



Secure • Compliant • Green

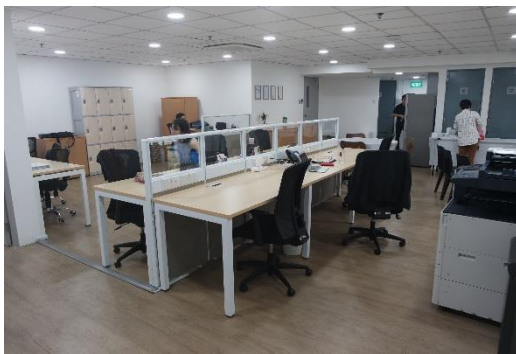
## COMPANY PROFILE

eWaste Recycling & ITAD Services  
**Sustainable Asset Management Solutions**

[www.samsolu.com](http://www.samsolu.com)



# OUR FACILITY



Facility located : 31 Penjuru Lane, 04-01/02, 06-02 & 08-02, Singapore 609198

Total Facility Size :  
**42,500** square feet

Office Size	: 2,000 square feet
Recycling Facility	: 13,500 square feet
ITAD Facility	: 13,500 square feet
Warehouse	: 13,500 square feet

# SAMS AT A GLANCE

## Who We Are

- Founded in Q2 year 2017 - headquartered in Singapore
- **R2V3 Certified Electronic Waste Management company**
- **ISO 9001,14001,45001 and 27001 certified with TAPA FSR Level A facility**
- Services Local, Regional and Global markets
- Pending expansion into parts of Asia

## What We Do

- Sustainable Lifecycle Management of ICT Assets & Inventory
- Electronics Waste (eWaste) Recycling
- IT Asset Disposition (ITAD) Services
- Repair, Refurbish & Repurpose capabilities
- Value Recovery & Asset Remarketing
- Confidential Document Destruction

# SERVICE SOLUTIONS



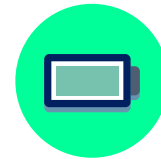
## Electronics Recycling

- Environmentally Responsible Recycling
- Proprietary and customised In-house Shredding Capabilities
- Product Reuse & Repurposing
- Downstream Vendor Management



## ITAD Services

- Secure Data Sanitization  
*wipe, degauss, shred*
- Repair & Refurbishment
- IT Asset Remarketing
- IT Asset Reporting
- Field Service Support
- Onsite & Offsite activities



## Battery Management Services

- End-of-Life Management for Secondary Batteries (portables, industrial)
- Customised and Sustainable Recycling and Reuse Solutions
- Ensuring Legal Compliance with Local, Regional & Global Legislation



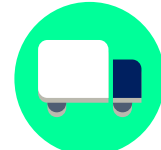
## Intellectual Property Protection

- Product Destruction
- Confidential Document Shredding



## Value Recovery

- Remarketing of EOL, Surpluses, Obsolete Electronic Inventory
- In-house E-commerce Platform



## Reverse Supply Chain

- End-to-End Chain of Custody
- Warehousing & Fulfilment
- Cross Border / Regional Support
- Advice on Waste Handling, Storage, Processing & Transportation

# DATA DESTRUCTION SERVICES



## DATA WIPING

- Software-based technology from single pass wipe to 35 pass wipe
- Supports multiple data erasure methods and formats
- HDD, SSD, Cell Phone & Tablet



## DEGAUSSING

- Conforms to NIST 800-88 r1 guidelines
- Meets CESG standards
- Generating peak fields up to 18,000 gauss/Oersted's



## PHYSICAL DESTRUCTION

- Hard Disk Drive (HDD) V-bend
- Solid State Drive (SSD) puncturing
- HDD, SSD & Flash Drive shredding
- Available both ONSITE & OFFSITE
- Single Phase, 230V 50 Hz shredder

**Data Sanitization Services meets International Data Destruction guidelines and are in compliance with multiple International erasure standards including :**

- U.S. Department of Defence (DoD) Standard 5220.22-M
- HMG Infosec Standard 5
- DIN 66399 (Deutsche Industrial Norm)
- NIST SP 800-88r1
- GDPR (General Data Protection Regulation)
- HIPAA (Health Information Portability and Accountability Act)

Private & Confidential



# DATA DESTRUCTION SERVICES

## DEGAUSS

**Media : Hard Disk Drive , Magnetic Tape**

Degaussing Cycle : 8 seconds per drive

- Generating peak fields up to 18,000 gauss
- Meet CESA & NIST 800 88 r1 standards



