

Integrated CMACast System Overview & Reception Application Introduction

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National Meteorological Information Centre



CONTENT

outline

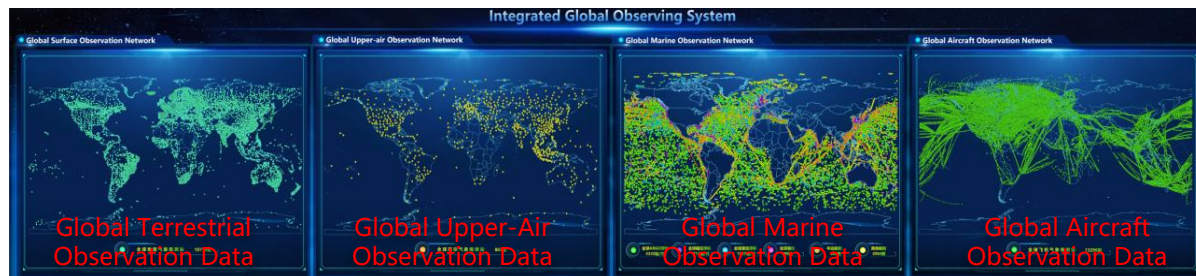
- 1) What and why is CMACast?**
- 2) Development of the broadcast system of CMA**
- 3) Structure of CMACast system**
- 4) Data of CMACast**
- 5) Users of CMACast system**



Overview of CMACast-Met data

Met data(real-time) is the foundation of weather forecasting and ‘Early Warnings for All’, it’s features include:

- Wide geographical range(Horizontal and vertical three-dimensional atmospheric)
- More types(Met Satellite, Met Radar,NWP,AWS,etc)
- **Time critical**(The stronger the timeliness, the more accurate the prediction)
- **Large quantities**(Meteorological big data)





Overview of CMACast- data



How to get these data from CMA in real-time for users ?

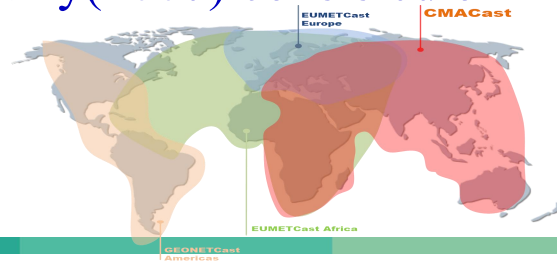
In the framework of WMO, there are

➤ Terrestrial Cable Network:

GTS(Global Telecommunication System)->**WIS**(WMO Information System)->**WIS2.0**

➤ Satellite Wireless Network:

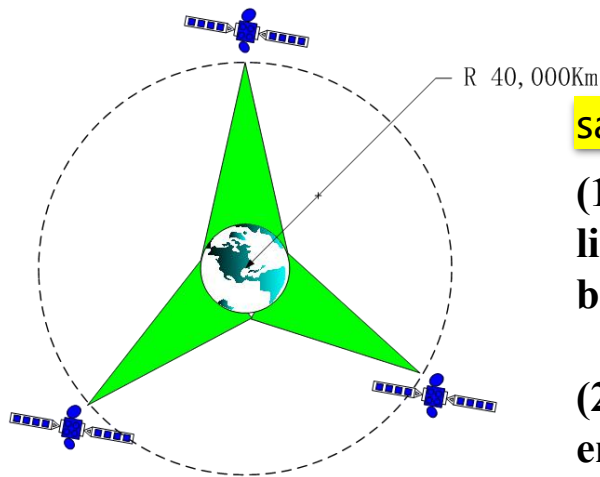
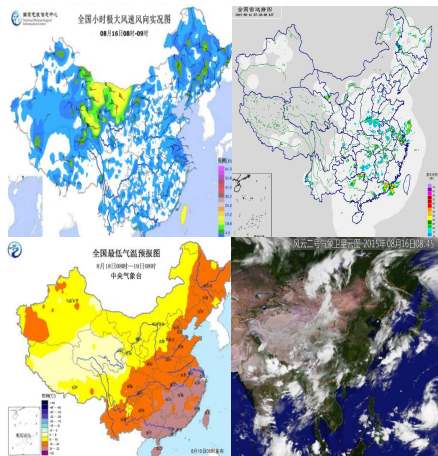
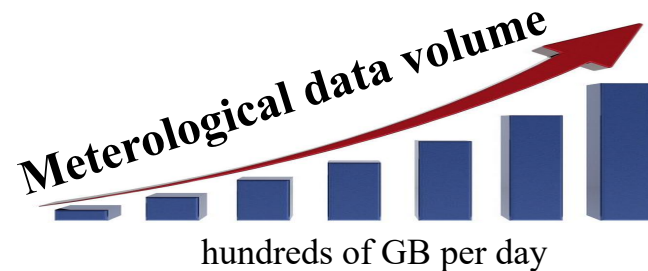
IGDDS(WMO Integrated Global Data Dissemination Service):**GEONETCast**(met data dissemination system based on satellite broadcast) originally(2007) consisted of EUMETCast、**CMACast**、GEONETCast-Americas.



Why is the broadcast system still used decades later?

How to distribute amount data to large number of users ?

- No matter how far the distance
- No matter how many users



satellite broadcast advantages:

- (1) **Wide coverage**, and transmission is not limited by geography or national boundaries.
- (2) **High timeliness**: one-time transmission enables all users to receive simultaneously.
- (3) **Strong stability**, unaffected by natural disasters or human factors interference.



