

Ports Information Technology

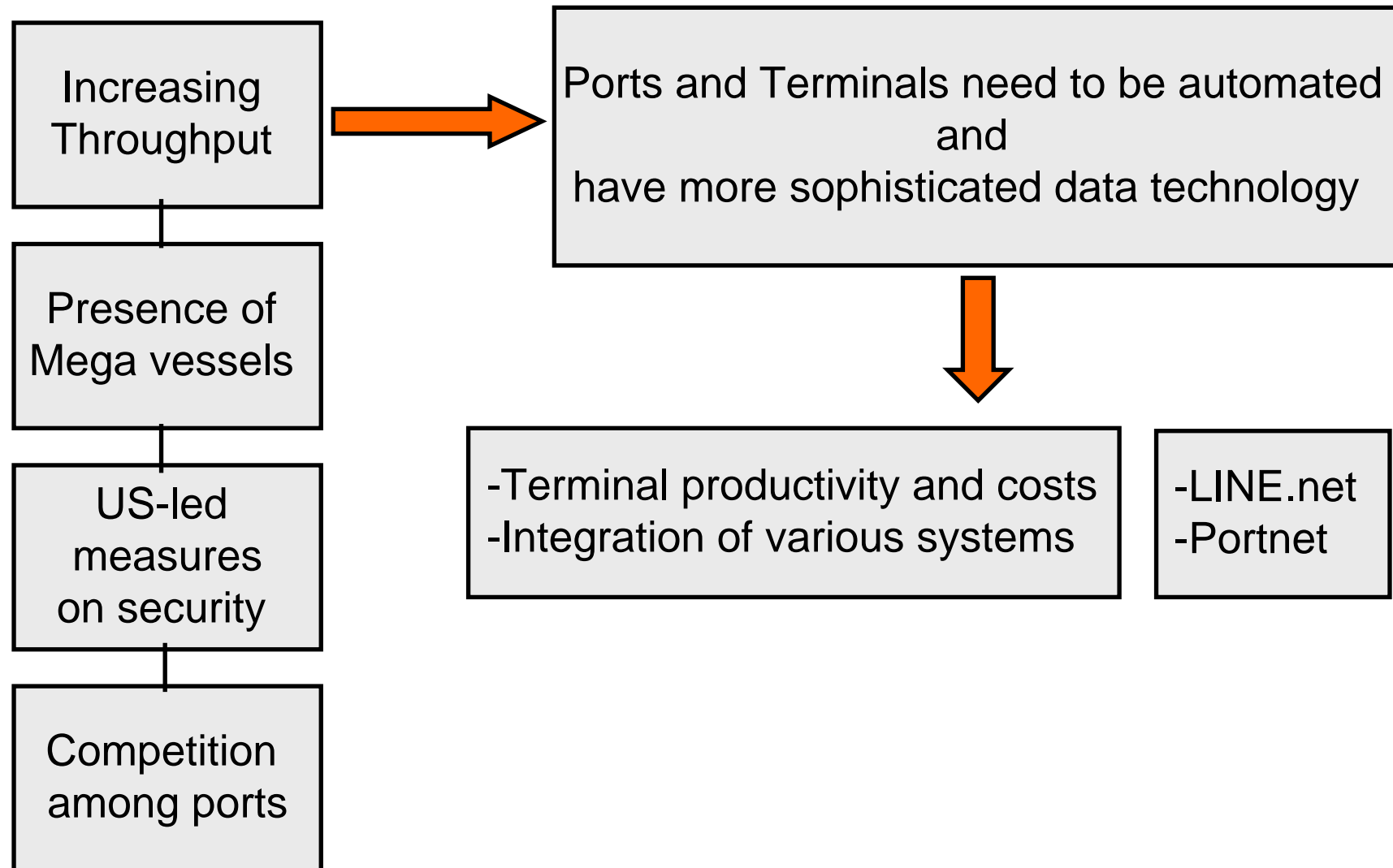
Yong-Phil Cho



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