IT and Terminal Operating Systems

AAPA Terminal Management Training Program
October 18, 2007
Long Beach, California
IT And Terminal Operating Systems

Agenda

- Introduction
- TOS Overview
- TOS Features
- TOS Benefits
- IT Related to TOS
- IT Disaster Recovery
Famous IT Quotes

• *I think there is a world market for maybe five computers.*
  Thomas Watson, chairman of IBM, 1943.
IT and Terminal Operating Systems

- Internet
- EDI
- VAN
- Fiber Optic
- Terminal Operating System
- Wireless
- OCR
- Cameras
- RFID
- Bar coding
- RFID
- RTLS

THE PORT OF LONG BEACH
Terminal Operating System

Enterprise software that manages all aspects of a terminal operation.
Terminal Operating System

Track -
- Vessels
- Cargo
- Yard equipment
- Rail
- Trucks
Terminal Operating System

Manage -
• Gates
• Berths
• Wheeled and grounded assets
• Container handling equipment
• Labor
• Vessel stowage
• Rail
Terminal Operating System

Interface –
- US Customs AMS
- Shippers
- Carriers
- Railroads
- Port authorities
Famous IT Quotes

• *Computers in the future may weigh no more than 1.5 tons.*
  Popular Mechanics, forecasting the relentless march of science, 1949.
Terminal Operating System

Measure Key Performance Indicators

- Space utilization
- Labor
- Gate time
- Berth allocation
- Dollars
Terminal Operating Systems

- SPARCS
- Main Sail
- Voyager
- Cosmos
IT and Terminal Operating Systems

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- GPS
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RFID
Radio Frequency IDentification

- Tags are attached to equipment
- Tag ID linked to equipment ID
- Transmit data to readers
- Active and passive tags
GPS
Global Positioning Systems

• Provides reliable location information worldwide.
• Free to anyone with a receiver.
• Requires GPS reader.
• Also provides accurate time.
Cameras

- High quality digital cameras with pan, tilt and zoom controls.
- For yard management as well as security.
- Combined with OCR to identify equipment.
RTLS
Real Time Location Systems

- Combines various technologies to track equipment and cargo.
- Based on active RFID.
- Used extensively in the San Pedro Bay ports.
Street Truck Security

Drayage Company maintains MCU and Driver attributes via eModal Trucker Check secure web access.

Motor Carrier Unit Attributes + Driver Attributes

Terminal Operating System

Gate/Security Pedestal

Secure RFID Tag ID

OK to Proceed as Known Vendor

Business Purpose

TOS validates purpose for visit
Southern California Terminals

Using RTLS from WhereNet

APL
YTI
TraPac
Pier A
C-60
CUT
LBCT
ITS
PCT
LA/LB

WhereNet
Full Locate
MTS
Customers

APM Terminals
Bar Codes

- Automate data entry.
- Reduce errors and increase efficiency.
- Low cost solution.
Famous IT Quotes

• *There is no reason anyone would want a computer in their home.*
Fiber Optic Networks

- High speed transmission.
- High capacity.
- Smaller bundles than metal wire.
- Long distance transmission.
Wireless Network

- Uses radio signals to broadcast network data between devices.
- Not as fast as wired networks.
- More flexibility and easier to deploy than wired networks.
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EDI

Electronic Data Interchange

• Set of standards for the exchange of business documents electronically.
• Computer to computer exchange between companies.
• Can use almost any form of communications to transmit the message.
Internet

- Ubiquitous
- Can’t live without it
- In some ways the Internet is the computer, everything attached to it is incidental.
IT Disaster Recovery Plan

- Prepare for any disruption to your IT.
- Identify critical systems to prioritize system recovery.
- Identify teams and create task lists.
- Identify critical vendors.
- Secure backup site to operate from.
IT Humor

• To the optimist, the glass is half full.

• To the pessimist, the glass is half empty.

• To the IT guy, the glass is twice as big as it needs to be.
Questions?