## PHYSICAL DESTRUCTION

### Shredding

**Media : Hard Disk Drive , Solid State Drive , Flash Drive , Optical Disc , Microfiche**



## PHYSICAL DESTRUCTION

### V-Bend / Puncturing / Drilling

**Media : Hard Disk Drive , Solid State Drive , Flash Drive**

Physical destruction in less than 18 seconds

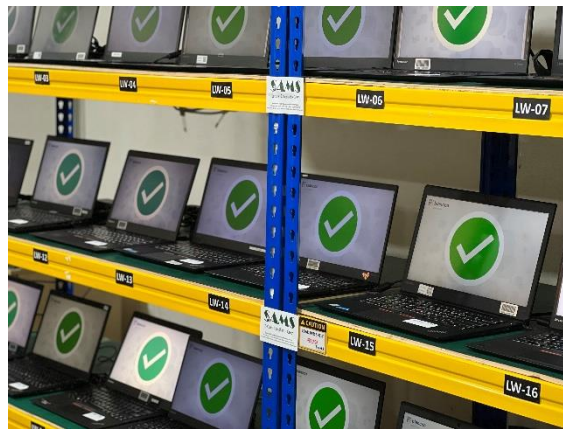
- bending, breaking, and mangling
- puncturing with 90 interlocking spikes



# DATA DESTRUCTION FACILITY



Multiple Bay Loose Hard Disk Wipe



Multiple Laptop & Desktop Wipe



Cell Phone & Tablet Wipe



Data Capture & Validation Checkpoint



Functional Testing Stations

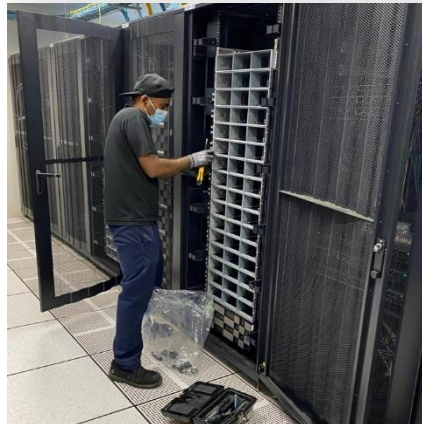


Degauss, Destroyer & Shred Capabilities



# FIELD SERVICE SUPPORT- ONSITE SERVICE

- Provides mobile on-site data destruction services
  - Data Wipe
  - Degauss
  - Crush & Shred
- Packing & Transporting IT assets
- Trained & uniformed personnel
- Customized logistic pickup services
- Vehicles with GPS tracking





# ONSITE AUXILIARY ITAD SERVICES

Value added services such as inventory validation, storage media to equipment parent-child serial number tracking, data destruction



Serial Number Barcoding & Recording



Asset Serial Number Verification & Tagging



Storage Media Extraction & Data Destruction



Asset Data Capture

Private & Confidential

# OFFSITE DATA & PRODUCT DESTRUCTION SERVICES



Customized pickup service by trained uniformed personnel



CCTV archived recording of end-to-end process



Locked and security-sealed tote bins for secure transportation



Special purposed shredders (5 units) available for customized destruction



GPS tracking of transport vehicle



Secure online client access for monitoring (*by special arrangement*)



Storage and Processing in TAPA FSR Level A facility



Activity and Process Reports for audit and tracking detail



Scanning for Asset Trace & Track



Certificate of Destruction (COD) upon successful destruction

# DATA CENTER SERVICES

01

## **Decommissioning**

Retiring or shutting down IT equipment when replacing new hardware disposing of the old ones

02

## **On-site Data Sanitization**

Provide on-site erasure or drive shredding with certificates issues

03

## **Testing, Grading & Refurbishment**

Assets are tested & grading with in-house diagnostics system and go through a rigorous refurbishment process.

04

## **Deployment Service**

Packing and shipping of assets with complete chain of custody and asset tracking

05

## **Resell/ Remarket**

Create new markets and expand existing ones on ways that maximize hardware value and increase sustainability

06

## **Recycle obsolete or proprietary Equipment**

Recycle obsolete or proprietary equipment in most environmentally manner and ensure compliant with environmental policies & regulations

07

## **Disposal Service**

Validate the discard asset and dismount from the server rack





# POST-SHRED SIZES (ON-SITE SHREDDING)



3.5" Enterprise HDD  
DIN 66399-H4 (18 mm wide blade)



2.5" Enterprise HDD  
DIN 66399-H4 (9 mm wide blade)



