SALVATIONDATA
TECHNOLOGY

ONE-STOP INTEGRATED DIGITAL FORENSIC LAB SOLUTION

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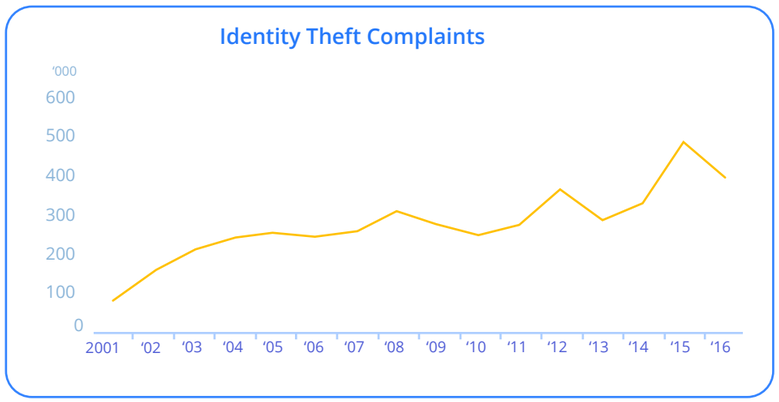
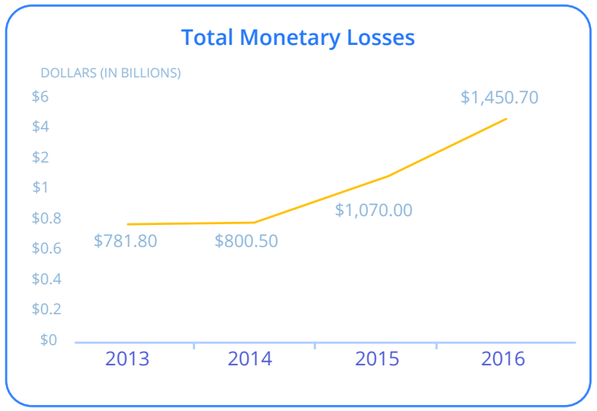
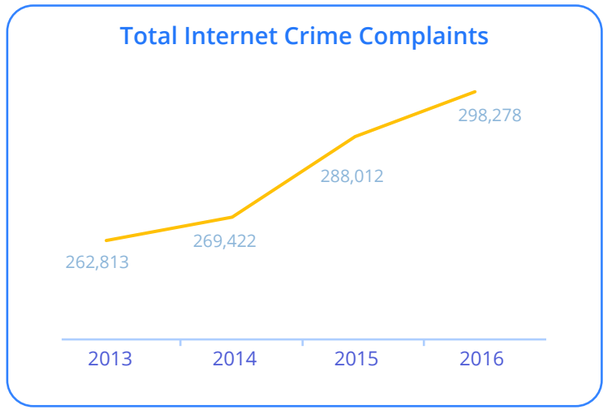
I. Crimes **Grow Fast** in Current Society







Source
Federal Bureau of Investigation, *"Internet Crime Complaint Center: 2016 Internet Crime Report"*, p. 2.
Federal Trade Commission, *"Consumer Sentinel Network: Consumer Sentinel Network Data Book"*. March 2017. Page 5

Despite the rapid development of society, criminal activities have not decreased with the development of technology in recent years

On the contrary, statistics show that our society is far from as safe as we hope. In addition, in most cases, digital-related criminal activities caused by technological development account for the majority of all criminal activities.

It has to be controlled under forceful public security!

"Much more than that, it still keeps increasingly growing."

II. Digital Evidence of Modern World of Data to Be Handled **Efficiently and Scientifically**, Especially For Law Enforcement

"Thousands of questions out there are truly restricting digital investigators from coping with the cases."

"They urgently need scientific answers to all of them!"

- Incalculable amounts of digital data are stored in digital devices/ files/programs. These data written in machine language may contain critical evidence or intelligence, which cannot be directly read and analyzed by humans.
- Each digital device has its own protection mechanism, how could we get access into?
- Any software & hardware tools able to acquire those data efficiently?
- Are they user-friendly enough for everyone?
- How can we pinpoint the key clues from numerous data?

III. One-Stop, Integrated Digital Forensic **Laboratory Solution**

VIDEO FORENSICS

DATABASE FORENSICS

MOBILE FORENSICS

COMPUTER FORENSICS & DATA RECOVERY

Being born as the most ultimate solution for Crime Investigation, the One-Stop Integrated Digital Forensic Laboratory Solution from SalvationDATA is devoted to providing the most effective, efficient, user-friendly and professional Digital Forensic Assistance.

