

Development of Industry-Wide BunkerNet System

CFC Briefing

**Goh Kwong Heng
Deputy Director
Research & Technology Development
MPA**

Outline

- **The Singapore Bunker Industry**
- **BunkerNet**
 - Objective
 - Scope
 - Functionalities and Platform
 - Design requirements
- **CFC**
 - Eligibility
 - Support from the Government
 - Selection Process
 - Submission format
 - Timeline

The Singapore Bunkering Industry

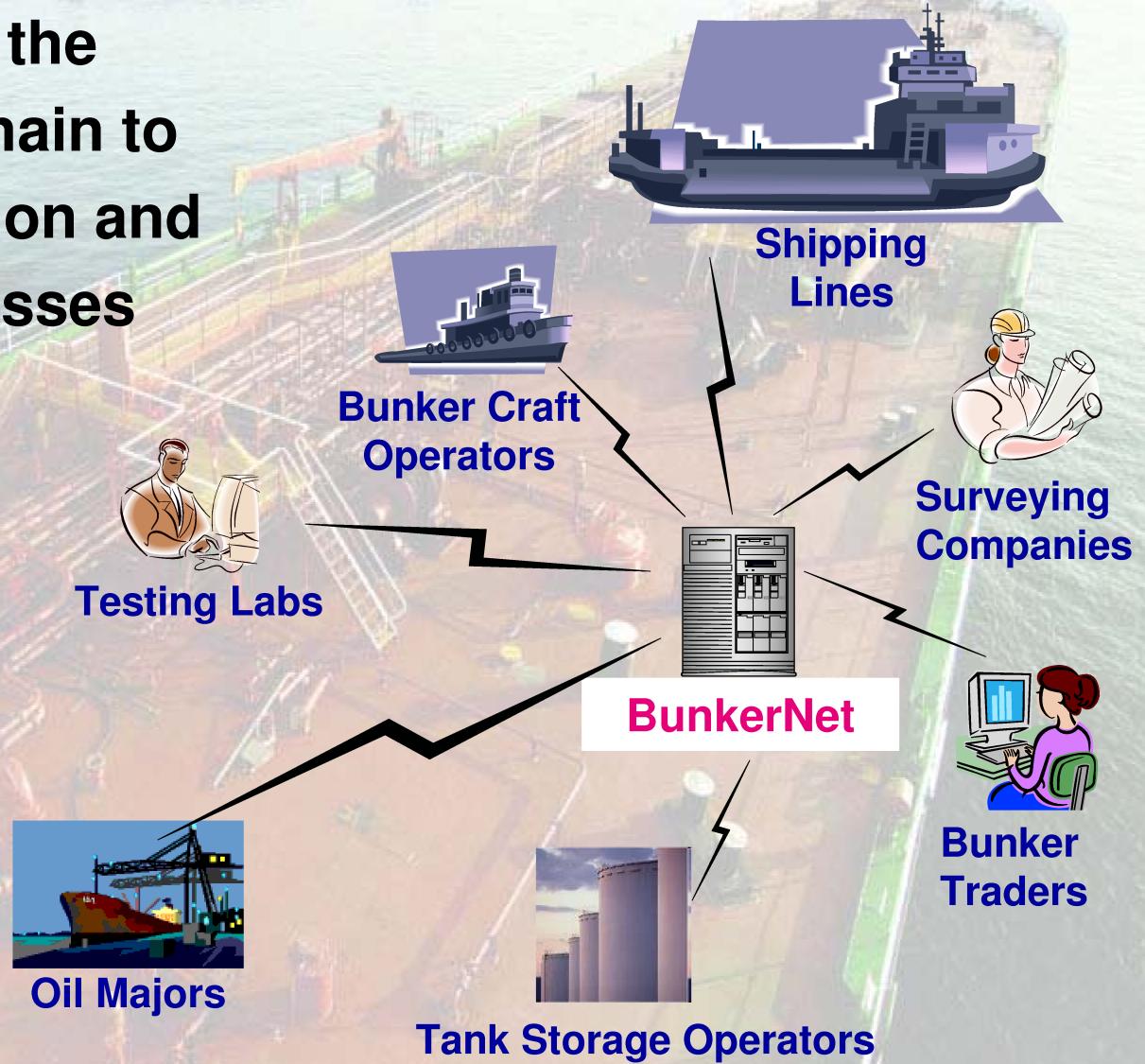
Year	Bunker volume (tonnes)
2005	25.5 million
2006	28.4 million
2007	31.5 million

