History of GPANS

1998  Company Established
      Made Gate Operation & IT Maintenance/Repair Outsourcing Contract with PECT

1999  Built Total Marine Information System for Dain Ferry Co., Ltd.

2000  Built Container R&C System for ISOTANK Service Depot Do., Ltd.
      Built Container Damage Check System for PECT
      Built Pier Control Management System for Pusan Regional MAPO

2001  Made strategic cooperation with Samsung SDS for building Mlogis (Mobile Logistics)
      Supplied Mlogis to Korea Express, Samsung Logitech, Donghang, etc.

2002  Built Unmanned Fueling System for PECT

2003  Built Gate Barcode System for MLTM (Pusan, Incheon, Pohang)
      Built CADIS for Container Terminal in Kobe Port, Japan

2004  Built Gate Barcode System for MLTM (Jeju)
      Built Pusan Port Integrated Briefing Room for Pusan Regional MAPO
      Built RMGC Optical Cable / Wireless Network for PECT
      Selected by MLTM for the R&D Company of Korea Long Term S&T Development Project

2005  Built Automated Transfer Crane Interface System for PECT
      Built IGS for Container Terminal in Kitakyushu Port, Japan
      Built IGS for Container Terminal in Kobe Port, Japan

2006  Built IGS for PECT
      Built RFID based EG Pass System & EG Pass Card Issuing System for PECT
      Awarded for Asia 100 Company by RED Herring
      Built Port Access Security System for Pyeong-Taek MAPO

2007  Building IGS for Gwang-Yang Port Phase 3-1 Container Terminal
      Building Additional Port Access Security System for Pyeong-Taek MAPO
      Preparing for additional order of IGS for PECT

2008  Built Port Access Security System for Yeosu MAPO

2009  Awarded for KOREA R&D excellence result 100
      Built Automated Transfer Crane Interface System for KBCT
      Selected by MLTM for the R&D Company of Korea Long Term Automated Port Development Project

2010  Built Yard and Gate Solution for HSGT (Gwangyang, KOREA)
      Developed Smart Logistics Solution
      Built Smart Logistics Solution for KBCT (Busan, KOREA)

GPANS is continuing researches on its expert and developing new technologies to provide better and advanced IT solutions to its major customers, such as Terminal Operator, Carrier, Trucking Company, Shipper, and etc.

First, automation business sector of GPANS leads innovation in logistics field. GPANS is concentrating on technical advancement that related to automation such as Korea’s first 2D/3D container image processing system for non-stop automated gate, RFID based automated access control system for port access security, and enhanced wire/wireless network technique, which is applicable to logistics field.

Second, port operation business sector of GPANS leads positive change of container port operation. GPANS has achieved improvement of port operation by cost reduction and operation efficiency through developing non-stop automated gate system, which is a part of Korea’s long term plan for S & T development project. In addition, GPANS is growing as an expert of technical guidance and maintenance through operating a part of container terminal.

Third, R&D business sector of GPANS plays a pioneering role in logistics IT field with its continuous researches of new technologies. GPANS operates R&D Center in both headquarter and branch office to research and develop latest technologies such as image processing, character recognition, wire / wireless network, sensor network, embedded system design, and application program development that are applicable to logistics field.

As a Leading IT solution partner, all employees of GPANS will do our best to provide customer’s needs and services.

- 04-05 Intelligent Gate Solution
- 06-07 High Efficiency ATC
- 08-09 Yard Operating Solution
- 10-11 Smart Logistics Solution
- 12-13 Wireless Broadband Solution
- 14-15 Access Security Solution
GPANS offers gate solution with recognition & management of container info, such as container number, size & type, damage, and etc. It will provide reduced time and cost for gate operation and improved operation efficiency.
Features

- Container Number Recognition
- Licence Plate Recognition
- Container Size / Type Recognition
- Container Damage Identification
- Gate Kiosk (Barcode/RFID Reader)
- Container Weight Computation
- Gate Operation Manager

Benefits

- One stop process for container info recognition (container number, damage, weight, type, size, etc.)
- Reducing gate process time by automated container info recognition
- Improving gate productivity and efficiency
- Having objective damage information (type, size, location)
- Reducing cost for damage claims
- Enables container terminals to offer updated services to customers
- Sending PDF Type EIR (Equipment Interchange Receipt) to customers
GPANS offers High Efficiency ATC Solution that guarantees the yard productivity and the reduction of operating expenses, and prevents a incident in yard.
Features

ALS
Automated Landing spreader System
Anti-Sway
Increase stability of Spreader Moving
CPS
Sensing the position of container and chassis by 3D Scanner

CNRS
Container Number Recognition System mounted yard crane

SPSS
Stacking Profile Scanning System

Micro Motion
Move the spreader precisely in 3-directions
ATC Middle-Ware
TOS-ATC I/F, Terminal Planning Support, Automated Equipment Management
TLPS
Truck Lifting Protection System

