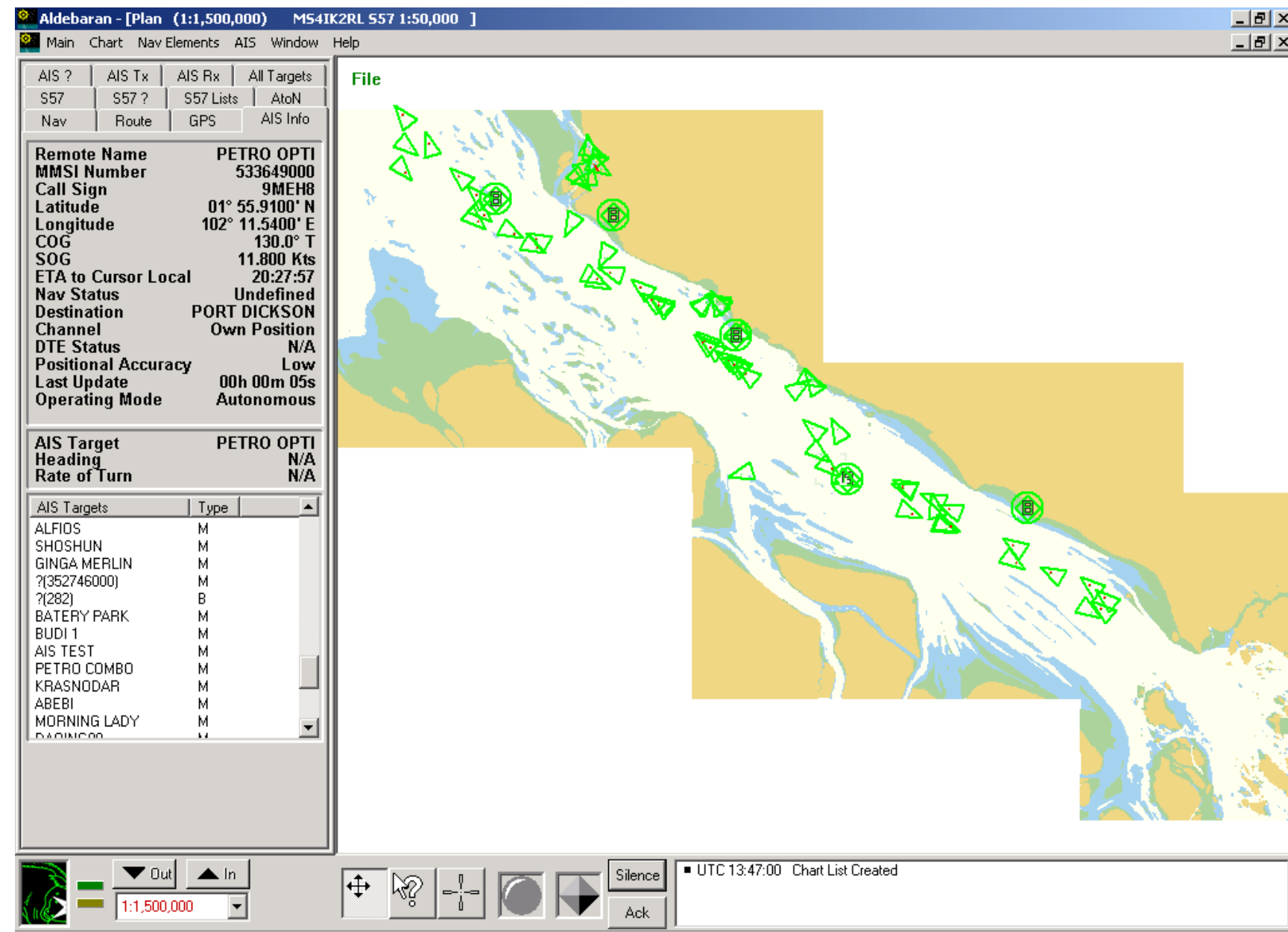


Modernization and maintenance of Aids to Navigation





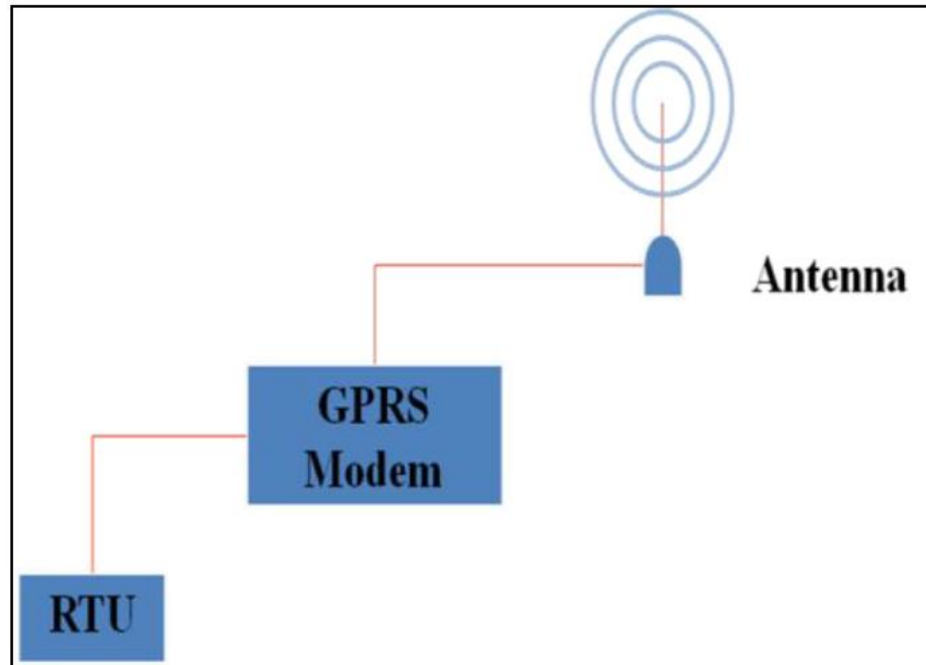


Screenshots of JLM AIS Network in 2004

Screenshots of JLM AIS Network in 2018

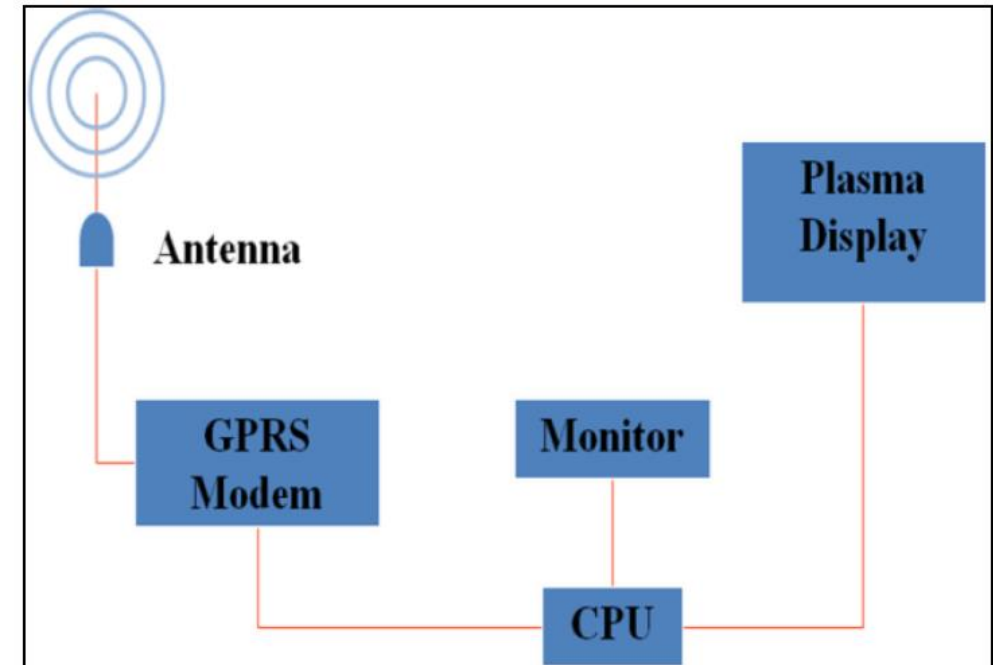
Historical Overview

REMOTE SYSTEM ARCHITECTURE



Remote System Architecture
(sample: Bukit Jugra Lighthouse)

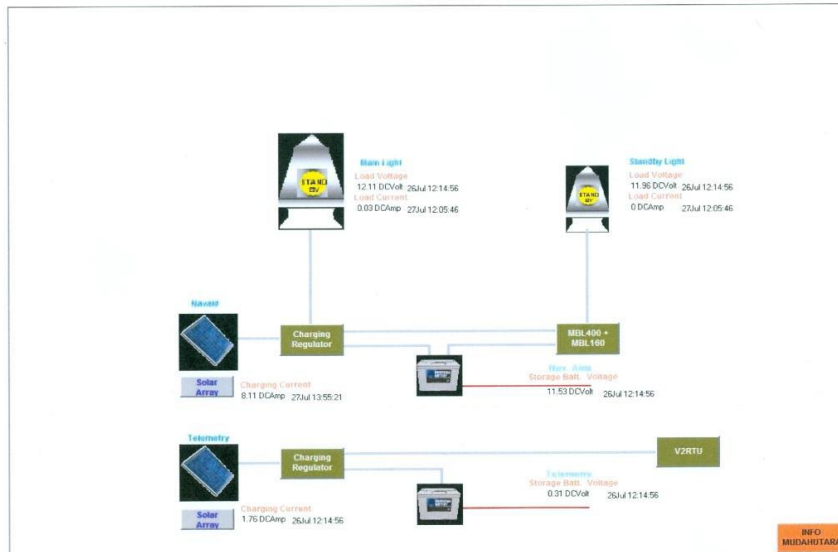
MASTER SYSTEM ARCHITECTURE



