ADVANCED PERSONNEL TRAINING SYSTEM FOR VTS

- **Conformity with IALA Recommendation V-103**
- **Long Distance Training System by using E-Learning**
- **Training System for VTS Planning Manager to enhance skills for the establishment of VTS**
- **Includes IWRAP Mk2 Risk Assessment Tool**
- **Includes AIS Cloud Service for the training of IWRAP Mk2 and Scenario Generator**

JRC Japan Radio Co., Ltd.

General

Advanced Personnel Training System for VTS is utilized in all ASEAN countries for the implementation of Long Distance Training for VTS Operators and VTS Planning Managers in accordance with the international standards. Following is the system image.

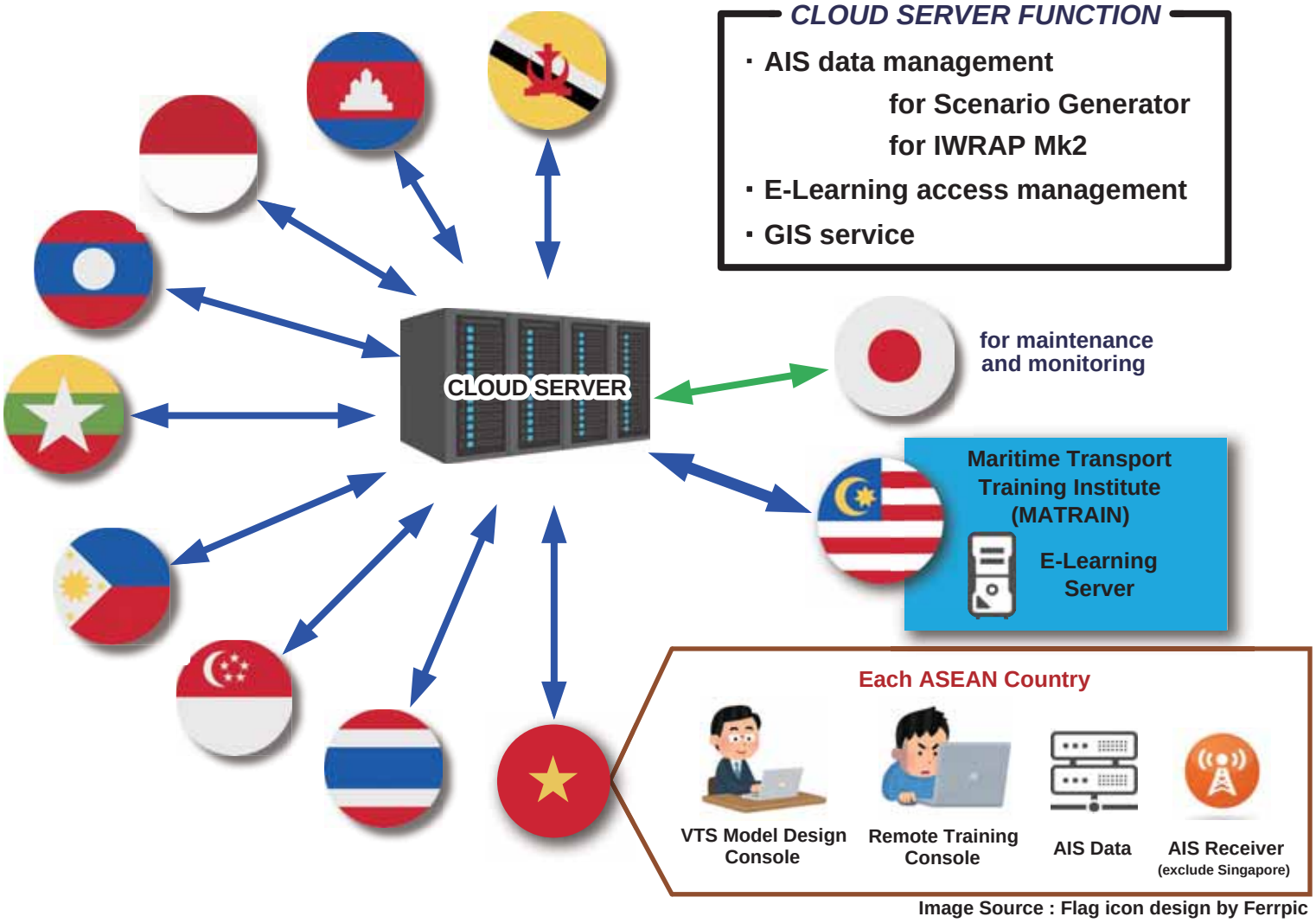


Image Source : Flag icon design by Ferrpic

Long Distance Training System

First stage of VTS Operator Training is the self study by using Remote Training Console in their own country. Trainees of each country learn total four training course modules by accessing to the E-Learning Server from the Remote Training Console.
At the second stage, trainees take more practical training at MATRAIN, Malaysia.


Remote Training Console

TRAINING COURSE MODULE

MODULE 1 Language	MODULE 2 Traffic Management
MODULE 3 Equipment	MODULE 4 Nautical Knowledge

Training System for VTS Planning Manager

VTS Operators who handle the traffic management service in daily operation need to improve their skill to be able to manage more complex situations of navigation.
Furthermore, they are required to have an ability as a manager who can provide, propose and analyze what is needed to secure safety on The sea in their own region.

VTS Model Design Console

Training System for VTS Planning Managers who completed a VTS Planning Manage Course in MATRAIN, provides the applications to learn how to create a safety navigation scheme. VTS Planning Managers can use VTS Model Design Console in their own country.

