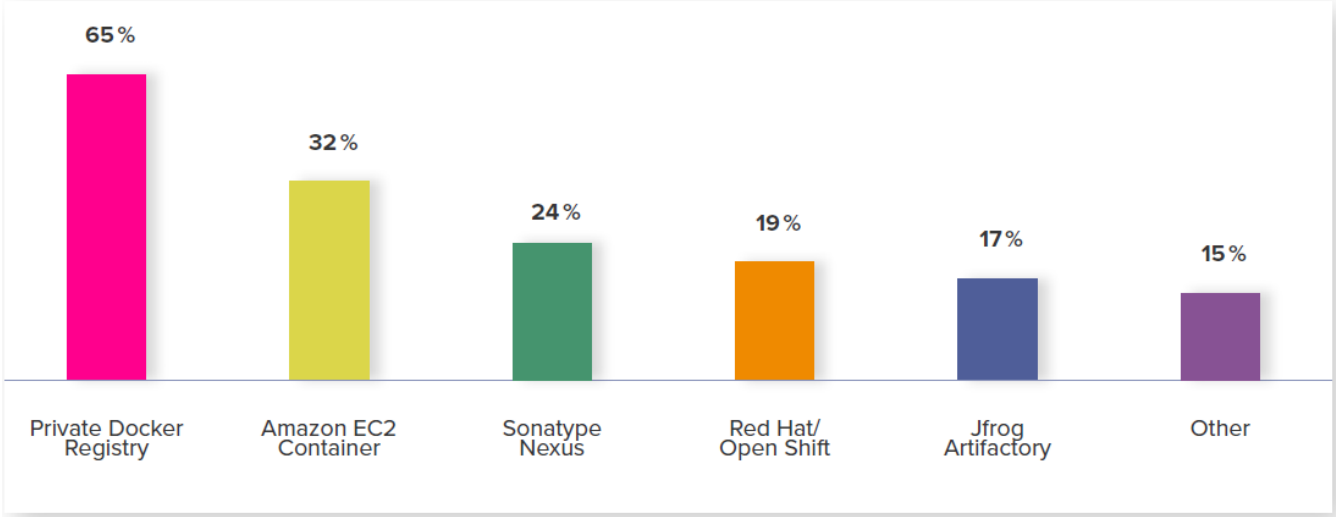
Which private container registries does your organization use?



DevSecOps的实施调查

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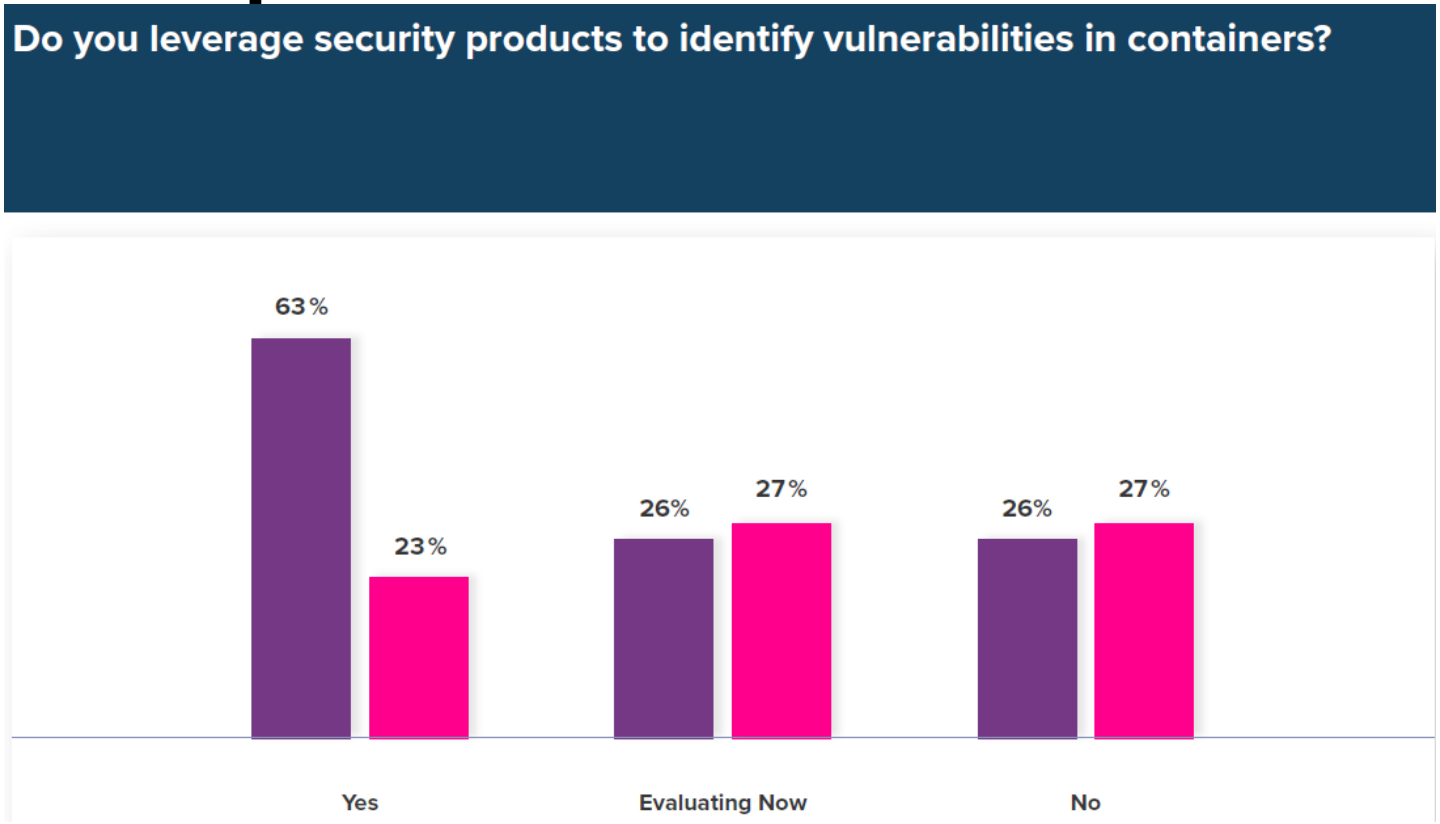