"Utilizing one-stop integrated digital forensic laboratory solution from SalvationDATA, digital investigators will deal With each digital evidence confidently and comfortably!"

IV. Just **Get Started** with One-Stop Integrated Digital Forensic Lab Solution

“More and more countries adopt the one-stop digital forensic laboratory solution.”

Nowadays, more and more countries start to adopt the one-stop digital forensic laboratory solution instead of free combination one (with different but single forensic tools assembled in) to build a **modern digital forensic lab** with necessary hardware equipment and software have been systematically integrated at an affordable cost.

Applying to the **most advanced forensic technologies** is regarded as the fundamental investment to the IT infrastructure which could significantly improve the ability in digital forensics and intelligence reconnaissance for every main body in different level.

Furthermore, the investigator will be able to utilize those facilities on their own in dealing with daily cases and professional training from SalvationDATA, and it helps the country to develop their independent ability through accepting the whole set of concepts physically and mentally. Meanwhile, it also **gives them the strength** and confidence to learn the new coming technologies step by step.

V. What's the **Difference** Between Using Digital Forensic Laboratory and Not?

Not Using

The forensic tools and hardware that placed separately might be **inconvenient** when you work with cases;

Single laptop or traditional forensic tower has the default configuration which **may not be compatible** with various forensic software;

No functional division and no corresponding processing mechanism;

Various forensic software exports the digital **data in various formats** and some might ask for specific readers, without standard processing;

No case management and no one knows the procedure or steps of the forensic job, what leads to unawareness about the current status;

Collected unstructured data need to **further be processed** with additional analytical tools;

Common office environment is not appropriate to accommodate people who don't usually work there;

Traditional labs are common to view which has no visual impact on the civilians.

Using

Clean and neat workplace with hardware, cables, accessories and interfaces carefully organized;

High-performance forensic workstation with forensic hardware built inside has better compatibility with other forensic solutions;

Functional divisions have been set for **dealing with specialized cases** which greatly improves the efficiency;

Systematized data processing through the integration of hardware and software makes the form of forensic data and digital evidence unified and reading friendly

Professional case management makes every process to the point and clear to be seen;

Helps the users to gather the digital evidence and intelligence in the **structured way** as much as possible;

Modernized lab environment provides a professional place to the investigator, practitioner, scholar, or researcher;

Scientific laboratory scene enhances the government's **public impression and credibility**, and is regarded as an advanced IT infrastructure.

V. What's the **Difference** Between Using Digital Forensic Laboratory and Not?

Benefits of Using a Digital Forensic Laboratory

Less labor cost and higher investigation accuracy rate by following the scientific digital forensic work-flow;

Reliable potential clues generated by the most advanced **Big Data** Analysis system;

Visualization case processing under Durable Hardware Platform;

