for line in future.readlines():
 line.secure()

Some of Them Want to Use You; Some of Them Want to Get Used By You

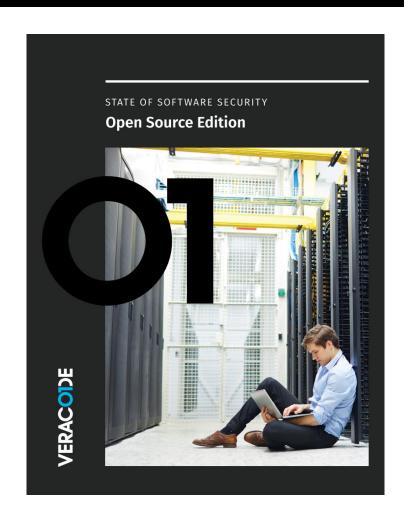
Chris Wysopal @weldpond Founder & CTO

06.04.2020



The Data





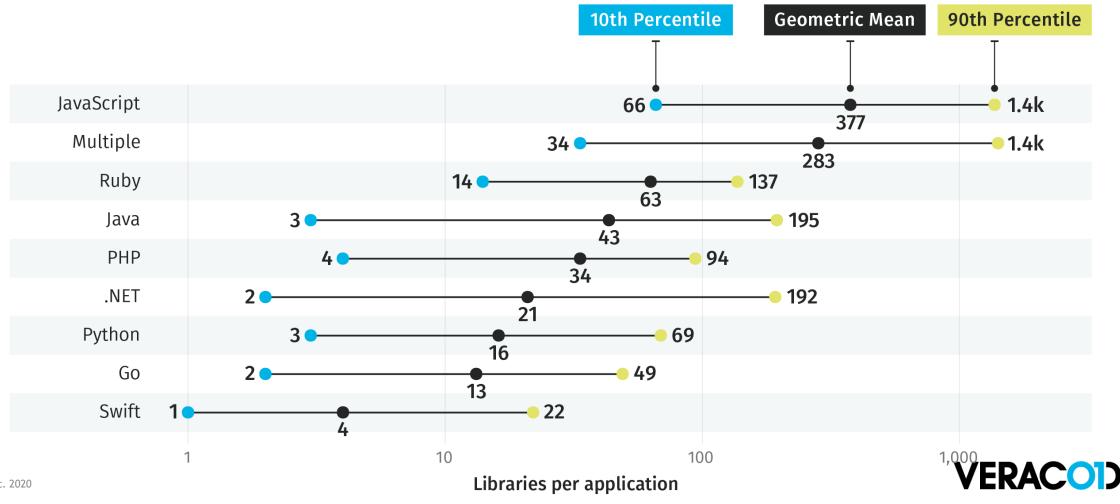
Analysis of the open source libraries contained in 85,000 applications accounting for over 351,000 unique external libraries.