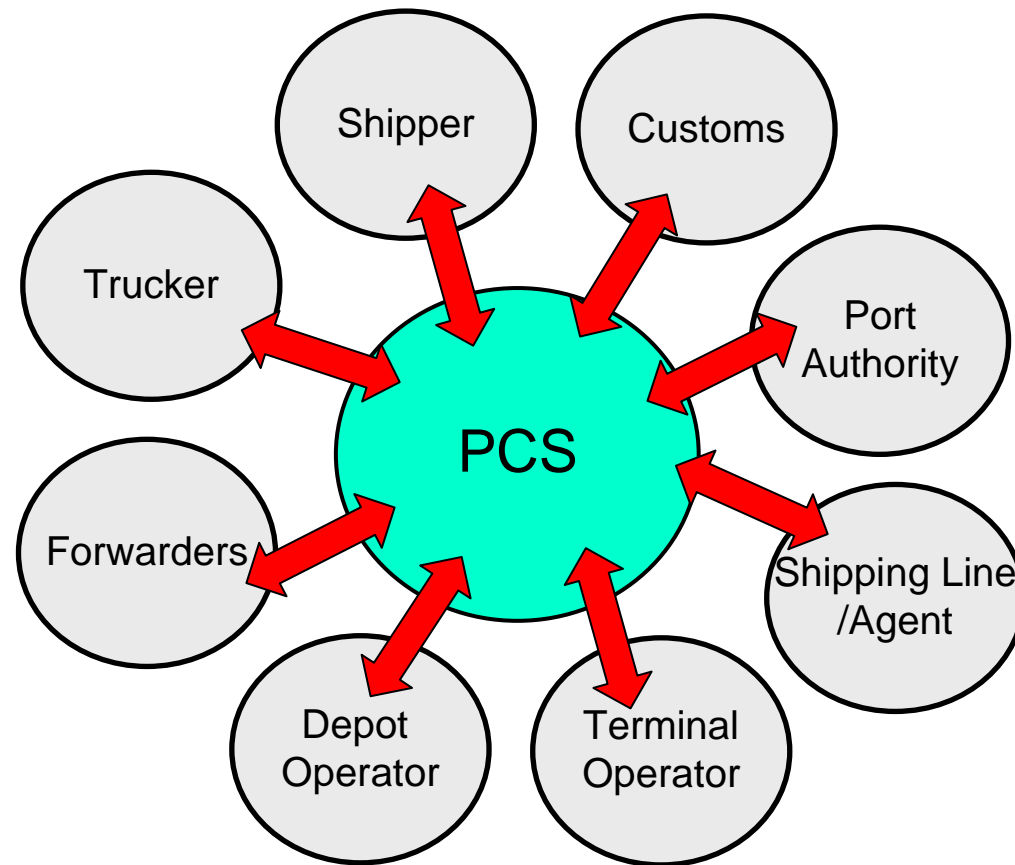
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1. Executive summary

