WIS 2.0 implementation plan

Trilok Singh
India Meteorological Department

India





Software

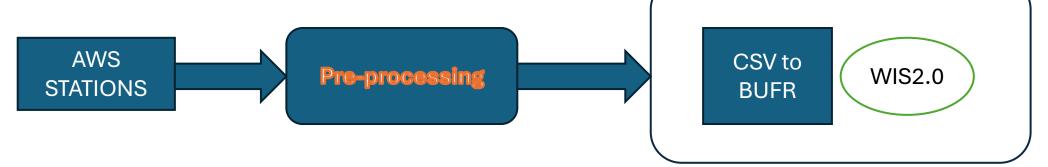


What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

➢ WIS2BOX SOFTWARE IS BEING USED TO PRVIDE THESE SERVICES

How to establish an automated workflow for data sharing from Automatic Weather Stations to

meet the GBON requirement for hourly data?







Hosting a WIS2-node



How will you host your WIS2 solution?

- WIS2BOX is already operational in India and it is hosted On-premises infra.
- India has its own IT team to mange the IT infrastructure
- o Planning to migrate the same in cloud in future









Operations



Who will operate, monitor and maintain the WIS2 node:

- NMHS
- OSCAR is being monitor on regular basis and updating by National Focal point of NMHS.







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

Time	2025	2026	2027
Tasks	 New data will be ingested New WIS2 Node will be proposed Explore to provide the one of the global services 	 Migration of WIS2 Node in cloud New WIS2 may be operational Approval procedure for Global services. 	Migration will be completed





WIS 2.0 implementation plan

Ahmed Zalif
Maldives Meteorological Service

Maldives





Software



WIS2Box to implement the WIS2.0 features. A proprietary software may not be cost-effective and must depend much on the supplier. However, with the proprietary software we may be able to integrate everything into one platform.

The required data will be transmitted to a central server and then push to wis2.0 node through ftp??





Hosting a WIS2-node



The system will be host on-premise.

- we already have the infrastructure and technical staff needed to maintain the wis2node.
- cloud services are much difficult due to yearly subscriptions than a onetime investment to a server
 - We will request assistance from GISC in case we get stuck









Operations



- WIS2 node will be maintained by NMHS.
- Our WIS focal point is responsible for updating the OSCAR
- In case of GTS we are not relying on any other country, at present



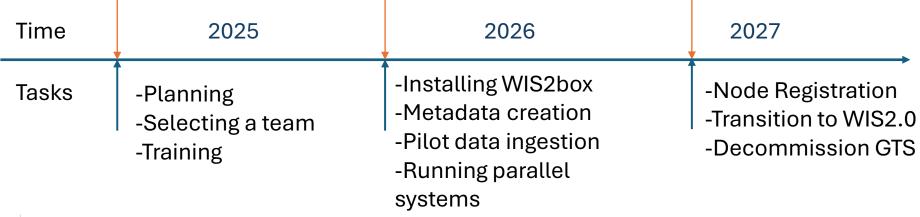




Timeline

When (rough timeline) would you be able to implement WIS 2.0?

- Under SOFF project we may be able to integrate the WIS2.0 system.







Thank You





WIS 2.0 implementation plan

Md. Abdul Matin
Bangladesh Meteorological Department

Bangladesh





Software



What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

How to establish an automated workflow for data sharing from Automatic Weather Stations to meet the GBON requirement for hourly data?

We are talking with a specialist company to develop a customized software for sharing AWS data to meet the GBON requirement for hourly data. We already have given them sample AWS data.





Hosting a WIS2-node



How will you host your WIS2 solution?

- √On-premises
- o Public cloud
- Private cloud

- Do you have an existing solution that could provide instance to host your WIS2 node? Or do you have the option to procure a new service with a cloud vendor?
- Yes, we will not procure server from cloud vendor
- For hosting on-premise: do you have the required IT support to provide host maintenance, networking and a fixed host address?
- We need to hire support from private company
- Are you already working with another country in the region that could help provide you with an instance for hosting the WIS2 node?
- > No









Operations



Who will operate, monitor and maintain the WIS2 node:

- NMHS
- o Regional, sub-regional
- Private company

- Who is responsible for the maintenance of your IT infrastructure and software updates? (your team, Private company, other to specify)
- Presently BMD is maintaining IT infrastructure and software by a team combining BMD people ant private company.
- Who is responsible for updating OSCAR/Surface and designating GBON stations?
- National focal point of OSCAR/Surface with permission of PR
- Are you currently relying on another country for your data transfer on GTS/WIS that can assist you with operations in WIS2?
- Not yet







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030?
- Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?

Tasks -	June 2026	-





WIS 2.0 implementation plan

MUHAMMAD KASHIF MEMON
PAKISTAN METEOROLOGICAL DEPARTMENT

PAKISTAN





Software



What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

❖ WIS2 box

How to establish an automated workflow for data sharing from Automatic Weather Stations to meet the GBON requirement for hourly data?