With this console, the VTS Planning Manager trainees of each country learn by using IWRAP Mk2, CARPET, and Scenario Generator.

IWRAP Mk2

IWRAP stands for **I**ALA **W**aterways **R**isk **A**ssessment **P**rogram. IWRAP Mk2 is a probabilistic tool for estimating the collision, allusion and grounding frequencies on the user defined navigation routes. To calculate the probability of collision and grounding per year, it uses the number of vessel distribution calculated from the AIS data.

IWRAP Mk2 is able to import AIS data from the Cloud Server and it also corresponds to the Electronic Navigational Chart (ENC) to enable sounding data and land data of the ENC to be incorporated into calculation of the grounding risk.

CARPET

CARPET stands for **C**omputer-**A**ided **R**adar **P**erformance **E**valuation Tool. This software can be used to evaluate and observe the performance of a radar system. By inputting radar parameter and propagation parameter, VTS Planning Manager can get the result of the radar performance and get valuable information for efficient use of the radar that they are planning.

VTS Planning Manager can also plot the result of radar detection probability in Google Earth.
By this feature, VTS Planning Manager can decide the best location of the radar with the best coverage they need.

In addition, based on the altitude information, the coverage area can be calculated for helping to determine the height of radar tower.

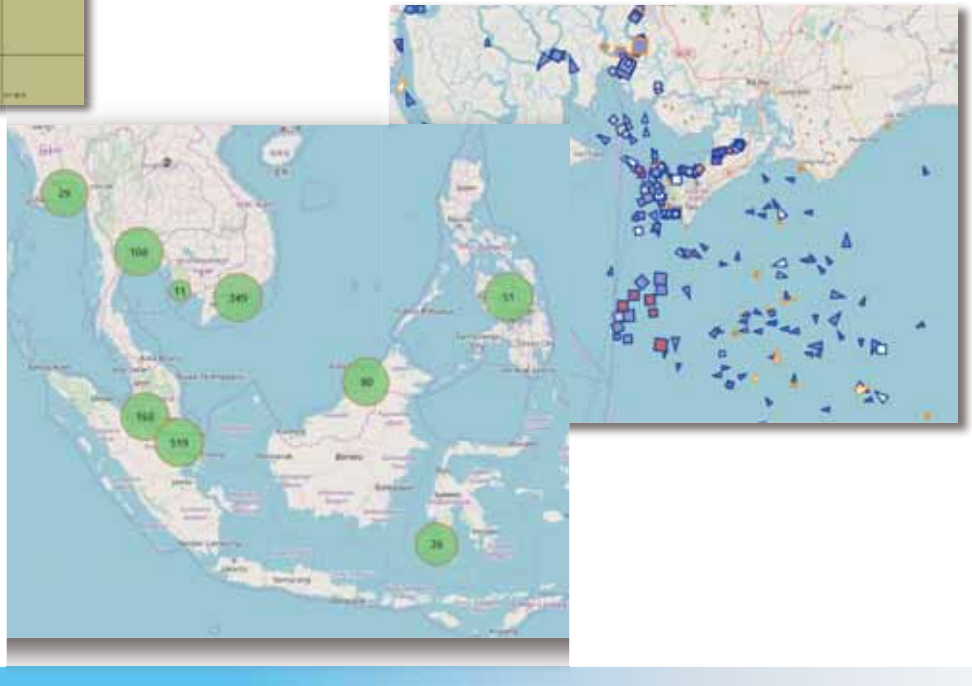
Scenario Generator

VTS Planning Manager plays an important role to train VTS Operators to develop their skill.
With the help of Scenario Generator, VTS Planning Manager can make training content for training.

Scenario Generator is an application that enables a VTS Planning Manager to make a training scenario of coastal area of their country. By using recorded AIS data, training content become more realistic and more efficient for the VTS operator.

GIS Cloud System

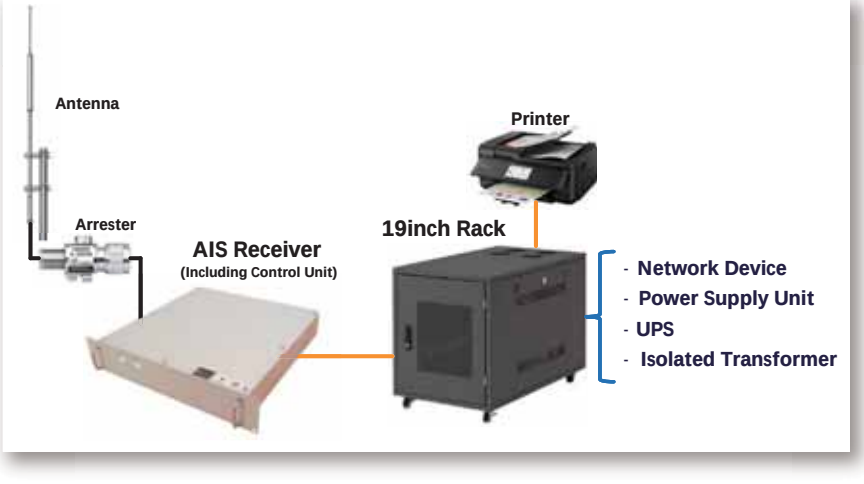
GIS Cloud system enables each ASEAN country to monitor Their own country's real time AIS traffic by accessing to web browser.



AIS Receiver System

AIS Receiver System is provided to collect and record the AIS data of each ASEAN country. AIS data is used for IWRAP Mk2 and Scenario Generator application.

The Control Unit is used to store and upload AIS data to the Cloud Server.



• Specifications may be subject to change without notice.

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