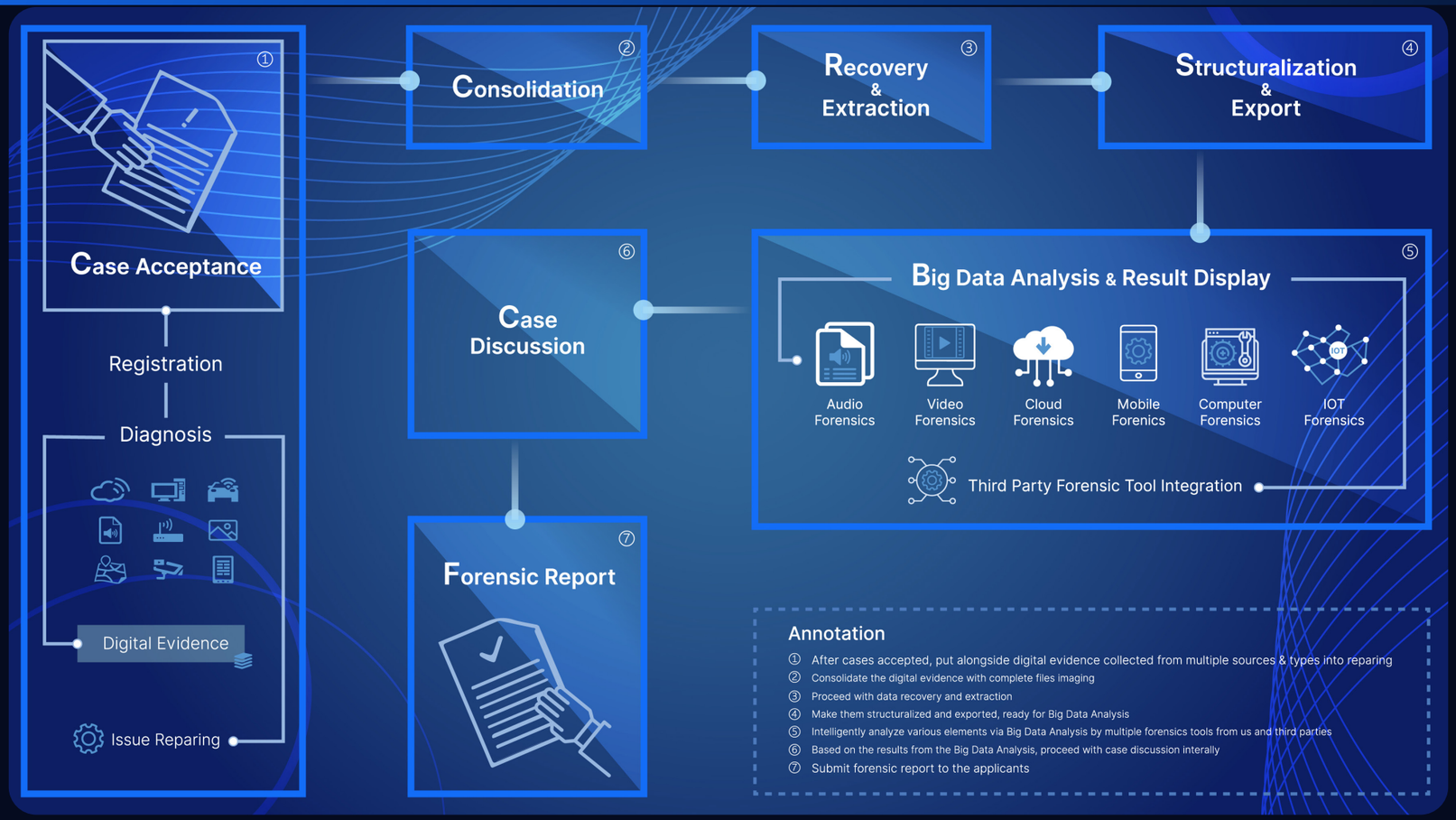
Effective complicated investigation functions decomposed by **integrated multiple digital forensic tools**.

Lack of innovation and tech-oriented concepts for crime investigations have caused the profound loss of efficiency. Such an approach is just not responsible towards civilians of every single country all over the world.

Though, we've realized tons of cases that are solved by Digital Forensic Laboratories and most of the cases were solved easier this way, there is still a lot of those, who stick to conventional methods, which cause loss and hardships.

*"We believe you've already been aware of the benefits of deploying the digital forensic laboratory. In this case, **why don't we jump deeper into it?**"*

VI. How Does One-Stop Integrated Digital Forensic Laboratory Make the Investigation Process More Efficient and Scientific?



Overall Workflow of One-Stop Integrated Digital Forensic Laboratory

Workflow

Normative workflow to ensure the validity and legality of digital evidence. Protect the original data resource that hasn't been tempered with every possibility and deal with them scientificly and efficiently from multiple devices to find out the potential clues.

Process

Complete procedure assurance that the appeal to users with ideal result can be presented.

Ability

Professional training and friendly operation enable the users to utilize software, harware and generate legal and visualized reports.

Measure

Advanced integrated digital forensic technologies enable the users to have tools to dispose of various and variety of cases.

Hardware Platform

SalvationDATA manufactures a full set of equipments which could be utilized to create the IT center, command center, security center and digital forensic lab with scientific modules, to serve multiple industries.

Project Design

With 20 years of experience serving the global customers, SalvationDATA is able to design, integrate and carry out the a comprehensive project which combines the advanced software system, exquisite hardware, futuristic interior decoration and implementation services, according to the demand of users. Eventually, the customers could enjoy a complete solution.

Digital Forensics

Independent development and numerous research achievements at patented technologies in the data recovery and digital forensic ensure that SalvationDATA has the global leading position in providing software solutions.

