CatchLoc & Gper

(Spacosa, Location Information Service)
MAIN BUSINESS

Location Information Service

Spacosa provides end-to-end Location Information Service through its tracking device and service platform.
MAIN FEATURES

Overview

CatchLoc accommodates devices for various network formats, and provides end-to-end service.
## MAIN FEATURES

1. Multi Device Platform - Overview

Since CatchLoc supports devices for various networks, users are open for several options.

<table>
<thead>
<tr>
<th>Features</th>
<th>LoRa™</th>
<th>Gper LoRa</th>
<th>3G</th>
<th>Gper global</th>
<th>LTE Cat M1</th>
<th>Xper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• high energy efficiency</td>
<td>• world-wide coverage</td>
<td>• Affordable and energy efficient</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• low operation fee</td>
<td>• GLOBAL ROAMING</td>
<td>• Higher availability and stability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usage</td>
<td>• Vehicle tracking</td>
<td>• It provides cross-border tracking service for;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Personal tracking</td>
<td>- Travelers</td>
<td>• Users seeking tracking service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• etc</td>
<td>- Fleets</td>
<td>better in quality yet affordable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Cargoes.</td>
<td></td>
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</tbody>
</table>
MAIN FEATURES

1. Multi Device Platform - ① LoRaWAN

Application of LoRa technology enables Spacosa’s service to be more economical and energy efficient.
MAIN FEATURES

1. Multi Device Platform - LoRaWAN

LoRa technology gives Spacosa’s service cost advantage over those of other GSM based GPS trackers.

<table>
<thead>
<tr>
<th></th>
<th>Device Price</th>
<th>Subscription Fee</th>
<th>Cost of 2 year Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spacosa</td>
<td>70.00</td>
<td>5.00</td>
<td>190.00</td>
</tr>
<tr>
<td>Brick House Security</td>
<td>49.95</td>
<td>9.99</td>
<td>289.71</td>
</tr>
<tr>
<td>Amber alert GPS</td>
<td>135.00</td>
<td>15.00</td>
<td>498.00</td>
</tr>
<tr>
<td>Saved By Spot</td>
<td>199.99</td>
<td>19.99</td>
<td>679.75</td>
</tr>
<tr>
<td>Angel Sense</td>
<td>99.00</td>
<td>39.00</td>
<td>1,035.00</td>
</tr>
<tr>
<td>trackimo</td>
<td>79.00</td>
<td>60.00</td>
<td>1,519.00</td>
</tr>
</tbody>
</table>
MAIN FEATURES

1. Multi Device Platform - (2) Cellular

Cellular based device allows tracking of cross-border movements.

Roaming over 150 countries.
MAIN FEATURES

1. Multi Device Platform - ③ LTE CAT.M1

CAT M1 device can deliver reliable service at affordable budget.

### Network Features

<table>
<thead>
<tr>
<th></th>
<th>LTE CAT.M1</th>
<th>LoRaWAN</th>
<th>3G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Speed</td>
<td>~ 300 kbps</td>
<td>~ 5.4kbps</td>
<td>~ 14 Mbps</td>
</tr>
<tr>
<td>Usage</td>
<td>• Data</td>
<td>• Small amount of data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Image</td>
<td>• (eg. Sensor data)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• vocal data</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Vocal</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Video data</td>
<td></td>
</tr>
</tbody>
</table>

- **LTE CAT.M1**
  - LoRaWAN
  - 3G
MAIN FEATURES

2. Service competency

End-to-end service-oriented solution of Spacosa’s service allows business customers to easily use the service without having to install their own IT systems.

Gper sales: 35,000
(Released 2016.11.)

CATCH LOC Client: 1,378
(SKT, SKB, Dominos Pizza, S1, Solu-m)
Main Features

3. Connectivity

Gper can receive sensor data through Bluetooth and transmit them through cellular network, to overcome short range of Bluetooth devices.
Vehicle Tracking – Logistics / Delivery

Customers use Spacosa’s service to monitor logistics.

- Find optimal routes.
- Notify bus-arrival.
- Transmit BT connected sensor data (temperature, humidity).
REFERENCES

Vehicle Tracking – Shared (Electronic) Vehicles

Customers use Spacosa’s service to managing electronic vehicles, especially when it is important to manage battery information.

- Vehicle Management
- GPS Location and battery data.
- Scooter, Kickboard and others
REFERENCES

Vehicle Tracking – Off-Shore / Overseas

Customers apply Spacosa’s service to off-shore and overseas tracking.

• Global roaming over 150 countries.
• Cross-border tracking
• Marine transportation tracking
REFERENCES

Sensor Station – Beacon etc

Customers use Spacosa’s service combined with sensor and/or beacons.

• Application of Beacons to check
  - On/off boarding
• Manage Sensor data
REFERENCES

Human Resources Management

Customers use Spacosa’s service to identify drivers and manage commute records.

- Identify driver.
- Keep commuting log of workers.
REFERENCES

Personal safety

Customers use Spacosa’s to protect family members.

- Children protection
- Protect elderly people with Alzheimer
- Geo-fencing
Thank you.

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