SSD 3-Stage Shred  
DIN 66399-E5 (2mm particle size)



Thumb Drive 3-Stage Shred  
DIN 66399-E5 (2mm particle size)



Magnetic Tape Disk  
DIN 66399-T2 (18 mm wide blade)



1.44 MB Floppy Disk  
DIN 66399-T3 (9 mm wide blade)

# ELECTRONICS RECYCLING SERVICES



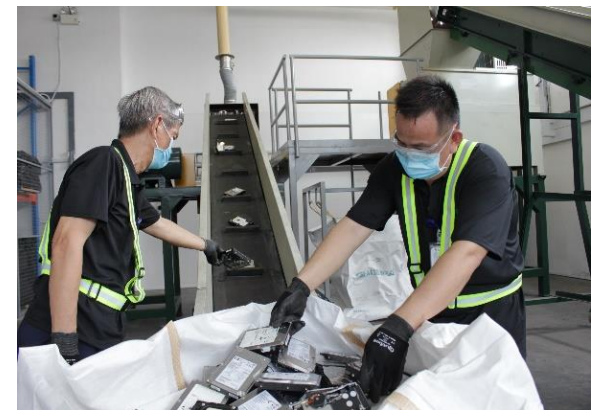
## Sorting

- Segregate into various Asset / Commodity Groups
- Kitting into labelled & marked containers for tracking and easy retrieval
- Identifying non-compliant materials (*if any*)
- Value Maximization



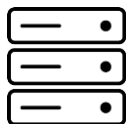
## Demanufacturing

- Dismantling to various Waste Stream types
  - *Metals, Plastic, Circuit Board, Rubber, Glass, etc*
- Managing Waste Streams distribution to proper downstream recycling channels
- Waste Minimization



## Physical Destruction

- Shredding & other physical destruction methods to deem materials non-functional
- Size reduction of circuit boards & components leading to Precious Metals Recovery
- Intellectual Propriety Protection
- Certificate of Destruction (COD)



Server



Laptop



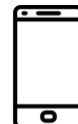
Desktop



Monitor



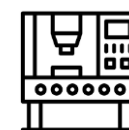
Printer



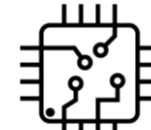
Cell Phone



Tablet



Various Equipment



Components



Circuit Boards



# ELECTRONIC WASTE RECYCLING SERVICES



## SORTING

- Ensuring compliance to SAMS' Asset Acceptance Plan
- Segregating into various Asset / Product Category
  - ❖ ICT Equipment : *Mobile Phone, Laptop/Desktop, Tablet, Server, Printer, Networking Equipment etc*
  - ❖ Focus Materials : *Ink/Toner cartridge, Lithium Ion Battery*
- Kitting into labelled containers for tracking & retrieval
- Value Maximization





# ELECTRONIC WASTE RECYCLING SERVICE

## DEMANUFACTURING

- Dismantling into various Waste Stream types
  - ❖ *Metals , Plastic , Circuit Boards , Glass , Rubber etc*
- Captures individual waste stream's net weight
- Managing waste streams distribution into proper downstream recycling channels
- Records & Reports into ERP system





# ELECTRONIC WASTE RECYCLING- DEMANUFACTURING



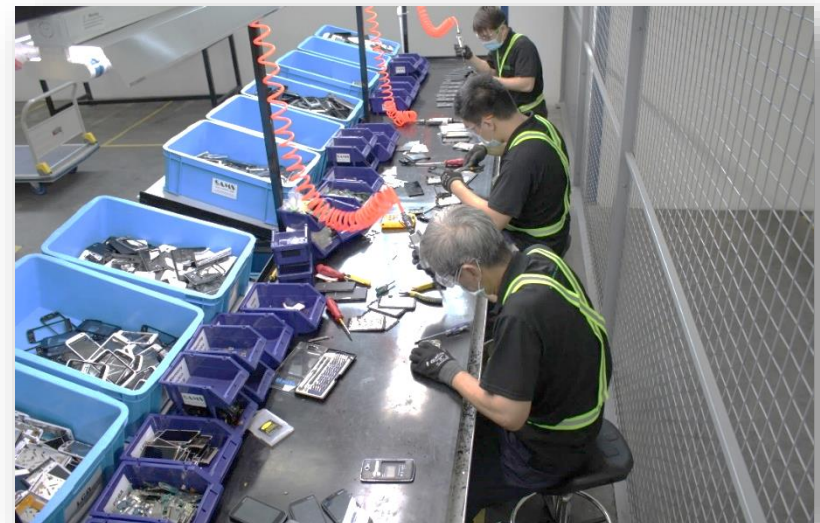
Desktop Demanufacturing into Waste Streams