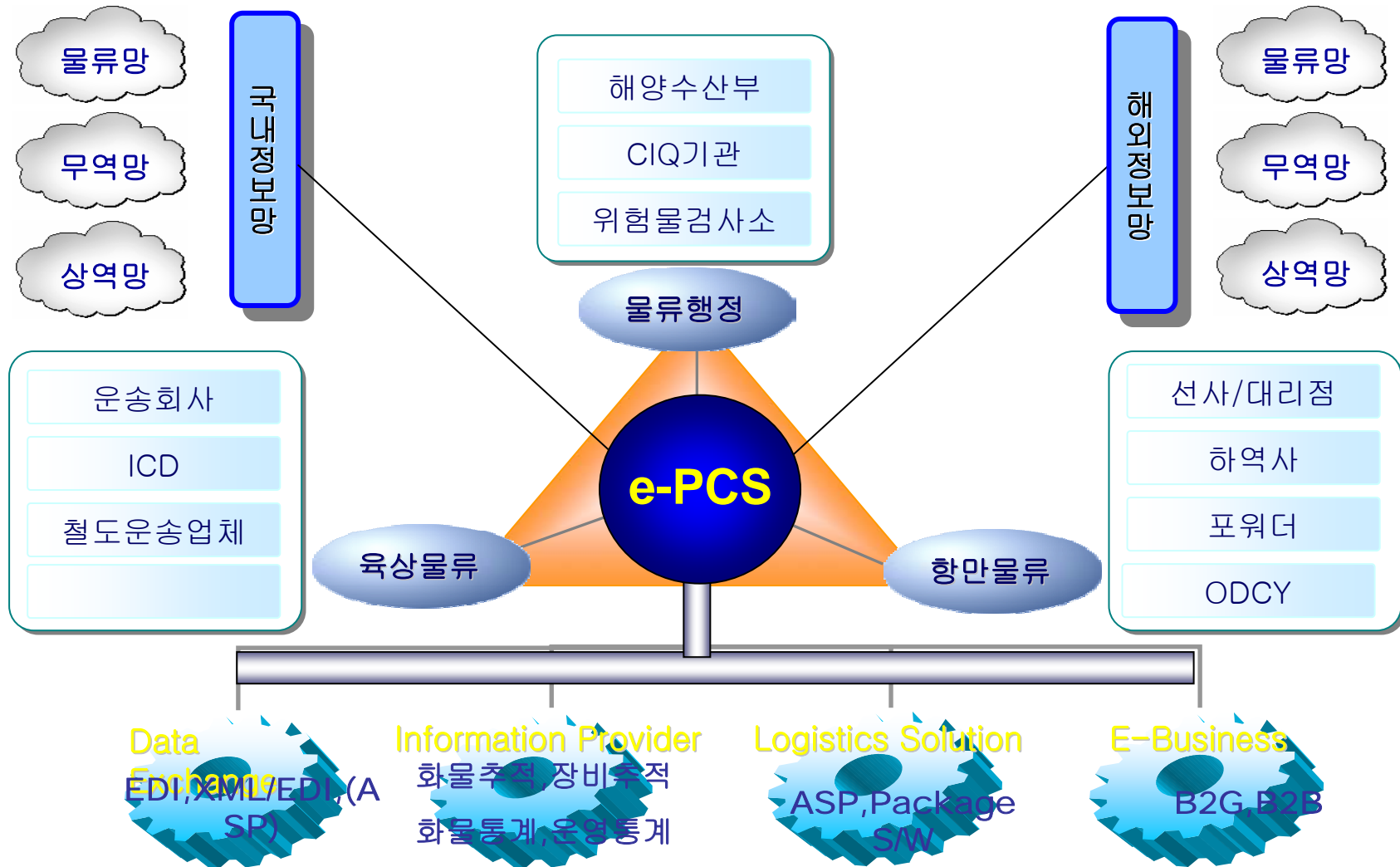


2. Introduction of port community system

- Port community systems are computer networks which link up the port with all the companies that use it



