

WMO Information System at Japan Meteorological Agency

What's WIS?

The WMO Information System (WIS) is a single coordinated global infrastructure of WMO for telecommunications and data management functions. It enhances the Global Telecommunication System (GTS) with modern technology standard elements to serve all purposes of WMO and related international programmes.

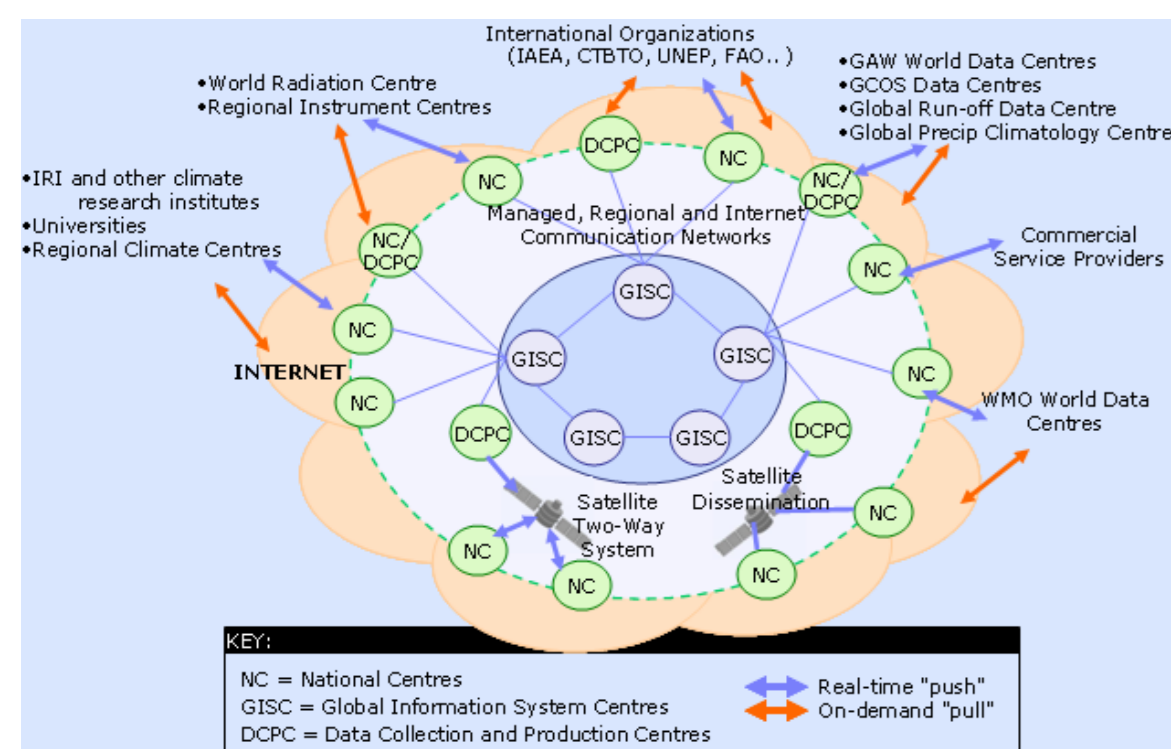


Structure of WIS

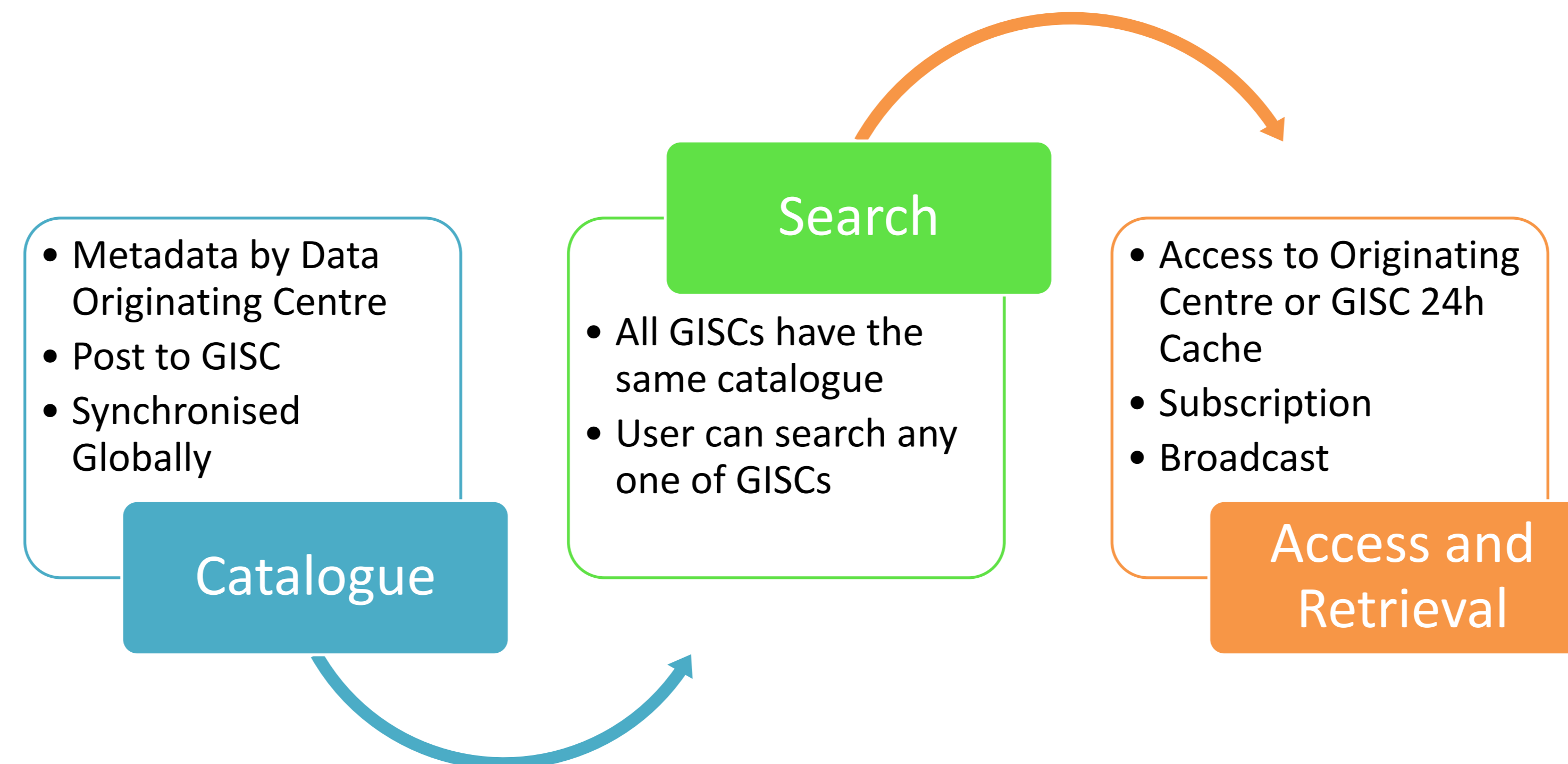
- GISC – Global Information System Centre
- DCPC – Data Collection and Production Centre
- NC – National Centre