❖ We have the GPRS/GSM enabled AWS stations which can directly connect to the public FTP server of our data center at NMC and upload the data from where we can transfer the data to WIS2.0 but it has to be discussed with the team currently managing the AWS stations as they currently evaluating the accuracy of the data.





Hosting a WIS2-node







How will you host your WIS2 solution?

- On-premises
- o Public cloud
- Private cloud
- Pakistan already has setup an On-Prem instance of wis2box and it is also publicly available
- https://wis2box.pmd.gov.pk/
- ❖ We also have our own team to provide support to our On-prem WIS2 box solution.









Operations



Who will operate, monitor and maintain the WIS2 node:

- NMHS
- Regional, sub-regional
- Private company
- Combination of the above
- PMD already has the IT team who is fully capable of managing software/hardware related issue including WIS2 box.
- We need to discuss internally on assigning new WIGOS station number to AWS stations.







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030?
- Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?

Time	2025	2026	2027
Tasks	-As our WIS2 box is functional we just need to ask NFP to inform WMO by submitting the Form	- - -	- -





WIS 2.0 implementation plan

KHOEUN Sokhom
Department of Meteorology

Kingdom of Cambodia





Software



What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

To establish an automated workflow for data sharing from Automatic Weather Stations to meet the GBON requirement for hourly data and if still the missing data, we will do manual typing or contact WMO or regional coordinators to assist.





Hosting a WIS2-node





How will you host your WIS2 solution?

- On-premises (server on cloud)
- Public cloud
- Private cloud

- Do you have an existing solution that could provide instance to host your WIS2 node (we need assistance from WMO)
 Or do you have the option to procure a new service with a cloud vendor?
- For hosting on-premise: do you have the required IT support to provide host maintenance, networking and a fixed host address? (we have small IT team work and still need more training)
- Are you already working with another country in the region that could help provide you with an instance for hosting the WIS2 node? (Japanese team work that cooperated with WMO)









Operations



- Who will operate, monitor and maintain the WIS2 node:NMHS (Department of Meteorology/IT team work)
 - Regional, sub-regional
 - Private company
 - Combination of the above

- Who is responsible for the maintenance of your IT infrastructure and software updates? (your team, Private company, other to specify) (IT team work who are officers under the Department of Meteorology)
- Who is responsible for updating OSCAR/Surface and designating GBON stations? (IT team work)
- Are you currently relying on another country for your data transfer on GTS/WIS that can assist you with operations in WIS2? (JMA central coordination)







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

Considerations:

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030? (Our PR understand and will contact
 Japanese team work to do this job and set up team work to operate and maintain the transaction from GTS to WIS 2.0)
- Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?
 (We singed MOU between DoM and FAO for Agrometeo project and this assists installation 8 AWSs and rehabilitation existing 10

AWSs in 4 provinces whare the project target locations. Moreover, they also set up a server in our department as well.

Draft sche	dule as below: Time	2025	2026	2027
	Tasks	 Meeting between PR and Director of DoM Nomination focal point Request continuous training participation 	- Data set WIS 2.0, configure dataset in wis2box and check published metadata - Ingesting and publishing data using wis2box	 Creating own BUFR mapping template for CSV to BUFR Downloading data from WIS2 WIS2 Node Registration Process Request continuous training
world	1950-2025	- Cooperation with WIS 2.0 member countries	- Request continuous training participation	workshop and sharing the implementation result among WIS 2.0 member countries





WIS 2.0 implementation plan

PA PA SWE
Department of Meteorology and Hydrology

MYANMAR





Software



What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

WIS 2 box

How to establish an automated workflow for data sharing from Automatic Weather Stations to meet the GBON requirement for hourly data?

We don't have integrated system for Automatic Weather Stations





Hosting a WIS2-node





How will you host your WIS2 solution?

- On-premises
- o Public cloud
- Private cloud

- Do you have an existing solution that could provide instance to host your WIS2 node? No.
 Or do you have the option to procure a new service with a cloud vendor?
- For hosting on-premise: do you have the required IT support to provide host maintenance, networking and a fixed host address? Not yet at the
 moment
- Are you already working with another country in the region that could help provide you with an instance for hosting the WIS2 node?
 Not yet at the moment, but there are possibilities to get cooperation









Operations



Who will operate, monitor and maintain the WIS2 node:

- NMHS
- o Regional, sub-regional
- Private company
- Combination of the above

- Who is responsible for the maintenance of your IT infrastructure and software updates? (your team, Private company, other to specify) DMH
- Who is responsible for updating OSCAR/Surface and designating GBON stations? OSCAR Focal and GBON focal in DMH
- Are you currently relying on another country for your data transfer on GTS/WIS that can assist you with operations in WIS2?
 No, DMH is responsible for operation







