Introduction to WIS Centers

Enrico Fucile



WMO OMM

World Meteorological Organization Organisation météorologique mondiale

WEATHER CLIMATE WATER TEMPS CLIMAT EAU

WIS services

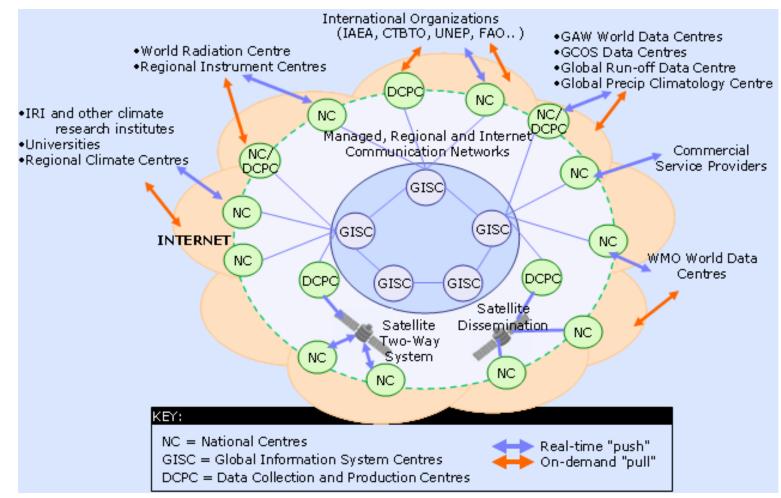
- Routine collection and dissemination service for time-critical and operation-critical data and products:
 - real-time "push" mechanism
 - Mostly (but not only) dedicated telecommunication means providing a guaranteed quality of service.
- Data Discovery, Access and Retrieval (DAR) service:
 - "pull" mechanism
 - through the internet

• Timely delivery service for data and products

- delayed mode "push" mechanism
- combination of dedicated telecommunication means and internet



WIS core components





WIS Centres Global Information System Centres (GISC)

- Receive observational data and products that are intended for global exchange from NCs and DCPCs within their area of responsibility;
- **Disseminate**, within its area of responsibility, the entire set of data and products agreed by WMO for routine global exchange;
- Hold the entire set of data and products agreed by WMO for routine global exchange for at least 24 hours and make it available via WMO request/reply ("Pull") mechanisms;
- **Provide around-the-clock connectivity** to the public and private networks at a bandwidth that is sufficient to meet its global and regional responsibilities;
- **Co-ordinate with the Centres within its area of responsibility** a WIS telecommunications infrastructure that can meet the WIS requirements.
- Ensure that they have procedures and arrangements in place to provide swift recovery or backup of their essential services in the event of an outage (due to, for example, fire or a natural disaster);



WIS Centres

Data Collection or Production Centres (DCPC)

- **Collect data and products intended for dissemination** to NCs within its area of responsibility (i.e. regional collections)
- Collect special programme-related data and products;
- Produce regional or specialized data and products;
- Provide data and products intended for global exchange to their responsible GISC;
- Disseminate information not intended for global exchange;
- Describe their products according to an agreed WMO standard and provide access to this catalogue of products and provide this information as appropriate to other centres, in particular a GISC;
- Ensure that they have procedures and arrangements in place to provide swift recovery or backup of their essential services in the event of an outage (due to, for example, fire or a natural disaster);



WIS Centres

National Centres (NC)

- Collect observational data from within their country
- Collect, generate and disseminate products for national use
- Authorize their national users to access WIS
- Provide observations and products intended for global dissemination to their responsible GISC
- Provide observations and products intended for regional or specialized distribution to the responsible DCPC

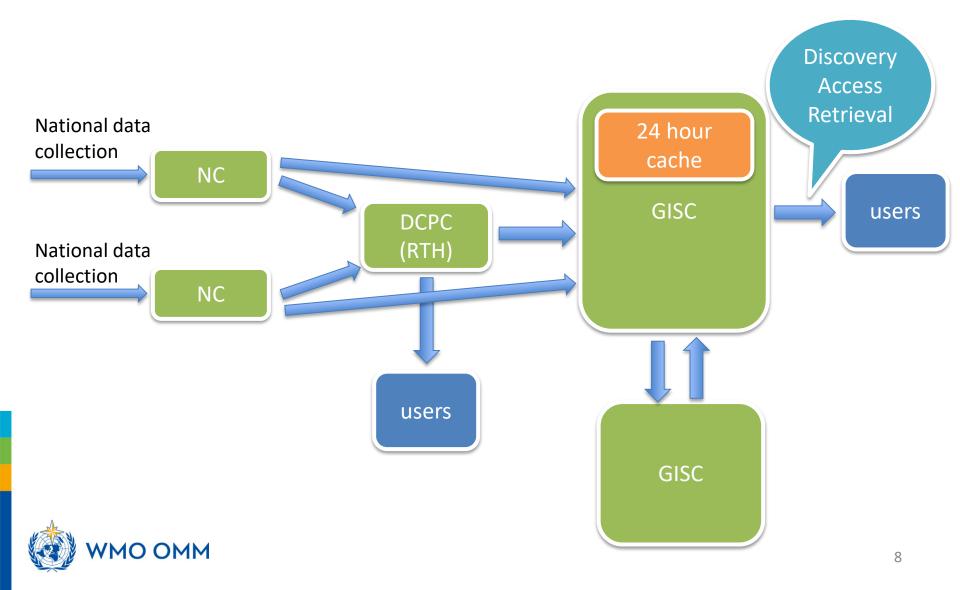


GISCs

- 1. <u>GISC Beijing</u>
- 2. <u>GISC Exeter</u>
- 3. <u>GISC Jeddah</u>
- 4. GISC Melbourne
- 5. <u>GISC Moscow</u>
- 6. <u>GISC Offenbach</u>
- 7. <u>GISC Seoul</u>
- 8. <u>GISC Tokyo</u>
- 9. <u>GISC Toulouse</u>
- 10. <u>GISC Tehran</u>
- 11. GISC Washington
- 12. <u>GISC Brasilia</u>
- 13. <u>GISC Casablanca</u>
- 14. GISC New Delhi
- 15. <u>GISC Pretoria</u>



WIS/GTS Global data exchange



WEATHER CLIMATE WATER TEMPS CLIMAT EAU





WMO OMM

World Meteorological Organization Organisation météorologique mondiale