OVERVIEW

1. Industry trends
2. Ports in Transition
3. The Connected Port
1

INDUSTRY TRENDS
The business environment for port operators is getting more challenging, increasing the urgency for change.

**GROWTH**
- Slowed down organic growth
- Inorganic growth and port development less available

**RETURNS**
- Complexities on financials and profitability

**PRICE**
- Continued price pressure from carriers

**COMPETITION**
- Commodityization of operations excellence
Overall industry profitability is declining – in-depth transformation is needed
Automation and software will accelerate commoditization of operating terminal expertise

New differentiators for operations excellence required
PORTS IN TRANSITION
Transformation is needed for port operators, both operating model and business model.

- Transition to new business model
- Optimize the Core Port Business
- Grow the NEW
Port Operators Need to Explore New Business Models and Move Up the Value Chain

- Lack of Terminal Operations Expertise
- Poor Terminal Productivity
- Capacity Demand from Rapid Trade Growth
- Capacity Shortage Filled Growth Slowed Down
- Ports seen as a Network in Global Supply Chain
- Expertise of Terminal Operations "Commoditized"
- Ports seen as a Network in Global Supply Chain

Sophistication of business model

- Evolution
  - 1990's
  - 2000's
  - 2010's
  - Future

- Line-Dedicated Terminals
- Trade Facilitator
- Trade Corridors
- Efficient Gateway/Hub
Port operators should strategically re-position to become “Trade Facilitators”

**Grow the NEW**

- Open, Public Platform for the ecosystem participating in world-trade
- Financing offerings
- Service Extension for carriers and port users from
  for collaborative supply chain solution

**Optimize the CORE**

- From
  - Ports as isolated island
  - Box Lifting services
  - Productivity as the single metric

- To
  - Port Network to align with carriers’ network operations
  - Act as Gateway or Hub for Connectivity services
  - Optimizing Productivity and Asset Utilization (Cost-to-serve)
3

THE CONNECTED PORT
A “Connected Port” is defined as one where the ecosystem is extended, terminal operations are excelled, and new opportunities are explored.
How Organizations can benefit from IoT

**ACHIEVE**
Operational efficiency

**TRANSFORM**
Business models

**MOVE**
From product to service focus

- Prevent disruptive events and act informed
- Gain control of assets
- Discover new revenue streams
- Predict ROI for IoT initiatives
- Personalize customer experience on products and services
- Build ecosystem and service marketplace
- Prevent disruptive events and act informed
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With ports having such a pivotal role in the trade value chain, “connected ports” is a logical expansion of port offerings to other nodes.
The Adoption and Impact Path of IoT

1. OPERATIONAL EFFICIENCY
   - Asset utilization
   - Operational cost reduction
   - Worker productivity

2. NEW PRODUCTS & SERVICES
   - Pay-per-use
   - Software-based services
   - Data monetization

3. OUTCOME ECONOMY
   - Pay-per-outcome
   - Connected ecosystems
   - Platform-enabled marketplace

4. AUTONOMOUS PULL ECONOMY
   - Continuous demand sensing
   - End-to-end automation
   - Resource optimization, waste reduction
SIPG AND ACCENTURE JOINTLY COMMISSIONED THE RESEARCH FOR THE NEXT GENERATION “CONNECTED PORTS”

CASE STUDY: SHANGHAI INTERNATIONAL PORT GROUP (SIPG)

Background:

Shanghai International Port Group (SIPG) is the operator of the World’s largest port in TEU throughput.

The Challenges:

With Worldwide economy slowing down and cargo growth stagnates, competitions becomes more intense. SIPG would like to understand how ports should evolve themselves into the “next generation port”

Scope of Collaboration:

Accenture, as the long-term partner of SIPG, jointly commissioned a research into the “digital journey” of ports. We believe ports should evolve from a mere “port operator” into a facilitator in the trade corridors.

Ports should develop excellence in the core operations, but it serves only as the foundation as they should also logically expand their foothold to connect all parties in the ecosystem, and eventually exploring opportunities derived from the enormous (and accurate) data that is derived from the trade.

We also believe that port leadership should lead their enterprises to reposition, while innovate, and be future-driven.
WE JOINTLY DEVELOPED THE DIGITAL STRATEGY FOR THE NEXT-GENERATION PORT AND CONGLOMERATE FOR CHINA MERCHANTS GROUP

CASE STUDY: CHINA MERCHANTS GROUP

Background:

China Merchants Group (CMG) is a conglomerate focusing on three core sectors: transport (port, highway, etc.), finance and property.

The Challenges:

With the recent adoption of digital technology like mobility, IoT and emerging ecosystems, CMG would like to stay competitive — and to transform its business into a “next-generation” conglomerate.

Scope of Collaboration:

Accenture helped CMG summarize key digital trends and identify market leaders locally and internationally. They looked at how these digital leaders disrupted their industry — or multiple industries — and applied similar concepts to CMG’s business.

Together, they developed key areas of improvement for CMG across and within subsidiaries, including new business models, cross-sector platform economies and ecosystems. Looking at CMG’s core competencies, vision and contextual factors, the team then created CMG’s digitalization strategy, focusing on technology infrastructure, building six cross-sector platforms, and corporate capabilities such as ecosystem incubation and data operations.
WE DEFINED THE FUNCTIONAL AND TECHNICAL FRAMEWORK OF THE PORT AND LOGISTICS COMMUNITY SYSTEM FOR HONG KONG PORT

CASE STUDY: HONG KONG GOVERNMENT DIGITAL TRADE AND TRANSPORTATION NETWORK (DTTN)

Background:

Hong Kong Government (HKSARG) would like to strengthen Hong Kong’s role as the preferred transportation and logistics hub.

The Challenges:

To achieve this goal, HKSARG commissioned Accenture for the study for developing DTTN, specifically functional and technical blueprint, standards and protocols, business case and ownership, management and governance structures.

Scope of Collaboration:

Accenture helped HKSARG to define and summarize the key components of the DTTN, including its guiding principles, 3-layer model, scope and roles, architecture, business case and implementation roadmap of the DTTN.

The DTTN is one of the first and foremost single-window trade ecosystem platform suggested to promote trade. The roles of the DTTN as a neutral e-platform to facilitate information flow and service integration, stable and reliable environment and a state of the art technology platform for the exploration, development and delivery of innovative value-added services, and catalyst to promote electronic business adoption, especially by SMEs was followed worldwide as the key goals and principles of any port ecosystem platform.
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