**DEKRA Testing and Certification, S.A.U.**
Parque Tecnológico de Andalucía
c/ Severo Ochoa nº 2 - 29590 Campanillas - Málaga - España
C.I.F. A29 507 456

Test report No:
NIE: 81503RCS.048

# Security Evaluation Report
## DEKRA Evaluation framework

| | |
|---|---|
| (*) Identification of item tested | App Version: 4.8.758106410 |
| (*) Trademark | Sound Amplifier |
| (*) Model and /or type reference tested | Sound Amplifier |
| (*) Derived model not tested | |
| Other identification of the product | com.google.android.accessibility.soundamplifier<br>(*) SHA256 Hash:<br>2fba3fbfa35369e92f387ec9b0c5a1b2a1209b081f11db838d8c3db42ceb5154 |
| (*) Features | Preloaded App installed in Android devices |
| Manufacturer | Google LLC |
| Test method requested, standard | Security Evaluation based on limited set of evaluation procedures from OWASP Mobile Application Security Verification Standard established by ADA, following PECS020_02 Google MASA Cybersecurity Testing Procedure. |
| Summary | IN COMPLIANCE |
| Approved by (name / position & signature) | Juan Manuel Martinez Hernandez \| Technical Leader |
| Date of issue | 16/09/2025 |
| Report template No | FCS316_00<br>(*) "Data provided by the client" |

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# Competences and guarantees

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The results presented in this Test Report apply only to the particular item under test established in this document.



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# Data provided by the client

The following data has been provided by the client:

1. Information relating to the description of the sample ("Identification of the item tested", "Trademark", "Model and/or type reference tested".

2. Information relating to the development version of the sample ("HW version", "FW version").

DEKRA Testing and Certification S.A.U. declines any responsibility with respect to the information provided by the client and that may affect the validity of results.

# Usage of samples

Samples undergoing test have been selected by: Google LLC

Sample M/01 is composed of the following elements:

| Control Nº | Description | Model | Serial Nº | Date of reception |
|---|---|---|---|---|
| 81503 | Sound Amplifier | Sound Amplifier | | 2025-06-11 |

# Test sample description

| | |
|---|---|
| **Sample Components …… :** | Software |
| | Sound Amplifier |

# Identification of the client

| | |
|---|---|
| **Company** | Google LLC |
| **Address** | 1600 Amphitheatre Parkway, Mountain View, California , U.S. |

# Testing period and place

| | |
|---|---|
| **Name** | DEKRA Testing and Certification, S.A.U. |
| **Test Location** | Parque Tecnológico de Andalucía - c/ Severo Ochoa nº 2 - 29590 Campanillas - Málaga - España |
| **Date (start)** | 2025/07/09 |
| **Date (finish)** | 2025/08/20 |

# Document history

| Report number | Date | Description |
|---|---|---|
| 81503RCS.048 | 20/08/2025 | Emitted Evaluation Report 048 |

# Remarks and Comments

Limited set of testing procedures from OWASP MASVS selected by ADA.

| Name | Position | Signature |
|---|---|---|
| Jose María Santos | Evaluator |  |
| Angel Montilla Muñoz | Project Manager |  |

# Testing verdicts

| | |
|---|---|
| PASS | P |
| FAIL | F |
| NA | NA |
| INCONCLUSIVE | INC |

# Summary: Mobile Profile Evaluation

| Storage-1: The app securely stores sensitive data in external storage | P | F | NA | INC |
|---|---|---|---|---|
| 1 The app shall securely store sensitive data in external storage | X | | | |

| Storage-2: The app prevents leakage of sensitive data | P | F | NA | INC |
|---|---|---|---|---|
| 1 The Keyboard Cache Is Disabled for sensitive data inputs | X | | | |
| 2 No sensitive data is stored in system logs | X | | | |

| Crypto-1: The app employs current strong cryptography and uses it according to industry best practices | P | F | NA | INC |
|---|---|---|---|---|
| 1 No insecure random number generators shall be utilized for any security sensitive context | X | | | |
| 2 No insecure operations shall be used for symmetric cryptography | X | | | |
| 3 Strong cryptography shall be implemented according to industry best practices | X | | | |

| Crypto-2: The app performs key management according to industry best practices | P | F | NA | INC |
|---|---|---|---|---|
| 1 Cryptographic keys shall only be used for their defined purpose | X | | | |
| 2 Cryptographic key management shall be implemented properly | X | | | |

| Auth-1: The app uses secure authentication and authorization protocols and follows the relevant best practices | P | F | NA | INC |
|---|---|---|---|---|
| 1 If using OAuth 2.0 for authorization, or if using OpenID Connect for authentication, Proof Key for Code Exchange (PKCE) shall be implemented to protect the code grant | | | X | |

| Network-1: The app secures all network traffic according to the current best practices | P | F | NA | INC |
|---|---|---|---|---|
| 1 Network connections shall be encrypted | X | | | |
| 2 TLS configuration of network connections shall adhere to industry best practices | X | | | |
| 3 Endpoint identity shall be verified on network connections | X | | | |

