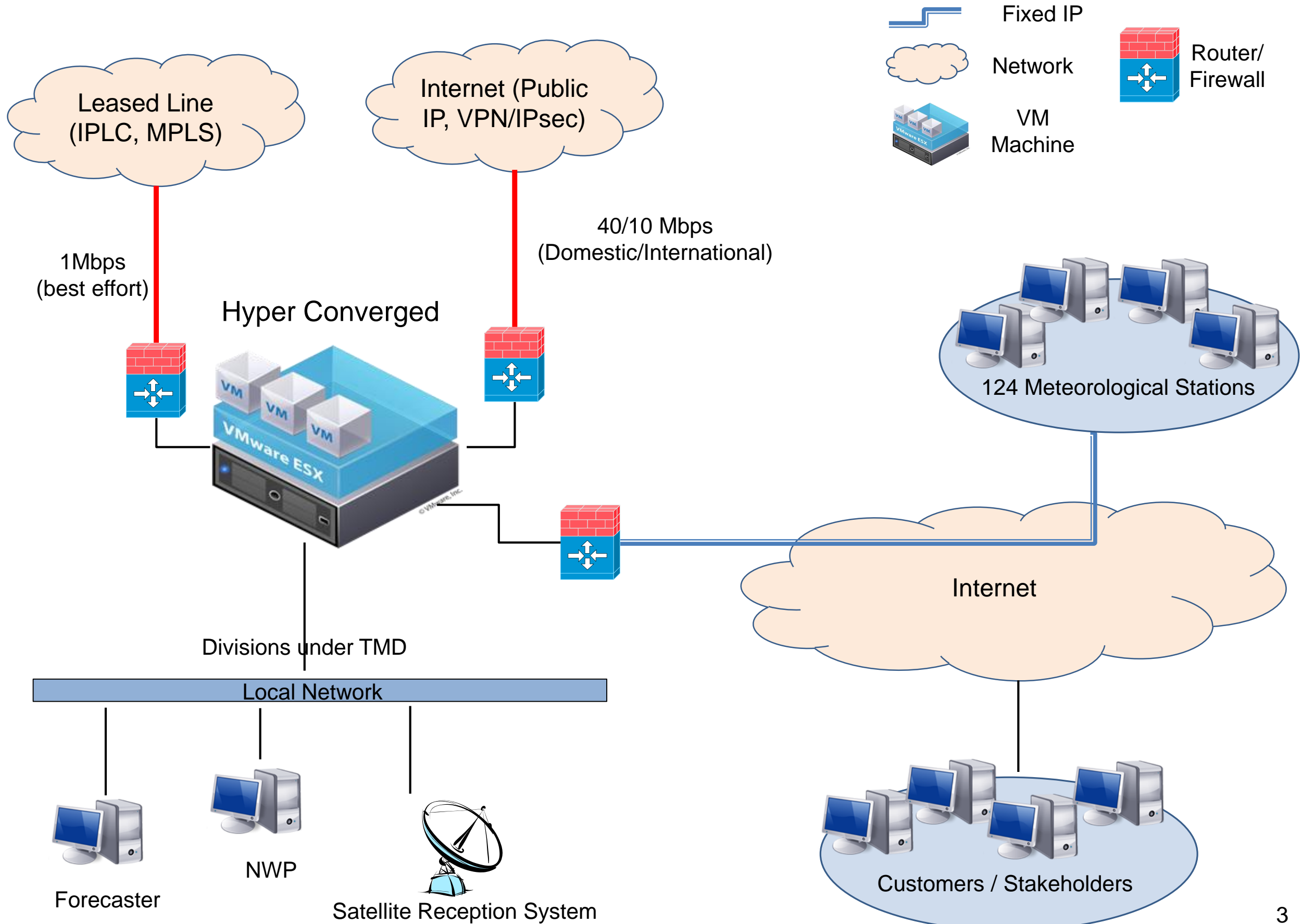


# Country Report (Thai Meteorological Department)

BOONCHAI TEPYOSE

JMA WIS Workshop  
28 - 30 November 2023, Tokyo

# 1. Status of System/Network Configuration



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# 1. Status of System/Network Configuration

