GPANS is an IT Solution Partner
that preparing for the future,continuing researches on its expert,
and developing new technologies for customer's needs

IT Solution Partner **GPANS**

GLOBAL IT FRONTIER

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GPANS
Global IT Frontier

The Leading IT Solution Partner
in 21C Logistics IT field that is globally recognized as one of Asia's top 100 companies

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.

History of GPANS

Year	Event
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[1]
2001	Made strategic cooperation with Samsung SDS for building Mlogis (Mobile Logistics)
	Supplied Mlogis to Korea Express, Samsung Logitech, Dongbang, etc.
2002	Built Unmanned Fueling System for PECT
2003	Built Gate Barcode System for MLTM[2] (Pusan, Incheon, Pohang)
	Built CADIS[3] 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	Build 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

1) Maritime Affairs and Port Office   2) Ministry of Land, Transport and Maritime Affairs   3) Container Automatic Damage Identification System

Photo by PNC

INTELLIGENT GATE 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 ↘

TEXU 465117 0
T E X U 4 6 5 1 1 7 0
TEXU4651170 Processing Time : 0.4010 seconds

- Container Number Recognition
- Licence Plate Recognition

• Container Size / Type Recognition

• Container Damage Identification

IGS

GPANS001

• 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
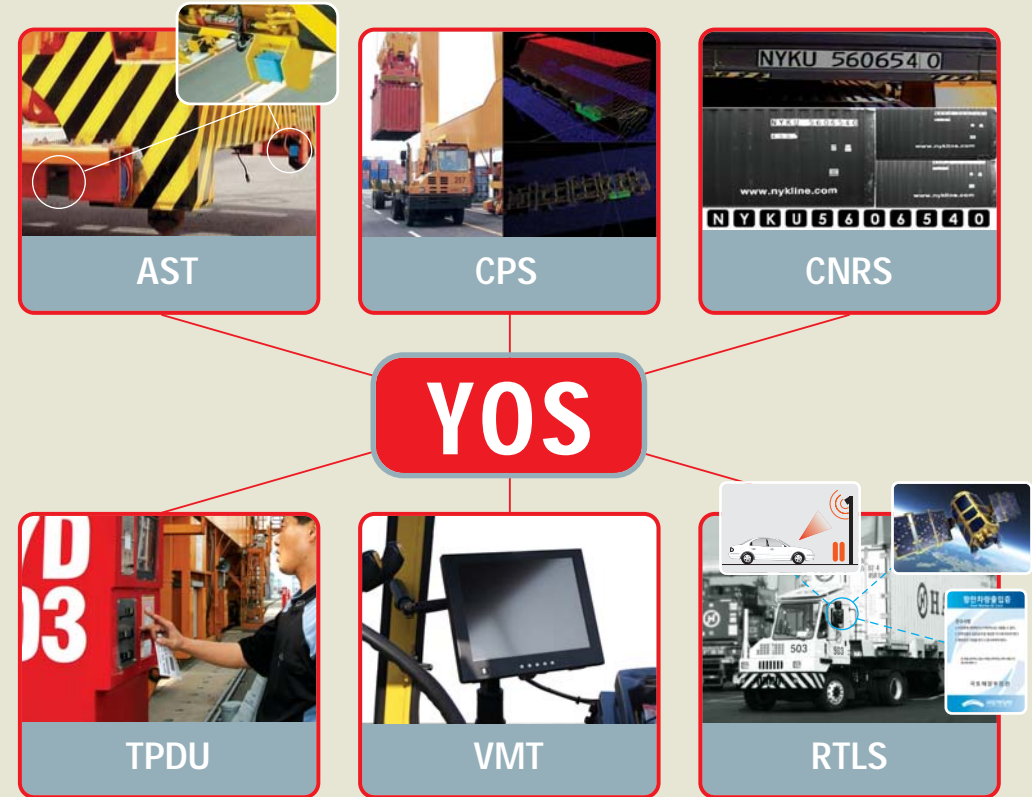
Pass the Gate

IGS User Interface

PDF Type EIR

YARD OPERATING SOLUTION

AST

CPS

CNRS

YOS

TPDU

VMT

RTLS

AST (ALS + SPSS + TLPS)
ALS - Automatic Landing System
SPSS - Stacking Profile Scanning System
TLPS - Truck Lifting Protection System

CPS (Chassis Positioning System)
Sensing of container and chassis Position by 3D Scanner

CNRS (Container Number Recognize System)
Offers container number recognition in yard crane

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

VMT (Vehicle Mounted Tablet)
Offers interface between TOS and Y/T or other yard vehicles
Strong to vibration, Small, Manual brightness and change for monitor angle

RTLS (Real Time Locating System)
Offers RF/IR/DGPS based yard vehicles position tracking solution