Development of the satellite broadcast system of CMA

The generations of CMA' s satellite broadcast system for meteorological data



● 1G (1998-2006)

- Frequency: Ku
- Technology: HDLC
- capacity: 3GB/day

● 2G (2006-2012)

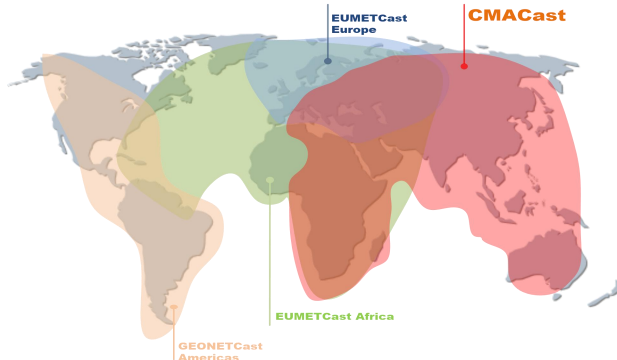
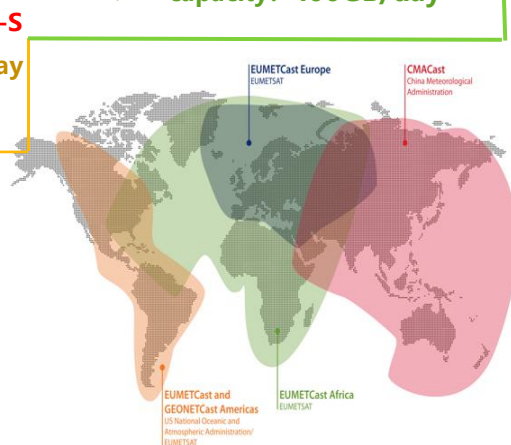
- Frequency: KU&C
- Technology: DVB-S
- capacity: 30GB/day

● 3G (2012-2022) CMACast 1.0

- Frequency: C band
- Technology: DVB-S2
- capacity: 400GB/day

● 4G (2022-now) CMACast 2.0

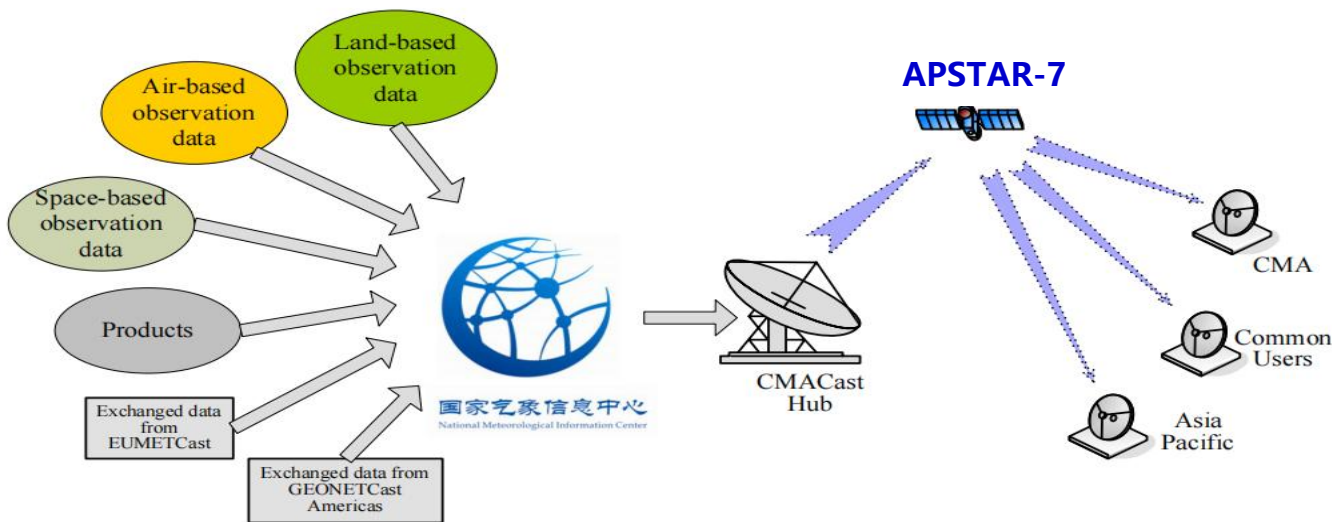
- Frequency: C
- Technology: DVB-S2X
- capacity: 550GB/day