2. Introduction of port community system



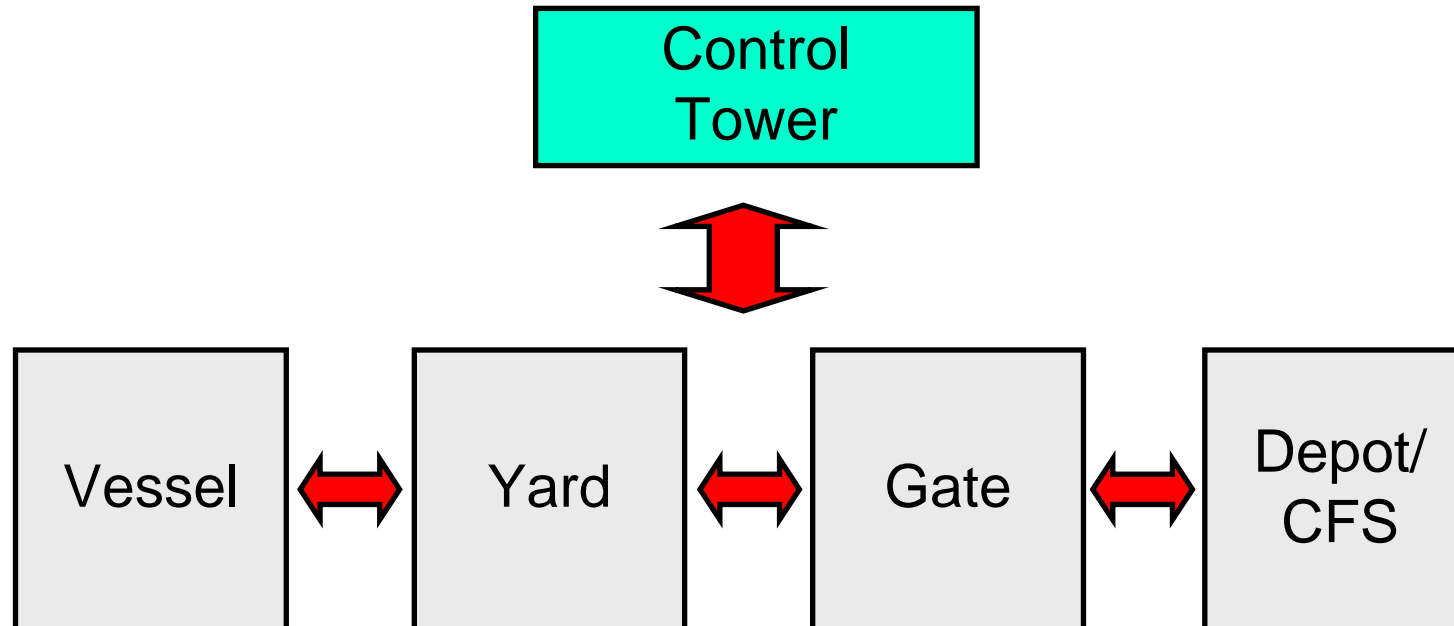
3. Port community systems Bench Mark

싱가폴과 같이 선진항만의 경우 항만의 주체가 단일망이고 무역/통관망과 실질적인 연계가 되어있음. 하지만 도시국가이어서 정부기관의 관리가 용이함을 특징을 가진 국가이므로 국내사정과 국제환경을 고려한 시스템 구축 접근방식이 필요.

구분	항만물류			연계	물류	통관
	항만서비스	항만수속	터미널운영			
일본	개발항만별	항만 EDI	터미널 개별시스템	연계 예정	POLINET SC/SF-NET	Sea-NACCS
싱가포르	PORTNET			연 계	TRA DENET	
홍콩	DTN(ISP진행중)		터미널 개별시스템	일부 연계	ARENA	TRADE-Link
네덜란드	INTIS(International Transport Information System)와 GEISCO, IBSMIN, TRAXON, SITA 등 로테르담항만과 유럽 항만들과 연계			연계 중	INTIS	SAGITTA
한국	PORT-MIS		터미널 개별시스템	일부 연계	KL-Net	KTNET

