



**Products Claims Testing
Application Number ADPC0054
Teleplan Technology**

**Author: Professor Andrew Blyth,
University of South Wales**

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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

16/02/2018 Revision 1.0 issued to Steve Mellings



**Asset Disposal and Information Security
Alliance Limited**

Phone: 0044 845 557 7726

Web: www.adisa.global

Registration Number: 07390092

Registered Office: 31 Thrales End Business
Centre, Thrales End Lane, Harpenden, AL5 3NS



University of South Wales

Phone: 0044 845 576 0101

Web: www.southwales.ac.uk

Contents

1.0	Executive Summary	4
2.0	Test Level 1 Testing Solid State and Electromagnetic Drives	5
2.1	Methodology.	5
3.0	Test Level 2 Testing Solid State Drive	6
3.1	Methodology.	6
4.0	Test Level 2 Testing Electromechanical Drive	8
4.1	Methodology.	8
5.0	Summary and Conclusions.	10

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1.0 Executive Summary

This is a preliminary report detailing the findings in relation to the execution of the ADISA Testing Methodology on Claims Test ADPC0054 submitted by Teleplan in November 2018.

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 drive was:

“Teleplan's Proteus, when used in accordance with user manual P-CU-002-001, where by selecting the appropriate HDD or SSD test case, will invoke an algorithm which does a multi-pass overwriting completing with hex pattern 0x00. If supported by subject under test firmware provided algorithms may be used to reinforce the erasure.

All user data on the sample media listed within this claims application, cannot be recovered using techniques aligned to ADISA Test Level 2 after over writing has taken place. ADPC0054”

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

Device	Test Level
Western Digital Blue NAND SSD 250GB Model: WDS250G2B0A-00SM50	1 and 2
Toshiba HDD Model: DT01ACA050	1 and 2

After testing it is confirmed that the Teleplan **claim is true** for the devices tested up to Test Level 1 and 2 results. Those devices are:

- Western Digital Blue NAND SSD 250GB Model: WDS250G2B0A-00SM50
- Toshiba HDD Model: DT01ACA050

2.0 Test Level 1 Testing Solid State and Electromagnetic Drives

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.

For each computer hard drive device, the following methodology is performed:

1. Structured data, the string "ISRG", was written to every logical block address on the hard drive.
2. The device was then imaged using Access Data / FTK to create a base-line forensic image.
3. The device was then erased using the applicant's software in accordance with the manufacturer's instructions.
4. The device was then analysed using the following tools to create a second forensic image:
 - a. Standard commercial tools and techniques such as Access Data/FTK and Encase.
5. The two forensic images (Stage 3 and Stage5) were then compared and contrasted to ensure that all structured data had been removed.
 - a. For this test, there is no tolerance for remnant structured data and the result is a straight Pass or Fail.

2.2 Test Results.

Test Level 1 Summary Results

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

Risk Level	Threat Actor and Compromise Methods	Test Level
1 (Very 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.	1
2 (Low)	Commercial data recovery organisation able to mount non-invasive and non-destructive software attacks and hardware attacks.	1

The Results of Test Level 1.

Hard Drive/Model	Result
Western Digital Blue NAND SSD 250GB Model: WDS250G2B0A-00SM50	PASS
Toshiba HDD Model: DT01ACA050	PASS

Pass means that the Teleplan Proteus.2.16D-14 mitigates the threat posed by the Threat Actors holding the capabilities outlined by Test Level 1 on the tested devices and the claim made can be confirmed. A key element to the claims test is that the software has to be used in accordance with the manufacturer's user manual.

3.0 Test Level 2 Testing Solid State Drive

3.1 Methodology.

This test phase is designed to evaluate the claim made by recreating an attack by a threat adversary utilising standard intrusive/destructive testing tools designed to read data directly off the device at the platter/chip level.