Country	Wan Topology	Protocol	Speed
Japan	Leased Line (MPLS)	Socket	2 Mbps
China (Beijing)	Leased Line (MPLS)	FTP	2 Mbps
India (New Delhi)	Leased Line (IPLC)	FTP	64 Kbps
Saudi Arabia (Jeddah)	Leased Line (MPLS)	FTP	1 Mbps
Malaysia	Leased Line (MPLS)	Socket	64 Kbps
Singapore	Leased Line (MPLS)	Socket	64 Kbps
Hong Kong China	Internet (Public IP)	FTP	40/10 Mbps
Myanmar (Naypyitaw)	Internet (VPN/IPsec)	FTP	40/10 Mbps
Hanoi	Leased Line (IPLC)	FTP	64 Kbps
Laos	Leased Line (IPLC)	FTP	64 Kbps
Cambodia	Internet (VPN/IPsec)	FTP	40/10 Mbps
Bhutan (Thimphu)	Internet (VPN/IPsec)	FTP	40/10 Mbps

# 1. Status of System/Network Configuration

## □ Recent updates of network connection to other countries.

- Established FTP link with **Myanmar (Naypyitaw)** via the **Internet (VPN/IPsec)** in Nov. 2019.
- Established FTP link with **Cambodia** via the **Internet (VPN/IPsec)** in Nov. 2020.
- Increased Bandwidth with **Tokyo** from **128Kbps to 2Mbps (MPLS)** in Mar. 2021.
- Upgraded Link with **China (Beijing)** from **IPLC to MPLS** and Increased Bandwidth from **64Kbps to 2Mbps** in May. 2021.
- Established FTP link with **Bhutan (Thimphu)** via the **Internet (VPN/IPsec)** in 2022.

# 1. Status of System/Network Configuration

## □ Recent history and update plan for MSS

- 2018: Started operation of the current system (Netsys)

## □ Fund

- Thai Government

## □ Service level by system supplier (Genomath & Netsys)

- 24/7

## □ Application on the MSS

- AMSS, WEB, Forecaster In-house application, etc.

## □ Operating system

- RedHat 6.9 64bit for MSS, CentOS 6.9 64bit for Workstation.

# 2. Challenges of the current system/network

## □ Challenges of the current system

- To upgrade Thai's BUFR bulletin with WSI (WIGOS Station Identifier) embedded which replaces the traditional five-digit station number.
- To support WIS2.0 in existing system.
- To include Hydrological data exchange in WIS2.0
- Lack of participation from Aircraft observation (AMDAR) and Marine observation (VOS).

# 3. Efforts towards WIS2.0

## □ Information collection of WIS2.0

- SYNOP (TAC and/or BUFR).
- SHIP (TAC and/or BUFR).
- CLIMAT (TAC and/or BUFR).
- TEMP, PILOT (TAC and/or BUFR).

## □ Participation to activities or events related to WIS2.0

- WIS 2.0 Introduction to Industry, 22 June 2022
- WIS workshops prior the Commission for Observation, Infrastructure and Information Systems (INFCOM-2), 3, 5 and 10 Oct 2022.
- Satcom Forum 2022 (online), 11 – 13 Oct 2023.
- Join International Distance Training Course on Integrated CMA Cast Application and WIS2.0 (online) 16 – 27 Oct 2023.
- Initiate to study WIS2 in a box (wis2box) project from WMO ([wis.mwo.int](http://wis.mwo.int)) and CMATC.



# 3. Efforts towards WIS2.0

## □ Internal discussion in your organization towards WIS2.0, etc

- A new platform to support WIS2.0 with messaging protocol.
- The topic-based approach to replace WMO header.
- Priority of user levels (NMHS user over others).
- Metadata management on WIS2.0

# 4. Expectation to JMA and other countries

## □ Request to GISC Tokyo for better services

- Request GISC Tokyo (WIS Portal website) to support another platform and technology such as API, Pub/Sub etc.

## □ Request of further cooperation with other countries

- Exercise backup procedure in case of link disconnection.
- Setup and test alternative link (Internet).

## □ Suggestion to the current/future system and network, etc

- Minimum bandwidth/system requirements (specifications) to support increasing amount of data.
- Standard practices to support cyber security issues.
- Capacity development.

# 5. AOB (Any Other Business)

Items to be informed to participants

- Nil.

Updated information other than ICT matters

- Nil.

Looking forward to the most during your stay in Japan, etc

- Nil.

Thank you  
for your attention