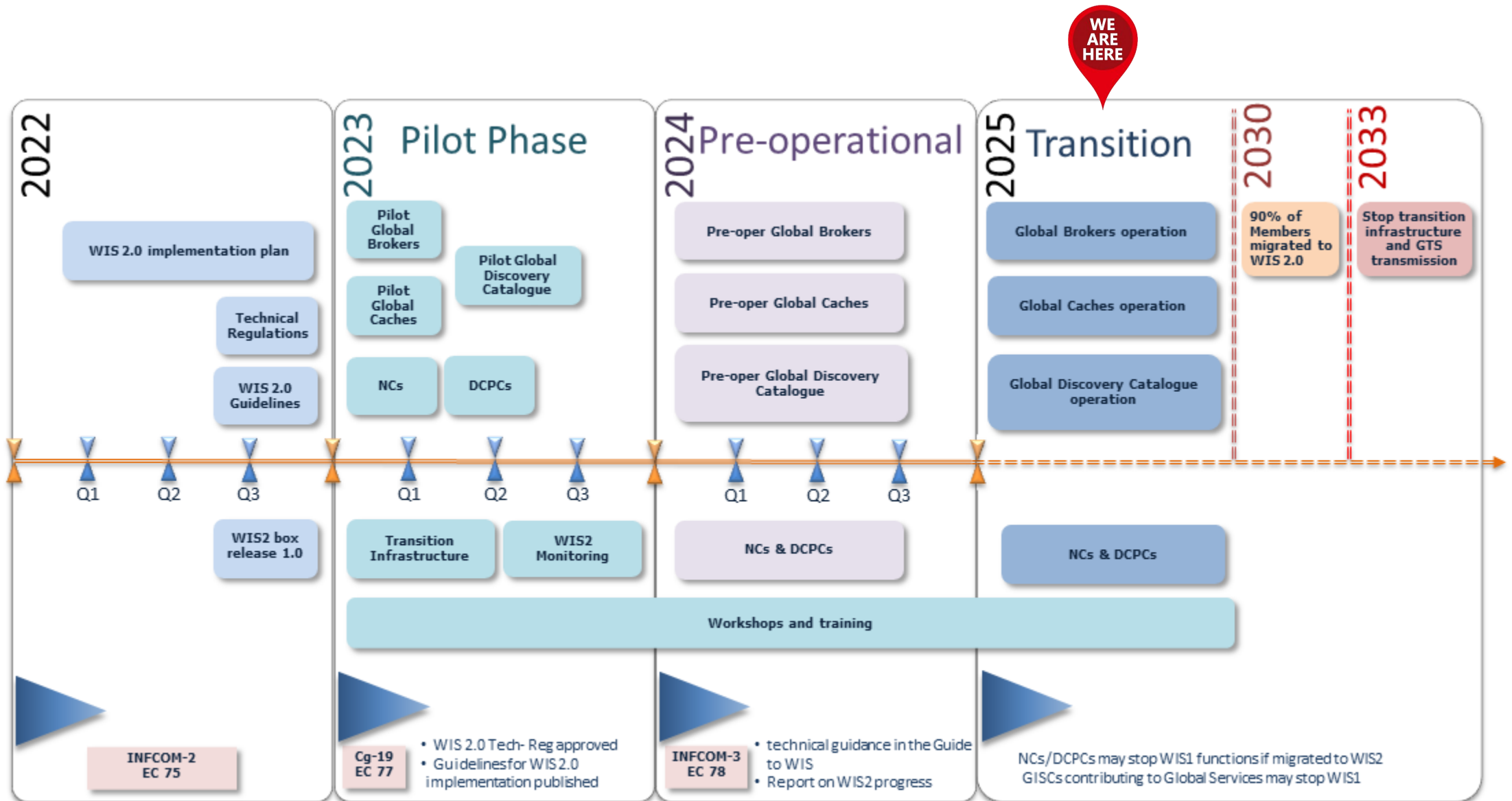


Implementation Plan and Provisions for the transition from WIS1/GTS to WIS 2.0

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1. WIS2 implementation timeline