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030? Before 2030 hopefully
- Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?
 Not yet new project currently, but I would like to wish to implement WIS2 in 2026

Time	2025	2026	2027
Tasks	- -	-	- -
		-	-





WIS 2.0 implementation plan

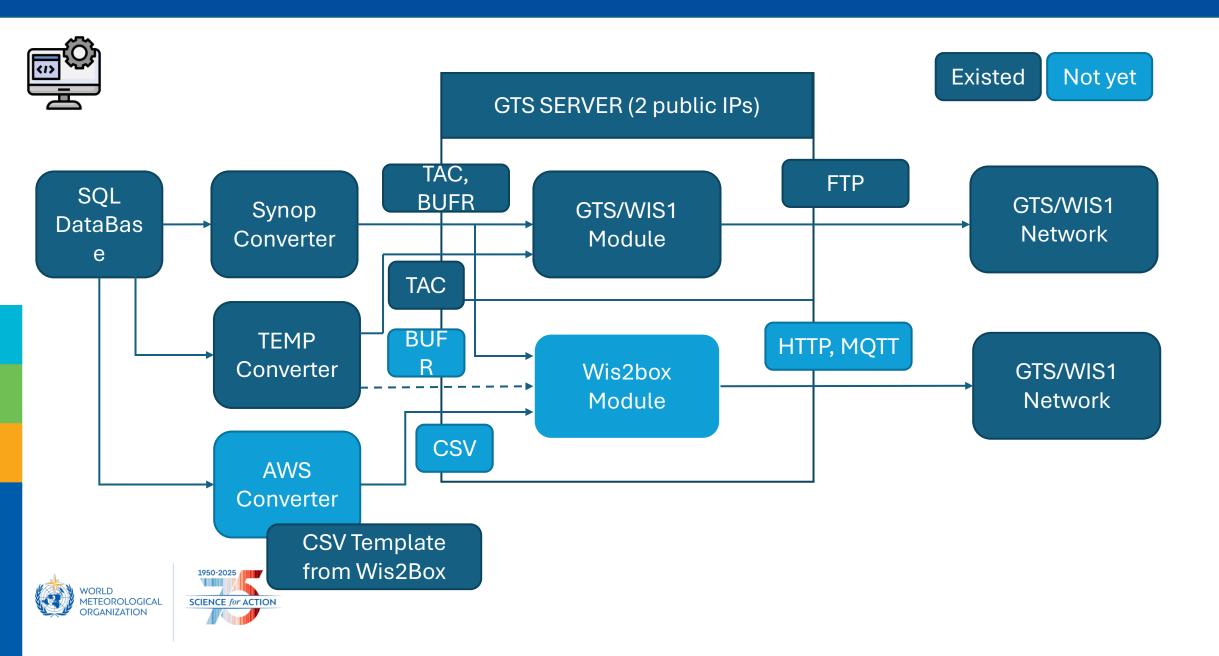
NGUYEN VIET HUY
VIET NAM METEOROLOGICAL AND HYDROLOGICAL ADMINISTRATION

VIET NAM

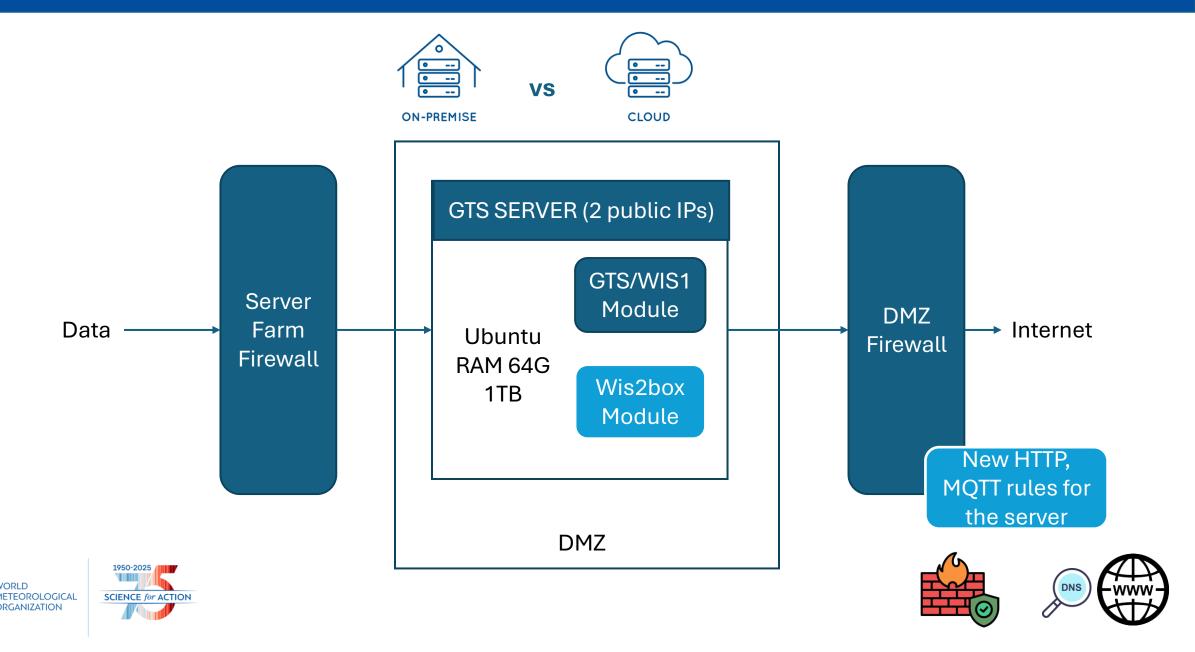




Software



Hosting a WIS2-node



Operations



- Maintenance of Infrastructure and Software: Vietnam Hydro-meteorological Information and Data Center (IT Section)
- Network and Security: VNPT (our contracted company)
- International supporters (GISC Tokyo and/or GISC Beijing)







Timeline

Time 2025 2026 2027 - AWS to WIS2 (small - IT Meeting - Software preparation Tasks pilot project) - Propose the - WIS2 registration - Solution for WIS2 solution to VNMHA - Synop to WIS2 data decoding (core leaders - Solution for WIS2 data data) decoding (GTS-gateway)