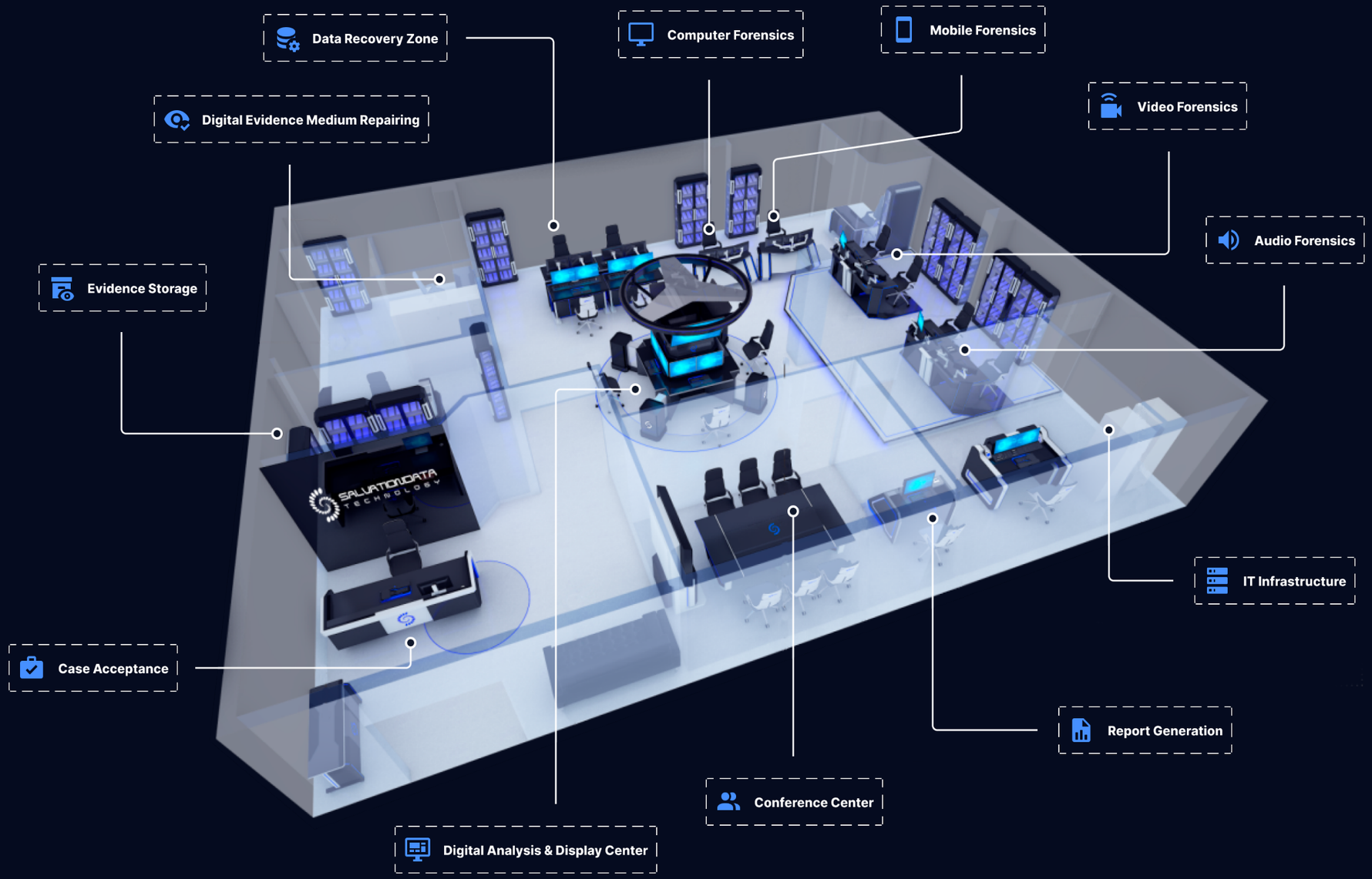
Professional Service

SalvationDATA supports the users from law enforcement, police, military, intelligence department, scientific institute, academy and university, IT and financial enterprises world-wide, dedicated to offering the service through utilizing our software and hardware or specialized tools from third parties to assist the users to cope with the challenges happened in the daily cases at the point of view from front-line work in actual.

"Apart from all these professional and normative procedures, a precise functional division with corresponding equipment is going to better specify the investigators' working ranges and flows among every step."