4. Container terminal operation system

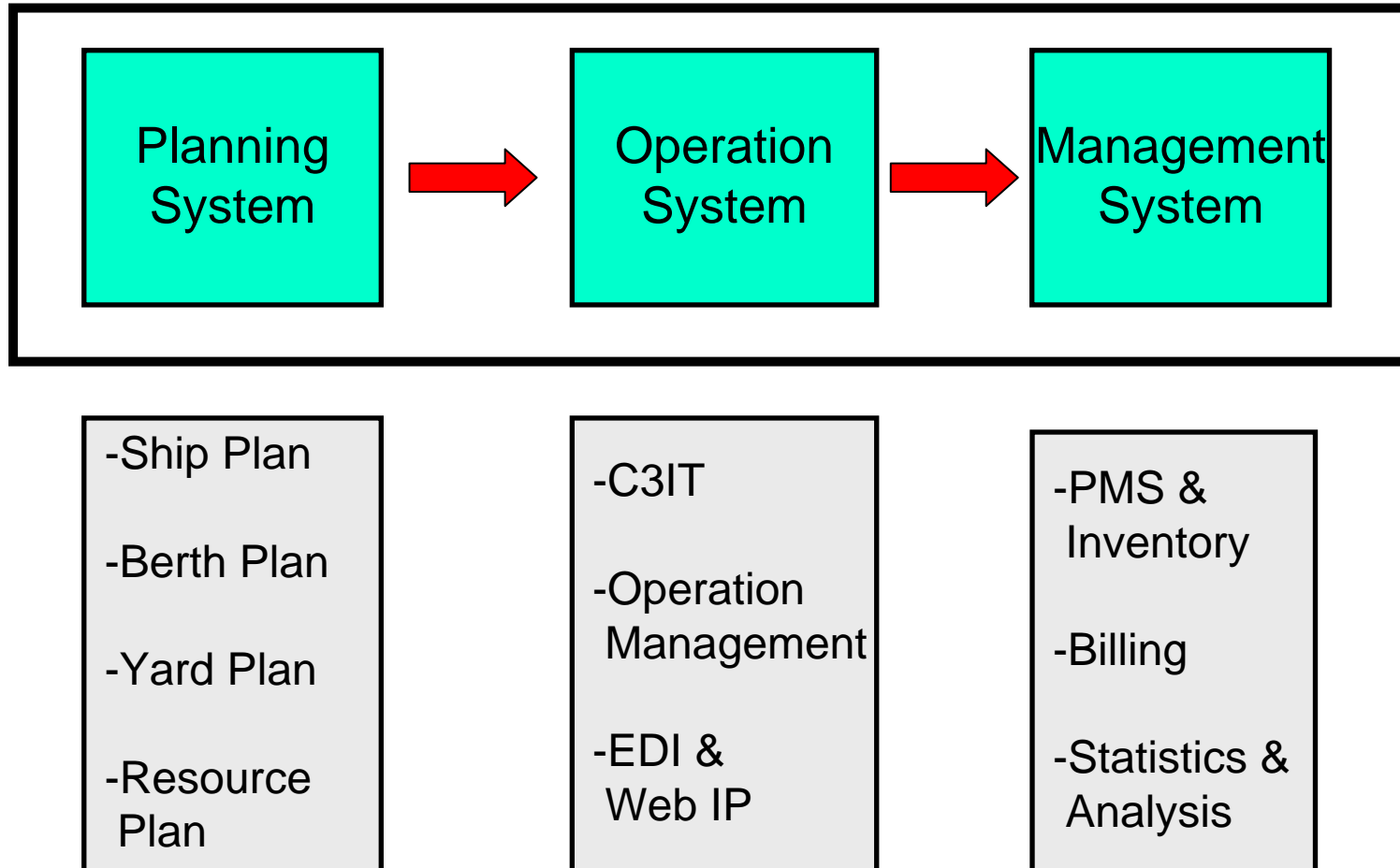
- Introduction to container terminal system



- **Manages containers through the terminal from the gate to the vessel**
- **Keeps a real time database of the locations of containers**
- **Issues instructions to container moving equipment**