WIS 2.0 implementation plan

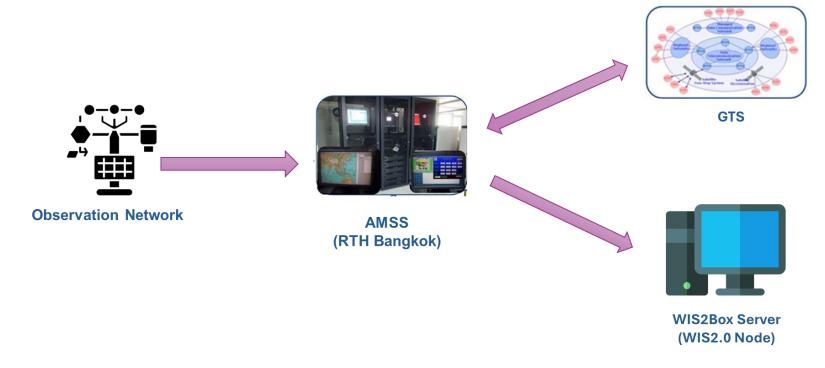
Natthaporn Lertsamranpinit
Thai Meteorological Department (TMD)

Thailand









What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

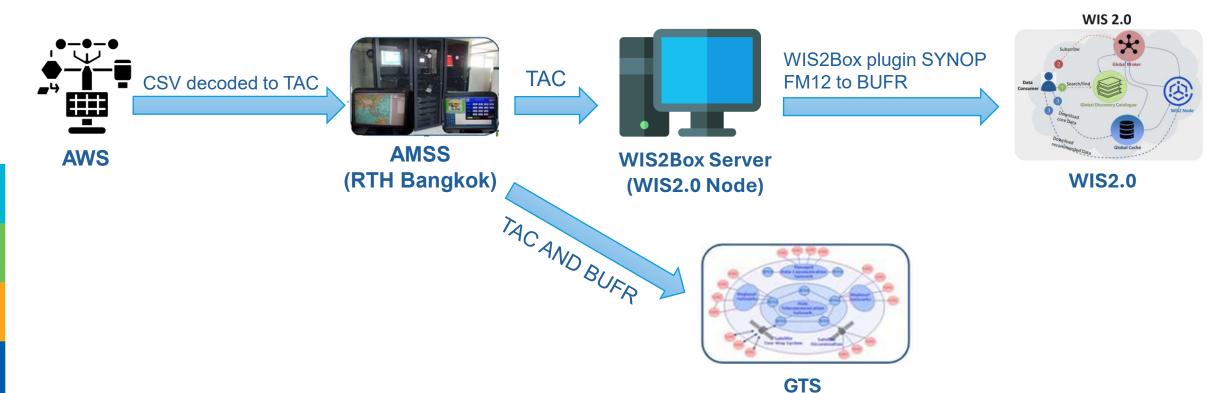
Now we are using wis2box + data ingestion from existing system (AMSS).







How to establish an automated workflow for data sharing from Automatic Weather Stations to meet the GBON requirement for hourly data?









How will you host your WIS2 solution?

- On-premises
- Our team do our own network configuration and monitoring including fixed host address and firewall policy.

Are you already working with another country in the region that could help provide you with an instance for hosting the WIS2 node?

o There were only online meetings and consultations with other countries such as China, Singapore and Japan(Both onsite and online).









