

The Gap Between Cloud Service Providers And App Developers

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대통령직속 4차산업혁명위원회

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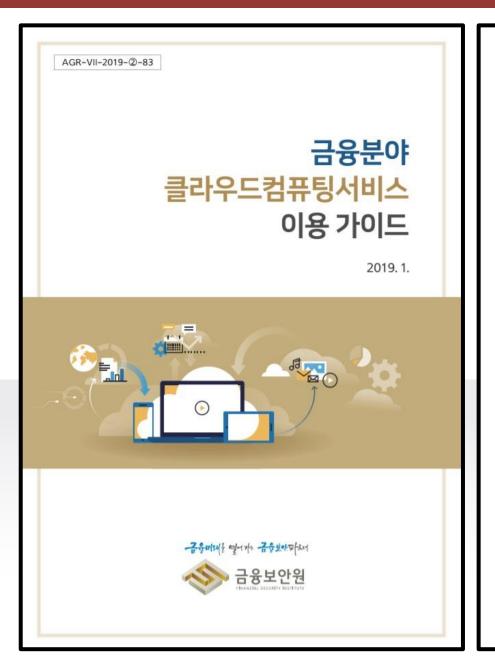
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Special Publication 800-144

Guidelines on Security and Privacy in Public Cloud Computing

Wayne Jansen Timothy Grance



soFrida.github.io



soFrida

soFrida Timeline Statistics Authors Contact

soFrida is an automatic analysis tool, which breakdown vulnerabilities in the moblie cloud app.

We have analyzed 4 million Android apps and found 2,700+ vulnerable apps that can leak sensitive personal information data and manipulate back-end data.

Today(June 8, 2019 09:00 KST), we sent a notification to each developer of the vulnerable apps. We will release the list of vulnerable apps through the site after 2 weeks, and the detailed report will be available in another 30 days after the name of the app is relaesed.

And, in near future, we will also release our soFrida tool, through this site.



Download Count	Number of potentially Vulnerable Apps
+100,000,000	12
+50,000,000	12
+10,000,000	98
+5,000,000	88
+1,000,000	318
<1,000,000	2172
Total	2700
	date of collection : April 4, 2019 09:55 KST

-528

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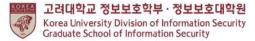
Severity	Number of Vulnerable Apps	Vulnerable Apps by Download Count
High	53	30 = +100,000,000 : 5 + 50,000,000 : 1 + 10,000,000 : 9 +5,000,000 : 2 + 1,000,000 : 13 < 1,000,000 : 23
Mid	13	+,50,000,000 : 1 + 10,000,000 : 5 + 1,000,000 : 6 < 1,000,000 : 1
Low	187	+100,000,000 : 2 +,50,000,000 : 2 + 10,000,000 : 43 +5,000,000 : 36 + 1,000,000 : 72 < 1,000,000 : 32
Total	253	
	1-4	

date of classification: June 25, 2019 09:13 KST

- High: An attacker can gain the unauthorized access to backend data or can manipulate data.
- **Mid**: The attacker have the limited access to backend data.
- Low: An attacker can't directly influence the app, but can collect some useful information or make an indirect service call.

■ June 7, 2019

- We had identified 2,700+ android apps which were potentially vulnerable.
- We began in-depth analysis of these 2700+ apps, and classified 236 apps as "actually risky".
- June 8, 2019, 09:00
 - We sent a notification to each developer of the vulnerable apps.



■ June 18, 2019

Through the in-depth analysis, 247 apps were classified as actually risky. (11 apps added to the list of previously classified actually risky apps.)

June 19, 2019, 10:00

• We reported the vulnerability details and the list of vulnerable Korean apps to KISA, NSR and FSI.