Master System Architecture
(sample: LDA Headquarters)

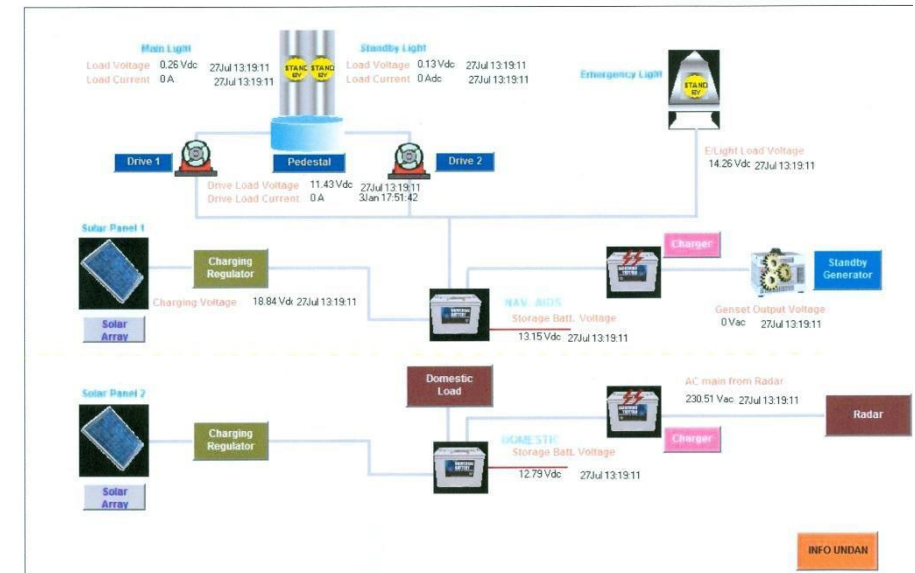
Historical Overview

Username: SUPERUSER Company Name: Jabatan Laut Semenanjung Malaysia,Lighthouse SCADA System
Single Line Diagram 1
Date: 27-07-2011 Time: 13:59:48



**SCADA SYSTEM COMPONENT AT
MUDAH UTARA LIGHT BEACON**

Username: SUPERUSER Company Name: Jabatan Laut Semenanjung Malaysia,Lighthouse SCADA System
Single Line Diagram 1
Date: 27-07-2011 Time: 13:28:59