DevSecOps的实施调查

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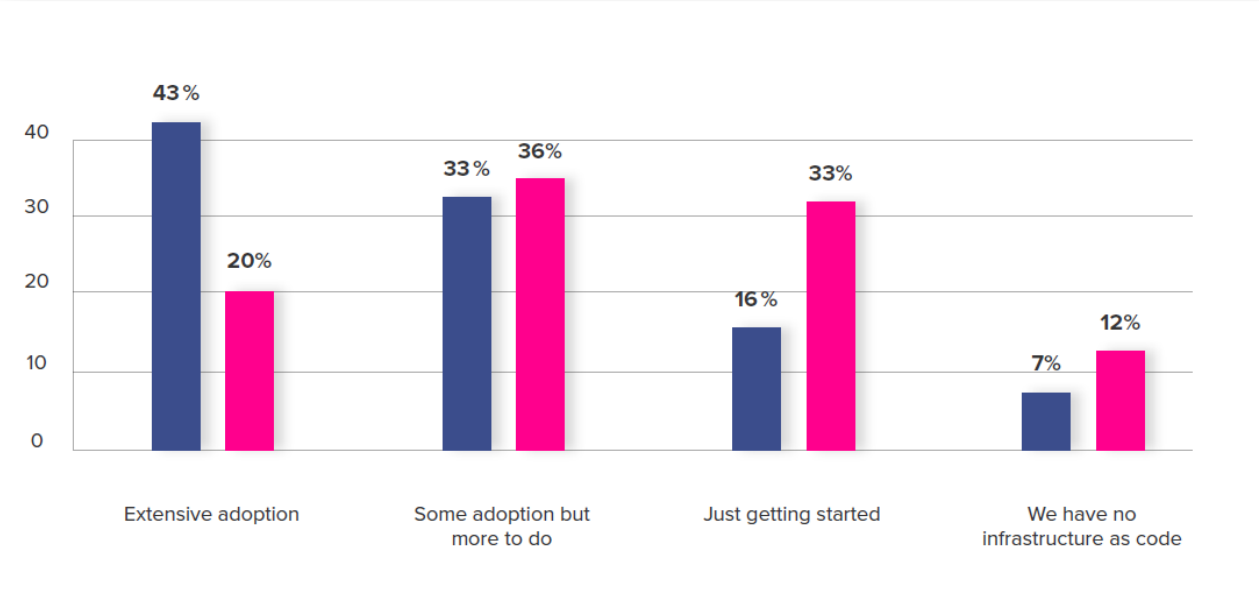
Infrastructure as code adoption
(e.g., Docker containers, Chef cookbooks, Vagrant boxes).



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实施前的准备工作

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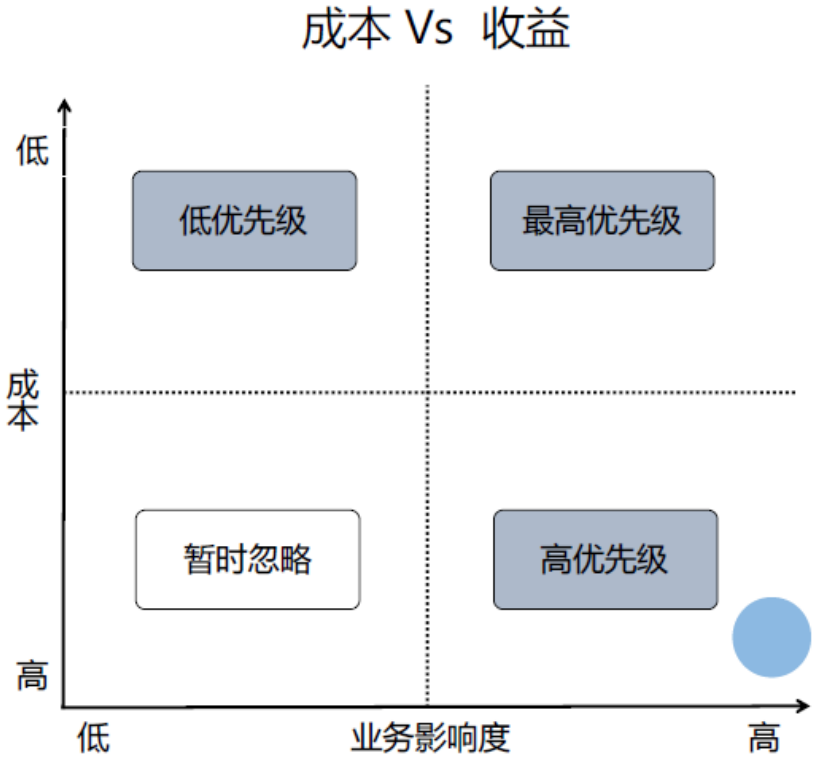
1. 理解业务
   - 知道老板关心什么
2. 得到老板支持
   - 在DevOps中增加Sec的好处
3. 得到相关同事的支持
   - 提高质量、效率
   - 职业发展