- 3rd largest refinery centre
- 75 licensed bunker suppliers in Singapore
- 150 Bunker Tankers
- 3,000 bunker deliveries per month

The BunkerNet

Vision of BunkerNet

➤ Create a network linking all parties within the bunker supply chain to provide automation and streamline processes



Objectives of BunkerNet System

- Further enhance the efficiency, safety and security of **Bunker Delivery operations** through the use of ICT
- Encourage the early development of applications to drive up WISEPORT Network adoption rates

The Singapore Standard Code of Practice for Bunkering (SS CP60)

- All Bunker Suppliers and Bunker Craft Operators in Singapore are licenced by MPA and must comply with SS CP60
- SS CP60
 - lays down the minimum documentation and equipment requirements and, verification procedures during a bunkering operation
 - covers pre-delivery, actual delivery and post-delivery checks and documentation
 - Every bunkering operation carried out by bunker tankers to ships in the Port of Singapore shall follow the SS CP 60
 - By carrying out the bunker delivery process systematically in accordance to SS CP 60, the likelihood of a bunkering dispute should be minimised

(SS CP 60 can be purchased at SNP Corporation Ltd)

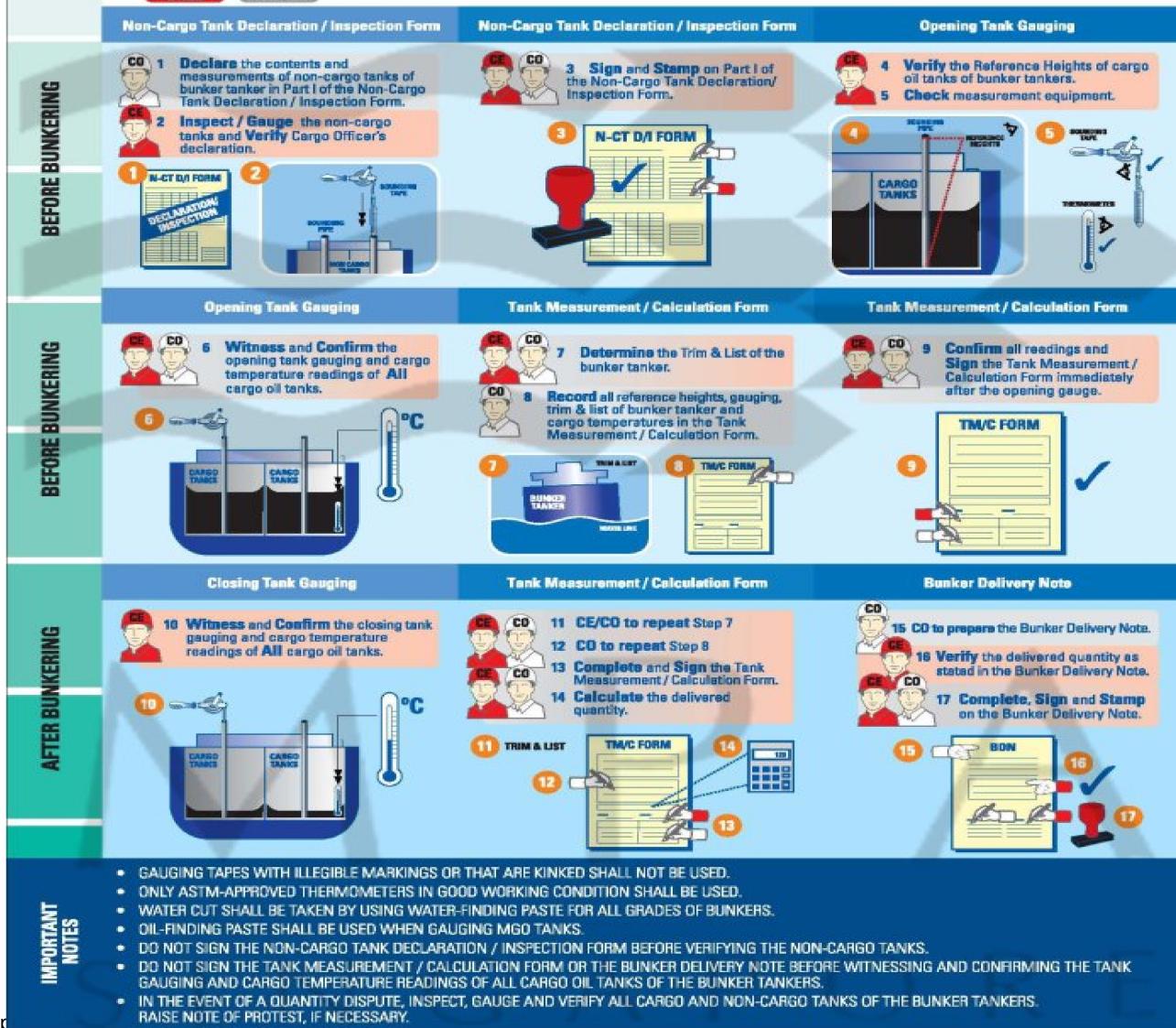


SINGAPORE STANDARD CP60 – QUANTITY MEASUREMENT PROCEDURES (KEY STEPS)

LEGEND



Chief Engineer should check and ensure that SS CP60's pre-delivery conference and documentation procedures are carried out.



Current Bunker Delivery Process

Pre Bunkering:

- Get delivery details from back office (SMS/phone, Bunker requisition form)
- Load product from terminals

Barge Alongside:

- Record barge alongside time on BDN
- Chief Engineer to acknowledge on Bunker Requisition form