**SCADA SYSTEM COMPONENT AT
PULAU UNDA Lighthouse**

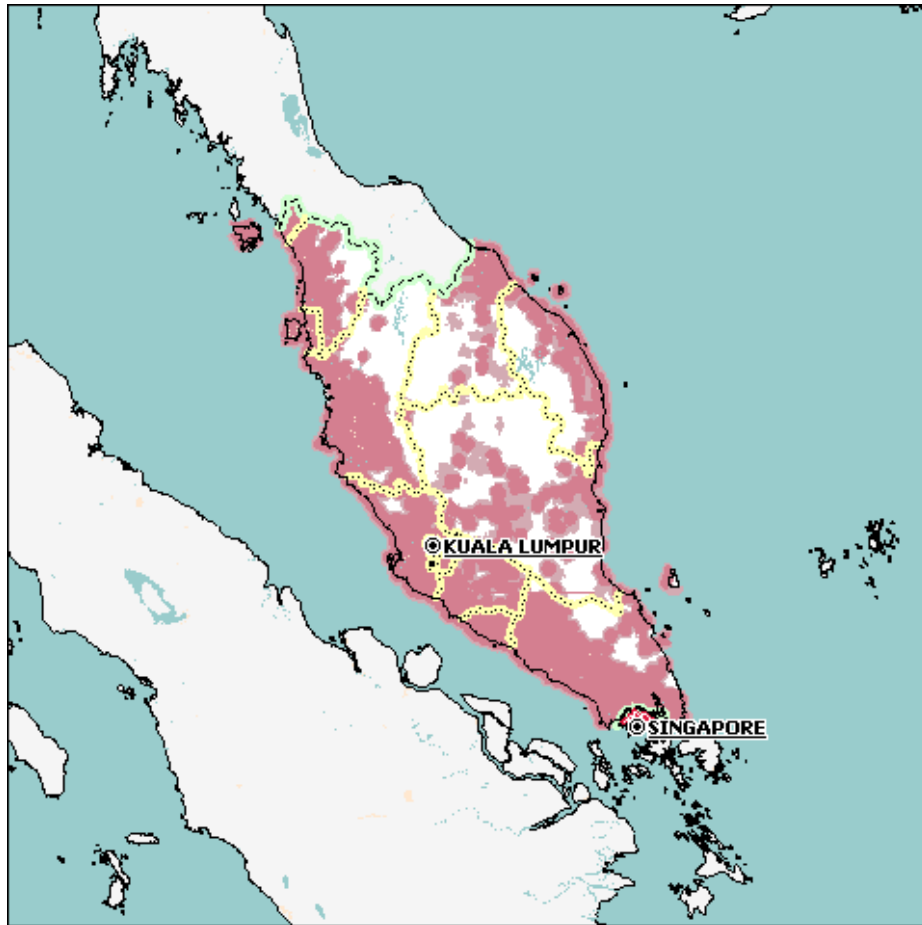
AIS

- Monitoring + Aid to Navigation (Msg 21, 6, 8,14)
- Use existing AIS network for free communication link
- Low Life-cycle costs
- Conforms to international e-Navigation initiatives

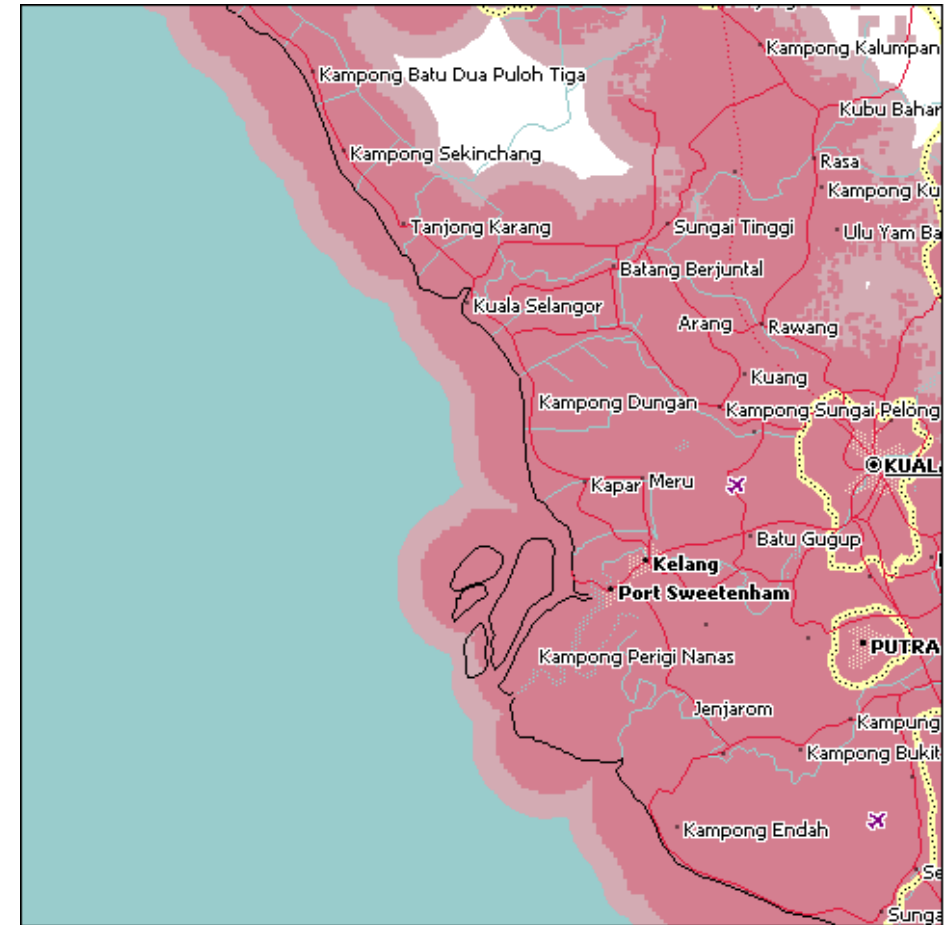
SCADA

- Monitoring only
- GSM/SAT/Radio recurring maintenance and monthly usage costs
- High life-cycle costs