Provisions for Transition from WIS/GTS to WIS 2.0

| Introduction | Migration from GTS to WIS2 | Temporary global services | Management of WIS1 and GTS | Management of WIS centres | References |
|---|--|---|--|---|---|
| <ul style="list-style-type: none">1. Preamble2. Introduction3. Principles | <ul style="list-style-type: none">4.1. Pre-operational and operational phases<ul style="list-style-type: none">4.1.1. Definition of pre-operational phase4.1.2. How to transition from the pilot to pre-operational phase4.1.3. How to make the transition from the pre-operational to operational phase | <ul style="list-style-type: none">5.1. GTS to WIS2 Gateway<ul style="list-style-type: none">5.1.1. Purpose5.1.2. GTS to WIS2 Gateway provider5.1.3. Technical requirements5.2. WIS2 to GTS Gateway<ul style="list-style-type: none">5.2.1. Purpose5.2.2. WIS2 to GTS Gateway operators5.2.3. Technical requirements6. Stopping a Message Switching System | <ul style="list-style-type: none">7.1. Maintenance and operation of Message Switching System (MSS)<ul style="list-style-type: none">7.1.1. Main Telecommunication Network7.1.2. Regional Telecommunication Hubs7.1.3. National Meteorological Centres7.2. Maintenance and operation of WIS1 Catalogue and Cache by GISCs7.3. Management of GTS Abbreviated Headings<ul style="list-style-type: none">7.3.1. GTS Headings for ICAO (AFTN) | <ul style="list-style-type: none">8.1. National Centres8.2. Data Collection or Production Centres8.3. Global Information System Centres | <ul style="list-style-type: none">9.1. Normative9.2. Informative |

2. Transition Principles

Principle 1: Each National Meteorological and Hydrological Service (NMHS) will be able to make the migration during the agreed period **2025–2030**:

- NMHSs will migrate between 2025 and 2030 at a time convenient for them. There will not be a simultaneous migration of all the WIS centres from WIS1 to WIS2.

Note: WIS centres are Global Information System Centres (GISCs), Data Collection or Production Centres (DCPCs) and National Centres (NCs).

2. Transition Principles (cont'd)

Principle 2: No GTS data loss during the transition:

- During the pre-operational phase, and in coordination with the regional associations and Global Information System Centres (GISCs), WIS2 infrastructure will be established, in order to avoid data loss during the transition. The aim of this infrastructure is to ensure that data sent on the GTS can be received by a site having migrated to WIS2, and the data, previously sent on the GTS, sent on WIS2, can be received by a site still on the GTS.

2. Transition Principles (cont'd)

Principle 3: Each WIS centre will decide **when to decommission WIS1 and GTS:**

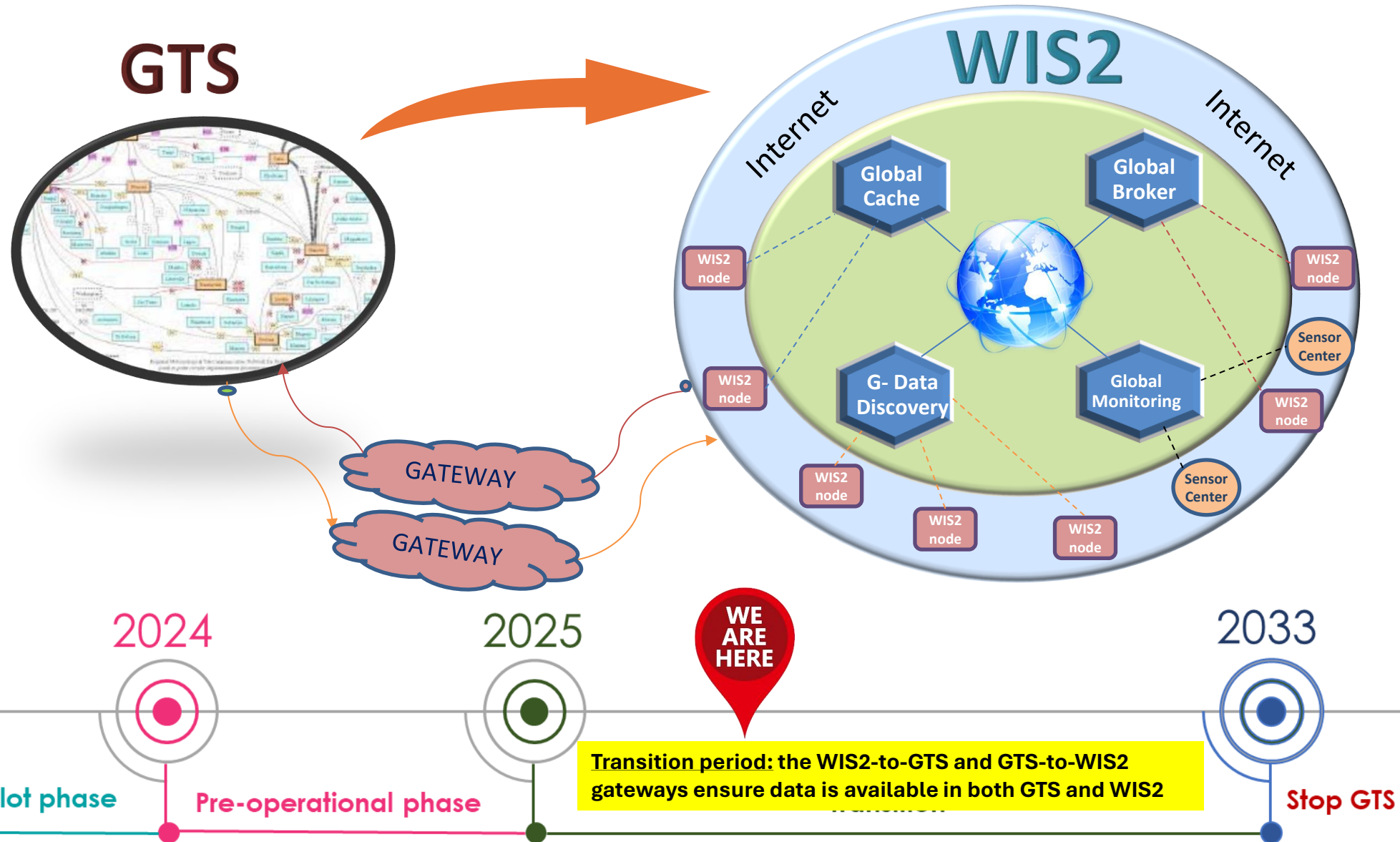
- Decommissioning WIS1 and GTS services will be the decision of each National Centre (NC), Data Collection and Production Centre (DCPC) or GISC, when they have considered that the migration is complete for them and their users;
- After migration to WIS2, there is **no requirement to run a Message Switching System (MSS)** to receive or send data from centres that have not made the transition. The centre will decide when and if it wishes to stop its MSS. It can also stop data dissemination to GTS.