VII. Standard Configuration

One-Stop Integrated Digital Forensic Laboratory Function Division



Standard Equipment Demonstration

HARDWARE EQUIPMENT

- Forensic Workbench
- Intelligent Forensic Workstation
- Intelligent Data Analysis and Visualization center
- Security Locker
- Conference Center
- IT infrastructure: *server UPS, LAN*

ASSISTANT SYSTEM

- Access control System
- CCTV Surveillance System
- Case Management System

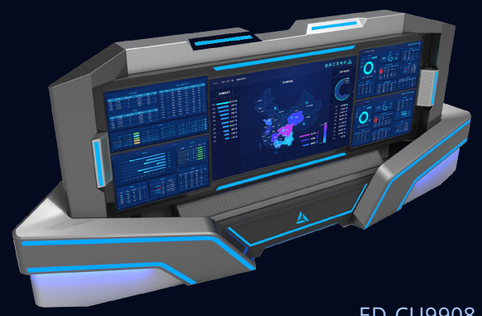
SOFTWARE TOOLS

- Video Forensics
- Mobile Forensics
- Computer Forensics and Data Recovery
- Audio Forensics

*"All in all, with all these pros of applying One-Stop Integrated Digital Forensic Lab, nobody is supposed to be fall behind and refuse to chase **the most cutting-edge technology** in their digital forensics works!"*