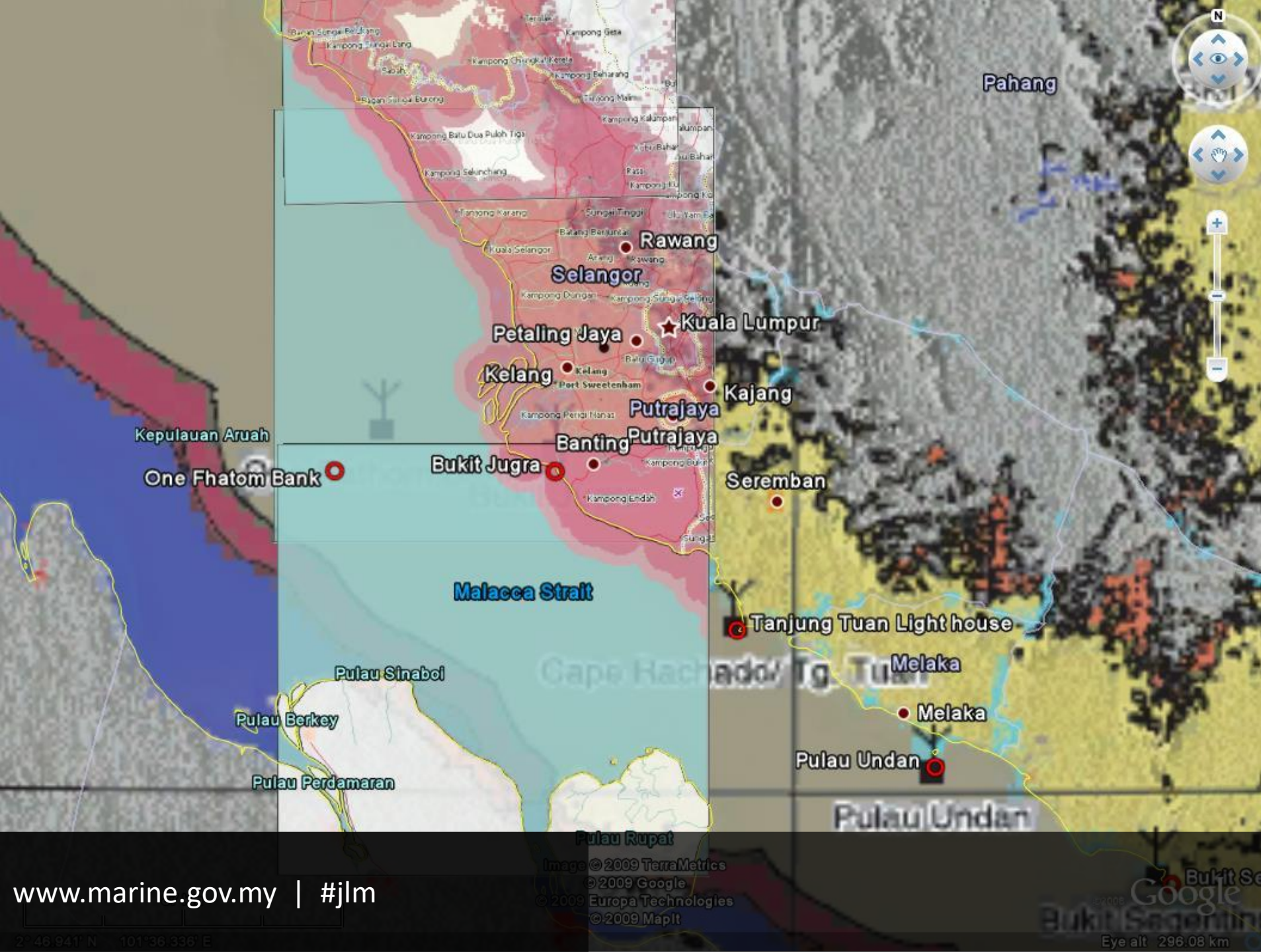
GSM/GPRS Coverage



GSM/GPRS Coverage in Peninsular Malaysia

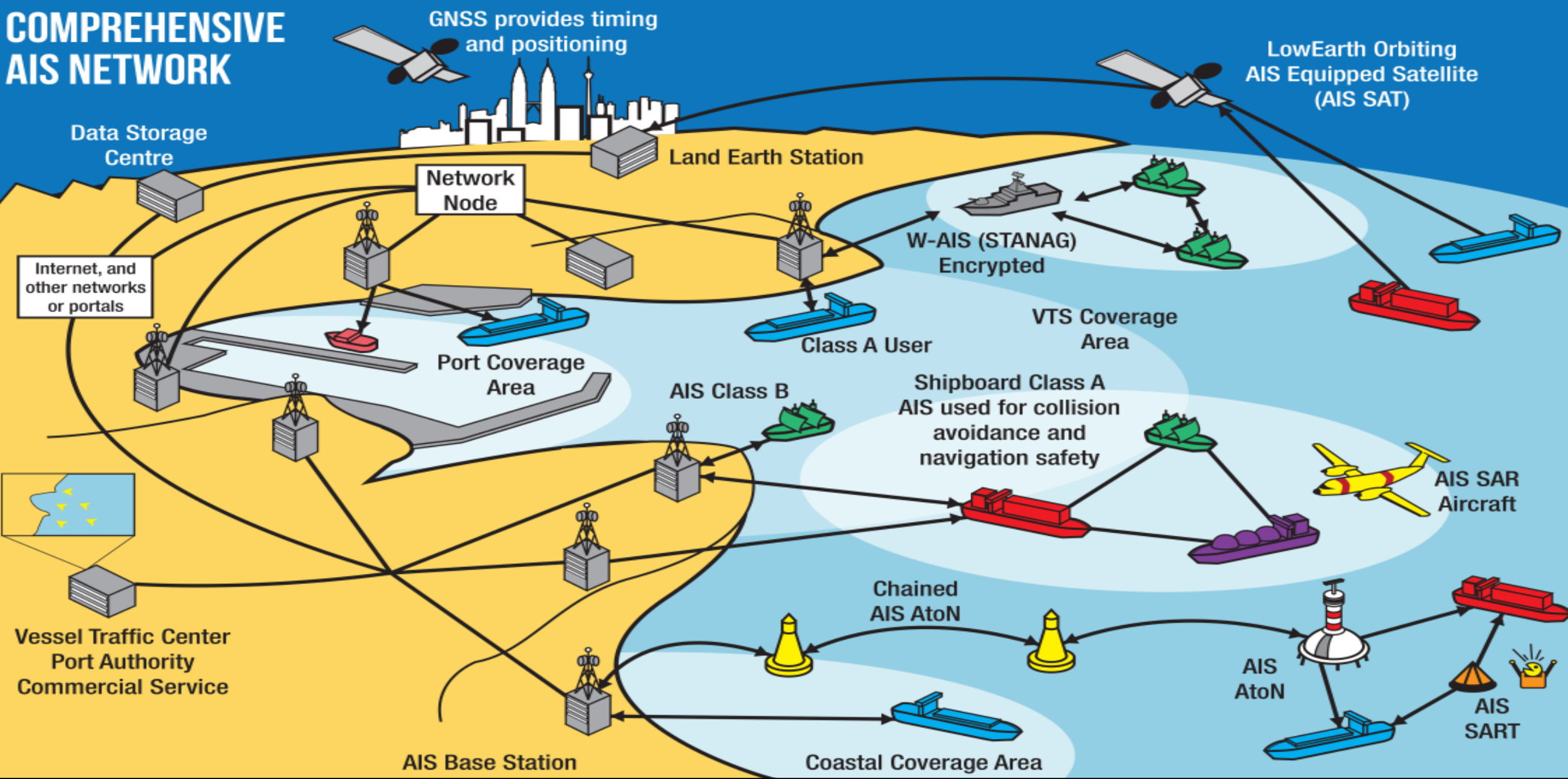


GSM/GPRS Coverage in Pintu Gedong Area



Comparison between AIS and GSM/GPRS Coverage

COMPREHENSIVE AIS NETWORK



A close-up photograph of a hand holding a vibrant green leaf just above a body of water. The leaf's veins are clearly visible, and its reflection is seen in the dark water below. The background is blurred, showing more of the water and some distant foliage.