Operations



Who will operate, monitor and maintain the WIS2 node?

- NMHS
 - Maintain IT infrastructure and software update

Who is responsible for updating OSCAR/Surface and designating GBON stations?

Our national focal point on OSCAR/Surface.

Are you currently relying on another country for your data transfer on GTS/WIS that can assist you with operations in WIS2?

 No. However, other than synoptic data, there will be other sets of data, such as upper-air data, to be exchanged on WIS2.







Timeline

WIS2.0 Implementation Plan of TMD (2025)

End of June 2025



July 2025





September -November 2025



December 2025



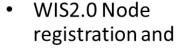
2026



Study System requirements

https://docs.wis2box.wis.wm o.int/en/1.0.0/

Installation and configuration



MQTT broker credentials

- Product
 - Selection
 - e.g. Thai Synoptic
 - Metadata creation



Project summary

Future Plan (TBD)







Timeline

Considerations:

Do you currently have contracts with suppliers with a duration ending between 2025 and 2030 ?

Now, we have been operation WIS 2.0 since the middle of August 2025.
 Anyway, the procurement process for a new system has been on going.

Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?

A new system will be installed around 2026-2027 to support the WIS2.0.
 Once the new system completed, the private company will take over the system maintenance and other supports.





WIS 2.0 implementation plan

Bounteum SISOUPHANTHAVONG
Department of Meteorology and hydrology

Lao PDR







What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

Internet

Intranet

Whatsapp, Tel

Internet

RTH Bangkok

GTS

Campbell
Neo
software
Encoding
CSV,
BUFR

DMH Database Center



System Integration Campbell

Meteorological Manual station



Hydrological Manual station



Automatic Weather Station



Automatic Water Level station



GBON 6 AWS, 1 Sounding







WIS2Box Server

(WIS2.0 Node)





- DMH will host WIS2 solution: Public cloud based
- DMH will work with another country in the region: Japan (JMA), China (CMA)
- Under CREWS project to procure a new service with cloud vendor









Operations



Who will operate, monitor and maintain the WIS2 node:

- ✓ NMHS
 - ✓ responsible for the maintenance of your IT infrastructure and software updates
 - ✓ responsible for updating OSCAR/Surface and designating GBON stations
 - ✓ DMH is currently relying on another country for your data transfer on GTS/WIS that can assist you with operations in WIS2







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

Considerations:

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030?
- Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?

Time	2025	2026	2027
Tasks 1950-2025 SCIENCE for ACT	- Investigate the system and propose to Campbell Scientific France - Propose WIS2.0 to CREWS project	 Set up and fix AWS online System Integration Procure equipment Encoding data to the right format Set up system Train staff Trial sending data 	Maintain systemTrain staffSystem Operation

WIS 2.0 implementation plan

BATBOLD ALTANGEREL

NATIONAL AGENCY METEOROLOGY AND ENVIRONMENTAL MONITORING

MONGOLIA





What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

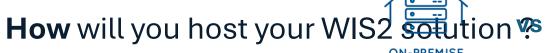
- Do you already have a contract with a supplier that offers WIS 2.0 compliant solutions?
- Do you have a local software development team that could adapt your existing system to be compliant with WIS 2.0 using wis2box or wis2box-components?

We have software development team in our agency, But they are no experience to WIS2 software.

- How would you setup a data workflow from Automatic Weather Stations to meet GBON requirements for hourly data?
 - -We collected AWS data in database for every 1 minute using a GSM/3G/4G cellular network from AWS datalogger. But we don't have any software solution for AWS data to provide MQTT and HTTP endpoint for publish WIS2.









On-premises

Do you have an existing solution that could provide instance to host your WIS2 node? Or do you have the option to procure a new service with a cloud vendor?

We want to have an existing solution our WIS2 node.

For hosting on-premise: do you have the required IT support to provide host maintenance, networking and a fixed host address?

There has Meteorology Telecommunication center In Our agency

Are you already working with another country in the region that could help provide you with an instance for hosting the WIS2 node?

We are discussing to talk with CMA National Meteorological Information Centre for WIS2, Further, we are planning to work for WIS2 in meeting between with CMA and NAMEM.









Operations



 Who is responsible for the maintenance of your IT infrastructure and software updates? (your team, Private company, other to specify)
 NATIONAL AGENCY METEOROLOGY AND ENVIRONMENTAL MONITORING, MONGOLIA

 Identify who you can work with to update OSCAR/Surface and designating GBON stations and ensure these stations can share data on WIS2?

Climate Division NATIONAL AGENCY METEOROLOGY AND ENVIRONMENTAL MONITORING, MONGOLIA

• Are you currently relying on another country for your data transfer on GTS/WIS that can assist you with operations in WIS2?

WE ARE PLANNING TO WORK FOR WIS2 IN THE COOPERATION BETWEEN CMA-NAMEM,







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

Considerations:

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030?
- Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?