EOL / Surplus Electronic Merchandise



Customer Takeback Program- Bulky Machine



Dismantling Cell Phone & Accessories



# DESTRUCTION -SHREDDING SYSTEM

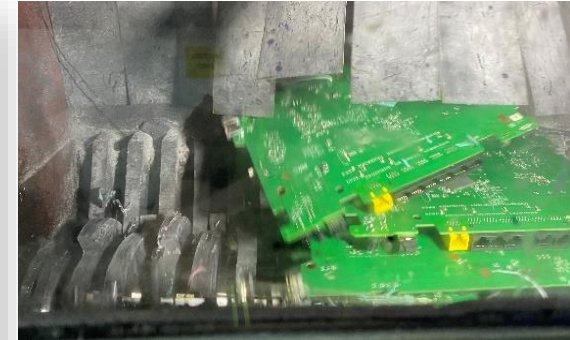


Shredding System No 1  
(Twin Shaft Shredder)



Shredding System No 2  
(Single Shaft Shredder)

- 1) Twin Shaft Shredder for shredding hard materials eg HDD
- 2) Single Shaft Shredder with screen and pusher for shredding softer materials - throughput sizes 7mm-40mm





# ASSET TRACKING AND REPORTING

Online tracking portal for data security and transparency



24/7/365 Access from  
Anywhere Anytime



Shipment Tracking  
Report



Automated Email  
Notification



Online Visibility to  
Reports



Real Time &  
Transparent Data



Mobile Apps Friendly



End-to-End  
Inventory Tracking



Highly Secured Data  
Storage System



# FACILITY SECURITY MANAGEMENT SYSTEM

## TAPA FSR Level A Certified



Facility  
Security



Security  
Operations Center



HID card-based  
access



Walk Through  
Metal Detectors



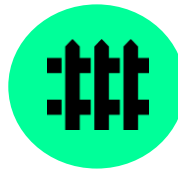
Process Security



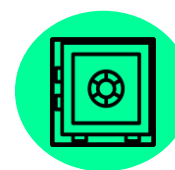
Uniformed  
Guards



24/7 Video  
Surveillance



High Security  
Fence/Enclosure



High Value Cage



Background  
Checks

- 24/7 electronic video surveillance – up to 90 days recording archive
- 24/7-armed Intrusion Detection System
- Employee and Visitor screening at all entry and exit points
- On-site uniformed security guards stationed at strategic locations
- Walk Through Metal Detectors and portable wand scanning
- HID card Access throughout the facility
- Metal Fencing with enhanced access control (critical operations & storage areas)
- High-Security Cage for high value and sensitive materials
- Background screening and nondisclosure agreements for all employees

# COMPLIANCE CERTIFICATION

Certified to the following standards :

- ☐ **ISO 9001 : 2015**      Quality Management System (QMS)
- ☐ **ISO 14001 : 2015**      Environmental Management System (EMS)
- ☐ **ISO 45001 : 2018**      Occupational Health and Safety (OH&S)
- ☐ **ISO 27001 : 2013**      Information Security Management System (ISMS)
- ☐ **R2V3 - Responsible Recycling : 2013**
- ☐ **TAPA Freight Security Requirements Level A**
- ☐ **bizSAFE Enterprise Level Star**





# KEY MARKET DIFFERENTIATORS

## Why Choose SAMS?

- ✿ Fortified Facility with high end security system and processes
- ✿ Carbon Footprint assessment, Sustainability Reporting and reduction initiatives
- ✿ Compliant with Local, Regional and Global e-waste legislation
- ✿ Intellectual Propriety Rights (IPR) Protection
- ✿ Data Breach Risk Management
- ✿ International Accreditation and Certification standards
- ✿ Customer portal accessibility for transparent reporting
- ✿ Corporate accountability in environmental, social and corporate governance
- ✿ Value maximisation of asset recovery
- ✿ Secure Chain-of-Custody and Asset Tracking
- ✿ Program customization catered explicitly to customers' needs
- ✿ Transparency in Downstream Vendor management





**Sustainable Asset Management Solutions Pte Ltd**

**Office Tel : +65 6911 8180**

**[info@samsolu.com](mailto:info@samsolu.com)**

**[www.samsolu.com](http://www.samsolu.com)**