VDP Initiative

VDP Project (2017)

- 287 AIS ATON
- Monitoring Software (eNav.my)

Savings

Savings not only money but also time and hassle



Shipping Cost

Local Products



Spares Parts

- Save money. Doesn't need to stock up spares parts
- Save time. No need to send abroad for repair or import spare parts



Minimal Downtime

Minimal downtime since all technical support, supply hardware & software and repair are done locally.



Hassle Free

There is no compatibility issue because all the hardware & software are locally develop & integrated.



Private Initiative

Proactively carried out developments and test beds continuously

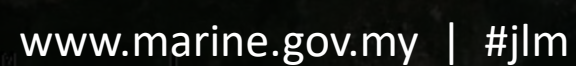
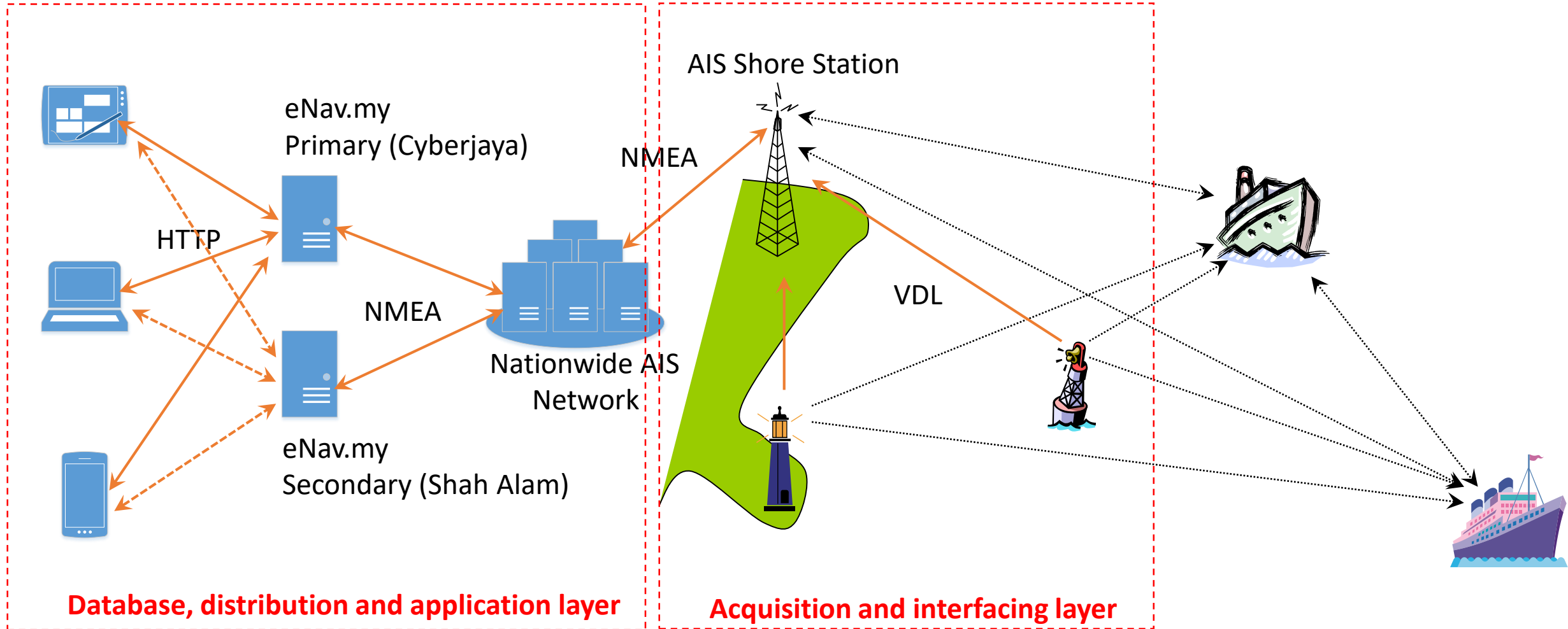
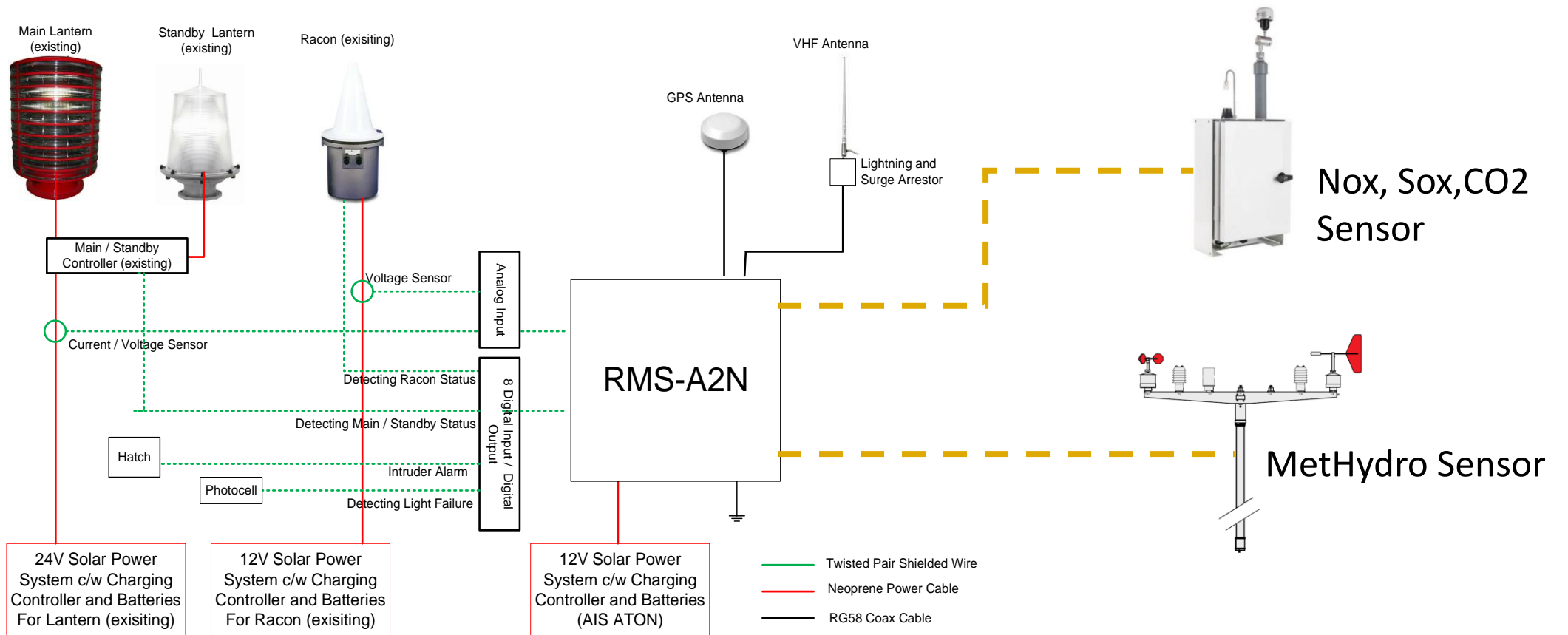


