



DIVING INTO DEVOPS WITH ARMOR

**AUTOMATING DEPLOYMENT FOR
IMPROVED SECURITY OUTCOMES**

SAM CORONADO

Security Engineer



AGENDA

- 1 DevOps & User Experience
- 2 Deployment for DevOps
- 3 Securing New Attack Vectors
- 4 Deployment with Common Tools
- 5 Q & A



SAM CORONADO

Security Engineer

From infrastructure to policy, I support security system and service health. Before coming to Armor, I gained experience with web development and DevOps engineering.

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DEVOPS & USER EXPERIENCE



DEVOPS & UX

- Users expect rapid feature delivery
- Users expect maximum uptime
- Speed of software delivery is a competitive advantage

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EXCEL OR DIE.

— DORA. (2019). *Accelerate State of DevOps 2019*.

INNOVATION COMES STANDARD FOR THE CONNECTED CUSTOMER

Percentage of Customers Who Agree with the Following:

I expect companies to provide new products/ services more frequently than ever before.

Consumers	59%
All Customers	63%
Business Buyers	71%

It takes more for a company to impress me with new products/services than ever before.

Consumers	64%
All Customers	66%
Business Buyers	72%

I actively seek to buy from the most innovative companies. (i.e. those that consistently introduce new products/services based on customer needs and new technology.)

Consumers	50%
All Customers	56%
Business Buyers	66%

● All Customers ● Consumers ● Business Buyers Salesforce. (2019). *State of the Connected Customer*.

DEPLOYMENT FOR DEVOPS



DEPLOYMENT FOR DEVOPS

- Deployment Automation is a critical function of elite DevOps teams
- Infrastructure-as-Code is key to repeatable infrastructure
- Software that requires minimal effort to securely install and configure can help your deployment velocity

AUTOMATION & INTEGRATION BY PERFORMANCE PROFILE				
	LOW	MEDIUM	HIGH	ELITE
Automated Build	64%	81%	91%	92%
Automated Unit Tests	57%	66%	84%	87%
Automated Acceptance Tests	28%	38%	48%	58%
Automated Performance Tests	18%	23%	18%	28%
Automated Security Tests	15%	28%	25%	31%
Automated Provisioning and Deployment to Testing Environments	39%	54%	68%	72%
Automated Deployment to Production	17%	38%	60%	69%
Integration with Chatbots / Slack	29%	33%	24%	69%
Integration with Production Monitoring and Observability Tools	13%	23%	41%	57%
None of the above	9%	14%	5%	4%

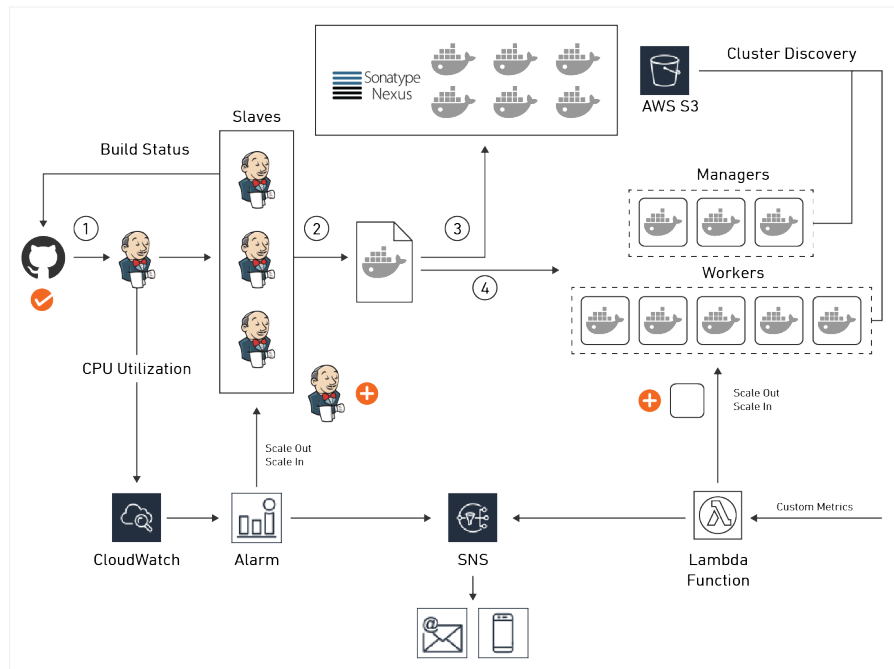
DORA. (2019). *Accelerate State of DevOps 2019*.

SECURING NEW ATTACK VECTORS



SECURING NEW ATTACK VECTORS

- With explosion of automation and CI/CD tools, attack vector area increases
- DevOps software and system operators are vulnerabilities too
- Attacks targeting common DevOps tools on the rise
 - [XMRig/Monero JenkinsMiner attacks – \\$3 million mined*](#)
 - [CoinMiner campaigns creating malicious DockerHub images**](#)
- DevOps infrastructure can be the least protected but most connected in a given environment



ARMOR RECOMMENDATIONS

- **Use Armor Anywhere to protect and monitor infrastructure running your tooling**
 - Protect servers and containers from malware
 - Defense-in-depth for images that host malware
 - Vulnerability scanning, file integrity monitoring, log management, and intrusion detection on servers
- **Automate deployment of Armor Anywhere with common tools**
- **Use Armor Automated Security & Compliance – Prisma to automate monitoring cloud configurations**
 - Misconfigurations are one of the most common ways data gets leaked or attackers gain access in the cloud – enforce visibility and protection by default

DEPLOYMENT WITH COMMON TOOLS



DEPLOYMENT WITH COMMON TOOLS DEMO



TERRAFORM



AWS CLOUD FORMATION

TAKEAWAYS

1

Devops capabilities are a competitive advantage.

2

Automate deployments as much as possible.

3

Use Armor Anywhere and Armor Automated Security & Compliance – Prisma to automate securing some of your most valuable assets.

Q & A

SAM CORONADO

Security Engineer





THANK YOU.

WWW.ARMOR.COM

