

# Meteorological data International Service based on CMACloud

**National Meteorological Information Centre  
CMA**

**2018.09.12**

# Main Lines:

- 1. Review of CMA's Data Service for international users  
Beijing WIS Portal & CMACast Integrated System
- 2. Introduction of CMACloud Service Platform  
Architecture of System & Application Scenarios
- 3. Development Plan

# 1. Review of CMA's Data Service for users

## (1) Beijing WIS Portal

- For anonymous user

GTS open data and CMA's internal DCPC open data is available.

Download just one product data one time.

- For registered normal user

GTS open data and CMA's internal DCPC open data is available.

Provide subscription of real-time data and Batch downloading is supported.

- For registered WIS center users

GTS open data and CMA's internal DCPC open data is available.

Provide subscription of real-time data and Batch downloading is supported.

Create, modify or delete the metadata records belongs to your center.

The screenshot displays the Beijing WIS Portal's metadata search interface. At the top, the header includes the logo of the China Meteorological Administration and the text 'BEIJING WIS Portal beta Global Information System Centre'. The navigation bar contains links for Home, DAR Service, GISC Monitoring, For WIS Center User, About WIS, User Forum, and WIS Monitor.

The main content area is titled 'Metadata Search' and features a search box with a dropdown menu set to 'Full Text'. Below the search box are several input fields for search conditions: 'With coordinate search conditions' (checkbox), 'West Boundary(LON):', 'South Boundary(LAT):', 'East Boundary(LON):', and 'North Boundary(LAT):'. A map of the world is displayed below these fields, with a zoom control and the text '© OpenStreetMap contributors.'.

Below the map, there are two sections for search results. The first section is titled 'format:' and lists various data formats with their respective counts: grib(50483), tac(8191), bufr(8045), binary(1047), grid(523), crex(68), alphanumeric(32), and imagery(1). The second section is titled 'type:' and lists various data types with their respective counts: grib\_h(47470), surface\_data(5547), upper\_air(5102), grib\_y(3013), satellite\_data(2583), pictorial\_information(955), forecast(906), and warninas(863).

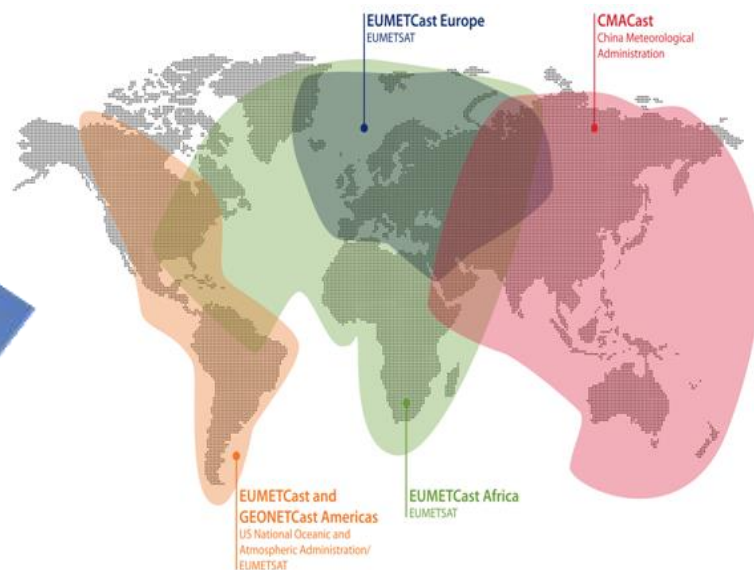
On the right side of the interface, there is a 'Results for Search:' section. It shows 'Total Records:110865' and a 'HomePage' link. Below this, there are three search results, each with a unique URN and a brief description. The first result is for 'HKUF88 GRIB bulletin available from EGRR (EXETER) at 00 and 12 UTC'. The second result is for 'HVIA10 GRIB bulletin available from EGRR (EXETER) at 00 and 12 UTC'. The third result is for 'HPZF98 GRIB bulletin available from EGRR (EXETER) at 00 and 12 UTC'. Each result includes a 'Title' and an 'Abstract' section.

# 1. Review of CMA's Data Service for users

## (2) Integrated CMACast System



CMA Satellite Broadcasting System service for international users since 1998.