2. Transition Principles (cont'd)

- **Principle 4:** **New data** (such as from the Global Basic Observing Network (GBON), or related to climate, hydrology and the cryosphere) will be exchanged **solely on WIS2:**
- WIS2 is designed to enable Resolution 1 (Cg-Ext(2021)) – WMO Unified Policy for the International Exchange of Earth System Data (*World Meteorological Congress: Abridged Final Report of the Extraordinary Session* (WMO-No. 1281)) and to support the WMO Global Basic Observing Network. The new data will be available on WIS2. A centre not having made the migration to WIS2 will not receive the new data. This data **will not have GTS TTAAii headers** and **will not be exchanged over the GTS.**

3. Data exchange between the two systems



GTS to WIS2 gateway

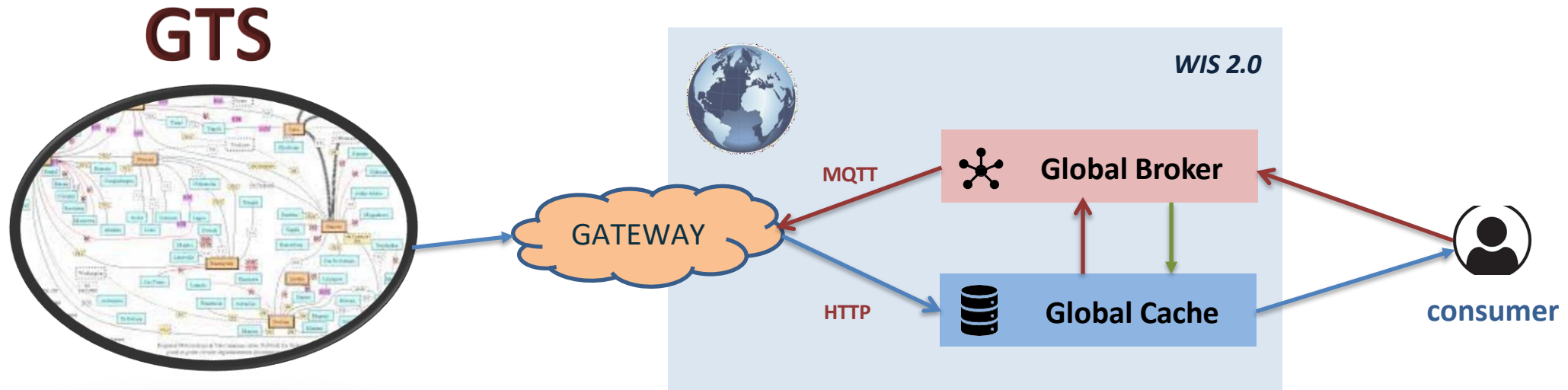
- **Purpose:** The purpose of the GTS to WIS2 gateway is to enable Members who have **migrated to WIS2**, and **stopped their GTS** systems, to continue **receiving GTS data** from WIS2. This gateway also enables users who are **not connected to GTS to access GTS data** from WIS2, during the transition phase. The GTS to WIS2 gateway will forward the GTS traffic it receives to WIS2. In accordance with the WIS2 specification, all data received on one GTS link will be stored on an HTTP(s) endpoint of the gateway, and will generate a WIS2 Notification Message.