Time	2025	2026	2027
Tasks	-Training in NAMEM -setup in local server	-Provide to Software and Server PC -Testing for WIS2 with CMA -Exchange STAFF's	-Beginning operation service for WIS2





WIS 2.0 implementation plan

Minseon PARK/Yuni LEE
Korea Meteorological Administration

South Korea







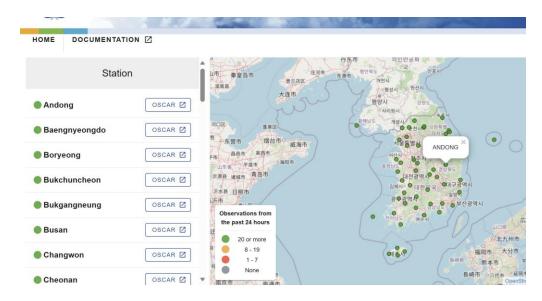
What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

- Wis2box does

How to establish an automated workflow for data sharing from Automatic Weather Stations to

meet the GBON requirement for hourly data?

-Wis2box is already processing.
Wis2box in South Korea is transmitting the data on an hourly basis.









How are you hosting your WIS2 solution?

- On-premises
- Public cloud
- Private cloud

Considerations:

- For hosting on-premise: do you have the required IT support to provide host maintenance, networking and a fixed host address?
- A dedicated team manages the institution's private cloud environment, while the wis2 team is responsible for software operations and management.









Operations



Who are operating, monitoring and maintaining the WIS2 node:

- NMHS
- Regional, sub-regional
- Private company
- Combination of the above (NMHS, Private company)

Considerations:

- Who is responsible for the maintenance of your IT infrastructure and software updates?
 - WIS team is responsible for policy decision, General management of operation and Private company is responsible for real-time monitoring and Operation management
- Who is responsible for updating OSCAR/Surface and designating GBON stations?
 observation policy division
- Are you currently relying on another country for your data transfer on GTS/WIS that can assist you with operations in WIS2?







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

Considerations:

SCIENCE for ACTION S2node

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030?
- Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?

Nothing has been decided in detail regarding DCPC yet Time 2025 2026 2027 - Operating Global Cache - Official operational of - To expend to data shared by Tasks for 24hours a day, Global replay WIS2node(cont.) - Pre-operational of Global - To expend to data shared by - Establishment of the DCPC WIS2node(cont.) Replay wis2node implementation - To discuss with DCPC in - 7 kinds of data shared by Plan(in future~) WIS2node GISC Seoul?? informing DCPC about

WIS 2.0 implementation plan

Thomas Wong SMG

Macao, China







What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

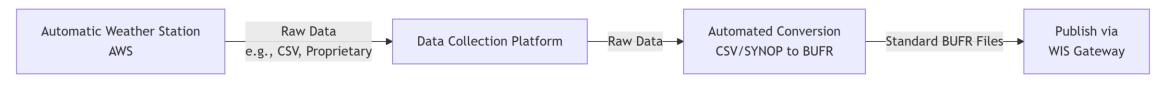
Use wis2box

- WCMP2 records: dataset-editor in the wis2box-webapp
- WIS2 Notifications:
 - ☐ Manually: MinIO service over SFTP
 - ☐ Automatically: use self script with a following command:
 - wis2box data ingest -p {file} --metadata-id {metadata's id}
 - ☐ MQTT and HTTP endpoint: build in tools (NGINX for HTTP/HTTPS, mosquito for MQTT)









- synop2bufr
- csv2bufr











Depends...

primarily on **budget** and **network security risk tolerance**.

Two options:

Option1: ON-PREMISE

Option2: Public Cloud















Option 1: ON-PREMISE:

- **Network Security**: Configure firewalls to open only the necessary inbound ports required for access.
- OS security Risk: establish a routine for applying system updates, including critical bug fixes and security patches
- Hosting: Host the application on a virtual machine within our existing internal infrastructure.
- Operations: Implement ongoing, proactive monitoring of the system (e.g VMware vCenter Server)
- Architecture: Deploy two nodes in a high-availability setup (one production master and one slave for redundancy).













Option 2: Public Cloud Deployment (e.g. Aliyun)



- Hosting: Deploy the WIS2-node on a public cloud platform.
- Architecture: Provision two WIS2-nodes (one **production**, one **slave**) to maintain high availability.