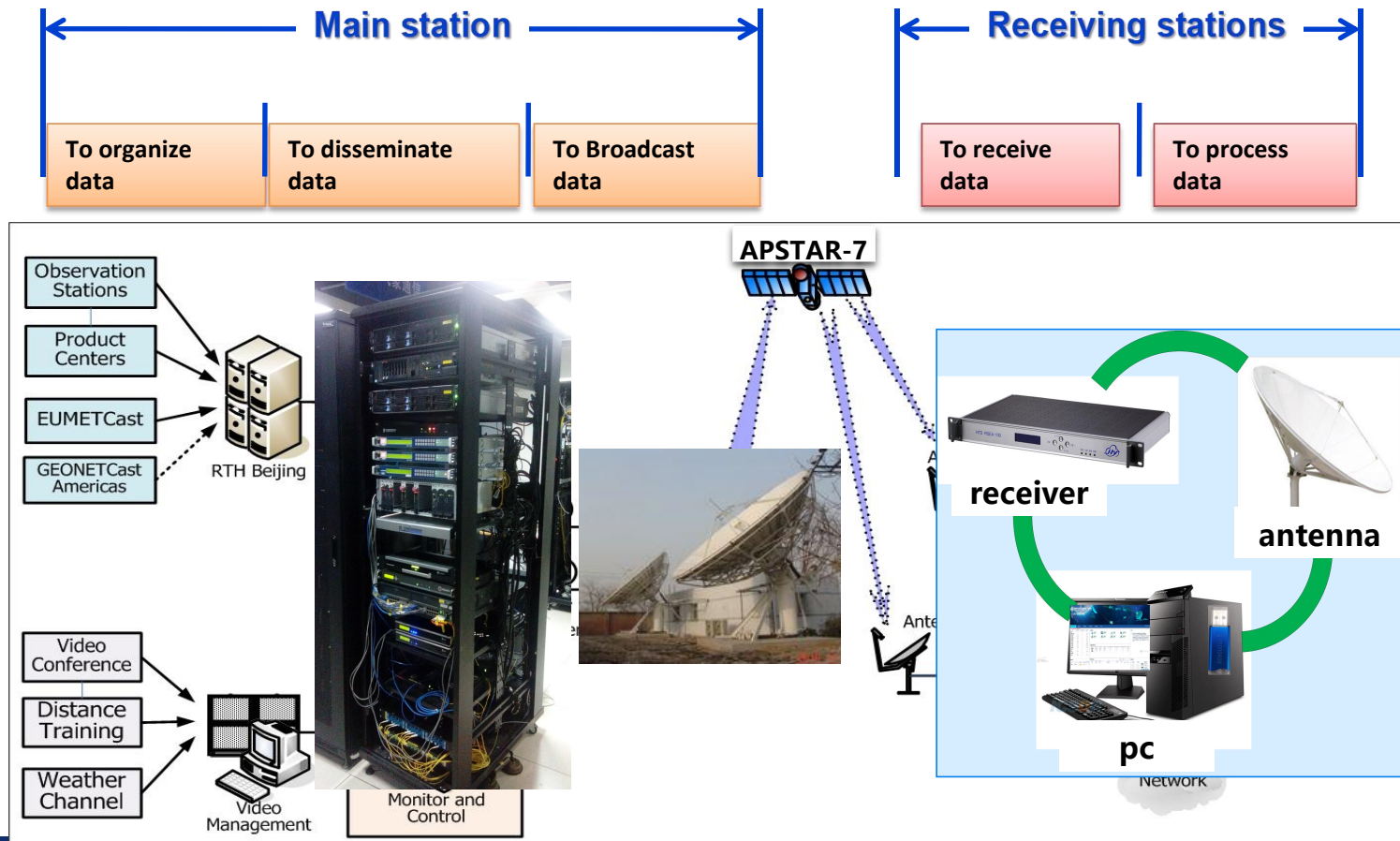
Structure of CMACast system CMA

CMACast provides the most effective way to disseminate real-time meteorological data. Meanwhile, oversea users in the Belt and Road region also can access data dissemination services by CMACast.





Structure of CMACast system CMA

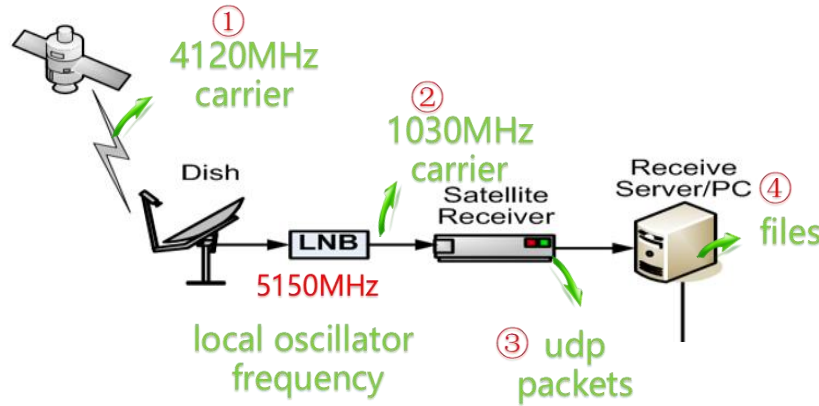
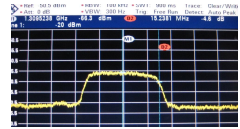




Structure of CMACast system

CMACast broadcast signal parameters:

Content	APSTAR-7 satellite
Orbit position	76.5°E
Transponder	C13A
Bandwidth	36MHz
Downlink carrier center frequency	4120MHz
Receive L band frequency	1030MHz
Downlink polarization	Horizontal
roll-off factor	0.1
Downlink symbol rate	32700KSps
Modulation coding	DVBS2x、 8PSK、 3/4
Data rate	74Mbps



LNB Down conversion: $5150 - 4120 = 1030\text{MHz}$



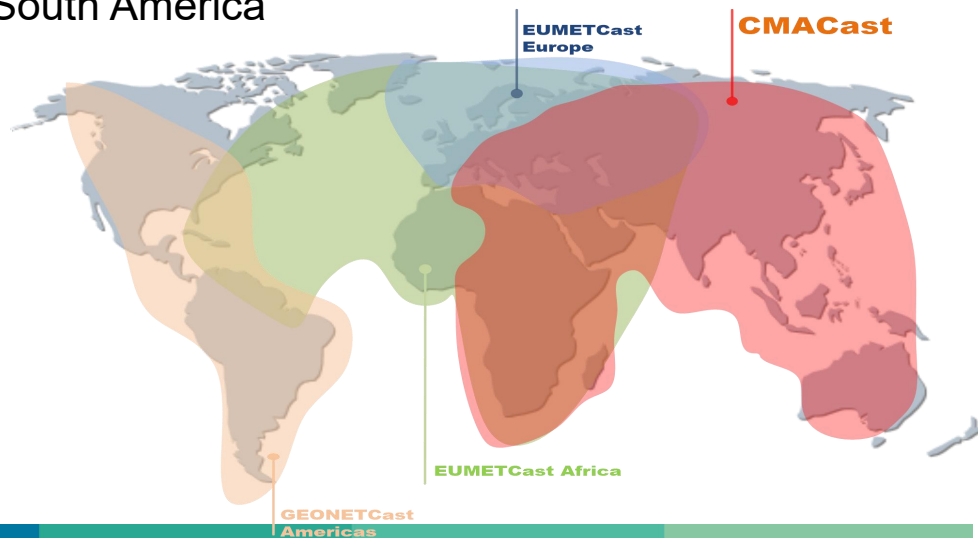
Structure of CMACast system

GEONETCast include:

