About Ascent Solutions

is a global company specialising in state of the art IoT solutions involving BLE, NB-IoT, GPS, GPRS, SATCOM and (both Passive and Active) RFID technology.

About our Company
- Incorporated in 2010 and holds multiple global patents for its products
- Winner of National Infocomm Awards (NIA) for the Most Innovative Product/Service for Smart and Secure Tradelanes (SST) in 2004; an idea that led to the development of iSPOT® today
- Preferred solutions for Kenya, Tanzania, Thailand, Indonesia, Philippines & Vietnam Customs
- Awarded by Thai Customs DG on behalf of World Customs in Jan 2015 an award for Customs Coordinated Border Initiative
- Global partner of Huawei for NB IoT

About our CEO Mr CK Lim
- Many years of related experience having spent the last 11 years as President of Savi Technology Asia, a Lockheed Martin company
- Chairman of Singapore Smart Nation IoT Technical Committee
1. **iSPOT®**
   For cargo security and fleet management

2. **ATLAS™**
   For non-motorised asset, human/animal & urban tracking

3. **QuikCount™**
   For inventory control and consignment stock tracking

4. **Nested Visibility**
   For integrated tracking of item, pallet & container
Challenges for Revenue Authorities & Customs

Tax Evasion caused by undeclared & black market goods

Port & Traffic Congestion caused by cumbersome physical processes

Cargo theft and pilferage causes loss of tax revenue and anger from biz community

Corruption and bribery of officials causes distrust and inefficiencies in system
Application of Electronic Cargo Tracking System (ECTS)
#1 Ascent’s ECTS facilitates Customs Clearance deferment from Tanjong Priok Port to Cikarang Dry Port

- All cargo bound from Tanjung Priok Port to Cikarang Dry Port are tracked by Ascent’s Electronic Cargo Tracking System using Electronic Seals.
- Previously, containers have to be escorted by Customs Officer, but today, with an E-seal, no escort is required.
- Today, clearing Customs at Cikarang Dry Port takes 3 days compared to 10 days at Tanjong Priok Port.
Cikarang Dry Port Live Since 2011

ECTS Benefits:

- Simplify ~40% approval procedures; faster Customs clearance
- ~30% efficiency improvement for cargo movement
- Shipment record accuracy 70% -> ~100%
- Cuts ~45% labor costs
Western Digital (WD) is the largest hard disk maker in Thailand. They need to move hundreds of trucks of cargo between the tech parks daily as part of their manufacturing operations.

Previously, all trucks would need to be examined and sealed by Customs officer prior to leaving the zone and again examined by Customs officer upon entering another free zone.

Today, Western Digital enjoys faster Customs clearance using Ascent’s ECTS.
In January 2015, our Thailand local partner TIFFA EDI was awarded an award by the Thailand DG of Customs on behalf of the World Customs Organization (WCO) for "rendering exceptional service to the international Customs community."
Ascent’s ECTS facilitates transhipment cargo for Kenya Revenue Authority

- In East Africa, more than 10,000 devices are deployed daily to track transhipment cargo from seaports such as Mombasa Port to hinterland countries such as Uganda, Burundi and Rwanda.
- Before Ascent’s ECTS is used, cargo are subjected to 15-20 Customs inspections along the way and the 800km journey takes up to 20 days.
- With Ascent’s ECTS deployed, Customs monitor the cargo and their journey on their platform without requiring inspection points and the journey today takes 2-3 days.
Smart Control Tower Monitoring in Kenya

Our live Tracking in action:
Clients manage their own command centers and monitor alerts live
iSPOT® - Integrated Security Portal

As an Electronic Cargo Tracking Solution (ECTS)
What We Track

Prime-Movers fitted with iSPOT® IVM and iSensor

Transit vehicles to be fitted with iScout

Fuel Trucks with iSPOT® IVM and iSensors

Container to be fitted with iScout

Bulk Liquid Container to be fitted with iScout and 1 or many iSensor

Truck head is fitted with IVM that integrates with 1 or more iSensor.
## End to End Solution

### Real Time Cargo Visibility and Security Monitoring

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
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<tr>
<td>Device Tier</td>
<td>Communication Tier</td>
<td>Device Gateway</td>
<td>Application Tier</td>
</tr>
<tr>
<td>iScout</td>
<td>GPS</td>
<td>Device Management and Transaction</td>
<td>Cargo Security Management System</td>
</tr>
<tr>
<td>iSPOT® IVM</td>
<td>GPRS</td>
<td></td>
<td></td>
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<tr>
<td>iSensor</td>
<td></td>
<td>Database</td>
<td></td>
</tr>
</tbody>
</table>

- **iSPOT® IVM**: Environmental Sensor (temp & humidity)
- **iSensor**:
- **iScout**:
Trip Based Security Tracking

Step 1
iSPOT® platform will allocate available device per trip. Each device is associated with specific container/truck/conveyance.

Step 2
Trip will begin & all devices will be locked until destination. Devices will send heartbeats to cloud system.

Step 3
Once at end destination, authorised personnel can remove iScout/iSensor safely.

iSensor needs to be paired with either iScout/IVM.