Operations



Who will operate, monitor and maintain the WIS2 node:

- DSMG (Macao, China)







Timeline

When would you be able to implement WIS 2.0?

model routine	Time	2025	5	2026	2027
premise) and updates - Budget - Plan for futur	Tasks - Research & Planning - Decide on deployment model (cloud, on- premise) - Budget - Pilot Installation		cide on cloyment del oud, on-mise) dget callation		Maintenance - Establish - procedures for routine - maintenance - and updates - Plan for future - expansions and - upgrades





WIS 2.0 implementation plan

Kai-hou YIP
Hong Kong Observatory

Hong Kong, China







Do you already have <u>a contract with a supplier</u> that offers WIS 2.0 compliant solutions? Do you have <u>a local software development team</u> that could adapt your existing system to be compliant with WIS 2.0 using wis2box or wis2box-components?

- WIS2.0 to be implemented HKO departmental officers.
- HKO software development team: 5 to 6 staffs

What <u>software solution</u> to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

- To be performed by
 - wis2box (modify if necessary to compile with government requirements)
 - in-house developed Linux/Python/etc software routines
 - based on existing infrastructure

How to establish an automated workflow for data sharing from Automatic Weather Stations to meet the GBON requirement for hourly data?

Enhance existing in-house software







How will you host your WIS2 solution?

- Currently WIS2 Node on cloud provided by vendor
- Consider on-premises to enhance resilience

For hosting on-premise: do you have the required IT support to provide host maintenance, networking and a fixed host address?

Make use of existing servers, DM zone, network supporting GTS/regional data exchange

Are you already working with another country in the region that could help provide you with an instance for hosting the WIS2 node?

No. To be implemented by HKO.









Operations



Who will operate, monitor and maintain the WIS2 node:

- o 3 HKO divisions to maintain the operation of
 - GBON Stations
 - Software & data exchange activities
 - Hardware & network







Timeline

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030 ?
 - Subject to financial consideration, cloud suppliers could be extended.

Time	2025	2026	2027	
Tasks World METEOROLOGICAL ORGANIZATION	- Implemented WIS2 node - To review & fine tune in-house software architecture GOO WIS 2.0 Operational Phase & transition period	 Parallel run and fine tune WIS2.0 system To collate information of HKO's GTS products To migrate the dissemination to WIS2.0 when topic hierarchy is available To collect more data from WIS2.0 	- ditto 000 90% of Members migrated to WIS 2.0	Stop gateways and GTS transmissio n

WIS 2.0 implementation plan

W.P.K Priyadharsena Department of Meteorology

Sri Lanka





Software



- IBL Moving Weather, Visual Weather and Aeroweather using since 2016
- Process is on going to upgrade hardware and software of IBL system including WIS 2.0 compliant
- 8 automatic weather stations are sending GBON data
- IBL system capable of sending CSV/SQL data from AWS system Automatically











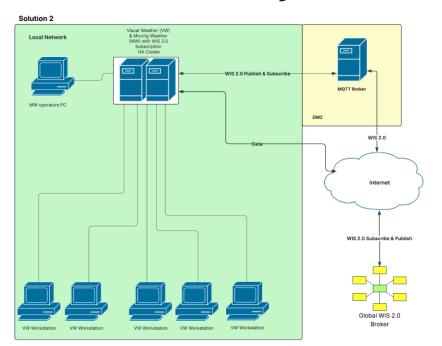




Hosting a WIS2-node



- System is hosted in department server room
- Department IT infrastructure is maintained by in house staff
- Qualified staff available to maintain the systems











Operations



- Operation, monitoring, and maintenance of the WIS2 node will be carried out by the department's technical staff.
- Department staff are trained to resolve minor issues of the IBL system.
- An annual service contract will be signed with IBL for software updates and resolution of major issues.







Timeline

	2025		2026			
Task	Q3	Q4	Q1	Q2	Q3	Q4
Procurement process of HW/SW upgrade						
WIS 2.0 registaration						
Installation						
Start operation of WIS 2.0						
Tremination of GTS operation						





WIS 2.0 implementation plan

SANTA KUMAR MAHARJAN
DEPARTMENT OF HYDROLOGY AND METEREOLOGY

NEPAL





Software



What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

How to establish an automated workflow for data sharing from Automatic Weather Stations to meet the GBON requirement for hourly data?

WIS2 Box will be used. DHM, Nepal is equipped with Data Management System (DMS), which can establish an automated workflow for WIS2 data sharing.

As far as GBON requirement for hourly data is concerned, data logger gives the aggregated hourly data (Point, max, Min, average data for almost all stations).





Hosting a WIS2-node



How will you host your WIS2 solution?

On-premises. DHM, Nepal have Primary Data centre at its own building with back-up in the Government Integrated Data Centre (GIDC). DHM have required section dedicated to this purpose (IT Section). 7/24 support and maintainace consultancy service is being taken from vendors/third party. Government allocation of Budget for this heading is continued.









Operations



Who will operate, monitor and maintain the WIS2 node:

DHM, Nepal is responsible for the maintainance of IT infrastructure and software updates, updating OSCAR and designating GBON stations. Consultancy service could be purchased as per the requirement.







Timeline

When (rough timeline) would you be able to implement WIS 2.0?