### First Generation (1998-2006)

- Ku band
- HDLC
- 3GB/day
- Users: 2400

### The Second Generation (2006-2012)

- Ku band
- DVB-S
- 30GB/day
- Users : 900

### The Third Generation (2012- )

- C band
- DVB-S2
- 400GB/day
- User : 2700

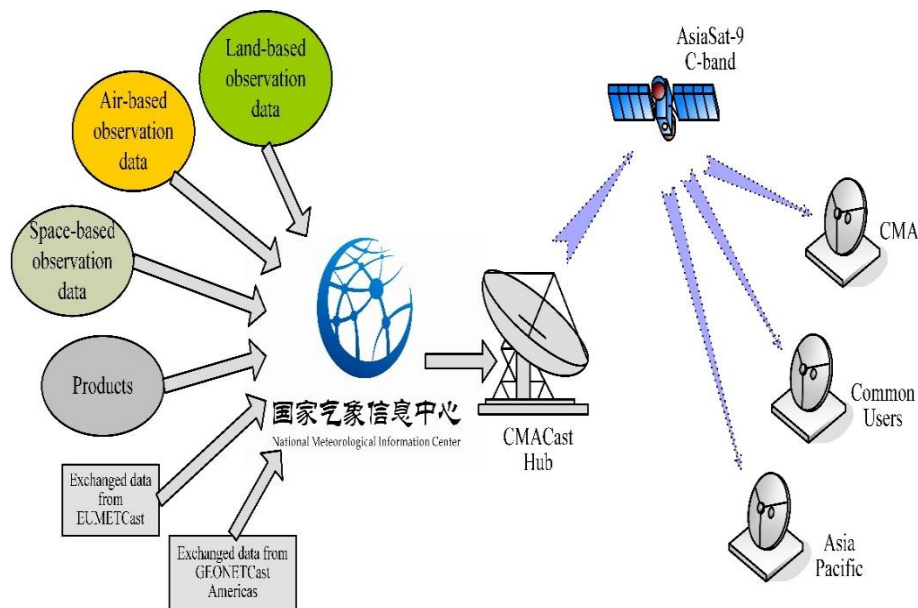
CMACast is one of the three satellite broadcast systems under the framework of GEONETCast.

**CMA provide many kinds data resources, covering surface, upper-air, ocean, satellite and numerical forecast, totally 12 categories, 407 kinds.**

- ✓OBS Data
- ✓NWP Products
- ✓Satellite Products
- ✓Other Service Products
- ✓Exchanged Data from other GSIC

# 1. Review of CMA's Data Service for users

## (2) Integrated CMACast System



CMACast has played an important role in international cooperation. By now, CMACast has 24 oversea users, covering 20 countries in the Asia-Pacific region. Such as Bangladesh, Laos, North Korea, Myanmar, Vietnam, Pakistan and so on.

# 2. Introduction of CMACloud Service Platform

## New demand for service:

1. provide global service.
2. provide customized and flexible service.

## CMACloud Service include:

1. Serve users through internet.
2. Provide raw data downloading for local processing usage and back up for CMACast reception.
3. Provide directly calling MICAPS format data from CMACloud by MICAPS Client.
4. Provide Web services(WebMicaps) based on CMACloud.



