Role of IT in Port Management and Operations

2018 MARINE TERMINAL MANAGEMENT TRAINING PROGRAM

Introduction: Chris Millar

1996-2002: Built long-haul Fiber Optic Network for companies like Qwest, Worldcom, IXC/Broadwing and MCI

2002-Present: IT projects focused in Public Safety

Areas of Experience:

- Large and Small business support
- Project Budgeting, Design, and Management
- Department organization and structure

Introduction: Chris Millar

Port Projects include:

- EOCs (Emergency Operations Centers)
- Camera and Access Control systems
- PSIM systems (Physical Security Information Management)
- Large network build-outs, including Fiber Optic and Wireless networks
- General IT systems and management

What does IT do?

The Goal of IT is Productivity

- Keep technology systems running
  (Operations)

- Propose and execute business transforming projects
  (Organizational Initiatives)

The Responsibilities of IT

- Keep staff working
- Keep the business operational
- Find new efficiencies
- Spot new business opportunities
- Protect the business

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But what does IT really do?

Desktop Support
Email
Website Hosting
SharePoint
Desk Phones
Marketing database
Mobile Phones
iPads
Web Conferencing
Wireless Networking
VPN/Remote Working
Ticketing Systems
Accounting Systems

Billing Systems
Payroll Systems
GIS/Mapping
AIS
Radar
Camera Systems
Access Control Systems
Incident Management
Lease tracking applications
Backups & Disaster Recovery
Document management
A/V Presentation Systems
HVAC & Building Control Systems

Video Conferencing
Lighting automation systems
Ship-to-Shore power accounting
Mass notification
IT System Monitoring & Maintenance
Board/Council meeting applications
Visitor/Lobby check-in systems
Database management
Asset Tracking
Budgeting
Management Reporting
Training
Cyber Security

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It’s a changed world

- Client in 2003:

  “We can’t get to the internet, could you come out this week?”

- Client in 2018:

  “OUR INTERNET IS DOWN!!!!!!”

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Biggest Changes in IT

- 24x7x365 operations
- Job specialization

What can IT do NEW for me?

What is technology good at?	What is technology less good at?
• Automating redundant task	• Automating complex decision making
• Enforcing standardized processes & compliance	• Enforcing human behavior
• Processing standardized data	• Processing non-standardized data

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Popular Port Technology Initiatives

- Business Automation & Workflows
  - Merging Operational and Accounting workflows
  - Automating support request systems including; Maintenance and IT ticketing
- Disaster Recovery and Business Continuity
- Public Outreach; including public information systems, marketing, and websites.

Popular Port Technology Initiatives

- Security & Awareness
  - Camera, Access control, and security alert automations
  - EOCs (Emergency Operations Centers)
  - Incident management and SOP (Standard Operating Procedure) automation and integration
  - Common domain awareness systems (including PSIMs), which merge and automate security data and functions (Incident management, Camera systems, GIS, Mass Notification)
- Cyber Security

What can I do for IT?

Give us all the details, please (pleas)

- What is my experience now?
- What are we trying to accomplish?
- What is the big picture?

Even if you know the solution, starting out with these items will lead to better results

Build or Buy?

Build or Buy: Application Development

- Cost for Microsoft to develop Windows 10:
  - $Billions++

- Retail price for Microsoft Windows 10:
- $199

***Off-the-shelf* software for the Win**

Build or Buy: Staff or Outsource

- How many hours of resources will I need for this specialty?
- Is this skill set readily available in the marketplace or current staff?
- How much will training cost to develop this specialty?
- How much will training cost to maintain this specialty?
- Do I need high availability for this specialty (24x7x365)?
- Is this skillset central to my business and planning?

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Build or Buy: Staff or Outsource

- In-house Staffing Cost Example, “Application Specialist”:
  - Staff Raw Salary (5 day work week): $100k
    - Staff position cost fully loaded: **$135k**
    - Vacation Days 15
    - Sick Days 5
    - Holidays 5
  - Staff position availability
    - Days in a year: 365
    - Work days in a year: 261
    - Staff work days in a year: 236
    - Percentage of staff availability during work days: **90%**
    - Percentage of staff availability during all days: **65%**

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Build or Buy: Staff or Outsource

Build or Buy Questions:

- What are our requirements to support this application (24x7x365, response time)?
- What is our in-house staffing cost
- What is our Outsource staffing cost
- What is our cost to manage each type of staffing?

How should I engage for my project?

If you put ten engineers in a room, you will get eleven answers.

- Chris Millar, engineer

Initiating a project

Involve IT as early as possible:

- There may be other departments already doing something similar and your project may be an easy add-on.
- OR your project may involve significant infrastructure changes, which may affect your goals.

Always include IT management

- Even if you know the application specialist for your project, management may know of additional initiatives that could affect your project

“Change before you have to.”

– Jack Welch

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