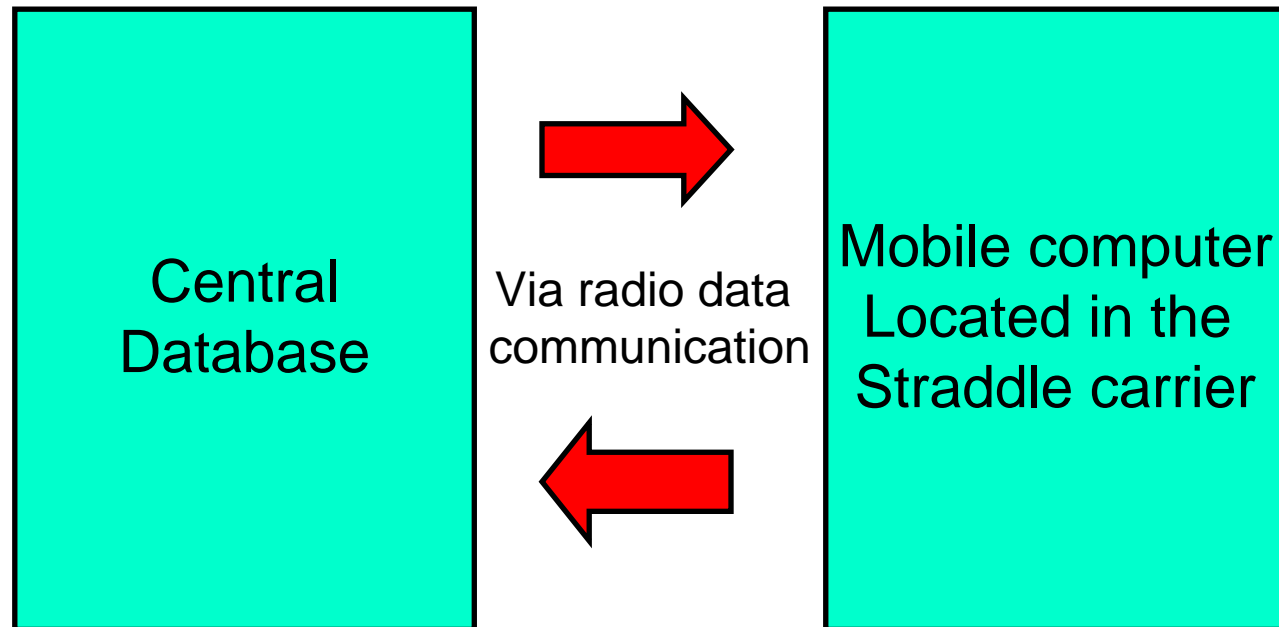
4. Container terminal operation system

- TSB CATOS



5. Wireless Data Networks

- Introduction
 - Inside networks that make the communication possible from a central computer to mobile computers through exchanging data



5. Wireless Data Networks

- Related companies
 - Psion Teklogix

Client	Product
Georgia Port Authority	-Narrowband wireless data communication system
Halterm, Port of Halifax	-7030 hand-held computer -8255 vehicle-mount computers
Salah Port Services	-Wireless LAN system