实施前的准备工作-人

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1. 人是一切的基础
2. 打破孤岛
3. 培训

- **Ensure that security is not a blocker** on active development or reviews
- **Be empowered** to make decisions
- **Work with AppSec team** on mitigations strategies
- **Help with QA and Testing**
- **Write Tests** (from Unit Tests to Integration tests)
- **Help with development of CI** (Continuous Integration) environments
- **Keep track of and stay up to date** on modern security attacks and defences
- **Introduce body of knowledge** from organisations such as OWASP (Top 10, Application Security Verification Standard, Testing Guide etc.)

实施前的准备工作-流程

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- 版本控制，元数据和编码
- 整合流程
- CI / CD中的安全工具
- 合规
- 安全架构
- 事件管理
- 红蓝对抗和SRC
- 威胁情报

实施前的准备工作-技术

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- 自动化和配置管理
- 安全编码
- 基线加固
- 持续集成连续交付的修补
- 应用程序的审核和扫描
- 自动漏洞管理扫描
- 自动合规性扫描
- 敏感信息管理

实施前的准备工作

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1、产品重要，老板才会关注，才有资源支持

2、项目要能持续，只有这样才能看到改进成果

1、积极向上，有追求

2、学习型团队

1、结合历史安全事件

2、补充预防措施

实施前的准备工作

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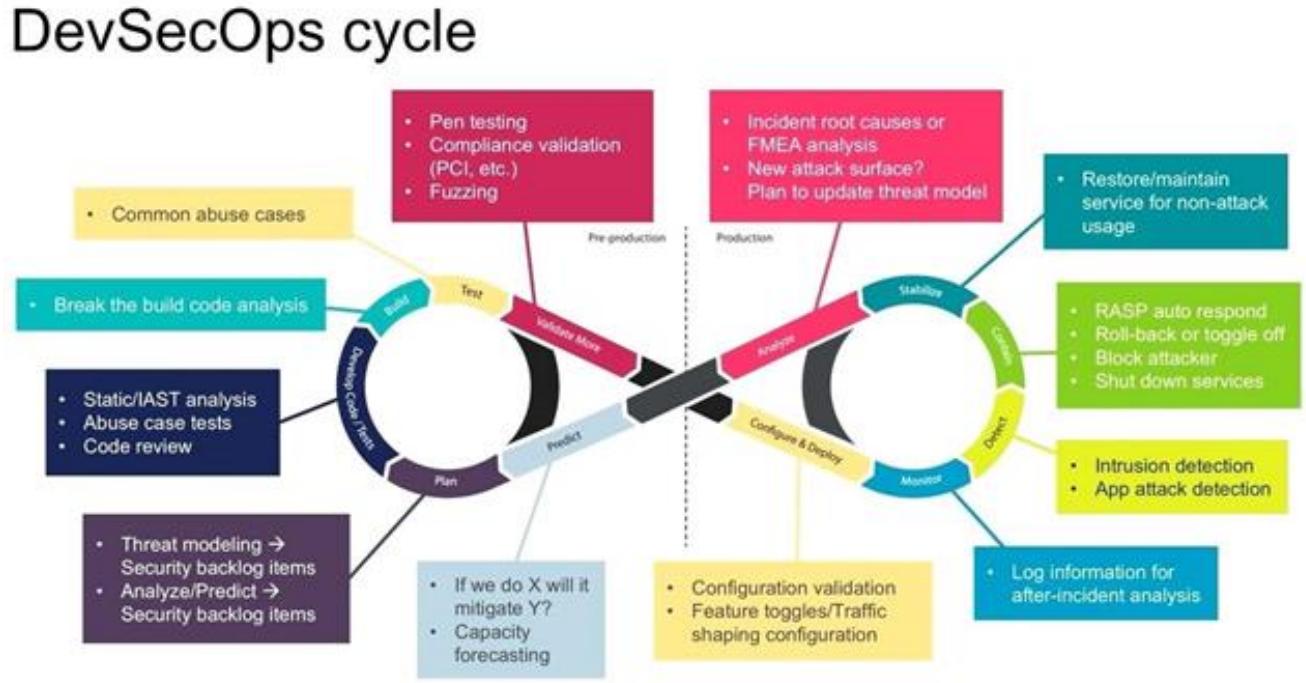
1. 文化
2. 自动化
3. 精益
4. 度量
5. 分享