用户管理

+新增 \*删除

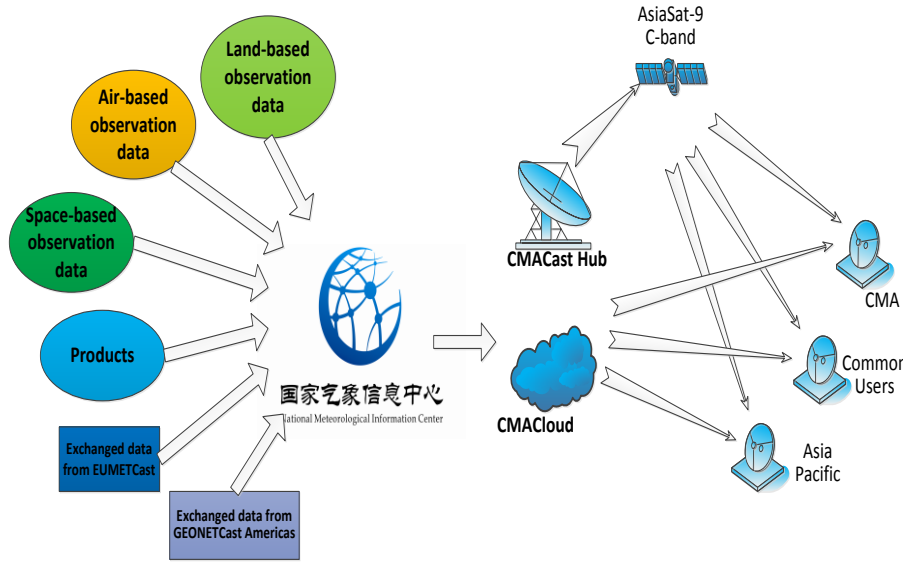
用户名	密码	本地路径	数据保留天数	中心IP	用户描述	FTP地址	FTP端口号	FTP密码	FTP
Bangladesh	123456	E://CMACAST/	1	106.39.230.100	Bengal	106.39.230.100	21	Bangladeshl@#%\$^	/data/C/
Downloader2	Downloader2	D://CMACAST/	1	106.39.230.100	Beijing	106.39.230.100	21	downl@#%\$^	/data/C/
Downloader3	Downloader3	E://CMACAST/	1	106.39.230.100	Beijing	106.39.230.100	21	downl@#%\$^	/data/C/
Downloader4	Downloader4	D://CMACast/DATE/	1	106.39.230.100	Beijing	106.39.230.100	21	downl@#%\$^	/data/C/
Downloader5	Downloader5	E://123/	1	106.39.230.100	ifffifi	106.39.230.100	21	downl@#%\$^	/data/C/
Downloader7	Downloader7	E://123/	1	106.39.230.100	ifffifi	106.39.230.100	21	downl@#%\$^	/data/C/
Downloader8	Downloader8	E://123/	1	106.39.230.100	ifffifi	106.39.230.100	21	downl@#%\$^	/data/C/
Vietnam	vietnam	E://CMACAST/	1	106.39.230.100	越南	106.39.230.100	21	downl@#%\$^	/data/C/

Showing 1 to 9 of 9 rows

# 2. Introduction of CMACloud Service Platform

## Application scenario 1:

Using CMACloud Service Client download raw data from CMACloud for local application using, and back up for CMACast reception.



**CMACloud**  
CMACloud Distribution System for Meteorological Data

2018-09-06 07:54

Ser:  Ftp:

ok ok

SYSTEM STATUS SEARCH & COUNT CONFIGURATION HELP

基础配置

User name : downloader3  
Password :  downloader3  
Local path : E://CMACAST/

服务器基础配置

TRANS\_FLAG :  0  
TRANS\_FTP\_IP :  10.100.2.42  
TRANS\_FTP\_PORT :  23  
TRANS\_FTP\_USER :  cmacast  
TRANS\_FTP\_PWD :  123456  
TRANS\_FTP\_PATH :  /

Submit

Using CMACloud Service Client download raw data from CMACloud for local application using, and back up for CMACast reception.

CMACast Helpdesk

Back Next

SYSTEM RESOURCE	PROCESS STATE
<b>downloader3</b> CPU : 58.53% Memory : 90.42% Disk : 24.65%	File downloading : ok File sending : -- Monitoring : ok