Image courtesy Jabatan Laut Malaysia

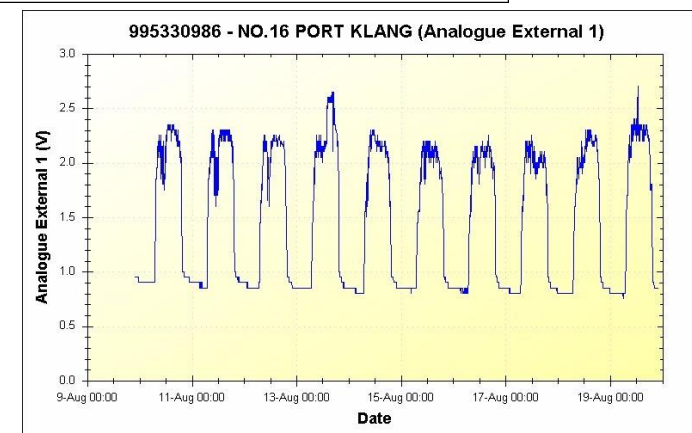
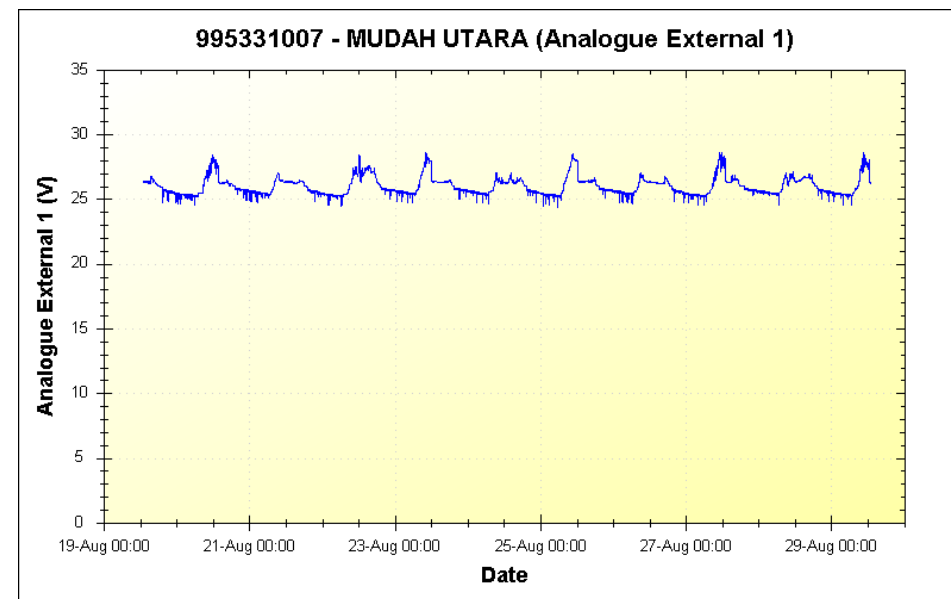
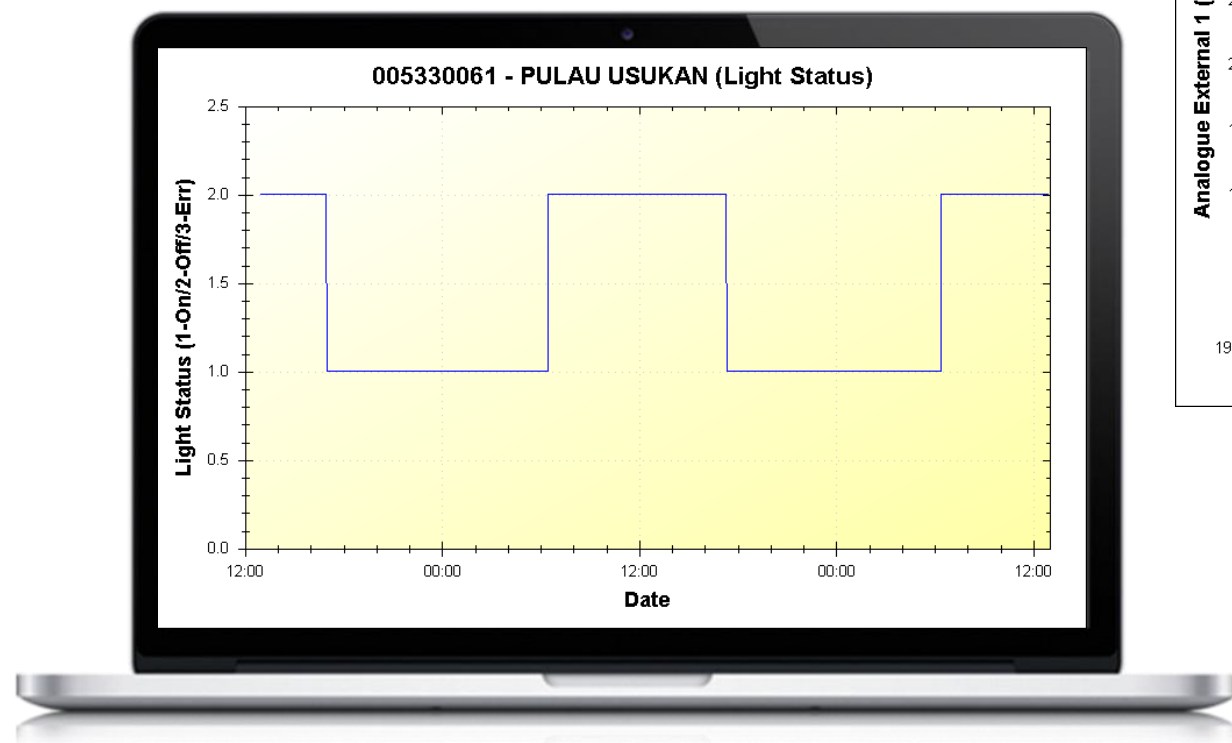
Framework for collecting, managing and distributing AtoN's information