Hardware Equipment

Conference Tables

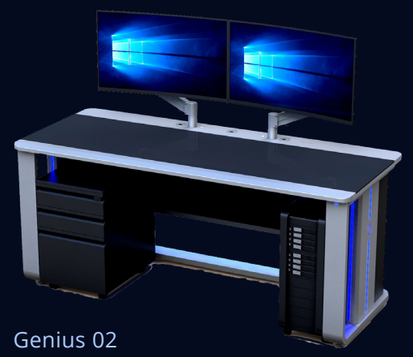


ED-CU9908

ED-PU9506

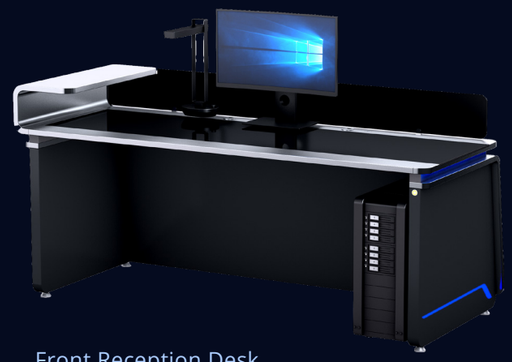
ED-PU9504

Forensic Workbench



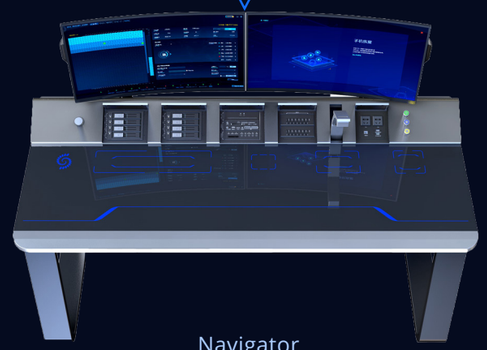
Genius 02

Genius 01



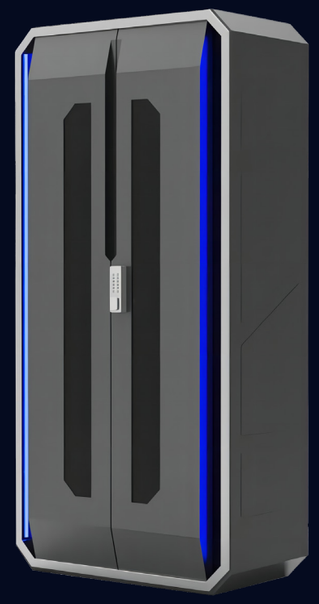
Front Reception Desk

Intelligent Forensic Workstation



Navigator

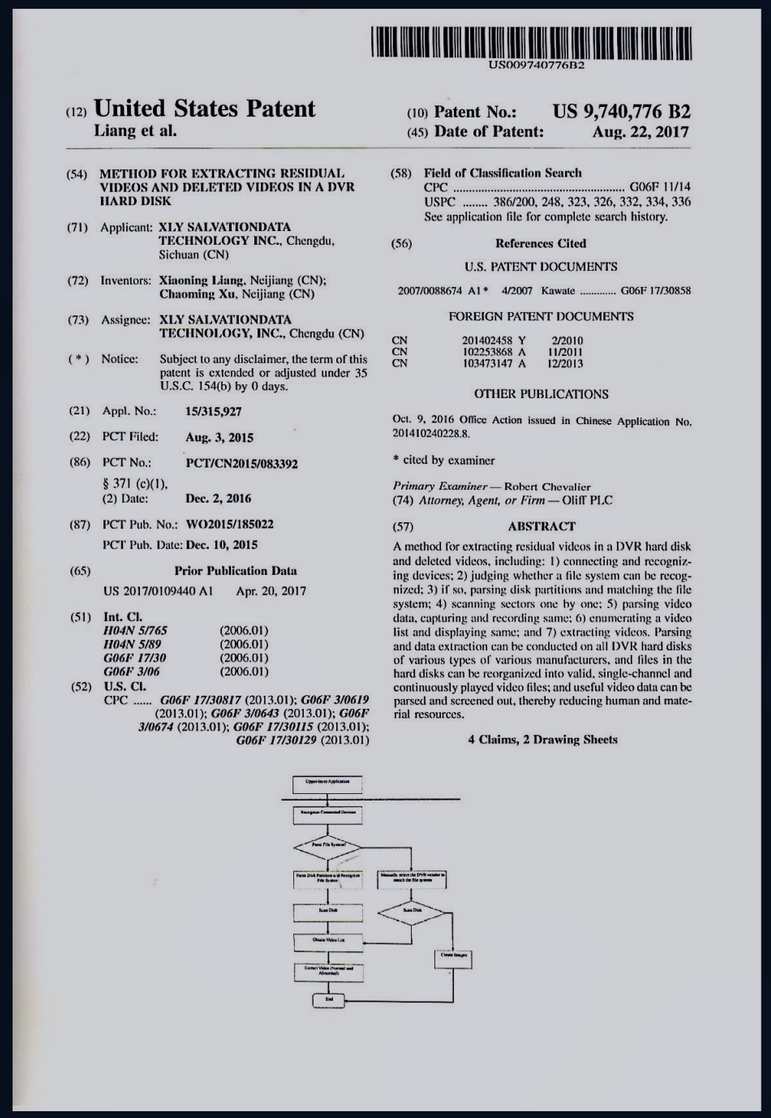
Security Locker



VIII. Testimonials

Our products have been certified by FCC(US) and CE(EU) and selected into the CFTT forensics tool list of NIST American Institute of Science. At present, they are **widely used in numerous digital forensics laboratories around the world.**

USPTO



US009740776B2

(12) **United States Patent**
Liang et al.

(10) **Patent No.: US 9,740,776 B2**
(45) **Date of Patent: Aug. 22, 2017**

(54) **METHOD FOR EXTRACTING RESIDUAL VIDEOS AND DELETED VIDEOS IN A DVR HARD DISK**

(71) Applicant: **XLY SALVATIONDATA TECHNOLOGY INC.**, Chengdu, Sichuan (CN)

(72) Inventors: **Xiaoning Liang**, Neijiang (CN); **Chaoming Xu**, Neijiang (CN)

(73) Assignee: **XLY SALVATIONDATA TECHNOLOGY, INC.**, Chengdu (CN)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **15/315,927**

(22) PCT Filed: **Aug. 3, 2015**

(86) PCT No.: **PCT/CN2015/083392**
§ 371 (c)(1),
(2) Date: **Dec. 2, 2016**

(87) PCT Pub. No.: **WO2015/185022**
PCT Pub. Date: **Dec. 10, 2015**

(65) **Prior Publication Data**
US 2017/0109440 A1 Apr. 20, 2017

(51) **Int. Cl.**
H04N 5/765 (2006.01)
H04N 5/89 (2006.01)
G06F 17/30 (2006.01)
G06F 3/06 (2006.01)

(52) **U.S. Cl.**
CPC ***G06F 17/30817*** (2013.01); ***G06F 3/0619*** (2013.01); ***G06F 3/0643*** (2013.01); ***G06F 3/0674*** (2013.01); ***G06F 17/30115*** (2013.01); ***G06F 17/30129*** (2013.01)

(58) **Field of Classification Search**
CPC G06F 11/14
USPC 386/200, 248, 323, 326, 332, 334, 336
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2007/0088674 A1 * 4/2007 Kawate G06F 17/30858

FOREIGN PATENT DOCUMENTS

CN 201402458 Y 2/2010
CN 102253868 A 11/2011
CN 103473147 A 12/2013

OTHER PUBLICATIONS

Oct. 9, 2016 Office Action issued in Chinese Application No. 201410240228.8.