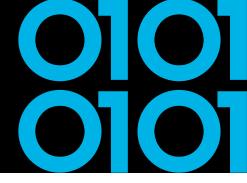


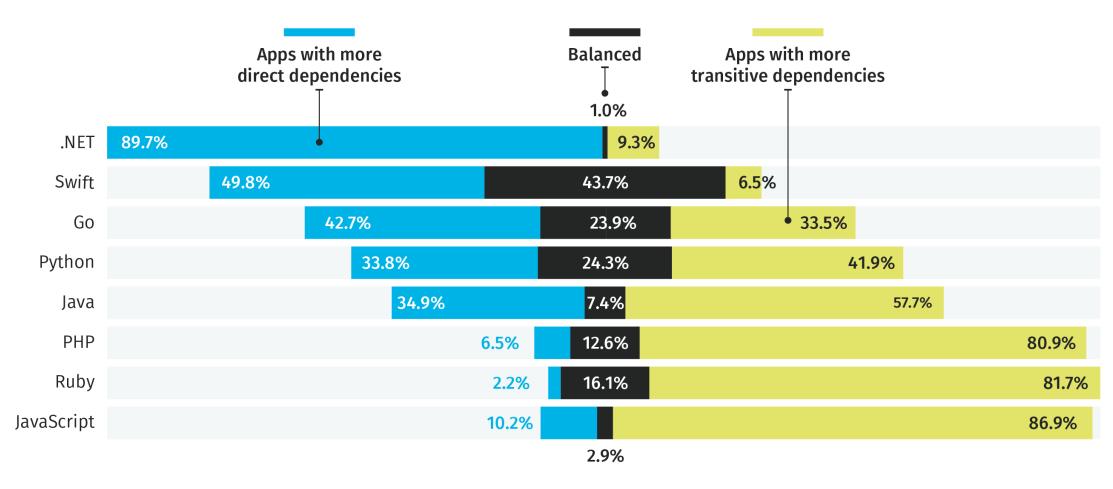
Open Source Library Use

Open source libraries make up a significant portion of most application's code.



The Open Source Library Dependency Chain



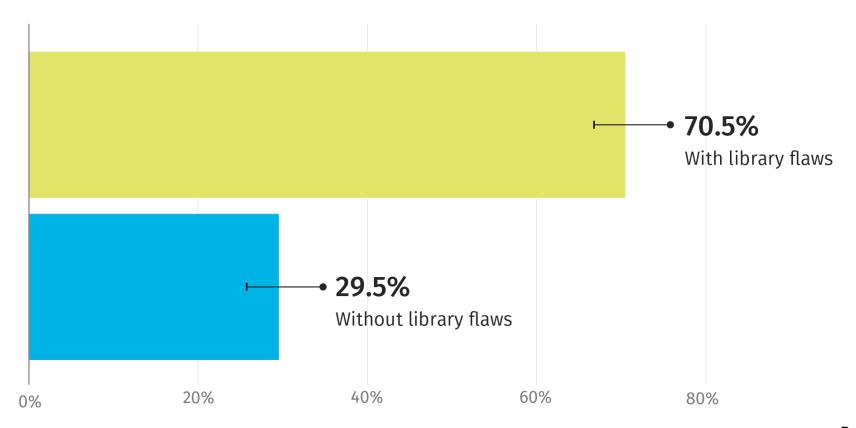






Open Source Library Security

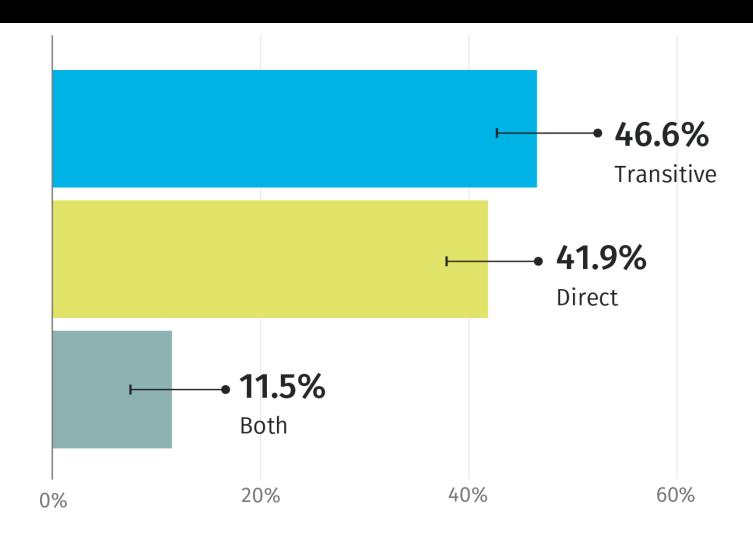
70% of applications have a security flaw in an open source library on initial scan.