CMACast (CMA): Asia-pacific, middle east and parts of Africa

EUMETCast (EUMETSAT): Europe, Africa, and parts of Americas

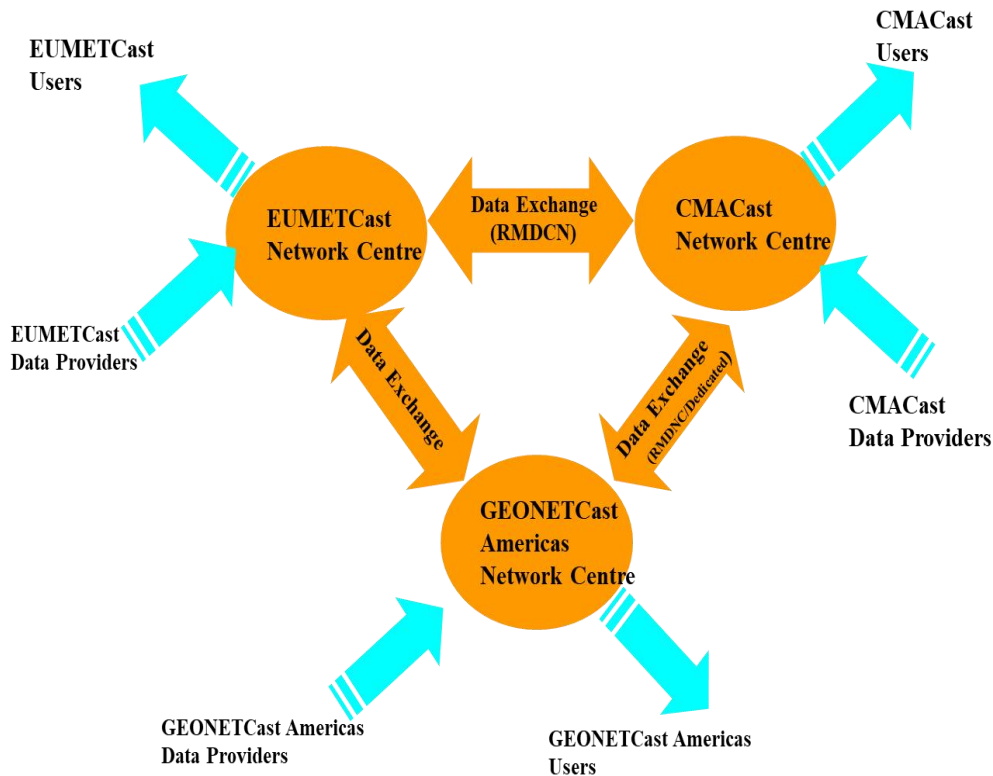
GEONETCast Americas (NOAA): North and South America





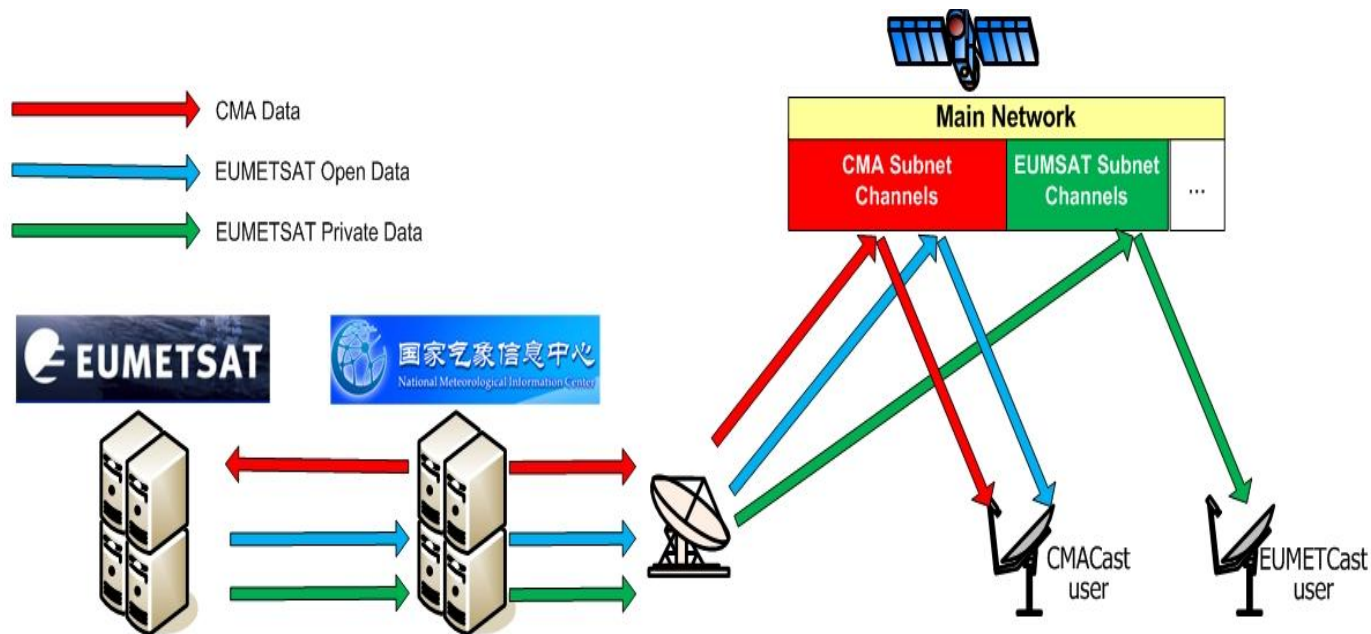
Structure of CMACast system

These three systems are not independent, they exchange data from each other and redistribute for each other.





Structure of CMACast system



CMAcast has one main network and several sub networks.

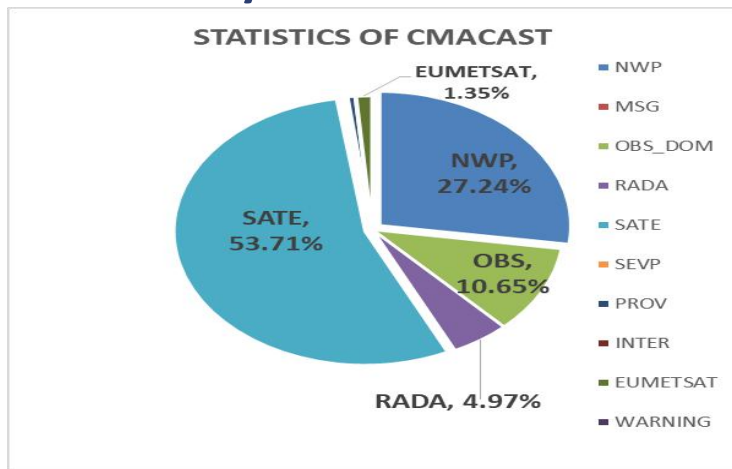
- Main Network is used to configure system, channel and sub network.
- Sub Network is used for user registration and authorization.



