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Brucewebva / CVE-2025-67316 Secret

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```
1 [CVE ID]
2 CVE-2025-67316
3 [PRODUCT]
4 built-in HeyTap/ColorOS browser
5 [VERSION]
6 Internet browser - 45.13.4.1
7 [PROBLEM TYPE]
8 Incorrect Access Control
9 [DESCRIPTION]
10 An improper access control vulnerability exists in the built-in HeyTap / ColorOS Internet
11 The application exposes privileged Android Java methods to WebView JavaScript through unre
12 As a result, a remote attacker can craft a malicious webpage that, when loaded by a victim
13
14
15 #Summary
16
17 A security vulnerability exists in HeyTap / OPPO / realme customized Android browsers due
18 The browser uses addJavascriptInterface() to expose multiple Java objects with privileged
19
20 An attacker can entice a user to open an arbitrary webpage using the affected browser. The
21
22
23 #Root Cause Analysis
24
25 During the WebView initialization process, the browser injects Java objects into the JavaS
26
27 webView.addJavascriptInterface(object, "BrowserNormal");
28
29 Multiple methods within the injected Java objects are annotated with @JavascriptInterface
30
31 !No restriction on allowed source domains (no domain allowlist)
32
33 !No URL scheme restrictions (both HTTP and HTTPS are allowed)
34
35 !No limitation to trusted or local pages
```

```
36
37 !No permission checks or user confirmation mechanisms
38
39 As a result, any webpage loaded in the WebView can execute JavaScript that directly invoke
40
41
42 #Exposed Privileged Methods
43
44 Through reverse engineering and practical testing, multiple high-privilege methods were ob
45
46 openWifi()
47
48 openSetting()
49
50 openSystemDateAndTime()
51
52 getNoNetworkTextI18N()
53
54 These methods directly launch Android system-related Activities (such as system settings,
55
56
57 #POC, Including Advanced Testing
58
59 Basic POC
60
61 <button onclick="BrowserNormal.openWifi()">Open WiFi</button>
62 <button onclick="BrowserNormal.openSetting()">Open Settings</button>
63 <button onclick="BrowserNormal.openSystemDateAndTime()">Open Date/Time</button>
64
65 Observed Behavior
66
67 When the above HTML is loaded using the affected browser:
68
69 !The WiFi settings page opens successfully
70
71 !The system settings page opens successfully
72
73 !The date and time settings page opens successfully
74
75 No permission prompts, security confirmations, or source restrictions are displayed during
76
77 Chained System Invocation:
78
79 function tripleAttack() {
80     BrowserNormal.openWifi();
81     setTimeout(() => BrowserNormal.openSetting(), 800);
82     setTimeout(() => BrowserNormal.openSystemDateAndTime(), 1600);
83 }
84
```

```
85 <button onclick="tripleAttack()">Trigger System Actions</button>
86
87 Video:https://drive.google.com/file/d/1IU5zeKI0dcUX83v1QtbM1vfJ1nx9r50h/view?usp=sharing
88
89 Result Description
90
91 !Multiple system settings Activities can be triggered sequentially through a single user a
92
93 !No access control, throttling, permission checks, or defensive mechanisms were observed
94
95 !This demonstrates that the JavaScript interface is fully exposed without basic security c
96
97
98 #Security Impact Assessment
99
100 This vulnerability allows a remote website, without requiring additional user consent, to:
101
102 !Invoke internal Java methods of the application
103
104 !Trigger Android system-level Activities
105
106 !Cause the application to perform unintended local execution behaviors
107
108 Although this vulnerability is not a traditional memory-corruption-based RCE (such as a bu
109
110 Remote-triggered Local Code Execution
111
112 That is, untrusted web content can cause the application to execute Java / Android system
```