* cited by examiner

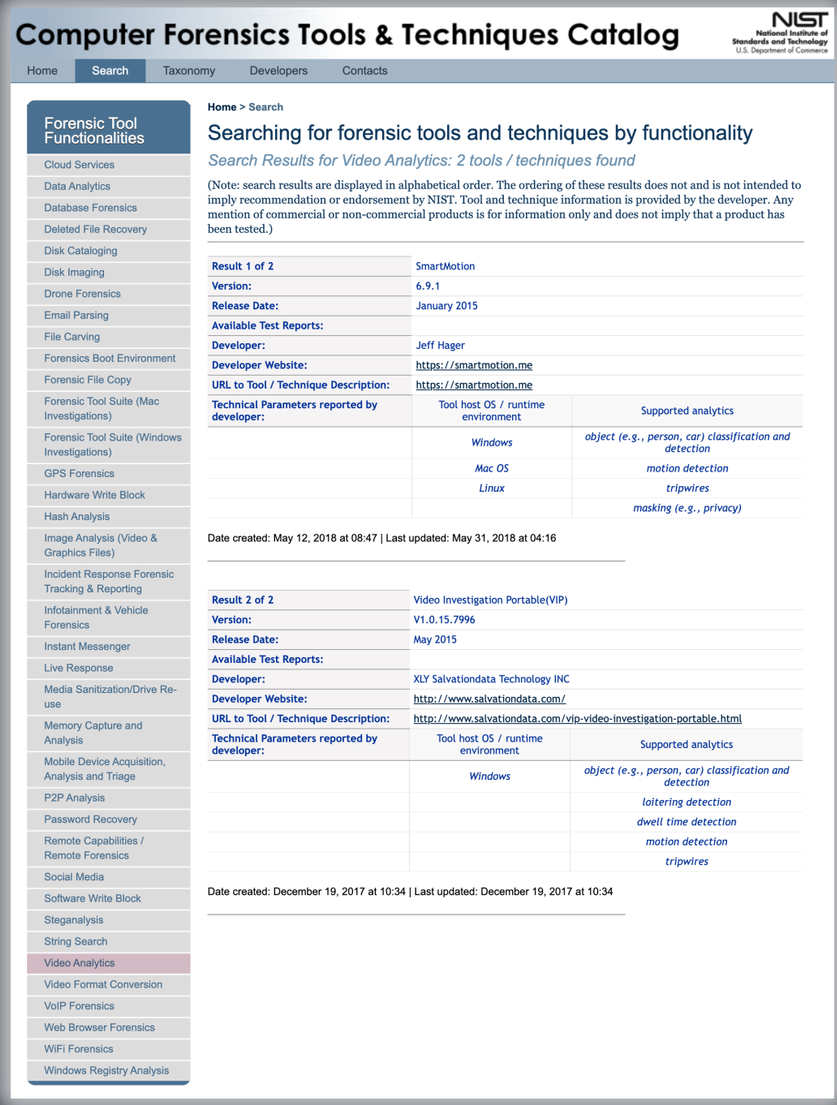
Primary Examiner — Robert Chevalier
(74) *Attorney, Agent, or Firm* — Oliff PLC

(57) **ABSTRACT**

A method for extracting residual videos in a DVR hard disk and deleted videos, including: 1) connecting and recognizing devices; 2) judging whether a file system can be recognized; 3) if so, parsing disk partitions and matching the file system; 4) scanning sectors one by one; 5) parsing video data, capturing and recording same; 6) enumerating a video list and displaying same; and 7) extracting videos. Parsing and data extraction can be conducted on all DVR hard disks of various types of various manufacturers, and files in the hard disks can be reorganized into valid, single-channel and continuously played video files; and useful video data can be parsed and screened out, thereby reducing human and material resources.