Data of CMACast(for international users)

(1)Satellite Broadcast: CMACast broadcasts 12 categories(SATE,NWP,RADA,OBS,WARNING,etc) and 388 sub categories of meteorological data in real-time.

It broadcasts data up to 550GB/day, of which satellite data and products accounted for 53%, the second largest was NWP products , accounting for 27%, followed by domestic observation data, accounting for 11%.



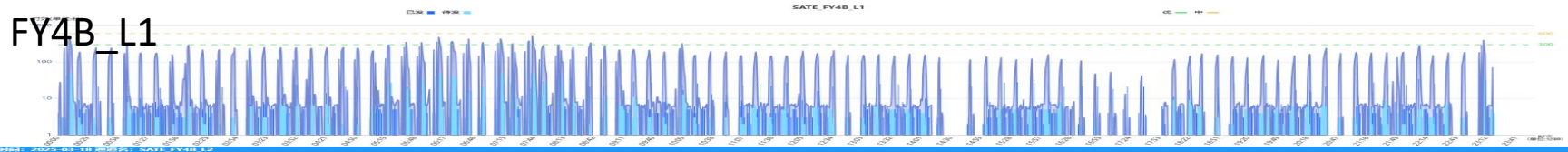
Category	Data and products
GTS data	Warnings Warning for tropical cyclone, tsunami, tornado, severe thunderstorm, volcanic ash clouds ...
	Observations SYNOP; TEMP; PILOT; SHIP; BATHY; BUOY; CLIMAT; AIREP; AMDAR; TRACKOB; TESAC; WAVEOB; SATEM; SARAD; and SATOB.
	Model Products ECMWF, EDZW, RJTD, KWBC
	Fax charts BABJ, EDZW, RJTD
CMA Products	Model products CMA-GRAPES products
	Satellite data FY-2G/2H ,FY3E, FY-4B images and products
Others	Satellite data from EUMETSAT METOP, NOAA, MSG,etc



Data of CMACast

Through priority control and channel statistical multiplexing technology, **high - timeliness** dissemination of satellite data is ensured. Among them, **the average dissemination timeliness of Fengyun level - 1 data is less 1 minute, and that of Fengyun level - 2 data is about a half of minute.**

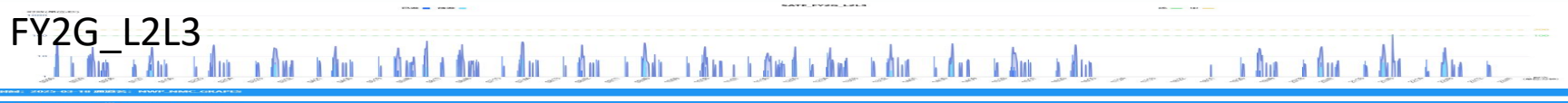
FY4B_L1



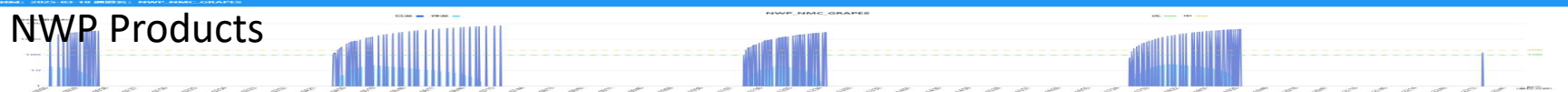
FY4B_L2



FY2G_L2L3



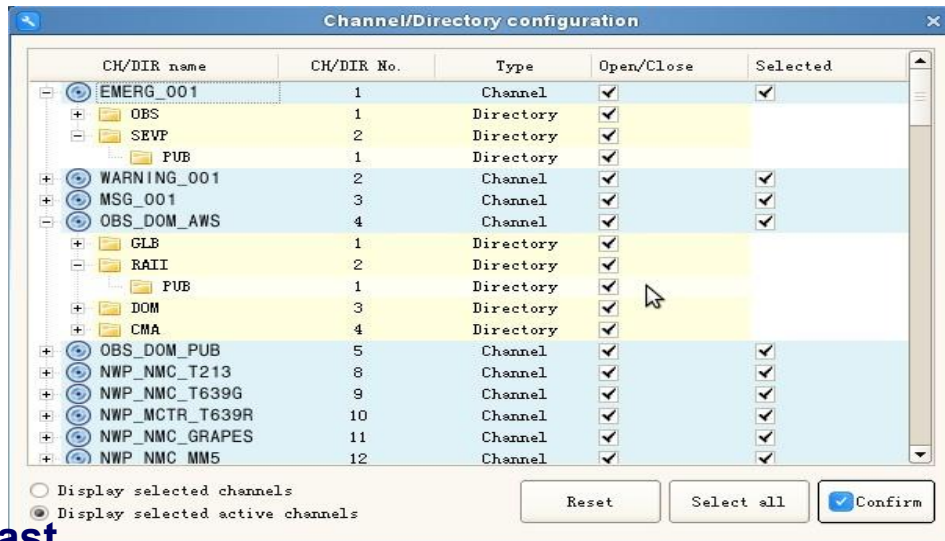
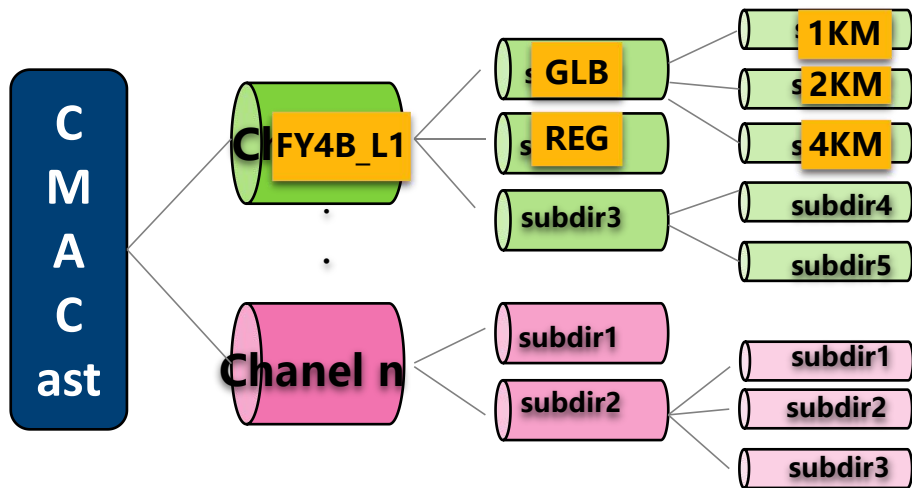
NWP Products





Data of CMACast

Data organization: Different types of data are organized and broadcasted in different logical channels: channel/primary directory/secondary directory.