- Prepare pre-delivery documents (Non-Cargo Tank Declaration Inspection Form, Tank Measurement Calculation Form, Safety checklist)
- Check quantity of fuel and record in stock movement log book

Start Bunkering:

- Record pumping start time
- Collect samples

After Bunkering:

- Seal samples and record number on BDN
- Record pumping end time on BDN
- Measure tanks (record on TMC) and manually calculate actual quantity on BDN
- Update Stock Movement logbook
- Print 4 or 5 copies of BDN to be signed and stamped by Chief Engineer (Vessel), Barge Crew & Surveyor
- Inform office of job completion through SMS or voice
- Return original copy of BDN to office during change of shift
- Submit KPIs to MPA for assessment
- Report barge movement to MPA

Functionalities of BunkerNet – Phase 1

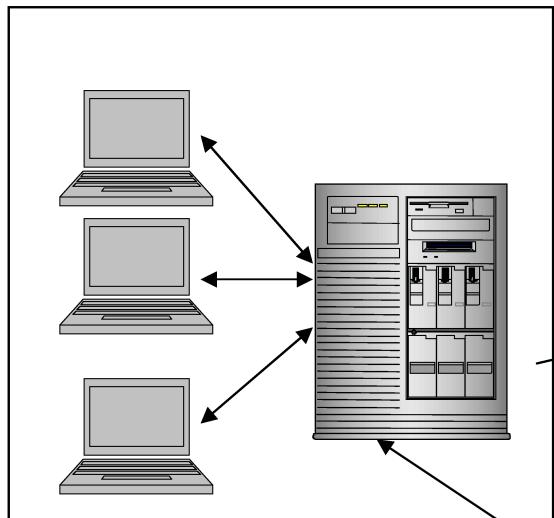
Improve Supply Chain Visibility	Automate Workflow based on SS CP 60	Enhance Safety & Security
<ol style="list-style-type: none">1. 2 way data-comm btw barge & office2. Real time barge tracking at back office (to be provided by MPA)3. Receipt of ops schedule and vsl position by bunker barge from office & MPA respectively <i>(Vsl position info from MPA is chargeable)</i>	<ol style="list-style-type: none">1. Electronic capturing & printing BDN on barge & routing to office2. Scanning & faxing/e-mailing of documents from barge to office3. Electronic capturing of stock movement4. Auto Tank calculation5. Reporting of barge movements to MPA6. Electronic capturing of non-cargo tank declaration & tank measurement forms	<ol style="list-style-type: none">1. E-submission of safety reports from barge to bunker supplier2. Remote surveillance of bunker ops by CCTV / webcams