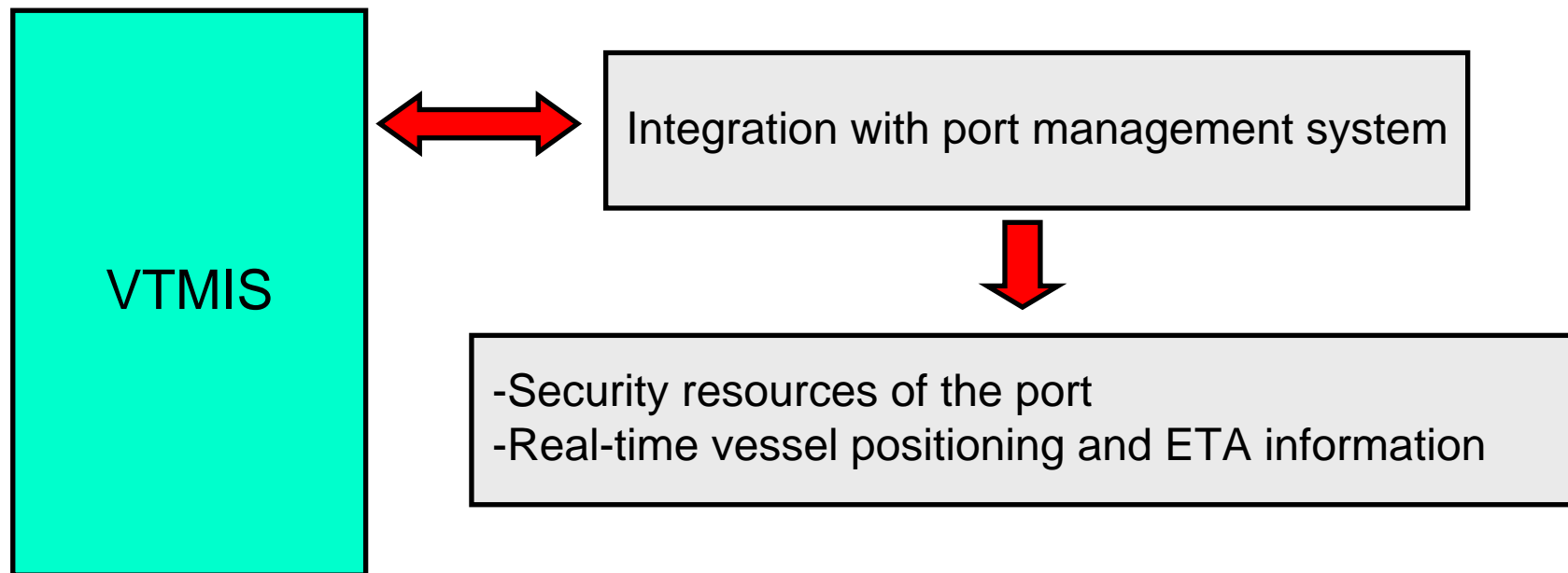
5. Wireless Data Networks

- Related companies
 - LXE (alliance with Portek)

Client	Product
MTL (Kwai Chung Port)	-1380 Series computers -MX3 hand-held mobile computers -2.4 GHz Spire Antenna LAN
Purfleet Thames Terminal	-Spire Antenna -6520 Access Points

6. VTMIS

- Introduction
 - Enhanced vessel traffic systems that include connectivity to terminal information systems