RECEIVING STATUS

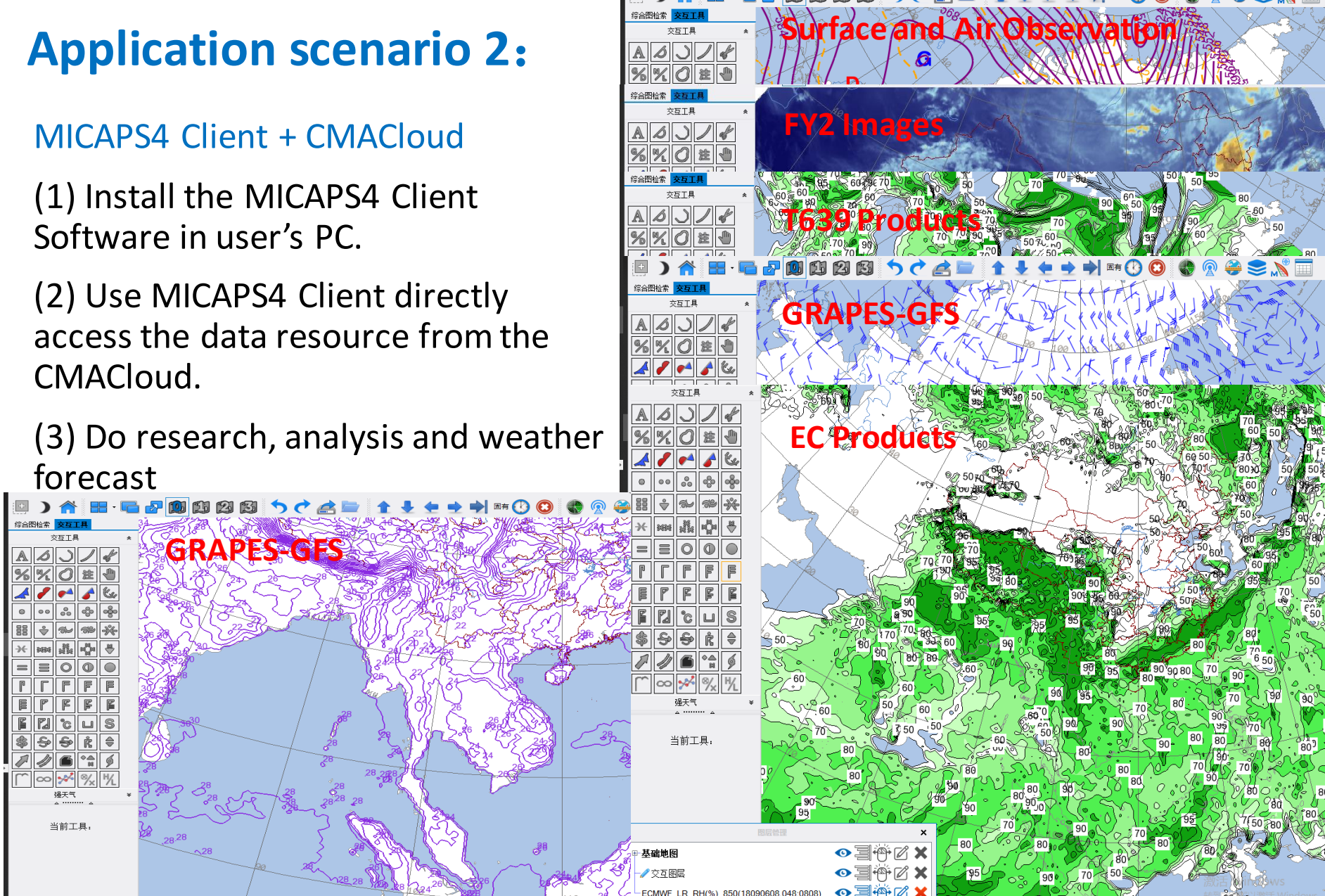
2018-09-06 07:54:44 /data/CMACast/SEVP\_NE\_001/RFFC/PU/Z\_SEVP\_C\_BENZ\_20180906083100\_P\_RFFC-SPPC-201809061200-16812.TIT  
2018-09-06 07:53:37 /data/CMACast/NWP\_NMC\_GRAPES/H50/PUB/Z\_NAFP\_C\_BART\_2018090600000\_P\_CNFC-GRAPES-FMF5-FCSTER-06600\_grk2  
2018-09-06 07:53:20 /data/CMACast/NWP\_MCTR\_001/EDZW\_GLB/PUB/A\_HTXM10EDZW060000\_C\_BART\_20180906042126\_80288.bin  
2018-09-06 07:53:18 /data/CMACast/NWP\_MCTR\_001/EDZW\_GLB/PUB/A\_HTXM25EDZW060000\_C\_BART\_20180906042135\_80290.bin  
2018-09-06 07:53:15 /data/CMACast/NWP\_MCTR\_001/EDZW\_GLB/PUB/A\_HTXM98EDZW060000\_C\_BART\_20180906042136\_80291.bin