Functionalities of BunkerNet – Phase 2

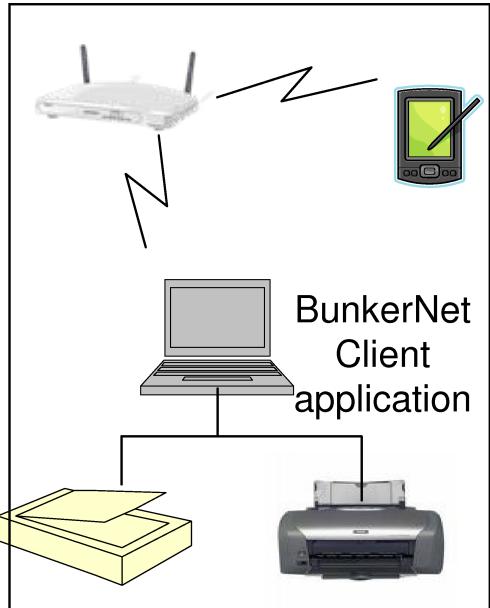
Supply Chain Visibility	Automate Workflow	Safety & Security
1. Posting of berthing schedules by oil terminals and storage operators	1. Electronic issuing of Certificate of Quality and Bill of Lading by oil terminals 2. Digital signature for BDN	1. Electronic authentication of bunker surveyors

➤ Need for phase 2 will be reviewed after the implementation of phase 1

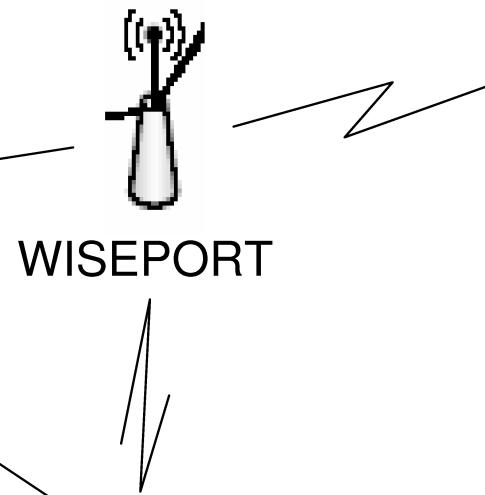
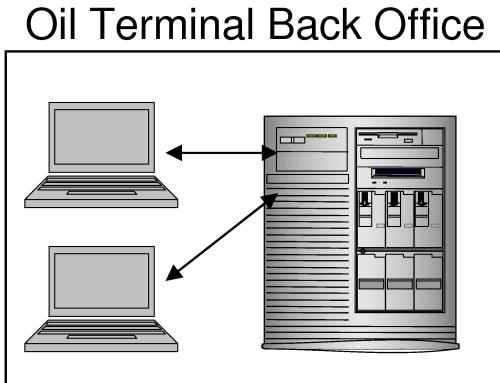
Concept of BunkerNet Platform



Bunker Supplier Back Office



Equipment on Bunker Barge



BN Exchange Server



MPA System

BunkerNet Design Considerations

- **Easily up-scaled and upgraded to**
 - Support additional users
 - Phase 2 workflow and functionalities
 - Other new applications and requirements
- **Data reliability, integrity and security**
- **Data confidentiality**
 - no user info to be stored in BunkerNet
- **Open standards and protocols**
- **Use of low-cost shared national platform. E.g. TradeXchange**
- **Ease of maintenance and systems upgrade**

The BunkerNet CFC

BunkerNet Call-for-Collabroation (BN CFC)

- **Invite ICT Service Providers to**
 - Design and develop BunkerNet
 - Conduct pilot trials on system
 - Operate the system

BunkerNet CFC - Eligibility

For Individual Company :

➤ **Registered in Singapore with the Accounting & Corporate Regulatory Authority (ACRA)**

For Consortium

➤ **At least the Consortium Leader be registered in Singapore with ACRA**

BunkerNet CFC - Support from Government (if required)