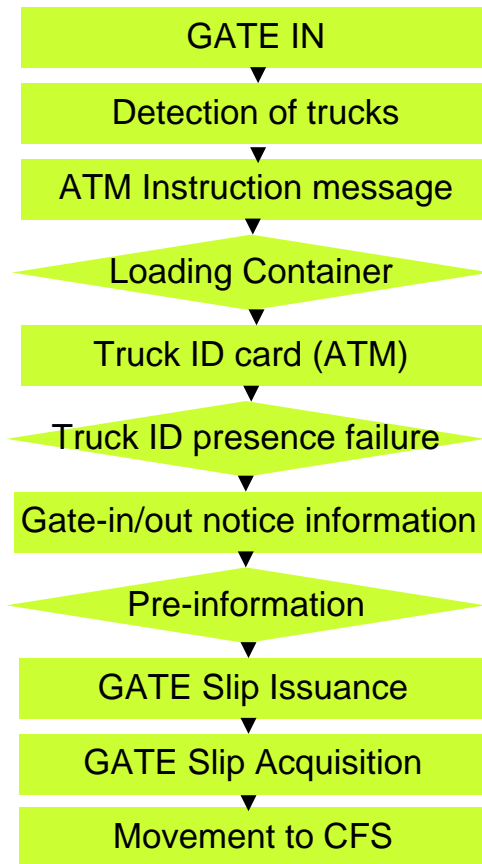


7. RFID Application

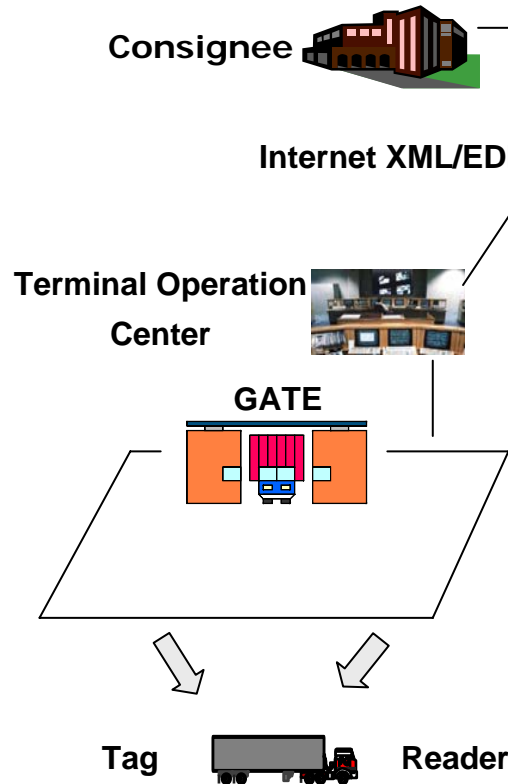
● GMS (Gate Management System)

- Automated Gate Management System based on RFID detects trucks from a distance(3-6m) and instructs storage position automatically and makes fast and accurate operation by monitoring gate-in and out

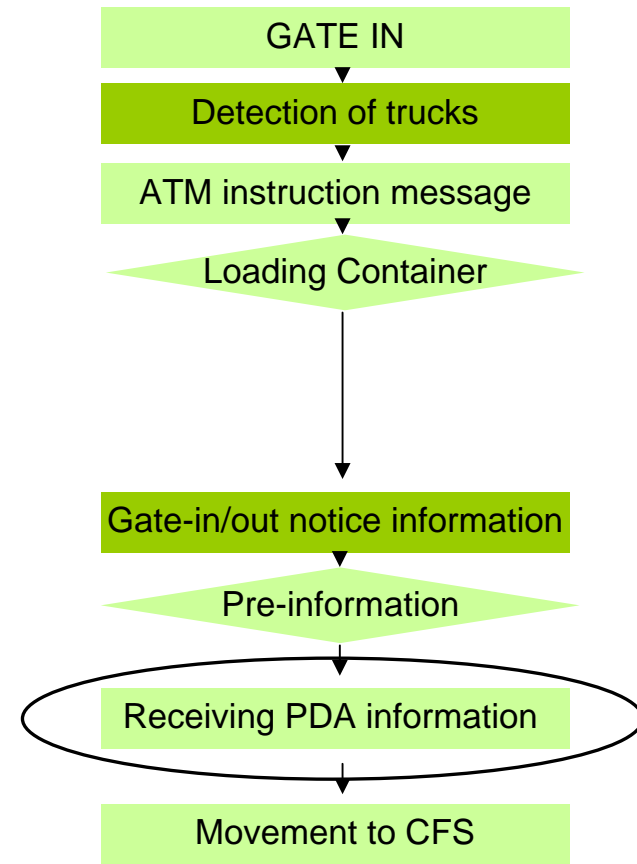
Before RFID (Gate-in Process)



RFID Gate Control



After RFID (Gate-out Process)



8. Terminal Simulator

- **Port Simulator can support decision-making with various statistics and analysis.**
- **Port Simulator can separate good from bad solutions, from simulation based on user defined/planning.**
- **Port Simulator can represent Container Terminal Operation; Physical Process & Rules in TOS.**
- **Port Simulator can visualize operation in 2D & 3D graphic viewer.**
- **Port Simulator can create accurate & clear report in various forms**

Demo

SIMULATION

E.O.D.