



Products Claims Testing
Application Number ADPC0088
Vexwire LLC

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DISCLAIMER

The Product Claims Test is presented as the outcome of a specific test ran in laboratory environment under controlled conditions. Use of this certified product for the purpose of sanitizing data from devices tested needs to be done so after a risk assessment process. ADISA reserves the right to review the validity of this award upon changes in threat landscape.

LIABILITY

ADISA accepts no liability for any claims resulting from the use of the product tested.

REVISION HISTORY

22/06/2020 Revision 1.0 issued to Vexwire

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1.0 Executive Summary

This is a report detailing the findings in relation to the execution of the ADISA Testing Methodology on Claims Test ADPC0088 submitted by Vexwire in 14th May 2020.

The claims test was carried out in accordance with ADISA Claims Testing (ACT) v1.0 and supporting document ADISA Testing Methodology v1.0, both of which are available from ADISA.

The claim made for the phone was:

“Vexwire LLC software Vexwipe 20.3.6 when used in accordance with user manual 1.0 and using algorithm specified within this application will render all user data on the hardware sample within this test unrecoverable against a forensic attack equivalent to test level 1 of the ADISA Threat Matrix.”, ADPC0088

Two devices were submitted as part of this test and these are listed below:

| Device | Test Level |
|--------------------------------------|-------------------|
| iPhone 8 Model: MDA256 | 1 |
| Samsung Galaxy S9 Model: SM-G960F | 1 |

After testing it is confirmed that the Vexwire LLC claim is true for the devices tested up to Test Level 1 results. Those devices are:

- iPhone 8 Model: MDA256
- Samsung Galaxy S9 Model: SM-G960F

2.0 Test Level 1 Testing Smart Phones and Tablets

2.1 Methodology.

This test phase is designed to evaluate the claim made by recreating an attack by a threat adversary utilising standard COTS forensic tools and techniques. (e.g. Oxygen). For each device the following methodology is performed.

1. The applicant software was configured in accordance with the manufacturer's instructions.
2. A factory reset is performed on each device in accordance with the device manufacturers instructions.
3. A SIM was inserted into the device and the device connected to a Wi-Fi network.
4. The following data is placed on each device:
 - a. A standard pin to unlock the device '123456'
 - b. WIFI credentials;
 - c. Pictures and Movies;
 - d. SMS, MMS, Phone Calls;
 - e. Contact Details and Diary Events
 - f. Internet Browsing and Internet Email.
5. To create a Base Image for comparison the device was then imaged using Oxygen.
6. The device was then placed in a forensic bag and shipped to Vexwire.
7. Upon receipt of the device at Vexwire, a video conference session was established with the ARC and the forensic seals on the bag containing the device were checked to prove that the device had not been tampered with.
8. Under remote supervision of the ARC the device was then removed from the forensic bag and the test software was used to perform data erasure on the device.
9. Upon completion of the test software the device was placed in a new forensic bag. The forensic bag was then sealed and shipped back to the ARC. At no time during the process at Vexwire were the target media samples out of the vision of the ARC.
10. Upon arrival at the ARC the forensic seals on the bag containing the device were checked to ensure that they were intact and had not been tampered with.
11. The device was then removed from the forensic bag and imaged using Oxygen to create the test image.
12. The test image was then data carved to identify any images and the results compared with the base-image constructed in step 5.

2.2 Test Results.

Test Level 1 Summary Results

Test Level 1 replicated an attack on this device being made by an aggressor with capabilities outlined below.

| Risk Level | Threat Actor and Compromise Methods | Test Level |
|------------|---|------------|
| 1 (Low) | Casual or opportunistic threat actor only able to mount high-level non-invasive and non-destructive software attacks utilising freeware, OS tools and COTS products. Commercial data recovery organisation able to mount non-invasive and non-destructive software attacks and hardware attacks. | 1 |

The Results of Test Level 1

| Family | Operating System | Result |
|-------------------|------------------|--------|
| Apple iPhone 8 | iOS 11.3 | PASS |
| Samsung Galaxy S9 | Android OS 8.0.0 | PASS |

Pass means that *Vexwipe 20.3.6* mitigates the threat posed by the Threat Actors holding the capabilities outlined by Test Level 1.

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3.0 Summary and Conclusions.

Claims Test Result: Pass on all devices tested.

The two devices passed the claims test as all-forensic data recovery techniques up to and including ADISA Test Level 1 failed to recover any data. The software tested was the *Vexwipe 20.3.6*.

Claims Test Carried Out By: Dr Andrew Blyth, PhD.

Test Facility: ADISA Research Centre

Signature:



Date: 19th June 2020

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