- Up to 100+ logical channels for file broadcast
- Min, Max bandwidth and priority definition for each channel to Control the timeliness of data distribution
- control the user's permission to receive data, which can be controlled to the second level directory

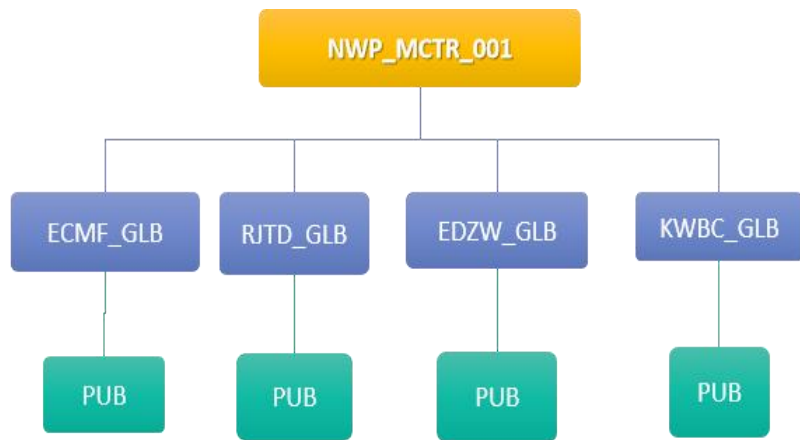


(4) Data of CMACast

Data organization: Different types of data are organized and broadcasted in different logical channels: channel/primary directory/secondary directory.

For example:

NWPs exchanged from other GISC organized in CMACast system.

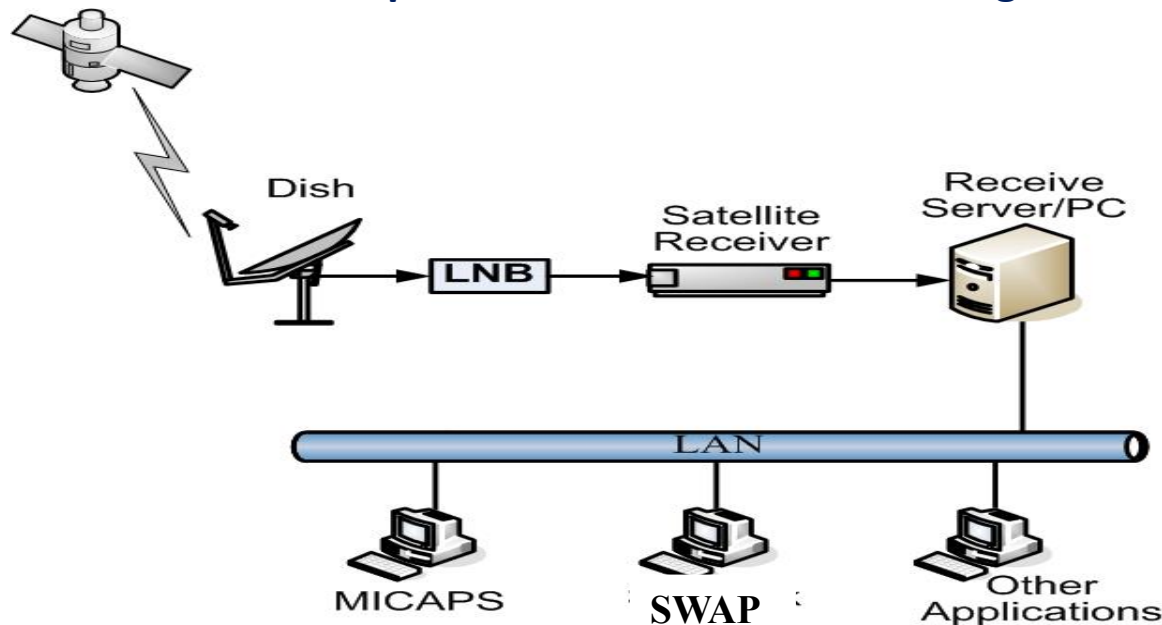


NWP_MCTR_001			
ECMF_GLB			
PUB	A_H????ECMWY00[12]00[CCx]_C_ECMW_YYYYMMDDhhmmss.bin	NWP Products of torrid zone analysis and forecasts from ECMWF	GRI1
	A_H????ECMFY00[12]00[CCx]_C_ECMF_YYYYMMDDhhmmss.bin	NWP Products of northern and southern hemisphere analysis and forecasts from ECMWF	GRI1
RJTD_GLB			
PUB	A_H????RJTD*_C_RJTD_YYYYMMDDhhmmss.bin	NWP Products of northern hemisphere[180-90E] and global analysis and forecasts from JMA	GRI1
EDZW_GLB			
PUB	A_H????EDZW*_C_EDZW_YYYYMMDDhhmmss.bin	NWP Products of northern and southern hemisphere analysis and forecasts from DWD	GRI1
KWBC_GLB			
PUB	A_H????KWBC*_C_KWBC_YYYYMMDDhhmmss.bin	NWP Products of northern and southern hemisphere analysis and forecasts from KWBC	GRI1



Intergrade CMACast System for users

A Comprehensive meteorological service platform for users. All processes, such as data receiving, pushing, processing and showing, are automatic operating according the configurations of user. And provide users a complete set of weather forecasting solutions.