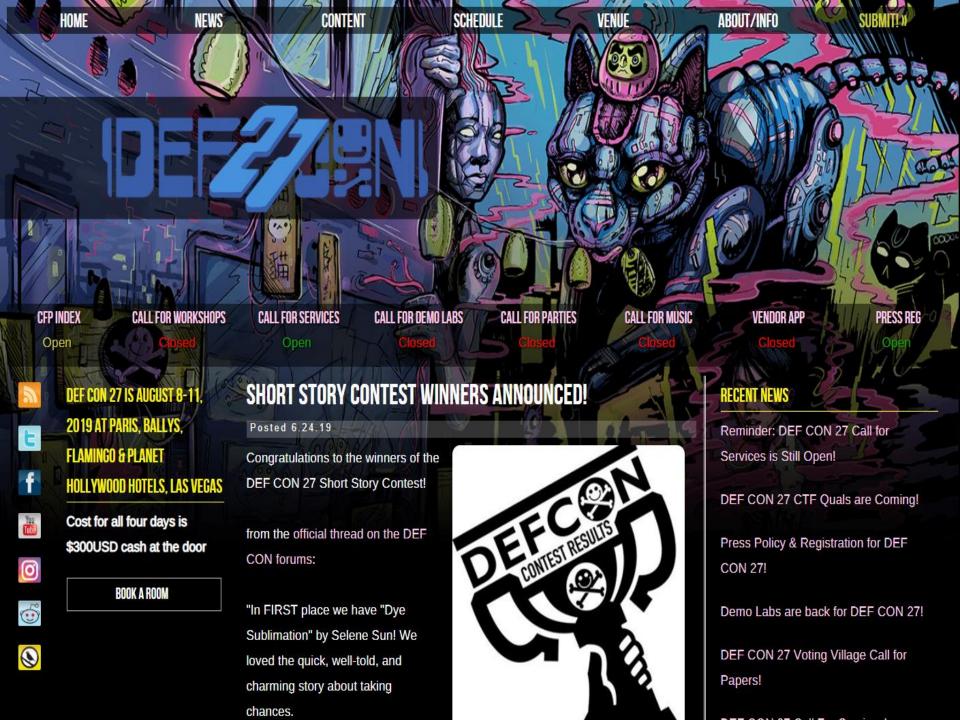
- June 21, 2019, 03:37
 - Among the developers we contacted, only 3 developers contacted us again, so we had to take the following measures.
 - We contacted to security team of Cloud Service Provider(CSP) such as AWS, and asked them to help each app developer take an action.

- June 21, 2019, 16:23
 - We had the first response from the security team of CSP.

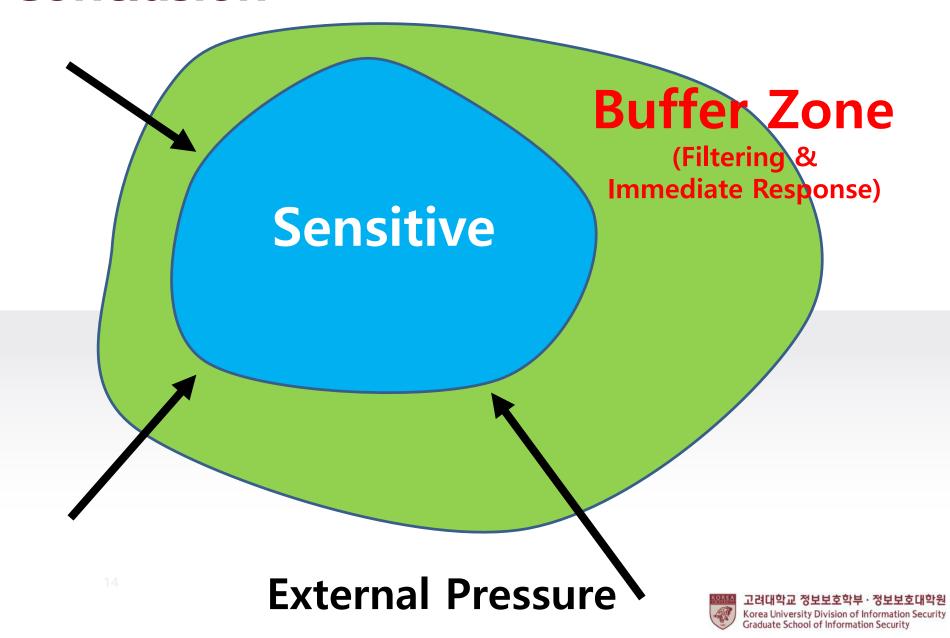
- June 25, 2019
 - Through the in-depth analysis, 253 apps were classified as actually risky. (6 apps added to the list of previously classified actually risky apps.)

- June 27, 2019 18:42
 - CSP asked us to hold publishing the list of vulnerable apps.
 - As their request, we finally decided to delay publishing the list until they took enough action.





Conclusion



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