C – Culture
A – Automation
L – Lean
M – Measurement
S – Sharing

实施前的准备工作

确定目标计划

- 运营监控
- 响应
- 扫描
- 开发
- 设计
- 需求



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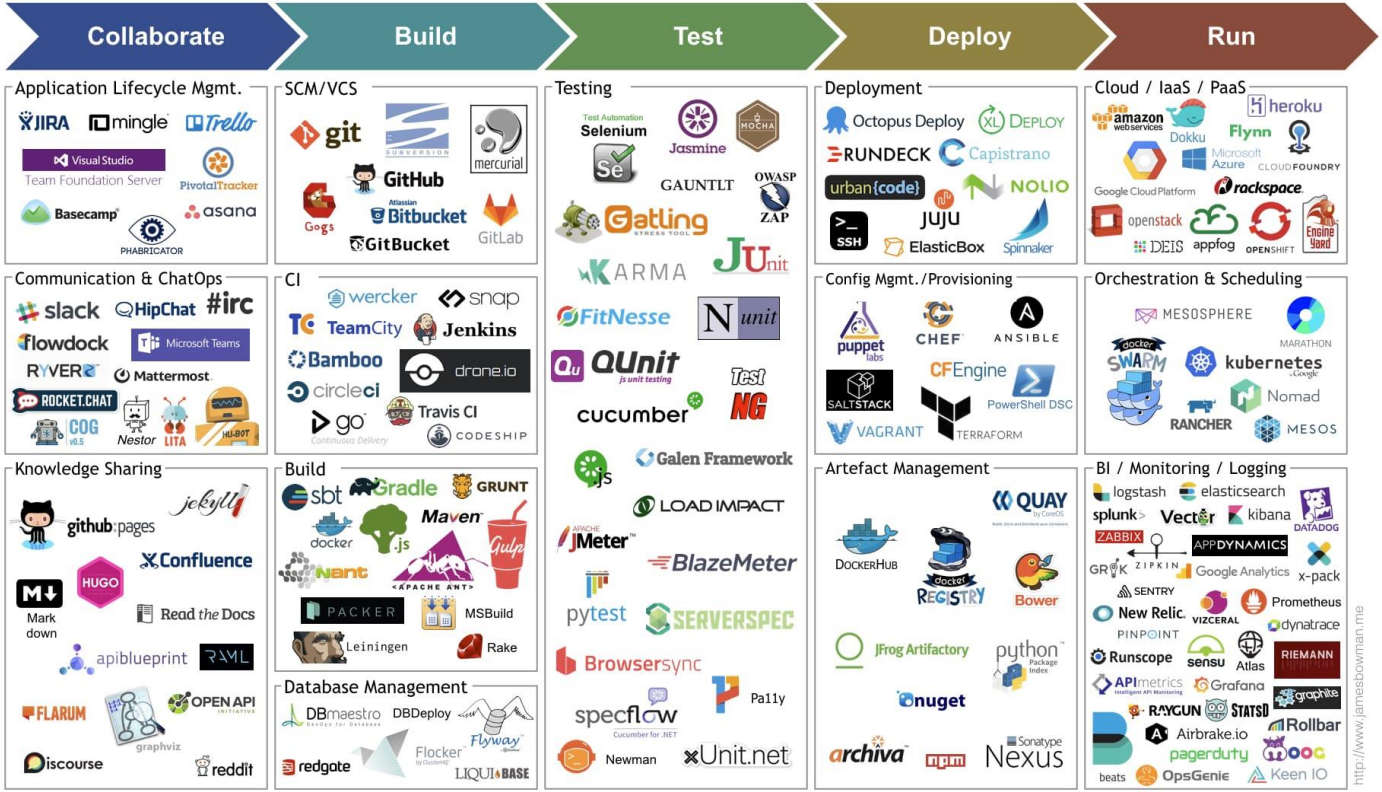
实施案例剖析及建议



