



# Product Support Services, Inc. Introduction



- **Founded in May 2000**
- **Originally the service division of Uniden America**
- **ISO 9001:2008 Certified in 2002, re-registered 2008**
- **Cellular & Consumer Electronic repair and reverse logistics services**
- **Dallas Business Journal 100 Award Winner**



**A Leader in Repair, Refurbishment, and Reverse Logistics for OEM's, ODM's, 3/4PLs, Distributors, Retailers, and End Users**

**Customer Interface**

- RMA / RTV Mgt
- Call Center Interface
- Web Based Customer Care
- Customized IT Solutions
- Program Manager

**Product Returns Management**

- RMA/RTV Issuance
- RTV Eligibility
- Triage/Disposition
- Serial # Tracking
- Process Development
- Stock Status (A', 'B', 'C') Sorting/Staging

**Repair & Refurb**

- Advance Exchange
- Repair & Return
- Bulk and single unit
- FRU Swap
- Board level repair
- Fine pitch component replacement
- ECO/Upgrades
- Data Wiping
- Re-package

**Material Management**

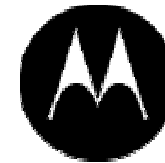
- Inventory Management
- Warehousing
- Spares Management
- Repair material procurement
- Accessories Management
- Last time Buy Mitigation
- Material Consumption Tracking

**Asset Recovery**

- Refurb for Resale
- Recycling
- De-manufacture
- Parts Harvesting



# PSSI Customers



# PSSI DFW Repair Center



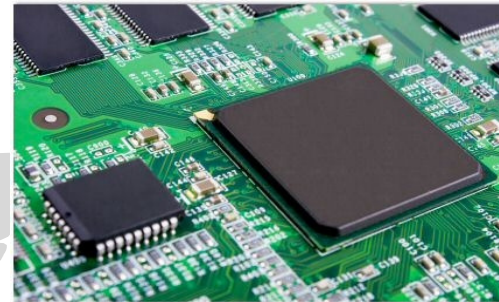
- **Modern 130,000 sq. ft. facilities**
- **Located 5 minutes north of DFW International Airport in Coppell, TX**
- **Operate up to 3 shifts**
- **250+ employees**
- **Currently ship 30K units/week**
- **24/7 security cameras, motion sensors, on-site security personnel**
- **Easily Expandable to increase capacity**
- **50,000 sq. ft. Chihuahua, Mexico**



- **Product Returns Management**
- **Repair/Refurb (L1-L4)**
  - Triage/test
  - Cosmetic
  - FRU replacement
  - Component level repair (BGA)
- **Kit / Repackage**
- **Warehousing**
- **Product Disposition**
  - Return to OEM / Vendo
  - Part harvesting
  - Fulfillment
  - Recycle
  - Liquidate



Cell Phone



Printed Circuit Assemblies



Smart Phone / PDA:



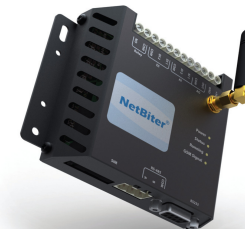
TVs



Metering



Gaming Systems



Wireless Equipment



Security Keypad



- **Repair Certifications:**

- LG, Sony Ericsson, Nokia, Motorola, UT Starcom, Samsung, DriveCam, Sensus, others....

- **OEM Relations/experience**

- Motorola subcontractor repair support, monthly volumes up to 6,500 handsets

- **Carrier and OEM Relations/experience**

- T-Mobile warranty repairs, monthly volumes up to 2,000 handsets
- Verizon warranty repairs, monthly volumes up to 4,000 handsets

- **Distributor Relations/experience**

- ATCLE: For Cingular/AT&T non-warranty repairs/refurbs, monthly volumes 25k – 75k handsets
- Brightpoint/CellStar: For Dobson and AT&T warranty and non-warranty repairs, monthly volumes up to 7,500 handsets



# PSSI L3-L4 Repair Experience

- **Handset repair 60K units (Motorola and Nokia)**
  - L4 *micro* BGA
  - L3 flex-cable, LCD, transducer, speaker, connectors, etc.
  