Acquisition & Interfacing layer

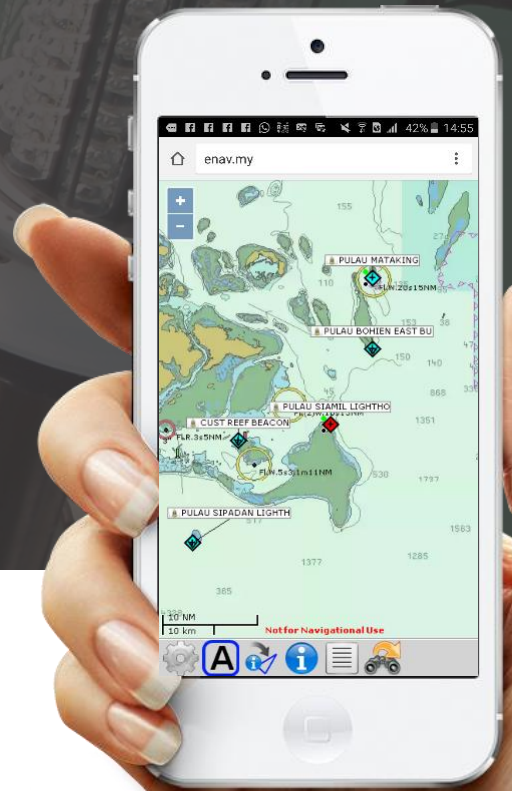


Database, distributing and application layer



Features

- ✓ **Green dot** (the left upper corner) provides info that the AtoN transmits messages 6
- ✓ **Red dot** (the left upper corner) provides info that something is wrong with the buoy equipment
- ✓ **White dot** (the left lower corner) provides info that Light is **ON**
- ✓ **Black dot** (the left lower corner) provides info that Light is **OFF**



Charts

Multiple chart selection, such as S57, Virtual Earth, Open Street, BSB raster, etc.



Aton Info

Display all received AtoNs' sensor data



Aton Details

Display all selected AtoNs' information



Aton List

User could see AtoN's information data of selected AtoNs, such as AtoN Type, AtoN implementation, Report Interval and others

Features

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Aton Info

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Aton Details

Display all selected AtoNs' information

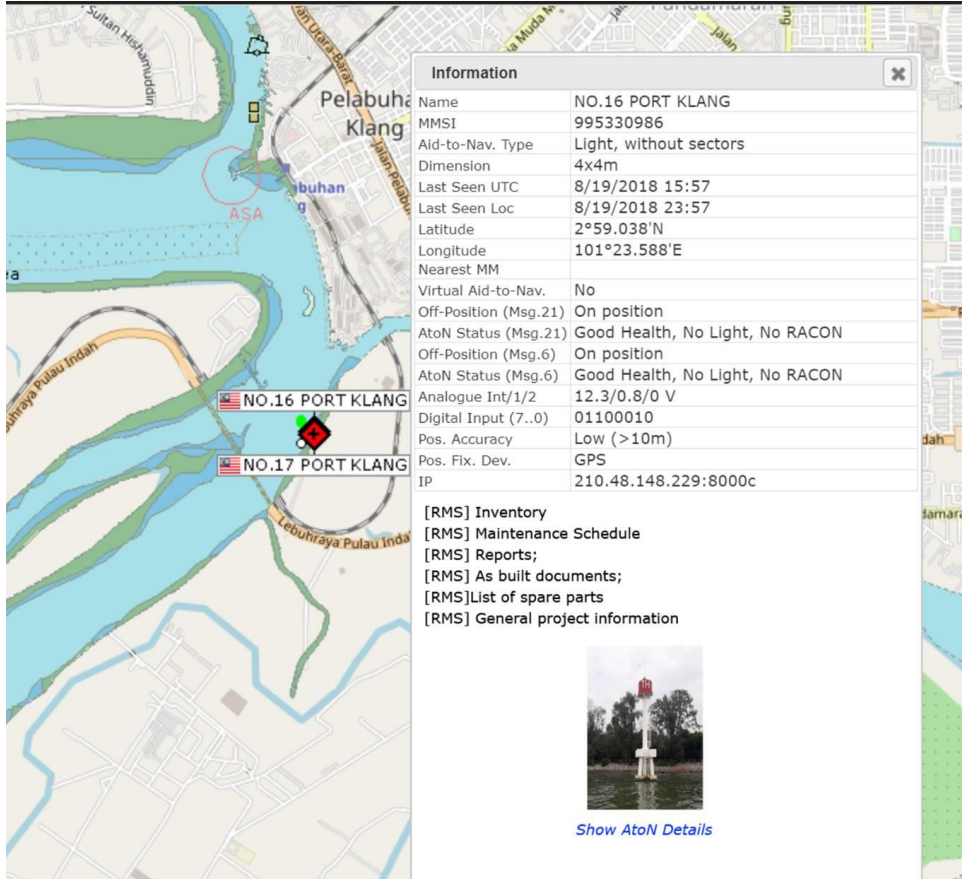


Aton List

User could see AtoN information data of selected AtoNs, such as AtoN Type, AtoN implementation, Return Interval and others



AtoN Management and Service Information System



Information

Name	NO.16 PORT KLANG
MMSI	995330986
Aid-to-Nav. Type	Light, without sectors
Dimension	4x4m
Last Seen UTC	8/19/2018 15:57
Last Seen Loc	8/19/2018 23:57
Latitude	2°59.038'N
Longitude	101°23.588'E
Nearest MM	
Virtual Aid-to-Nav.	No
Off-Position (Msg.21)	On position
AtoN Status (Msg.21)	Good Health, No Light, No RACON
Off-Position (Msg.6)	On position
AtoN Status (Msg.6)	Good Health, No Light, No RACON
Analogue Int/1/2	12.3/0.8/0 V
Digital Input (7..0)	01100010
Pos. Accuracy	Low (>10m)
Pos. Fix. Dev.	GPS
IP	210.48.148.229:8000c