GTS-WIS2 gateway (cont'd)

- The topic hierarchy for GTS data on WIS2 will be:
 - origin/a/wis2/{centre-id}/data/[core|recommended]/T1/T2/A1/A2/ii/CCCC
- Example for DWD:
 - origin/a/wis2/de-dwd-gts-to-wis2/data/[core|recommended]/T1/T2/A1/A2/ii/CCCC
- Example for JMA:
 - origin/a/wis2/jp-jma-gts-to-wis2/data/[core|recommended]/T1/T2/A1/A2/ii/CCCC
- The T1/T2/A1/A2/ii/CCCC above is derived from the headers of the data received on the GTS

GTS-WIS2 gateway (cont'd)

GTS-WIS2 gateway ...



GTS-to-WIS2 gateways
publish WIS2-notifications for
GTS-data using a topic
defined by the GTS headers

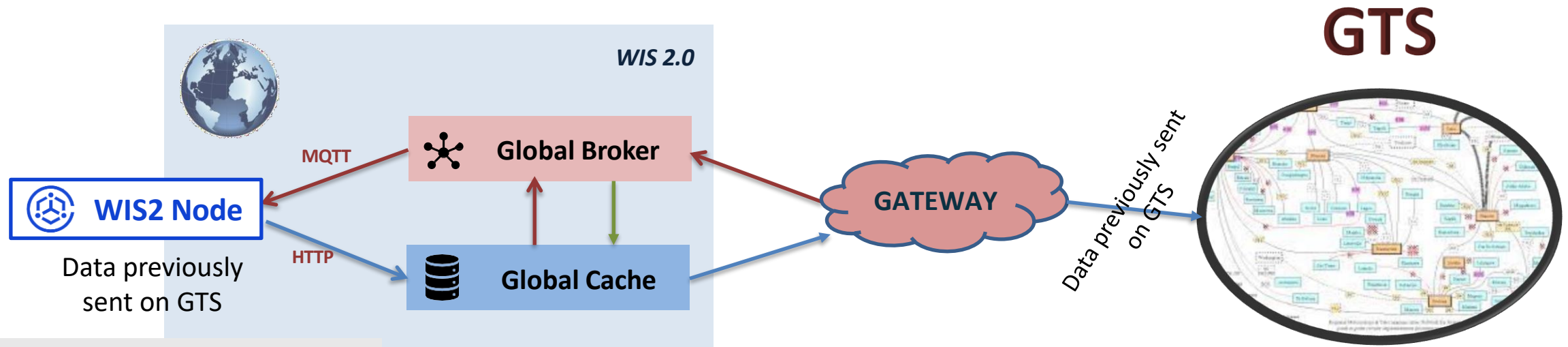
Topic Hierarchy:

origin/a/wis2/de-dwd-gts-to-wis2/data/[core|recommended]/T1/T2/ A1/A2/ii/CCCC

WIS2 to GTS gateway

- **Purpose:** When a National Meteorological Centre (NMC), running a Message Switching System and exchanging data on the GTS, has implemented WIS2, it may wish to stop sending its data directly on the GTS so that it can stop the MSS. For a Member that wishes to stop MSS, the WIS2 to GTS gateway will ensure that only data currently available on the GTS will be re-published on the GTS, so that no data is lost during the transition. To ensure resilient operation, there will be more than one WIS2 to GTS gateway.

WIS2 to GTS gateway (cont'd)



```
"properties": {  
  "gts": {  
    "ttaaii": "FTAE31",  
    "cccc": "VTBB"  
  }  
}
```

To enable the WIS2-to-GTS Gateway to republish data on the GTS, WIS2-nodes are required to add additional information in the message properties

Thank you

Merci

Gracias

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Спасибо