4 Claims, 2 Drawing Sheets

NIST



Computer Forensics Tools & Techniques Catalog

NIST National Institute of Standards and Technology U.S. Department of Commerce

Home | Search | Taxonomy | Developers | Contacts

Forensic Tool Functionalities

- Cloud Services
- Data Analytics
- Database Forensics
- Deleted File Recovery
- Disk Cataloging
- Disk Imaging
- Drone Forensics
- Email Parsing
- File Carving
- Forensics Boot Environment
- Forensic File Copy
- Forensic Tool Suite (Mac Investigations)
- Forensic Tool Suite (Windows Investigations)
- GPS Forensics
- Hardware Write Block
- Hash Analysis
- Image Analysis (Video & Graphics Files)
- Incident Response Forensic Tracking & Reporting
- Infotainment & Vehicle Forensics
- Instant Messenger
- Live Response
- Media Sanitization/Drive Re-use
- Memory Capture and Analysis
- Mobile Device Acquisition, Analysis and Triage
- P2P Analysis
- Password Recovery
- Remote Capabilities / Remote Forensics
- Social Media
- Software Write Block
- Steganalysis
- String Search
- Video Analytics
- Video Format Conversion
- VoIP Forensics
- Web Browser Forensics
- WiFi Forensics
- Windows Registry Analysis

Home > Search

Searching for forensic tools and techniques by functionality

Search Results for Video Analytics: 2 tools / techniques found

(Note: search results are displayed in alphabetical order. The ordering of these results does not and is not intended to imply recommendation or endorsement by NIST. Tool and technique information is provided by the developer. Any mention of commercial or non-commercial products is for information only and does not imply that a product has been tested.)

Result 1 of 2	SmartMotion
Version:	6.9.1
Release Date:	January 2015
Available Test Reports:	
Developer:	Jeff Hager
Developer Website:	https://smartmotion.me
URL to Tool / Technique Description:	https://smartmotion.me

Technical Parameters reported by developer:	Tool host OS / runtime environment	Supported analytics
	Windows	*object (e.g., person, car) classification and detection*
	Mac OS	*motion detection*
	Linux	*tripwires*
		masking (e.g., privacy)

Date created: May 12, 2018 at 08:47 | Last updated: May 31, 2018 at 04:16

Result 2 of 2	Video Investigation Portable(VIP)
Version:	V1.0.15.7996
Release Date:	May 2015
Available Test Reports:	
Developer:	XLY Salvationdata Technology INC
Developer Website:	http://www.salvationdata.com/
URL to Tool / Technique Description:	http://www.salvationdata.com/vip-video-investigation-portable.html

Technical Parameters reported by developer:	Tool host OS / runtime environment	Supported analytics
	Windows	*object (e.g., person, car) classification and detection*
		loitering detection
		dwell time detection
		motion detection
		tripwires

Date created: December 19, 2017 at 10:34 | Last updated: December 19, 2017 at 10:34

Feedback From Clients

SOUTH ASIAN COUNTRY CUSTOMER

As the technical agent of our government we've been searched and visited many famous IT enterprises all over the world. These years digital forensics becomes increasingly important to my investigative customers, we used to touch the forensic products from Western countries so we can say we had the evaluation about the global vendors. What surprises me is that, nowadays more and more IT enterprises in China like ***SalvationDATA*** has a strong performance in this field. Once we visited their R&D center, saw their modern equipment and met their technical team, we realized we found a powerful resource which could support our country to establish the most advanced digital forensic lab through their integrated solutions. As we know, ***SalvationDATA*** served the law enforcement customers world-wide for over 18 years and they are willing to share their case experiences with us as the value-added service along with their products. All in all, they actually helped our country to master the core ability in this field instead of just offering us the products.

MIDDLE EAST CUSTOMER

We're located in Dubai to serve for the UAE government with the latest and best technologies in this world. Before we knew ***SalvationDATA***, our impression and idea about digital forensics and cyber-security had paused in one or two single products from a few enterprises which were extremely confined. Honestly, we just can' t believe that the modern IT labs are widely used everywhere in China and their technologies play a significant role in their daily investigative job. Our economy relies on the security environment and that's the reason why we are keeping chasing the leading technical solutions to be applied in our places. So, why don't we just immediately deploy the modern labs like this?

IX. Worldwide Company with Users and Partners All Over the World

SOUTHEAST ASIA COUNTRIES:

Indonesia, Malaysia, Thailand, Brunei

SOUTH ASIA:

Pakistan, India, Nepal

MIDDLE EAST:

Saudi Arab, UAE, Qatar, Lebanon

EUROPE:

Italy, Latvia, Turkey

AFRICA:

South Africa, Uganda, Kenya, Malawi, Egypt, Algeria, etc.

Let's start to work with the modernized digital forensic lab and advanced tools!

To learn more about us, please visit: *www.salvationdata.com*

For requesting a quote or a trial, please leave a message to us: *https://www.salvationdata.com/contact-us/*

For cooperation, please contact: *info@salvationdata.com*