# 2. Introduction of CMACloud Service Platform

## Application scenario 2:

MICAPS4 Client + CMACloud

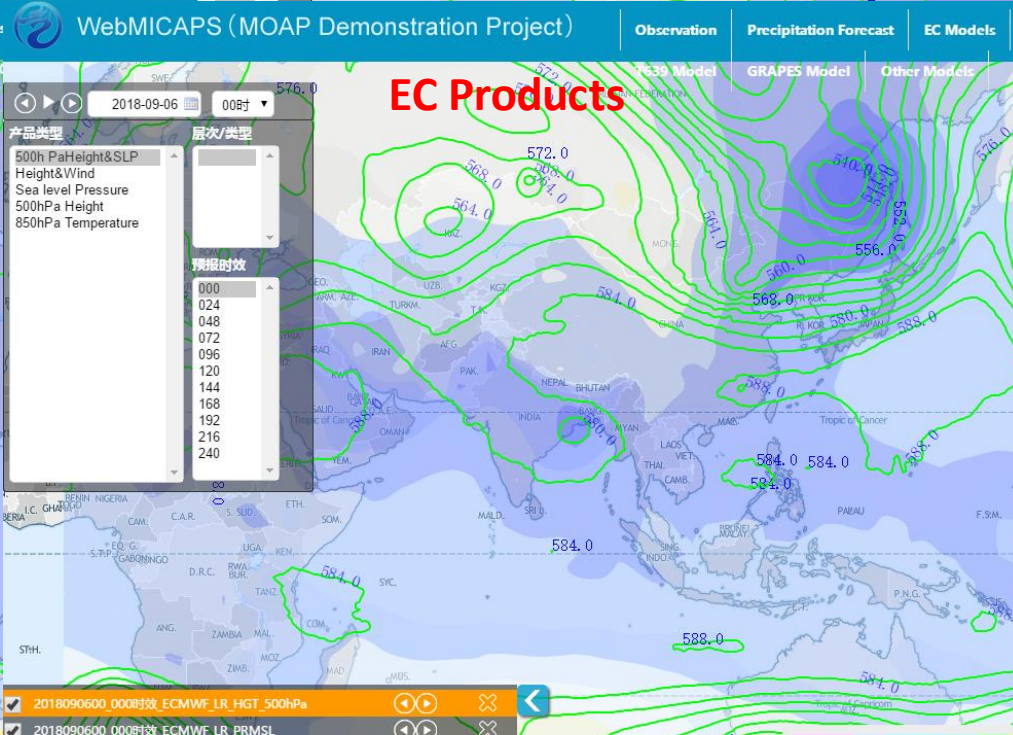
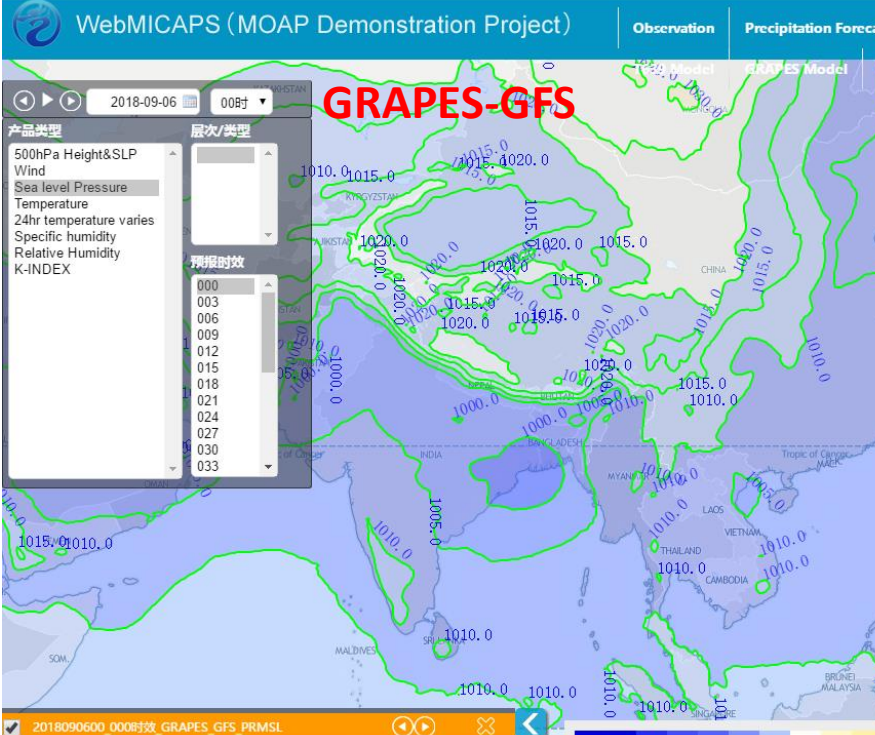
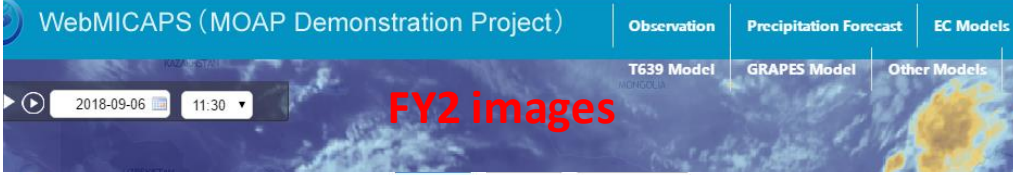
- (1) Install the MICAPS4 Client Software in user's PC.
- (2) Use MICAPS4 Client directly access the data resource from the CMACloud.
- (3) Do research, analysis and weather forecast