IF any pre-settings are violated or if lock is tampered with, an immediate alert is sent to the iSPOT® platform for action.
Satellite Failover

Inmarsat’s IsatData Pro can be installed on the truck to provide a satellite failover system if GSM is problematic on IVM/iSensor pairing

The iScout has a built-in satellite failover using an Iridium M2M chip

This is perfect for long cross border/rural routes

MULTI MODAL TRANSMISSION VIA INMARSAT MOBILE GPS & GPRS
The ECTS Modules
Layered Geozone

Used to detect arrival/departure from set geozone
Corridor & Route Management

Alerts when cargo is taken on unauthorised route
Live Monitoring of all Alerts
Security Alert: Seal Tamper Alert

Trip Information
- Trip ID: ICD20170116-0001
- Entry Number: 20170116-01
- Vehicle Number: 6600
- IVMS/Scout Device ID: 6600

Entry Information:
- Entry Date: 16/01/2017
- Route: PanPacificVietCustoms
- Container / Auto Number: PanPacificViet
- MVI/Scout Status: Security alert

Transportation Information:
- Transportation Type: Geo Corridor
- Prime Mover: Agent ID
- iSensor ID

Trip Status:
- Trip Status: Completed
- Origin: PanPacificHotelHanoi
- Destination: VietCustoms
- Special Instruction:
- Departure: 10/01/2017 09:13:24
- Arrive: 10/01/2017 10:23:35
- End Journey: 16/01/2017 10:10:42
- Disarm: 10/01/2017 10:10:50

Map with Seal Tamper Alert

TimeZone: Asia/Singapore

Device:
- Normal
- Alert

[6000] [6000] Seal Tamper!!!
Date: 2017/01/16 10:10:38 [SGT]
GPS: 21.02225 / 105.78791
Speed: 0.0 km/h
Corridor Alert: Cargo has deviated from defined Geo Corridor

<table>
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<th>Trip Information</th>
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<tbody>
<tr>
<td>Trip ID</td>
<td>ICD20170114-0002</td>
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<tr>
<td>Entry Number</td>
<td>0002</td>
</tr>
<tr>
<td>Vehicle Number</td>
<td></td>
</tr>
<tr>
<td>IVM/iScout Device ID</td>
<td>6000</td>
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<tr>
<td>Submit</td>
<td>14/01/2017 11:40:40</td>
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<tr>
<td>Inspection</td>
<td></td>
</tr>
<tr>
<td>Remarks</td>
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</table>

|                      |                          |
| Entry Date          | 14/01/2017               |
| Route              | LotOneToAscentOffice     |
| Container / Auto Number |                  |
| IVM/iScout Status  | Corridor alert           |
| Seal               |                          |
| Arrival            | 14/01/2017 13:00:00      |

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<tr>
<th>Transportation Type</th>
<th>Transit Vehicle</th>
<th>Trip Status</th>
<th>Origin</th>
<th>Destination</th>
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<tbody>
<tr>
<td>Geo Corridor</td>
<td>AscentOffice</td>
<td>Completed</td>
<td>CCKLotore</td>
<td>AscentOffice</td>
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<tr>
<td>Agent ID</td>
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<td></td>
</tr>
<tr>
<td>iSensor ID</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>iSensor Status</td>
<td>Normal</td>
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<tr>
<td>Begin Journey</td>
<td>14/01/2017 11:49:26</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>End Journey</td>
<td>14/01/2017 13:00:00</td>
<td></td>
<td></td>
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<tr>
<td>Disarm</td>
<td>14/01/2017 13:00:00</td>
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<td></td>
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</tr>
</tbody>
</table>

[Corridor Alert!!!]
Date: 2017/01/14 12:05:34 [SGT]
GPS: 1.29550 / 103.78571 [#Sats 12]
Speed: 20.5 km/h (E)
Real-time Temperature/ Humidity Alert

Temperature/ humidity alert mapped to time and location
Intrinsic Safety Certification for iSensor

iSensors can secure transportation of combustible liquids/goods

Approved for operation in presence of methane to hydrogen
Smart Monitoring using CCTV Cameras at work zones

- CCTV Cameras can be installed into work zones where sealing and unsealing of the container takes place
- With one click from the platform, Customs Authorities can perform live monitoring of the sealing/unsealing process
Our Clients

TRUSTED BY:

Public Sector:
- Kenya Revenue Authority
- Singapore Ministry of Defense
- Indonesian Customs
- Thai Customs
- Philippines Customs
- Vietnam Customs
- CWT Ltd

Private Sector:
- AutoLog Africa
- Bolloré Africa Logistics
- Western Digital
- Multiple Hauliers (EA) Ltd
- Kuehne + Nagel
- DHL
- Vivo Energy Kenya
- Cikarang Dry Port
- And more…
Examples of Valuable Cargo

Arms & military equipment

High value perishables

Luxury goods

Hazardous materials

Machinery & vehicles

Bulk liquid tankers
In Summary
Technology You Can Trust

Highly effective and secure system to track cargo & fleet

Trusted by both public & private sector clients

Cost effective way to achieve GPS security tracking

Cloud based platform gives on demand access
Our Global Presence

- Philippines
- Kenya
- Tanzania
- South Africa
- Thailand:
- Malaysia
- Vietnam
- Philippines
- Indonesia
- Panama
- Brazil
- Mexico
- UK
- China
- Singapore: HQ
Contact Us

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Thank You