- **Messaging device repair 80K units (Motorola, SunTel, Daviscomm)**
  - L4 micro BGA repair/bonding/reflow
  - L3 LCD, all solder components
  
- **Network board repair 4K units (Alcatel-Lucent)**
  - L4 micro BGA, capacitor(s), repair/replace
  - L3 connectors, components
  
- **Trimble (GPS/Telemetry device) 18K units (Trimble)**
  - L3 and L4 component/board level replace/reflow



- **Proprietary IT Solution**
  - **Flexible & Scalable**
  - **Customized systems to satisfy our customers' service requirements**
  - **Transmit data via FTP, EDI, etc.**
- **Returns Facility System/Shop Floor**
  - **Receive, Process & Ship**
- **Customized Metrics & Reporting**
  - **Crystal reporting tool**



- **PSSI.NET**

- **Data Elements:**

- S/N
- SKU
- Operator/Work-Center
- Parts Replaced
- Services Performed
- Failure/Repair Codes
- Cycle-Time
- Warranty
- Bounce
- Customer/Sub-Customer
- Customer Work-Order

- **Tracking Points**

- Receiving
- Pre-Test
- Testing
- Triage
- Repair
- Refurbishment
- Flashing/Provisioning
- Labeling
- Quality
- AQL
- Manifest
- Shipping
- History (<7 years)

*Work-In-Process and  
Shop-Floor-Control  
PSSI Application Name:  
“PSSI.NET”*

**The PSSI.NET system tracks devices through the shop-floor process to: 1.) ensure accurate inventories; 2.) track cycle times/report metrics; 3.) tie parts/services to discrete units; and 4.) report the status and location (by operator) of WIP.**



- **PSSI.WMS**

- **Data Elements:**

- S/N
- SKU
- Warehouse
- Isle
- Bin
- Customer/Sub-Customer
- Work-Order
- Lot
- Date
- Vendor/Supplier
- UOM
- Unit/Avg. Cost
- Lot/Order Quantity

- **Tracking Points**

- Warehouse
- Sub-Warehouse
- Over-Stock
- Allocation
- Virtual Location
- Consignment Location
- In-Transit
- History (<7 years)

*Warehouse  
Management System  
PSSI Application Name:  
"PSSI.WMS"*

**The PSSI.WMS system tracks raw and finished goods (by S/N) to: 1.) ensure accurate inventories; 2.) provide visibility of ATP goods; 3.) easily locate inventories; and 4.) allocate resources.**



# Case Study: Tier 1 Wireless Carrier



- **Business Challenge:**

- Customer needed a U.S. based handset repair provider that could ramp quickly, support numerous SKU's, repair at all levels 1-4 and sustain monthly volume output of 15K-20K units for 2 years.

- **Operations Solution:**

- PSSI set-up 5 repair lines, staffed with 45 operators and technicians and ramped to volume in <8 weeks.

- Developed processes to repair 16 models and 60 SKU's
- Consistently met TAT SLA of <5 days
- Consistently hit quality metric of >99.994%
- Removed personal content under \$10K per occurrence penalty. No penalties incurred.
- Maintained physical inventory at 99.99% accurate.
- Procured and maintained 6 weeks on-hand inventory.
- Developed process to handle complex GSM handsets with latent OEM design/mfg.



- **IT Solution:**

- IT ramp/roll-out 2 Weeks with the following requirements being met:

- Provide near-real-time (hourly) WIP/WMS visibility by IMEI by location (bench/technician), queue/cycle time , internal bounce rates, repair history (max 7 yrs.).
- Track and report parts replaced, services performed, both for warrantable and non-warrantable (and file warranty claims) repairs.
- Report/track by IMEI receipts/shipments 99.995% accurate, and report discrepancies <30 minutes of receipt/transaction.
- Provide daily hardcopy and electronic reports, via FTP files that interface with customer WIP/WMS applications.
- Provide electronic via EDI 'history' reports (parts, services performed, location, date) for reliability engineering purposes
- Receive/Ship product using system generated ASN files transmitted via EDI



# Case Study: Large Game System Retailer

- **Business Challenge:**

- A large game system retailer came to PSSI in search of a solution to refurbish game systems taken in on trade for upgrades. A new market would be launched selling the refurbished systems, thereby increasing the customer's revenue and keeping systems out of landfills.

- **Operations Solution:**

- PSSI set-up 4 refurb lines to receive bulk systems of 4 models of game systems, refurbish to working order, cosmetically clean, functionally test, repackage with accessories and bulk ship.
  - Ramped to 16K refurbished units/week for Level I – II repair, reconditioning, and kitting in 10 weeks
  - Consistently met TAT SLA requirement of <3 calendar days
  - Consistently met quality requirement >99.994%
  - Maintained monthly physical inventory accuracy at >99.994%
  - Repair parts required to be harvested from available units.
  - Repair/refurb unstable products due to ages and customer abuse
  - PSSI required to work closely with OEMs



- **IT Solution:**

- IT ramp/roll-out 2 Weeks with the following requirements being met:
  - Provide near-real-time (hourly) WIP/WMS visibility by S/N by work-center, queue/cycle time, & repair history (7 yrs)
  - Provision devices based on data imported via FTP & Email from each customer location.
  - Report/track by S/N receipts/shipments 99.995% accurate, and report discrepancies <24 hrs. of receipt/transaction.
  - Provide weekly electronic reports, via FTP & Email to each location including Corporate.
  - Provide electronic 'history' reports (parts, services performed, location, date) for reliability engineering purposes.
  - Ship product using system generated ASN files transmitted via FTP & Email.