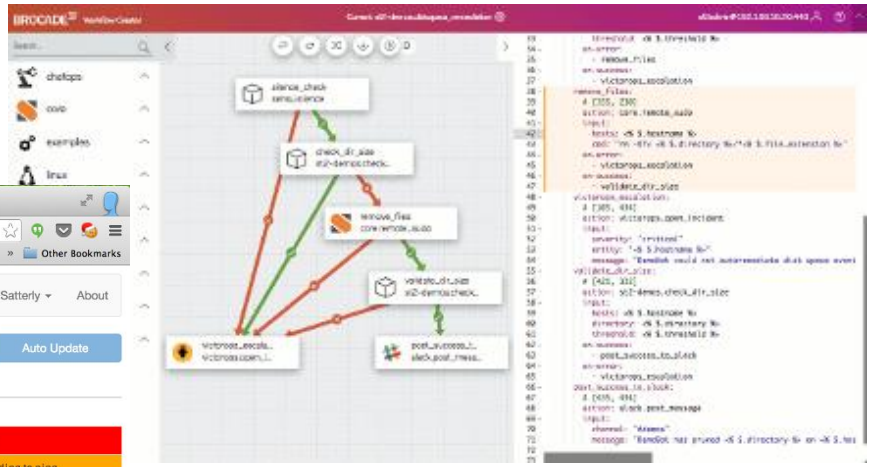
实施案例剖析及建议

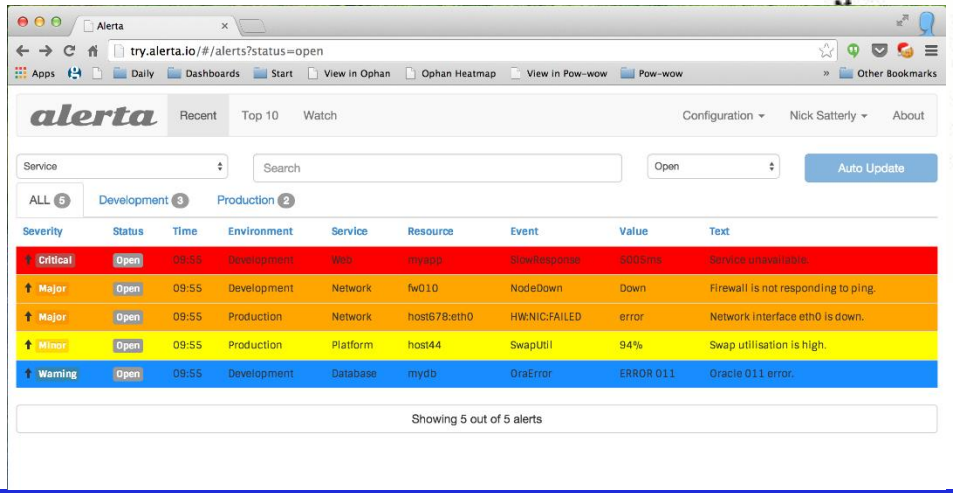
DOIS

选用合适的工具

- 告警
- 响应

StackStorm





实施案例剖析及建议

DOIS

选用合适的工具

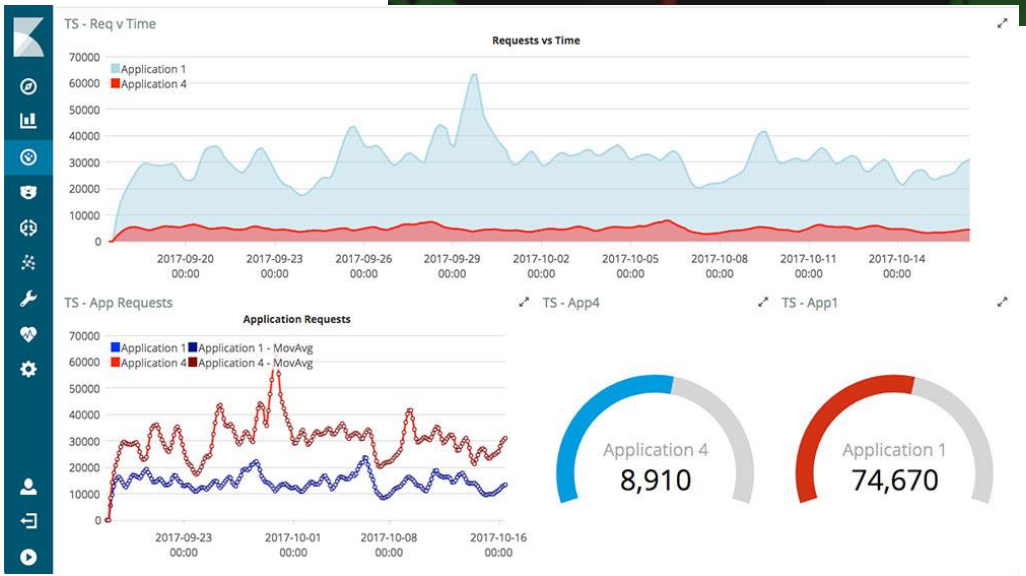
- 运营监控

elastic

Grafana Labs

metasploit

splunk>



实施案例剖析及建议

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选用合适的工具

- 测试
- OWASP Zed Attack Proxy Project
- OWASP OWTF
- GAUNTLT

OWASP ZAP

GAUNTLT

实施案例剖析及建议

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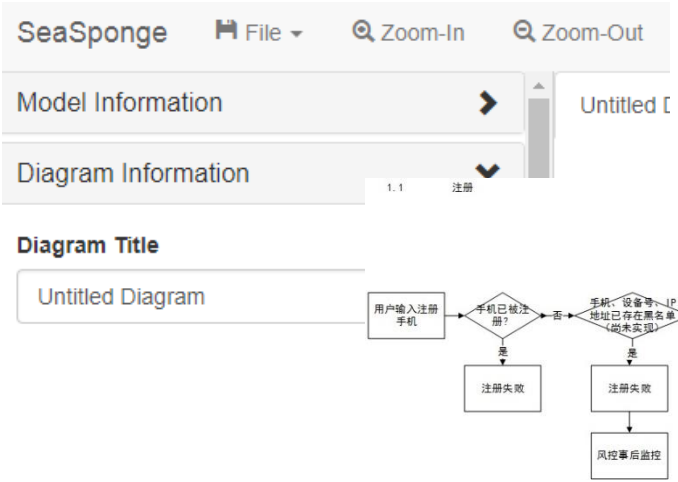
选用合适的工具