| Platform-1: The app uses IPC mechanisms securely | P | F | NA | INC |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1 The app shall limit content provider exposure and harden queries against injection attacks | X | | | |
| 2 The app shall use verified links and sanitize all link input data | X | | | |
| 3 Any sensitive functionality exposed via IPC shall be intentional and at the minimum required level | X | | | |
| 4 All Pending Intents shall be immutable or otherwise justified for mutability | X | | | |

| Platform-2: The app uses WebViews securely | P | F | NA | INC |
|---|---|---|---|---|
| 1 WebViews shall securely execute JavaScript | X | | | |
| 2 WebView shall be configured to allow the minimum set of protocol handlers required while disabling potentially dangerous handlers | X | | | |

| Platform-3: The app uses the user interface securely | P | F | NA | INC |
|---|---|---|---|---|
| 1 The app shall by default mask data in the User Interface when it is known to be sensitive | X | | | |

| Code-1: The app requires an up-to-date platform version | P | F | NA | INC |
|---|---|---|---|---|
| 1 The app shall set the targetSdkVersion to an up-to-date platform version | X | | | |

| Code-2: The app only uses software components without known vulnerabilities | P | F | NA | INC |
|---|---|---|---|---|
| 1 The app only uses software components without known vulnerabilities | X | | | |

| Code-3: The app validates and sanitizes all untrusted inputs | P | F | NA | INC |
|---|---|---|---|---|
| 1 Compiler security features shall be enabled | X | | | |
| 2 The App shall Mitigate Against Injection Flaws in Content Providers | X | | | |
| 3 Arbitrary URL redirects shall not be included in the app's webviews | X | | | |
| 4 Any use of implicit intents shall be appropriate for the app's functionality and any return data shall be handled securely | X | | | |

| Resilience-1: The app implements anti-tampering mechanisms | P | F | NA | INC |
|---|---|---|---|---|
| 1 The app shall be properly signed | X | | | |

| Resilience-2: The app implements anti-static analysis mechanisms | P | F | NA | INC |
|---|---|---|---|---|
| 1 The app shall disable all debugging symbols in the production version | X | | | |

| Resilience-3: The app implements anti-dynamic analysis mechanisms | P | F | NA | INC |
|---|---|---|---|---|
| 1 The app shall not be debuggable if installed from outside of commercial app stores | X | | | |

| Privacy-1: The app minimizes access to sensitive data and resources | P | F | NA | INC |
|---|---|---|---|---|

| | | | | |
|---|---|---|---|---|
| 1 The app shall minimize access to sensitive data and resources provided by the platform | X | | | |

| Privacy-2: The app is transparent about data collection and usage | P | F | NA | INC |
|---|---|---|---|---|
| 1 The app shall be transparent about data collection and usage | X | | | |

| Privacy-3: The app offers user control over their data | P | F | NA | INC |
|---|---|---|---|---|
| 1 Users shall have the ability to request their data to be deleted via an in-app mechanism | | | X | |

# **Appendix A:** Test results

## 1. Categories, Security Features and Categories Summary

Security Evaluation of the ToE has been divided into different categories,

Security Analysis of each category is structured in different security features. In the same way, each security feature can be composed of several tests.

The following table shows the security features defined per each category and the number of tests of each security feature.

| Category | Security Features | Nº TESTS |
|---|---|---|
| 1. Mobile Profile Evaluation | 1.1 Storage-1: The app securely stores sensitive data in external storage | 1 |
| | 1.2 Storage-2: The app prevents leakage of sensitive data | 2 |
| | 1.3 Crypto-1: The app employs current strong cryptography and uses it according to industry best practices | 3 |
| | 1.4 Crypto-2: The app performs key management according to industry best practices | 2 |
| | 1.5 Auth-1: The app uses secure authentication and authorization protocols and follows the relevant best practices | 1 |
| | 1.6 Network-1: The app secures all network traffic according to the current best practices | 3 |
| | 1.7 Platform-1: The app uses IPC mechanisms securely | 4 |
| | 1.8 Platform-2: The app uses WebViews securely | 2 |
| | 1.9 Platform-3: The app uses the user interface securely | 1 |
| | 1.10 Code-1: The app requires an up-to-date platform version | 1 |
| | 1.11 Code-2: The app only uses software components without known vulnerabilities | 1 |
| | 1.12 Code-3: The app validates and sanitizes all untrusted inputs | 4 |
| | 1.13 Resilience-1: The app implements anti-tampering mechanisms | 1 |
| | 1.14 Resilience-2: The app implements anti-static analysis mechanisms | 1 |
| | 1.15 Resilience-3: The app implements anti-dynamic analysis mechanisms | 1 |
| | 1.16 Privacy-1: The app minimizes access to sensitive data and resources | 1 |
| | 1.17 Privacy-2: The app is transparent about data collection and usage | 1 |
| | 1.18 Privacy-3: The app offers user control over their data | 1 |

## 2. Detailed Results

Complete results of the evaluation procedures carried on each category can be seen in the following attached documents:

| Number | Appendix | Document Name |
|---|---|---|
| 1 | A. 1 | Mobile Profile Evaluation Report |