Dish



Receiver



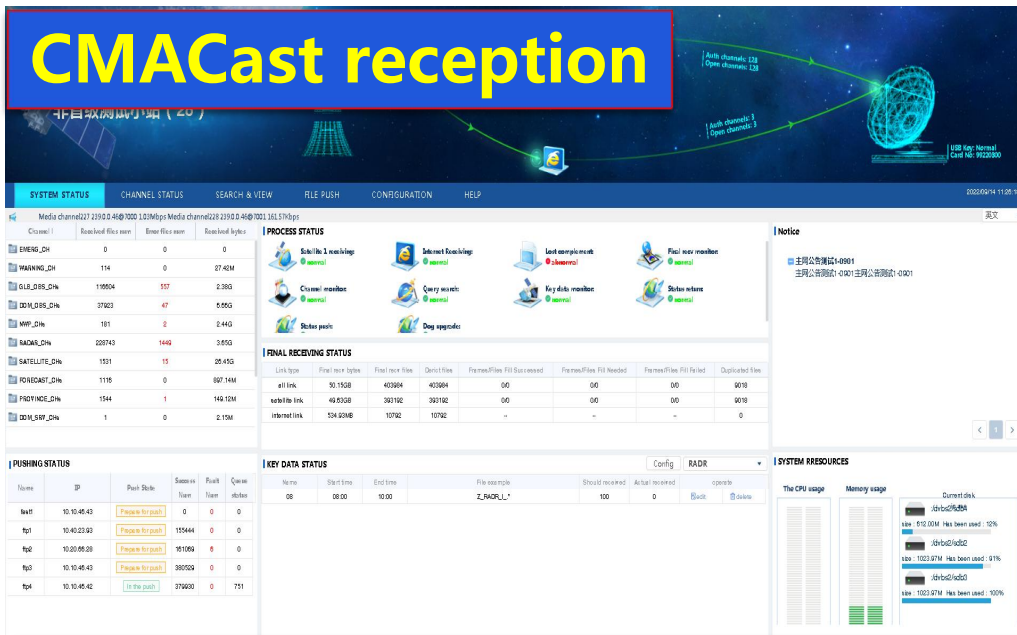
Receive Server

usbkey



Intergrade CMACast System for users

CMACast reception



CMACast (CMA' s satellite broadcast system for met data) is a met data broadcast system, including data broadcast main station and data receive terminal station.

Application Software:

➤ CMACast Reception Software(PC1)

- ingest and decrypt digital stream
- regenerate data and products
- push data to destination in real time
- monitor operation status

➤ MICAPS(PC2)

- graphics workbench for forecaster
- Micaps Data Server Software

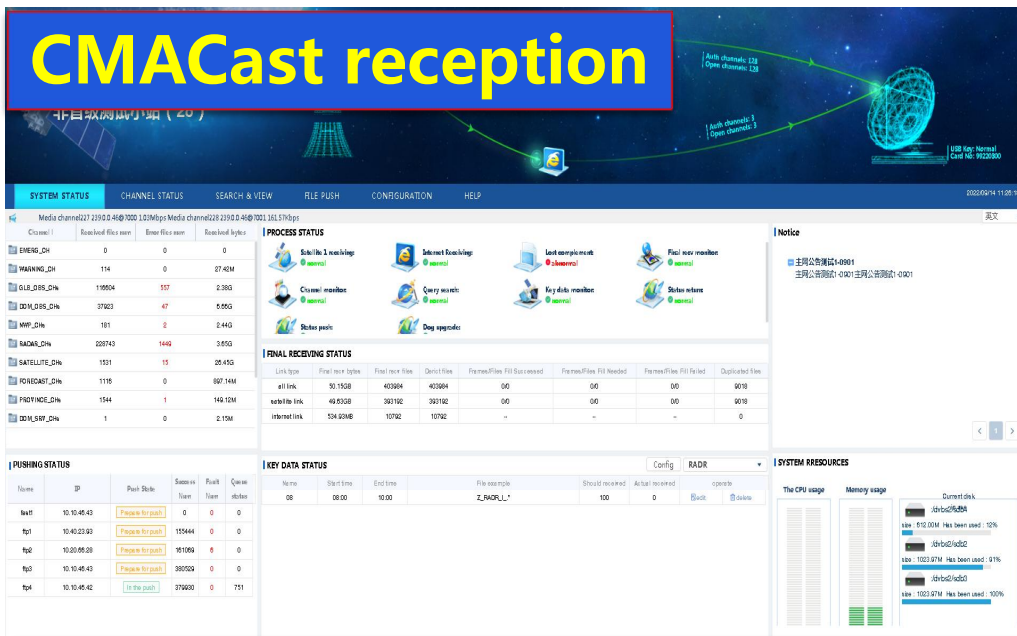
➤ SWAP(PC3)

- image processing tools
- overlay GIS information
- generate products by interactive processing



Intergrade CMACast System for users

CMACast reception

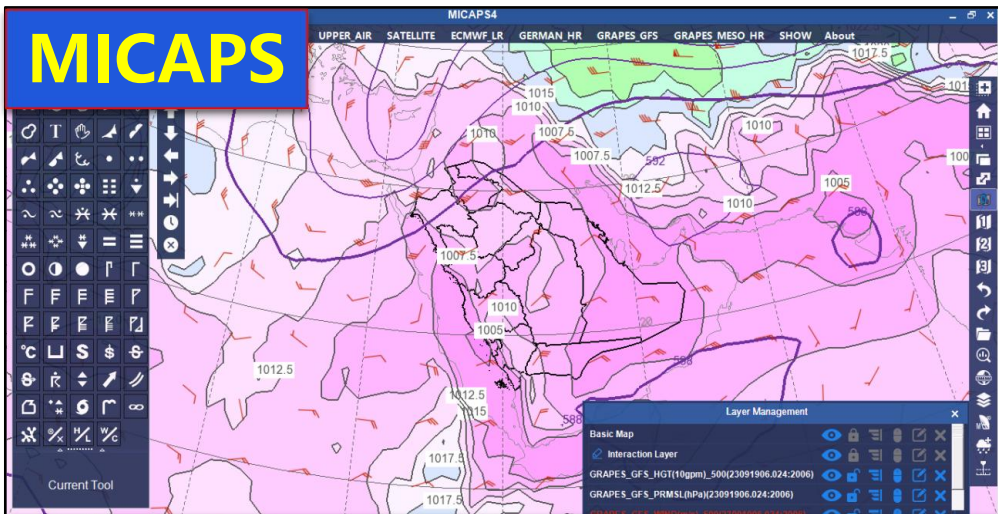


Main function:
Broadcasted data receiving , pushing to other application platform and monitor receiving status.