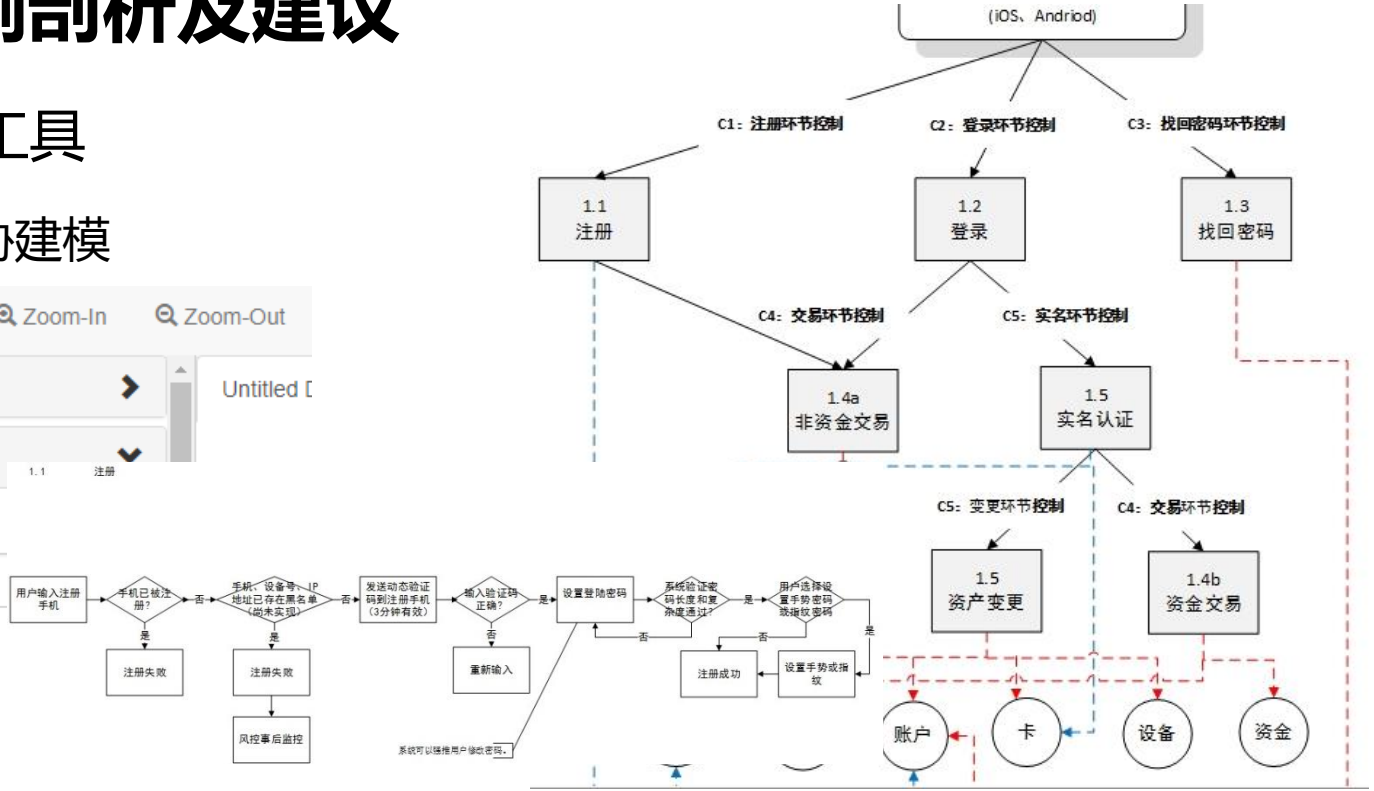
- 源代码扫描

实施案例剖析及建议

选用合适的工具

- 设计-威胁建模

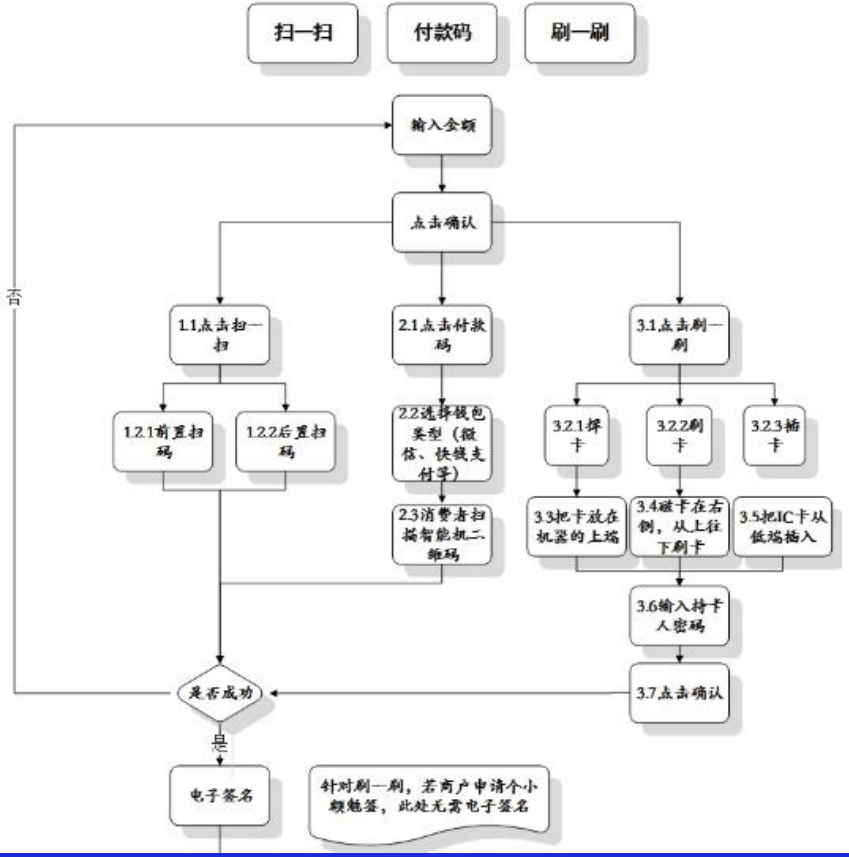