# 2. Introduction of CMACloud Service Platform

## Application scenario 3:

- (1) Use Browser of any PC to access WebMicaps on CMACloud;
- (2) research, analysis and weather forecast;

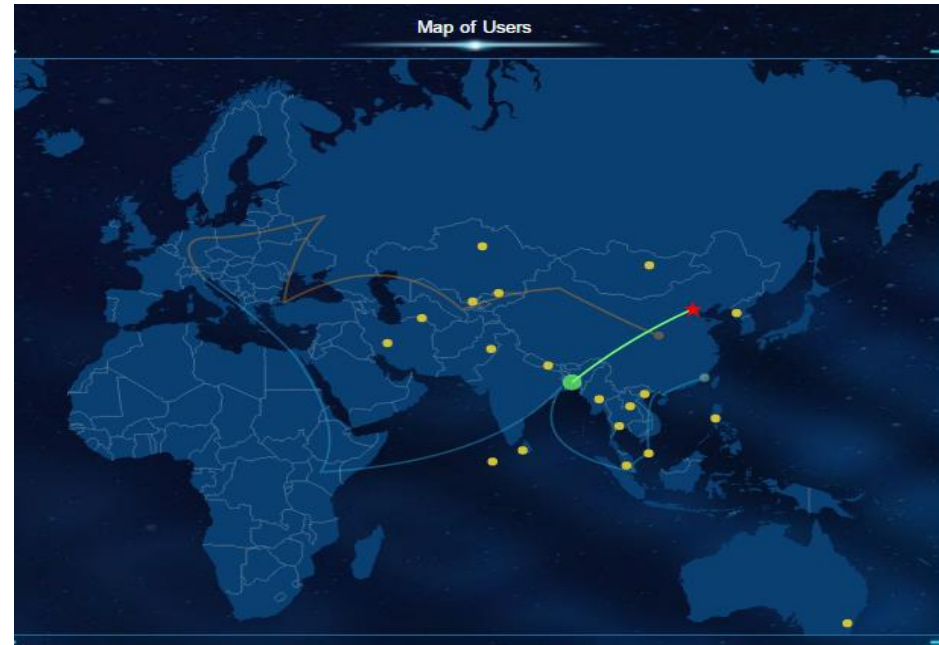


# 3. Follow-up Development Plan

- (1) 2018: 3-4 users on trial.
- (2) 2019: extend it across all CMACast users in Asia.
- (3) 2020: extend it to global users of WORLD METEOROLOGICAL CENTRE BEIJING.

We will provide “5A” service based on CMACloud:

Any user, at Anywhere, at Any time, can use Any PC to access Any data to enjoy our CMACloud service.



<http://www.nmic.cn/en>

Email: [cmacast@cma.gov.cn](mailto:cmacast@cma.gov.cn),

Skype: CMACast Helpdesk

Tel: +86 10 68406543

**Thank you!**