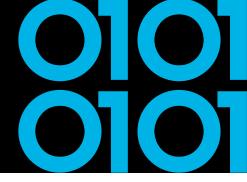
How Flaws in Open Source Libraries Are Included in Applications

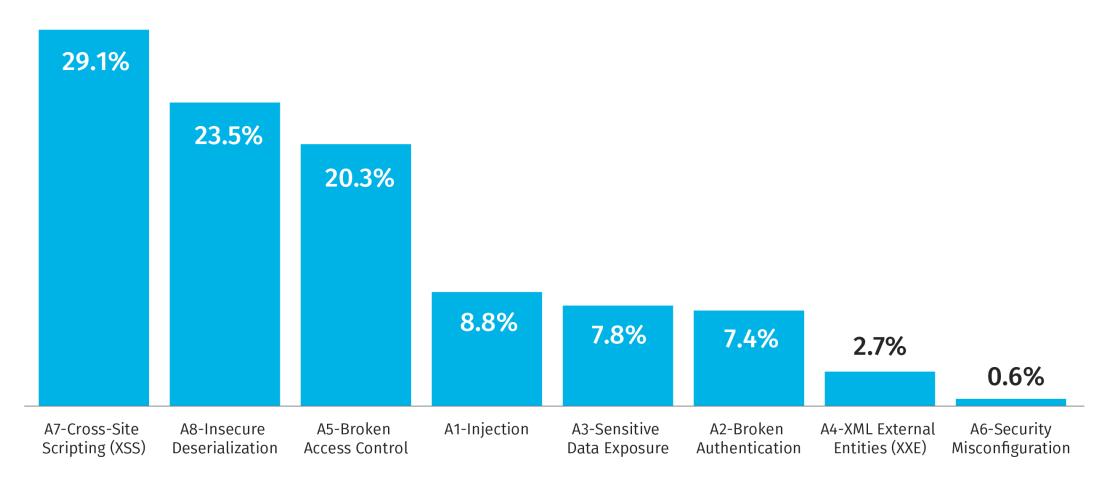






Categories of Discovered Flaws Across All Libraries





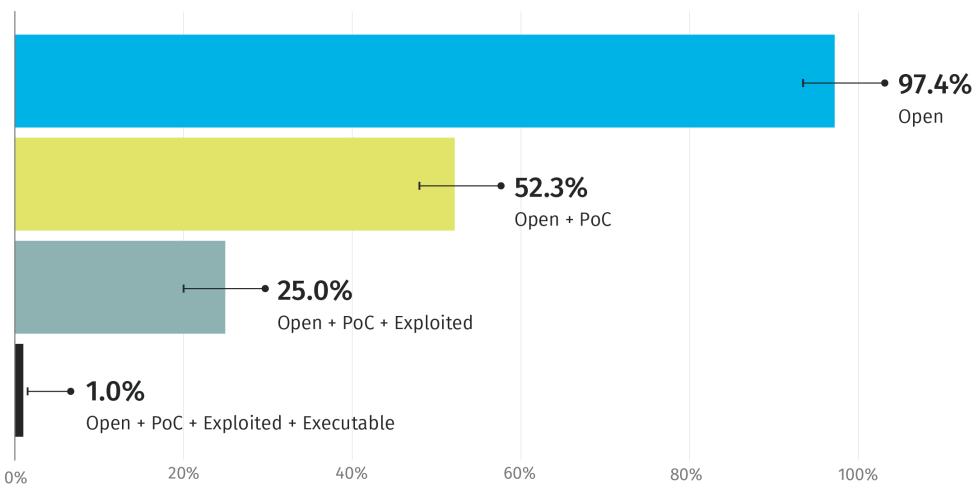


Prevalence		Go	Java	JavaScript	.NET	PHP	Python	Ruby	Swift
by Language	A1-Injection	3.4%	1.7%	2.5%	2.9%	18.6%	6.3%	7.8%	0.0%
Languag	A2-Broken Authentication	4.9%	6.9%	1.9%	1.9%	21.3%	6.5%	3.2%	0.2%
	A3-Sensitive Data Exposure	8.0%	2.1%	0.6%	8.8%	4.6%	2.6%	1.4%	6.1%
	A4-XML External Entities (XXE)	0.0%	5.9%	0.0%	0.5%	0.1%	1.6%	0.5%	0.2%
	A5-Broken Access Control	10.7%	8.9%	4.9%	14.8%	22.5%	9.4%	8.0%	7.7%
	A6-Security Misconfiguration	0.0%	0.7%	0.2%	0.0%	1.2%	0.0%	0.0%	0.0%
	→ A7-Cross-Site Scripting (XSS)	11.0%	10.5%	11.6%	8.4%	40.1%	13.3%	13.9%	0.0%
8 © Veracode, Inc. 2020	A8-Insecure Deserialization	0.0%	7.6%	0.0%	0.4%	17.4%	0.9%	1.5%	0.0%