WIS supports diversity of infrastructure

- Dedicated land-line
- Internet
- Satellite broadcasts



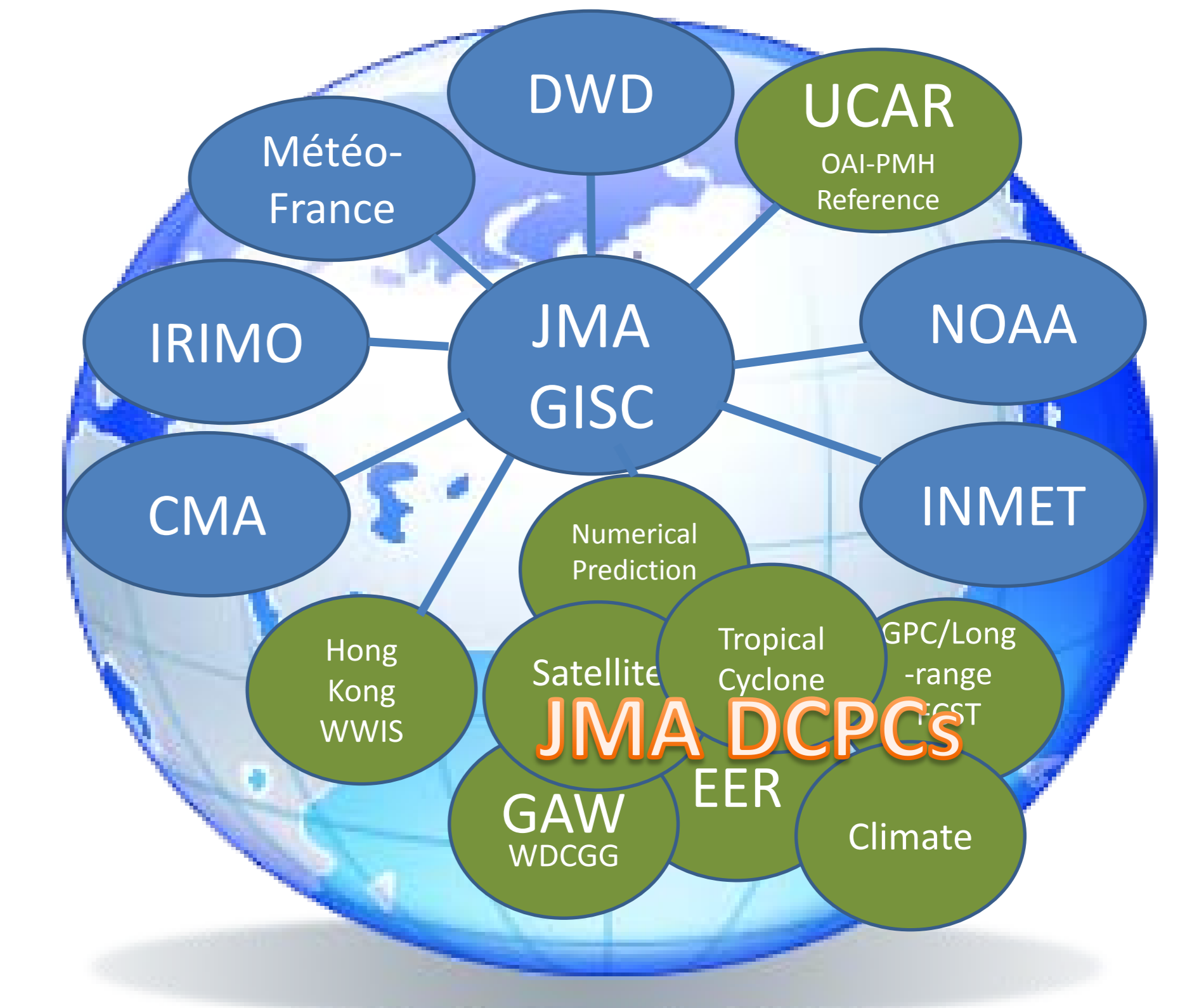
Data Discovery, Access & Retrieval



The data Discovery, Access and Retrieval (DAR) is a central new function of WIS that enables users to learn about location, properties, and access methods for all data and information products available on WIS.

All WIS centres are supposed to create/maintain metadata (element of data catalogue) to describe information they publish. WIS uses WMO Core Metadata Profile (version 1.2 is about to be published) on ISO 19115 geographical metadata standard. Collected metadata is available for search by all users. SRU (Search by URL) protocol is chosen to allow “mush-up” development of web-based application at all WIS user organisations.

Development Cooperation



WIS development team in JMA is working in cooperation with China Meteorological Administration (CMA), Hong Kong Observatory (HKO), Deutscher Wetterdienst (DWD). Metadata Synchronisation is also established with GISC and DCPC candidates.