For each computer hard drive device, the following methodology is performed:

1. The device is connected to a target PC and place in a stable state.
2. Structured data, the string "ISRG", was written to every logical block address on the hard drive.
3. The device was then imaged using Access Data/FTK to create a base-line forensic image.
4. The device was then erased using the Applicants Software in accordance with the manufacturer's instructions.
5. The device was then analysed use the following tools and techniques to create a series of forensic images that are compared and contrasted with the base-line forensic image to ensure that all structured data has been removed. For this test, there is no tolerance for remnant structured data and the result is a straight Pass or Fail.
 - a. Software based forensic tools/techniques such as:
 - i. Standard commercial tools and techniques such as Access Data/FTK and ENCcase;
 - ii. State of the art data recovery tools such as PC3000 SSD;
 - iii. Customer designed data recovery software.
 - b. Hardware/Chip based forensic tools/techniques such as:
 - i. Flash/NAND TSOP/BGA chip readers;
 - ii. State of the art data recovery tools such as PC3000 FLASH and Rusolut;
 - iii. Customer designed data recovery software/hardware.

3.2 Test Results.

Test Level 2 Summary Results

Test Level 2 replicated an attack on these devices being made by an aggressor with capabilities outlined below.

Risk Level	Threat Actor and Compromise Methods	Test Level
3 (Medium)	Commercial computer forensics organisation able to mount both non-invasive/non-destructive and invasive/non-destructive software and hardware attack, utilising COTS products.	2
4 (High)	Commercial data recovery and computer forensics organisation able to mount both non-invasive/non-destructive and invasive/ non-destructive software and hardware attack, utilising both COTS and bespoke utilities.	2

The Results of Test Level 2.

<i>Hard Drive/Model</i>	<i>Result</i>
Western Digital Blue NAND SSD 250GB Model: WDS250G2B0A-00SM50	PASS

Pass means that the Teleplan Proteus.2.16D-14 mitigates the threat posed by the Threat Actors holding the capabilities outlined by Test Level 2 on the tested devices and the claim made can be confirmed. A key element to the claims test is that the software has to be used in accordance with the manufacturer's user manual.

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4.0 Test Level 2 Testing Electromechanical Drive

4.1 Methodology.

This test phase is designed to evaluate the claim made by recreating an attack by a threat adversary utilising standard intrusive/destructive testing tools designed to read data directly off the device at the platter/chip level.

For each computer hard drive device, the following methodology is performed:

1. The device is connected to a target PC and place in a stable state.
2. Structured data, the string "ISRG", was written to every logical block address on the hard drive.
3. The device was then imaged using Access Data/FTK to create a base-line forensic image.
4. The device was then erased using the Applicants Software in accordance with the manufacturer's instructions.
5. The device was then analysed use the following tools and techniques to create a series of forensic images that are compared and contrasted with the base-line forensic image to ensure that all structured data has been removed. For this test, there is no tolerance for remnant structured data and the result is a straight Pass or Fail.
 - a. Software based forensic tools/techniques such as:
 - i. Standard commercial tools and techniques such as Access Data/FTK and Encase;
 - ii. State of the art data recovery tools such as PC3000 UDMA/SAS;
 - iii. Customer designed data recovery software.

4.2 Test Results.

Test Level 2 Summary Results

Test Level 2 replicated an attack on these devices being made by an aggressor with capabilities outlined below.

Risk Level	Threat Actor and Compromise Methods	Test Level
3 (Medium)	Commercial computer forensics organisation able to mount both non-invasive/non-destructive and invasive/non-destructive software and hardware attack, utilising COTS products.	2
4 (High)	Commercial data recovery and computer forensics organisation able to mount both non-invasive/non-destructive and invasive/ non-destructive software and hardware attack, utilising both COTS and bespoke utilities.	2

The Results of Test Level 2.

<i>Hard Drive/Model</i>	<i>Result</i>
Toshiba HDD Model: DT01ACA050	PASS

Pass means that the Teleplan Proteus.2.16D-14 mitigates the threat posed by the Threat Actors holding the capabilities outlined by Test Level 2 on the tested devices and the claim made can be confirmed. A key element to the claims test is that the software has to be used in accordance with the manufacturer's user manual.

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5.0 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 and 2 failed to recover any data. The software tested was the Teleplan Proteus.2.16D-14.

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

Test Facility: University of South Wales

Signature:



Date: 28th November 2018

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