实施案例剖析及建议

选用合适的工具

- 需求



实施案例剖析及建议

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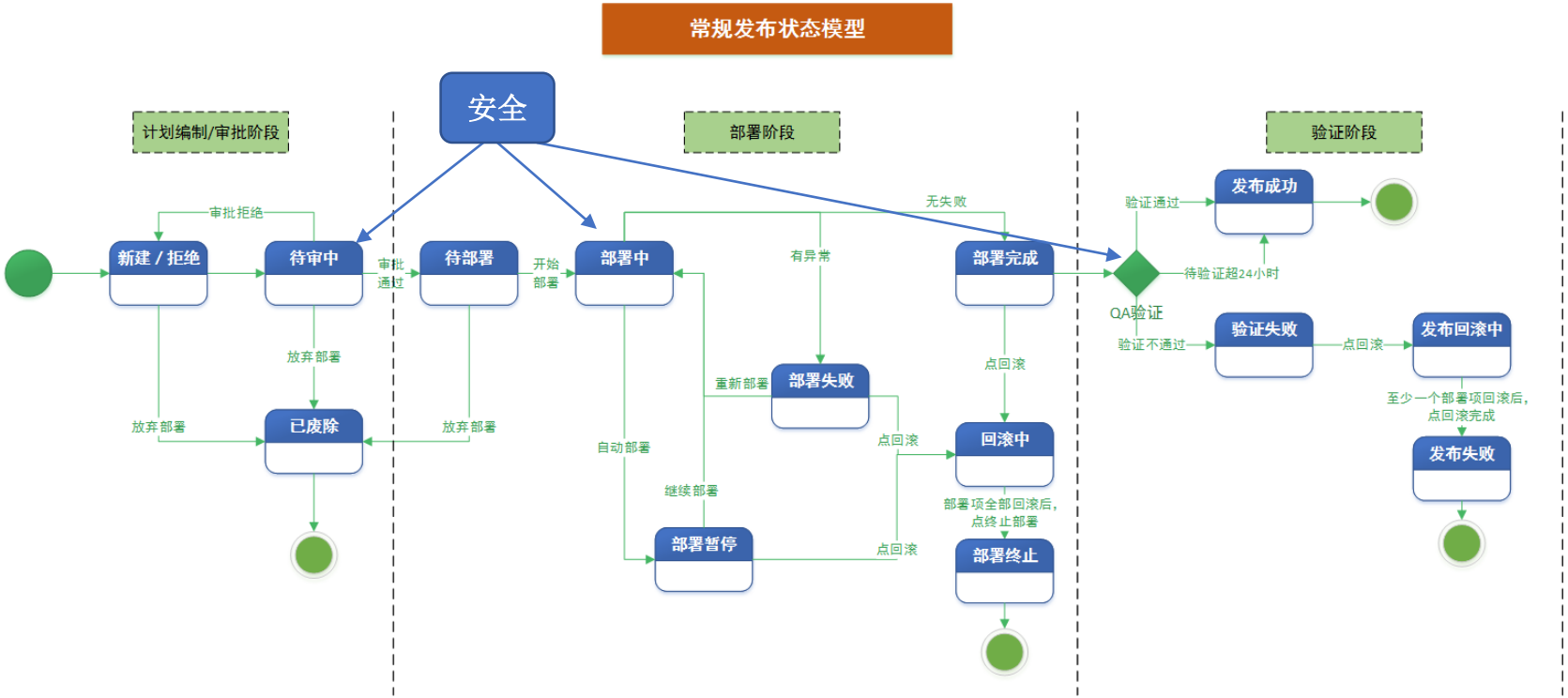