Benefits

- Yard crane un-manned automation
- Reduce yard operating coat (crane, vehicle, labor, etc...)
- Improving yard operation efficiency by real time interface
- Increasing yard productivity by real time work process
- Reducing industrial disaster by safer yard operation
- Realization Green Port increasing operational efficiency by reducing waste gas for vehicle
GPANS offers yard operating solution that provides yard crane automation, and interface between RMGC and Trailer or Yard Tractor for improving yard productivity and reduce operating costs.
Enables yard vehicle operation performance management
VMT is especially designed for vehicle mount system operated in rough environments
RFID Portal Gate supports improvement in productivity to minimize vehicle waiting time
Build Green port solution reducing CO2 emissions to optimize vehicle route

**Features**

**VMT**
- Offers interface between TOS and Y/T or other yard vehicles
- Strong to vibration, small, manual brightness and change for monitor angle

**i-TPDS**
- Offers interface between yard crane and trailer with infrared sensors

**RFID Portal Gate**
- Offers interface between yard crane and trailer with RFID

**TPDU**
- Offers interface between trailer and un/manned RMGC
- Certain interval for work order interface(Barcode/RFID) with Trailer

**RTLS**
- Offers RF/IR/DGPS based yard vehicles position tracking solution

**YT-OP**
- Interface Operations program between vmt with YT and TOS

**Benefits**

- Enables yard vehicle operation performance management
- VMT is especially designed for vehicle mount system operated in rough environments
- RFID Portal Gate supports improvement in productivity to minimize vehicle waiting time
- Build Green port solution reducing CO2 emissions to optimize vehicle route
GPANS offers Smart Logistics Solution that improves terminal productivity to simplify Gate and Yard procedures with Smart Phone application, and makes Green port reducing vehicle waste gas.
**Features**

- **Smart Slip Issue ID Information**
- **Register/Modify Vehicle & Job Position (GPS/GIS)**
- **ID Card (Barcode Form)**
- **EDI(COPINO) Info**
- **Un/loading Jobs Info**
- **Vehicle & Job Position (GPS/GIS)**
- **ID Information Register/Modify**

**Benefits**

- Building Green Port by removing a trailer at idle without job information
- Reducing the operating process time by simplify the procedures at gate
- Increasing operational productivity by the interface between automated systems with Smart Phone
- Finding easily job position by Smartphone GPS/GIS map in container terminal.
GPANS offers wireless broadband solution that provides cost-effective performance, scalability & survivability with seamless support for ad-hoc and infrastructure-based operation.
Features

PTMP (Point To Multi Point)
- Managing many SMs (up to 200) with one AP / point to multi point network (up to 4km)
- Outstanding security / Over the Air DES (Data Encryption Standard) + AES (Advanced Encryption Standard): Optional
- Easy installability and mobility / small communication modules

PTP (Point To Point)
- High capacity data transmission at endpoints where the wired section cannot be extended
  (A maximum data transmission capacity of 300Mbps)
- Communications over long distances or in environments with obstacles
  (A maximum length of 200km)
- Automatic frequency selection to maintain the highest data transmission rate
  (Intelligent dynamic frequency selection (spectrum management))

Mesh Network
- Providing stable network support without a pause to high-speed moving equipment
- Self-forming and self-repairing network
- Location tracking without GPS - No need for additional infrastructure

Benefits

- Increasing efficiency and productivity at a port by providing a stable, pauseless network to moving equipment such as QC/TC/YT
- Reducing the cost of installing, establishing and moving the network by using super light, micro-sized modules
- Improving port efficiency by increasing network capacity with verified network coverage and multi-hop technology
- Raising customers’ productivity through minimizing areas where a wired network is hard to be installed (shadow areas)
- Providing long-distance broadband communications for areas that cannot be connected through a wired network
GPANS offers RFID based Access Security Solution that provides convenience of port access to customers through simplified access process and enables computerization of port access security.
- On-Line access control of entire port by applying ISPS status (All/Regional Control)
- Secure access control against unauthorized access
- Real time monitoring for access status of personnel or vehicles
- Recording in and out time of personnel and vehicles access
- Additional security device: recognition device (license plate, fingerprint), lifting gate / crossing gate

### Features

- PORT AUTHORITY
- Pier A
  - Access Card Issue
  - Access Status Monitoring
  - Information
  - DB server

- Pier B
  - Access Data Verification
  - RFID Reader
  - CCTV or OCR

- Pier C
  - Access Data Verification
  - RFID Reader
  - Fingerprint Recognition

### Benefits

- Enables secure access control of entire port by Port Authority
- Immediate response to a state of national emergency or terrorist attack
- Clear operation of port access security
- Easy to apply access control to new port facility
- P.R. effect to domestic and international customers as an secure and safe port