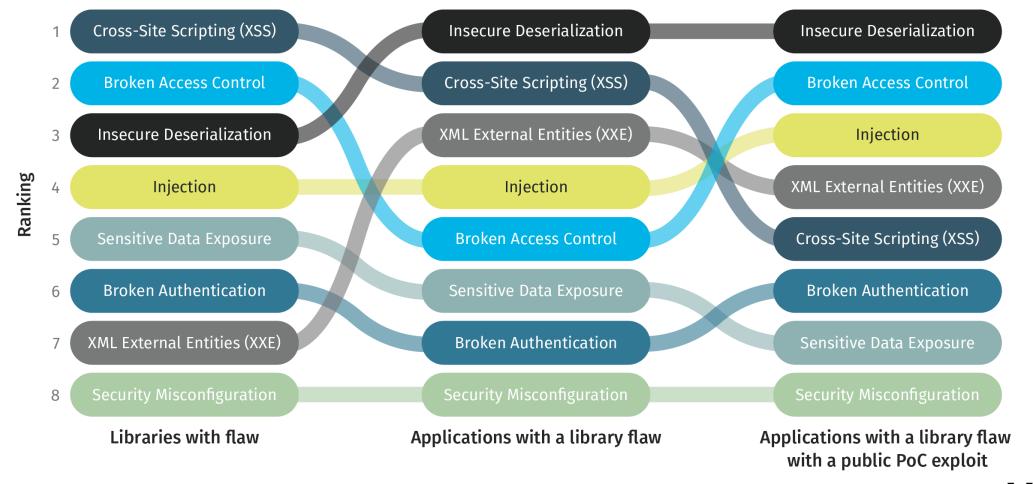
Qualifying the Flaws in Open Source Libraries





Open Source Flaw Types by Exploitability

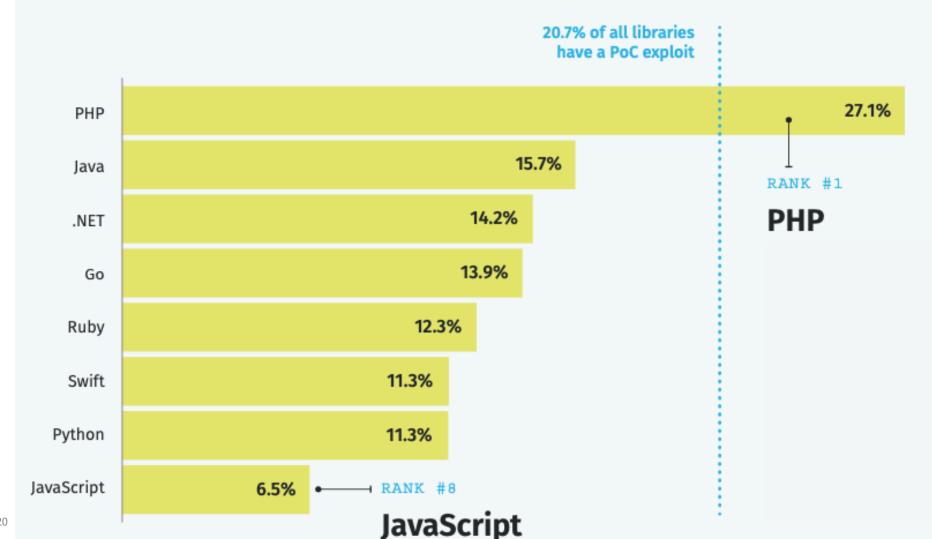






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% of Flawed Libraries With a PoC





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Thank You!

Chris Wysopal <a>@weldpond