[RMS] Inventory
[RMS] Maintenance Schedule
[RMS] Reports;
[RMS] As built documents;
[RMS] List of spare parts
[RMS] General project information

Show AtoN Details

1. GENERAL



Name :	HAND ROCK (R)
Station :	TAWAU
Location :	Lat : 04 14' 06"N Long : 118 25' 24"E
Year Established :	16 TH MAY 1972
Last Altered :	16 MAY 1972- STEEL TRIPOD N, 30 DEC 2005- HDG STEEL TOWER D RED
Structure :	HDG STEEL TOWER PAINTED RED
Height of Structure :	10 METER
Elevation above H.W :	15 METER
Light Character :	FL. R 7s
Malaysian Charts :	NIL
British Admiralty Charts :	1681, 2099
Remark:	NIL

2. EQUIPMENT

Main Lantern :	LED 350	Standby :	NIL
Serial No :	NIL	Lantern :	NIL
Flasher :	BUILT-IN	ChargeController :	NIL
LampChanger :	BUILT-IN	Serial No :	NIL
Sunvalve :	BUILT-IN	Battery :	AUTOMATIC POWER APB-1295 X 2 NOS
Solar Panel :	TIDELAND	Serial No :	1. 402989 2. 402924
Serial No :	NIL	Radar Reflector:	NIL
Lighting Arrestor:	FRANKLYN SAINT FLMO-SE6	Remark:	LIGHTING ARRESTER PADA BIKON
Serial No :	NIL		PATAH

Image courtesy Jabatan Laut Malaysia

Integration with Online Ticketing

→ ↻ 🔒 Secure https://greenfinderhelp.zendesk.com/hc/en-us/requests/new

Green Finder > Submit a request

Submit a request

Your email address *

ezmil@greenfinder.asia

Subject *

Beacon No. 16 - Battery Dead

Description *

Please refer to attachment.

Please enter the details of your request. A member of our support staff will respond as soon as possible.

Attachments

📎 Add file or drop files here

📎 beacon 16 battery dead.png ×

Please verify that you are human *

✓ I'm not a robot

reCAPTCHA Privacy - Terms

AtoN Details - Google Chrome

Not secure | enav.my/VTS/Aton.aspx?lat=2.98378462&lng=101.39332

AtoN Details

Name: NO.16 PORT KLANG

MMSI: 995330986 *

AIS AtoN Station: ▼

AtoN Type: ▼

AIS AtoN Implementation: ▼

Latitude: 0.000000

Longitude: 0.000000

Report Interval for Msg.6: 0 minute(s)

Report Interval for Msg.8: 0 minute(s)

Report Interval for Msg.21: 0 minute(s)

Air Temperature Auto ▼

Air Pressure Auto ▼

Humidity Auto ▼

Wind Speed Auto ▼

Wind Gust Auto ▼

Wind Direction Auto ▼

Wind Gust Direction Auto ▼

Visibility Auto ▼

Water Temperature Auto ▼

Water Level Auto ▼

Add Status List Cancel Apply Help



Way Forward



GUIDELINE

G1117

VHF DATA EXCHANGE SYSTEM (VDES)
OVERVIEW

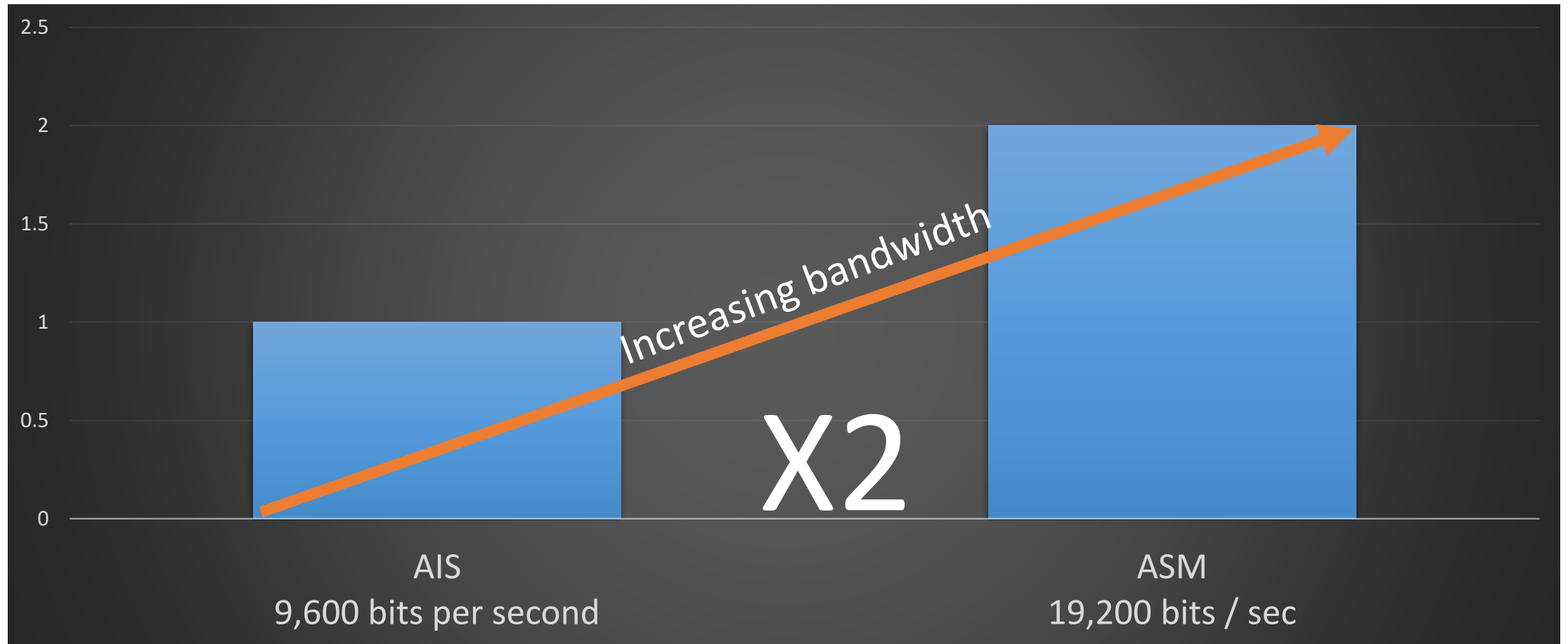
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December 2017

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International Association of Marine Aids to Navigation and Lighthouse Authorities
Association Internationale de Signalisation Maritime

Moving towards ASM channel



Moving towards ASM – increasing data bandwidth



TERIMA KASIH