# Case Study: National Security Company

- **Business Challenge:**

- A leading national security company required reverse logistics support for warranty and non-warranty products from their multiple company owned and franchised locations. They required 24-hour turnaround, in-warranty sort to OEM's, non-warranty repair, and complete reporting for each location as well as their Corporate office.

- **Operations Solution:**

- PSSI established an advanced exchange process for both warranty and non-warranty products to ensure TAT requirements and set-up 2 repair lines to ensure repaired product for seed stock replenishment.

- Developed processes to handle returns from over 100 locations, supporting over 30 sku's with Level III repairs.
- Consistently met TAT SLA requirement of  $\leq 24$  hours.
- Consistently met quality requirement  $>99.994\%$ .
- Maintained monthly physical inventory accuracy at  $>99.994\%$ .
- Repair parts harvested from available non-repairable units.
- PSSI required to work closely with OEMs regarding warranty repairs.



- **IT Solution:**

- IT ramp/roll-out 2 Weeks with the following requirements being met:
  - Provided near-real-time (hourly) WIP/WMS visibility by S/N by work-center, queue/cycle time, & repair history (7 yrs)
  - Provision devices based on data imported via FTP from customer
  - Report/track by IMEI receipts/shipments 99.995% accurate, and report discrepancies  $<24$  hrs. of receipt/transaction.
  - Ship product using system generated ASN files transmitted via FTP



# PSSI Customer Testimonials



**“PSSI has done an outstanding job of consistently producing large volumes of repaired product which has helped AT&T meet market demands for refurbished product. They delivered outstanding value by meeting AT&T's strict quality requirements on complex repairs at a low cost. And PSSI's flexibility - their ability to ramp up or down and take on large ad hoc projects - really differentiates them from their competitors.”**

**Scott Huddle**  
**Former Director of Reverse Logistics Operations**  
**AT&T Mobility**

**“PSSI handles 100% of our Reverse Logistics and Repair/Refurbishment services. By outsourcing these components of our business to PSSI we've been able to dramatically reduce our fixed operating and capital equipment expenses and at the same time improve the delivery and quality of services to our customers. PSSI works directly with our internal management team on a day-to-day basis to address tactical challenges; but they also understand the bigger picture and work with us to help ensure our strategic objectives are achieved as well.”**

**Dave Anderson**  
**President**  
**American Messaging Services**



## PSSI Customer Testimonials



**“As one of GameStop's key partners, PSSI consistently repairs large volumes of gaming systems, which helps us meet market demands for factory refurbished product. PSSI 's stringent quality control, flexibility to meet rapidly changing needs in demand, and quick turn-around-time are an important asset for our business. Their inventory management and shop-floor control systems are second to none.....”**

**Mike Mauler,  
Sr. VP Supply Chain & Refurbishment  
GameStop**

***“PSSI has provided test and refurbishment services for ATCLE for nearly four years. During this period PSSI delivered exceptional quality services, rapid turnaround time and consistently met weekly production commitments.....” “ATCLE has very stringent quality and turnaround requirements and PSSI was selected as ATCLE’s primary outsource supplier for Test and Refurbishment services – based on their ability to meet these expectations.”***

**John Koudelka  
Director of Operations, Test and Repair  
ATCLE**



# PSSI Key Differentiators



- We set the benchmark in cost, quality, and turn-around by fully employing Lean manufacturing principles.
- We maintain a scalable trained and loyal workforce, with flexibility to expand or contract quickly to meet market fluctuations.
- We develop and utilize processes to insure the highest quality service and the lowest bounce rates in the industry.
- We are ideally located to service the central N.A. market from Dallas, TX.
- We are ISO9001:2008 certified.
- We focus on constant communications as a key to our high level of customer satisfaction and retention.
- The PSSI IT solution tracks in real-time serialized devices from point of receipt through work centers and on to shipping. (Competitors have offered to purchase PSSI's Shop-Floor-Control and Quality Management Systems)
- We are privately owned, debt free and financially secure



# PSSI Contact Information



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