Time	2025	2026	2027
Tasks	-Administration related Preparation -Preliminary technical testing	-WIS2 Node Approval -WIS2 Box Configuration -GTS Data Header and WIS2 Data sharing	-Expansion of Dataset Parameters -





WIS 2.0 implementation plan

Report by: Mingjiao GONG
GISC Beijing
National Meteorological Information Centre (NMIC)

China Meteorological Administration (CMA)

September 19th, 2025





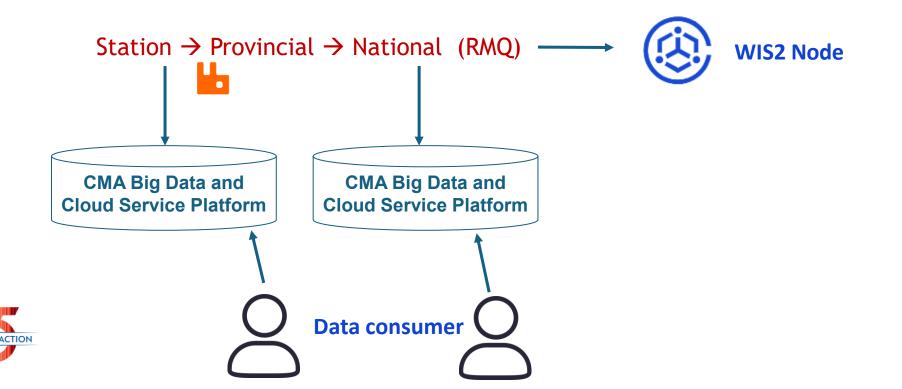
Software



What software solution to create WCMP2 records, publish WIS2 notifications and provide and MQTT and HTTP endpoint?

- wis2box

How to establish an automated workflow for data sharing from Automatic Weather Stations to meet the GBON requirement for hourly data?



Hosting a WIS2-node





- On-premises
- Public cloud
- Private cloud

Considerations:

Do you have an existing solution that could provide instance to host your WiS2 node? Or do you have the option to procure a new service with a cloud vendor?

For hosting on-premise: do you have the required IT support to provide host maintenance, networking and a fixed host address? Are you already working with another country in the region that could help provide you with an instance for hosting the Wis2 node?

Dedicated divisions responsible for maintaining the servers, network and operating system.











Operations



Who will operate, monitor and maintain the WIS2 node:

- NMHS
- o Regional, sub-regional
- Private company
- Combination of the above



Considerations:

- Who is responsible for the maintenance of your IT infrastructure and software updates? (your team, Private company, other to specify)
- Who is responsible for updating OSCAR/Surface and designating GBON stations?
- Are you currently relying on another country for your data transfer on GTS/WIS that can assist you with operations in WIS2?
- CMA dedicated team.





Timeline

When (rough timeline) would you be able to implement WIS 2.0?

Considerations:

- Do you currently have contracts with suppliers with a duration ending between 2025 and 2030?
- Do you have new projects being implemented between 2025 and 2030 that could be integrated in your WIS2 implementation timeline?

Time	2025	2026-2030	2026-2033
WORLD	 Publish more data to WIS2, e.g. TEMP, PILOT, etc. Establish a backup wis2node. 	 GISC Beijing will complete the transition to WIS2.0. As an RTH and an operator of WIS2-GTS gateway, we will not decommission GTS until the transition is complete. 	 GISC Beijing will assist AoR to complete the transition GISC Beijing will also undertake the responsibility to operate the GS and the gateway to support the transition.

Closing remarks WIS2 Training





WIS2 Training Guangzhou wrap-up

For any question on WIS2 and/or technical support: wis2-support@wmo.int

Subscribe to WIS2 newsletters:

https://community.wmo.int/en/news/wis2box-newsletter

https://community.wmo.int/en/news/wis2-operational-newsletter

Participant Feedback Survey



To report issues and/or request features in wis2box:

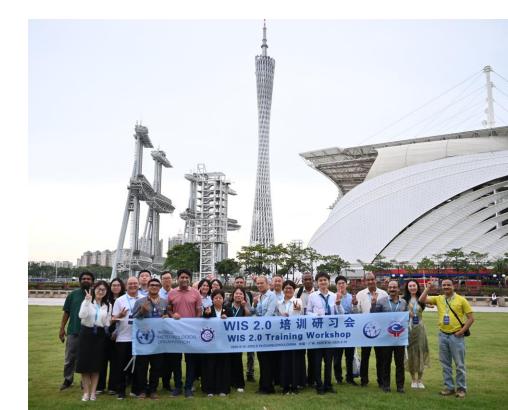
https://github.com/wmo-im/wis2box/issues

Find all WIS-related info at WMO community page:

https://community.wmo.int/en/activity-areas/wis







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धन्यवाद

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Баярлалаа

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