实施案例剖析

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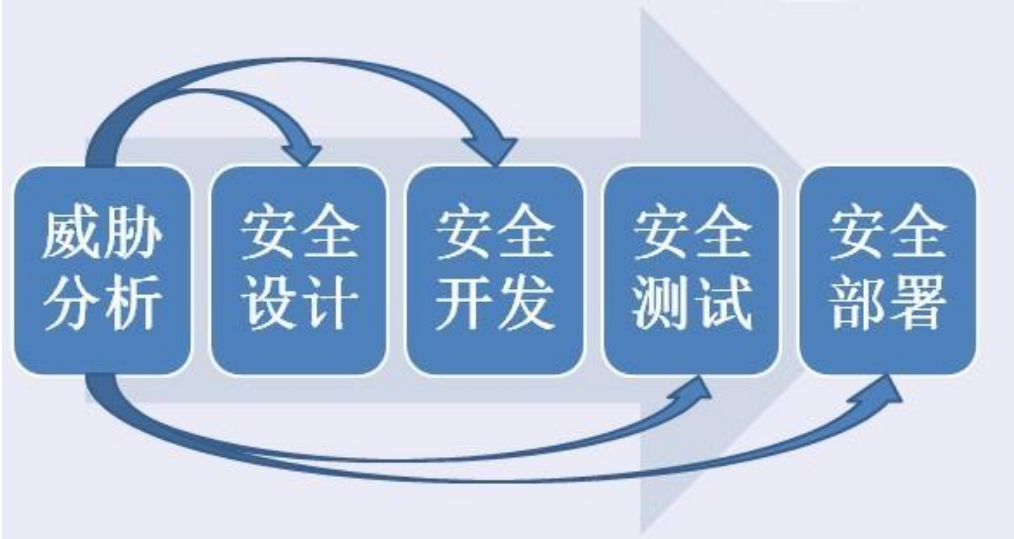
1. 从易到难
   - 利用现有平台、工具
   - 减少手工操作
   - 手工补充
   - 自动代码扫描（最容易接受并使用）
2. 后续计划
   - 自动编码
   - 自动需求分析
   - 自动架构设计



实施案例剖析-人员收获

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开发人员：

代码质量提高效率提升

安全测试：

工作量明显减少

运维：

OnCall的时候电话少了

实施案例剖析-经济收益

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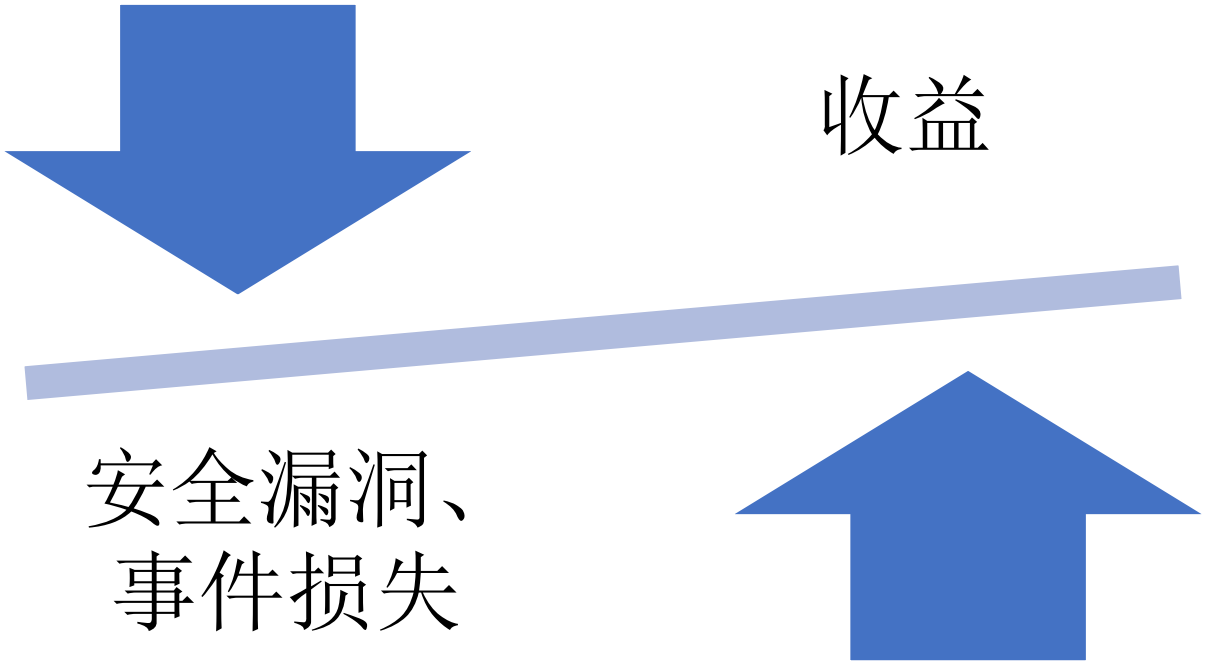

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Thanks

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