➤ Co-fund the costs of :

- Systems development
- Test-bedding
- Commercialisation of BunkerNet

➤ Components can be co-funded :

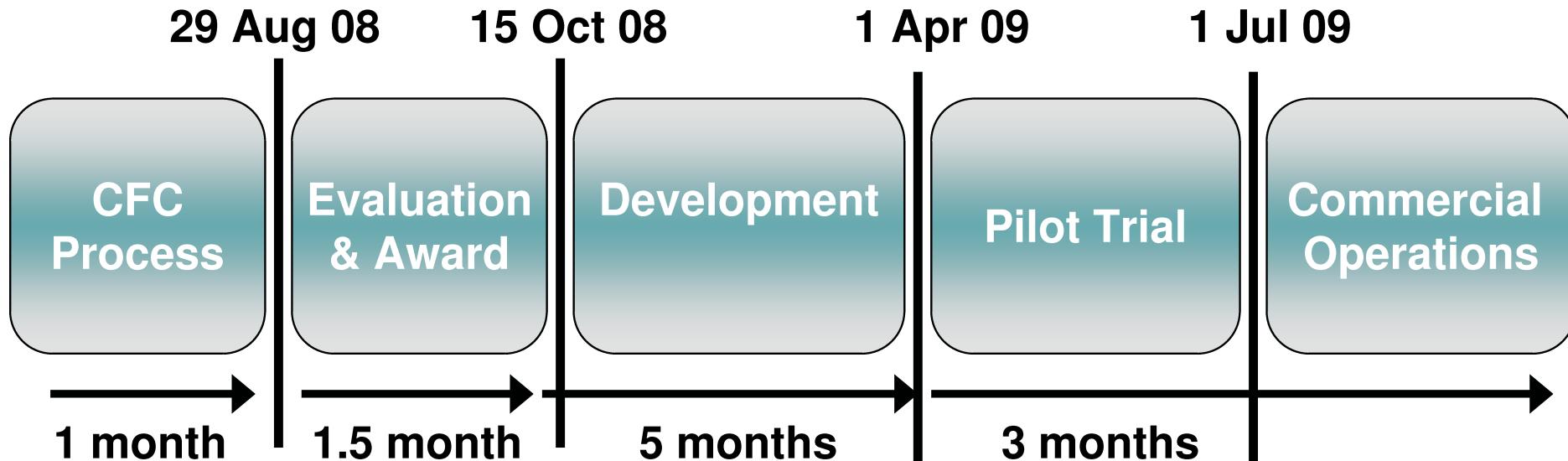
- Manpower
- Hardware
- Software
- Professional Services; and
- Materials, ICT Services & Intellectual Property Rights

➤ Note – Support is not a Grant

BunkerNet CFC – Selection Process

- Qualification of ICT Service Providers
- Attractiveness of Business Plan
- Amount of funds requested and payback period
- Ability to deliver – based on track record & domain knowledge, time frame of system development
- Ability to provide a commercial service and competitive prices of the services

BunkerNet CFC – Timeline



➤ Milestones

- 8 Aug 08 – Industry Briefing
- 29 Aug 08, 1600hrs – Close of BN CFC
- Aug – Oct 08 – Evaluation & Award BN CFC
- Oct 08 – Mar 09 – Development
- Apr 09 – Jun 09 – Pilot trial
- Jul 09 – Commercialisation of Services

BunkerNet CFC – Proposal Submission

To Include:

- **ICT Service Providers'**
 - Capital resources
 - Manpower resources
 - Assets
 - Production capacity
 - Other relevant information
- **Summary of Proposal (Annex C)**
- **Proposal together with covering document (Annex D)**
- **System Implementation Plan**
- **Business Plan**

BunkerNet CFC – Proposal Submission

Proposal

3 hard copies

1 soft copy in CD-ROM

Submitted to

Tender Box 4 at

460 Alexandra Road #18-00
PSA Building
Singapore 119963

Deadline for submission – 29 Aug 09, 4pm

Thank You

Email: wendytoh@mpa.gov.sg

WISEPORT Broadband Coverage Areas

