



# Application Security Strategy and AST Lifecycle

## **OWASP London Chapter Meeting, 2018**

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#### Are we secure now ?



### State of the Art Cybersecurity ?

Worldwide Security Spending Will Reach \$96 Billion in 2018

• US Halloween spending hit record \$9.1 billion in 2017

Cybercrime caused up to \$109B hit to US economy in 2016

• Nearly seven in ten large companies identified a breach or attack

Ransomware hackers purposefully target US Police Departments









**Forbes** 

Security Centre

#### Application Security Testing Jungles

- SAST v. DAST v. IAST v. MAST v. SCA ?
- AVC v. ASTO ?
- WAF v. NGFW v. RASP ?
- S-SDLC v. DevSecOps v. CI/CD ?
- Bug Bounties v. Private Bug Bounty v. Open Bug Bounty ?
- Crowdsourced Penetration Testing v. Crowdsourced Neurosurgeons ?
- Machine Leaning v. Artificial Intelligence ?

Top 10 2013	Top 10 2017	
A1 – Injection	A1 – Injection	
A2 - Broken Authentication and Session	A2 – Broken Authentication and Session	
Management	Management	
A3 – Cross-Site Scripting (XSS)	A3 – Cross-Site Scripting	
A4 – Insecure Direct Object References	A4 – Broken Access Control	
A5 – Security Misconfiguration	A5 – Security Misconfiguration	
A6 – Sensitive Data Exposure	A6 – Sensitive Data Exposure	
A7 – Missing Function Level Access Control	A7 – Insufficient Attack Protection	
A8 – Cross-site Request Forgery (CSRF)	A8 - Cross-site Request Forgery (CSRF)	
A9 - Using Components with Known	A9 - Using Components with Known	
Vulnerabilities	Vulnerabilities	
A10 – Unvalidated Redirects and Forwards	A10 – Unprotected APIs	

#### OWASP Top Ten – Collections of Marketing Slogans

- "We go far beyond OWASP Top 10"
- "We use AI to reimagine OWASP Top 10"
- "Scanners detect OWASP Top 10, we detect serious flaws"
- "Time to address human code, not just OWASP Top 10"
- "Manual testing for OWASP Top 10, Injections and RCEs"
- "Complicated Web 2.0 and HTML 5.0 vulnerability detection"

### OWASP Top Ten – Overcoming the FUD

<ul> <li>OWASP Top 10 2017</li> <li>Application Security Risks</li> </ul>	>	Average Vulnerability Detection Rate
A1: Injection	?	
A2: Broken Authentication	?	
A3: Sensitive Data Exposure	?	
A4: XML External Entities (XXE)	?	
A5: Broken Access Control	?	
A6: Security Misconfiguration	?	
A7: Cross-Site Scripting [XSS]	?	
A8: Insecure Deserialization	?	
A9: Components with Known Vulnerabilities	?	
A10: Insufficient Logging & Monitoring	?	

#### Application Security Strategy: Fundamentals

- Do we know which applications, users and data do we need to protect?
- What are the business risks attributable to our application infrastructure?
- Which compliance and regulatory requirements do we need to implement?
- Shall we use reactive, proactive or both approaches to mitigate the risks?
- Does our vendor selection process benchmark how the solution fits into our needs?
- Do we have a person responsible for every single process and procedure?
- How do we measure efficiency and effectiveness of our application security?

#### Vendor Neural Application Security Testing Lifecycle<sup>™</sup>



# Thank you for your time!

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