ANTI SWAY

GPANS offers yard solution that provides yard crane automation, and interface between RMGC and Trailer or Yard Tractor for improving yard productivity and reduce operating costs.
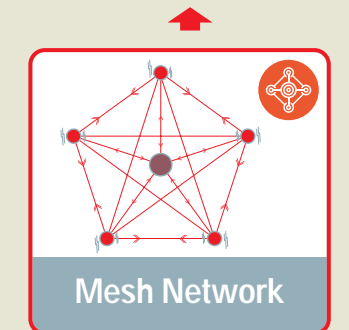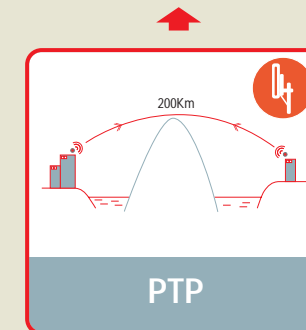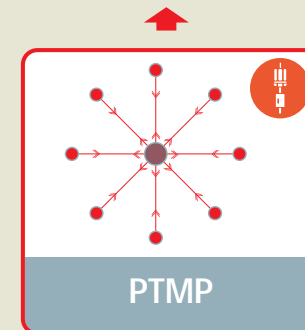
Benefits ↘

- Yard crane un-manned automation
- Reduce yard operating cost (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
- Enables yard vehicle operation performance management

WIRELESS BROADBAND SOLUTION

GPANS offers wireless broadband solution that provides cost-effective performance, scalability & survivability with seamless support for ad-hoc and infrastructure-based operation.

Features ↘

| PTMP | PTP | Mesh Network |

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
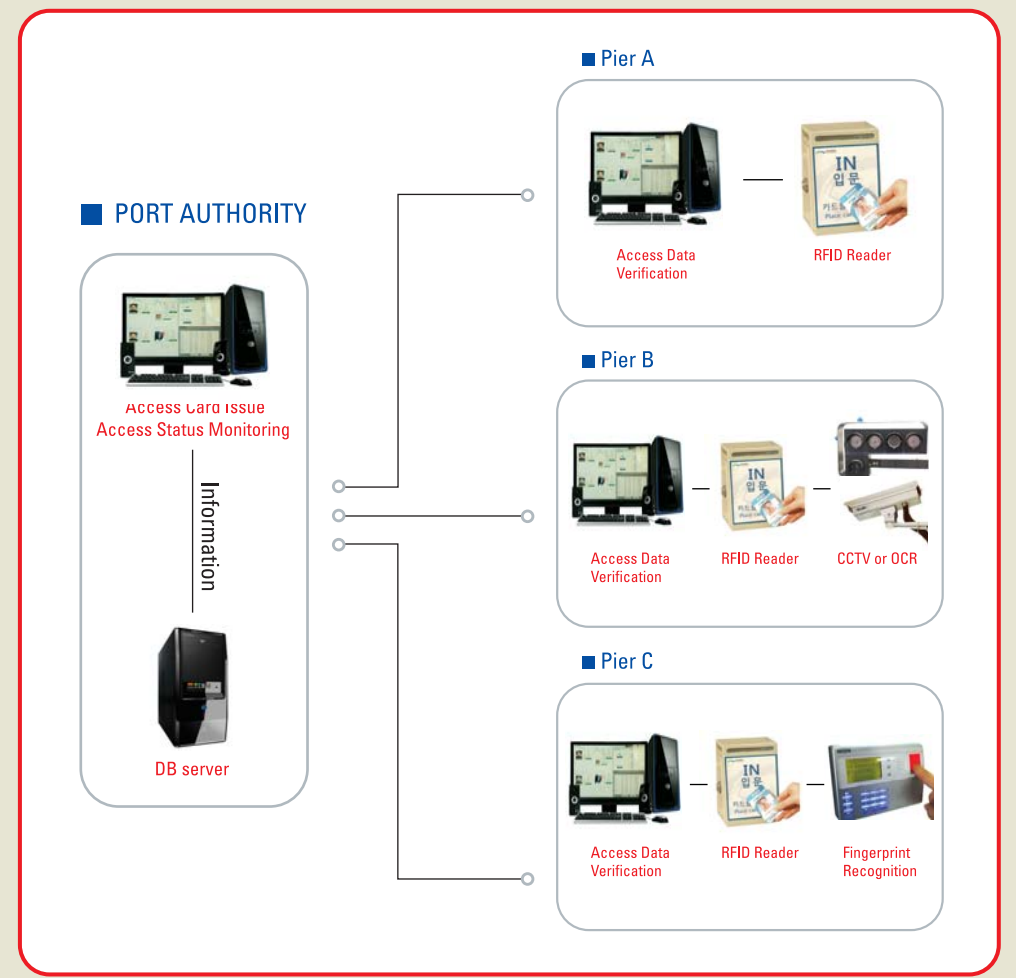
Benefits ↘

- 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

ACCESS SECURITY SOLUTION

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

Features ↘

■ PORT AUTHORITY

Access Card Issue
Access Status Monitoring

Information

DB server

■ Pier A

Access Data Verification — RFID Reader

■ Pier B

Access Data Verification — RFID Reader — CCTV or OCR

■ Pier C

Access Data Verification — RFID Reader — Fingerprint Recognition

- 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

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