Pre-operational GISC Portal

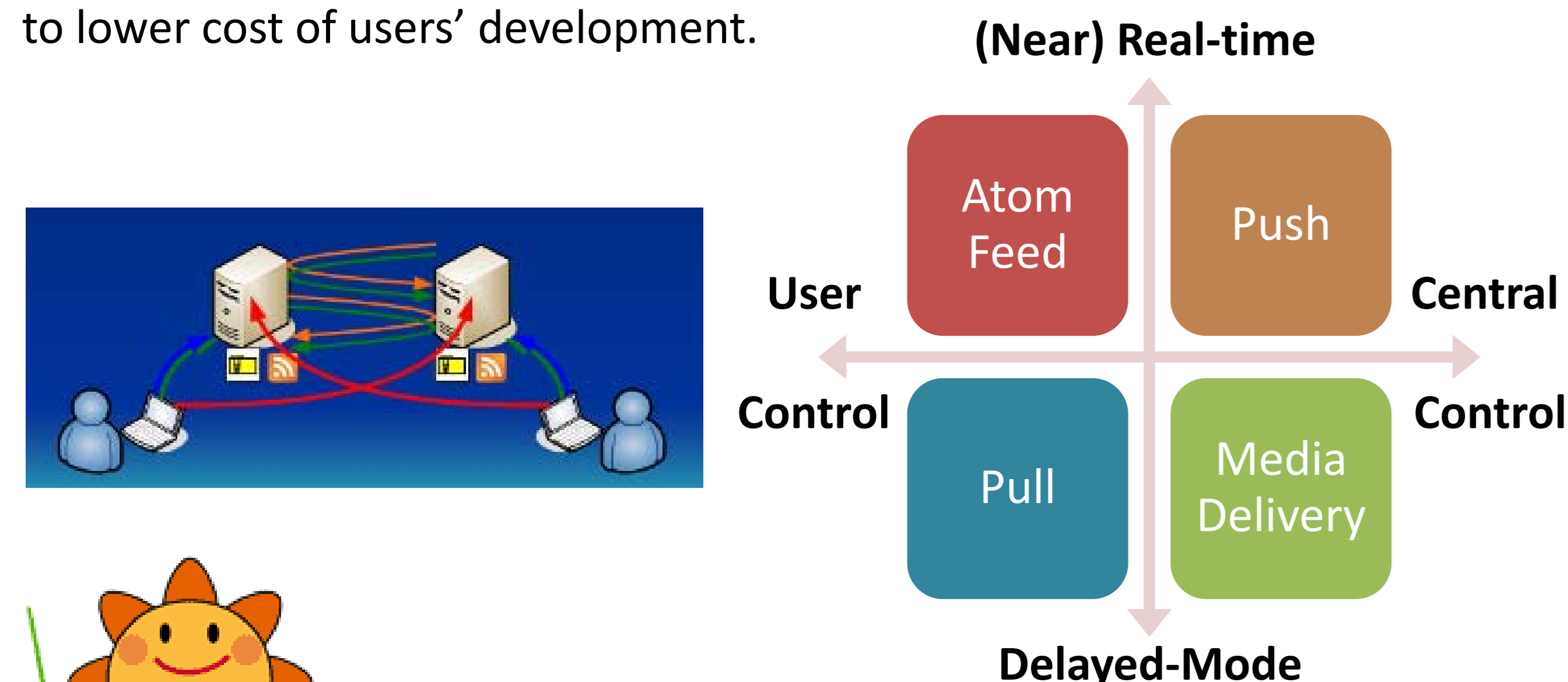
Please visit: <http://www.gisc.kishou.go.jp>

And hardware/software upgrade this year for official service!



Data and Metadata Service by Atom Feed

There have been a long debate over “push and pull” protocol choice. JMA is exploring Atom feed (often called RSS) technology which has both update notification (like push) and ease of management (of pull) with a few minutes of latency. Users can “subscribe” to Feeds using RSS Reader software. As is industrial standard, Atom feed is applicable any kind of digital information including data and metadata (except for really urgent warnings), and expected to lower cost of users’ development.



Capacity Building

Since 2003, JMA has been taking a leading role in Pilot Project for virtual private network (VPN) over the Internet for secure communication for small centres in RA II and V. On March 2010, JMA has hosted a technical workshop to share vision, technology, and current status of WIS among Asian NMHS colleagues.