CMACast (CMA' s satellite broadcast system for met data) is a met data broadcast system, including data broadcast main station and data receive terminal station.



Intergrade CMACast System for users



MICAPS (Meteorological Information Comprehensive Analysis Process System) is a modern full-purpose forecaster workstation system for processing and displaying meteorological data. It is specifically designed for modern “completing forecasting process” operations, from nowcasting to medium-range forecasting.

Application Software:

➤ CMACast Reception Software(PC1)

- ingest and decrypt digital stream
- regenerate data and products
- push data to destination in real time
- monitor operation status

➤ MICAPS (PC2)

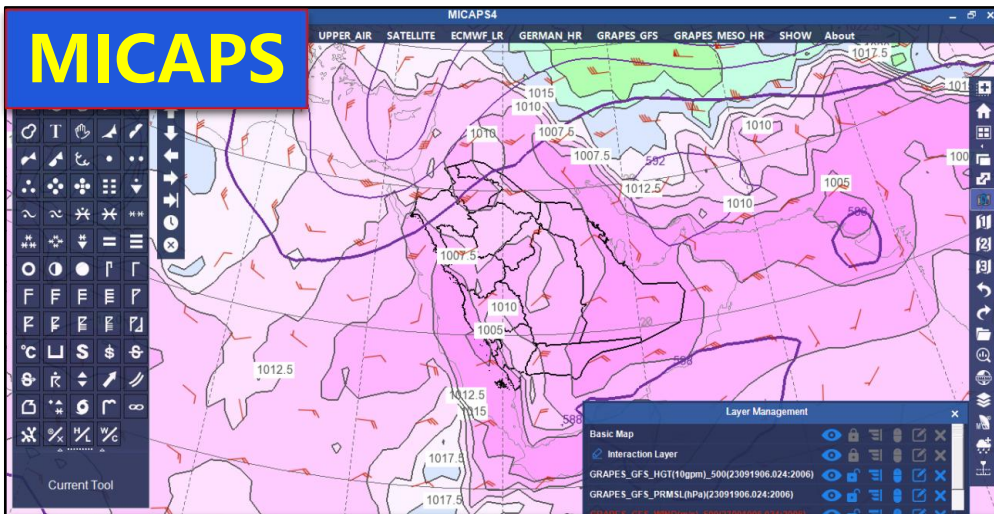
- graphics workbench for forecaster
- Micaps Data Server Software

➤ SWAP(PC3)

- image processing tools
- overlay GIS information
- generate products by interactive processing



Intergrade CMACast System for users



MICAPS (Meteorological Information Comprehensive Analysis Process System) is a modern full-purpose forecaster workstation system for processing and displaying meteorological data. It is specifically designed for modern “completing forecasting process” operations, from nowcasting to medium-range forecasting.

Main function:
Process and visualize meteorological data and provide an interactive interface for forecasters to weather forecast.



(5) Intergrade CMACast System for users

SWAP



SWAP (Satellite Weather Application Platform) is a comprehensive operational platform focusing on geostationary meteorological satellites, realizing comprehensive display of FY series satellite data.

Application Software:

➤ **CMACast Reception Software(PC1)**

- ingest and decrypt digital stream
- regenerate data and products
- push data to destination in real time
- monitor operation status

➤ **MICAPS (PC2)**

- graphics workbench for forecaster
- Micaps Data Server Software

➤ **SWAP(PC3)**

- image processing tools
- overlay GIS information
- generate products by interactive processing



Intergrade CMACast System for users

SWAP



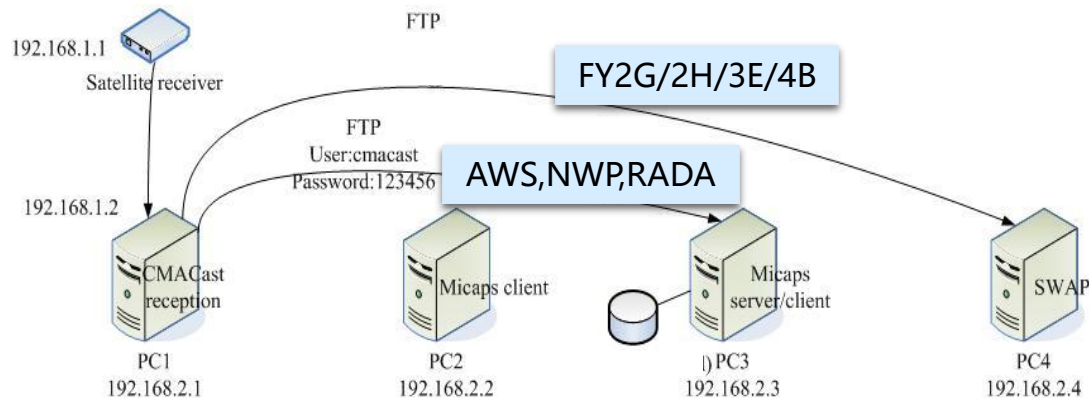
SWAP (Satellite Weather Application Platform) is a comprehensive operational platform focusing on geostationary meteorological satellites, realizing comprehensive display of FY series satellite data.

Main function:
Processing satellite data ,generating and displaying various types of satellite cloud maps (animation).



Intergrade CMACast System for users

Data flow:



Application Software:

➤ CMACast Reception Software(PC1)

- ingest and decrypt digital stream
- regenerate data and products
- push data to destination in real time
- monitor operation status

➤ Micaps(PC2)

- graphics workbench for forecaster
- Micaps Data Server Software

➤ SWAP(PC3)

- Image processing tools
- overlay GIS information
- generate products by interactive processing



The image displays a collage of overlapping screenshots from various WhatsApp chat windows. The chats are from different countries and groups, including:

- Myanmar CMCast (11)**: Shows a contact named 'pa pa son' and a message 'They d'.
- Maldives CMCast (10)**: Shows a contact named 'Shareef Ali' and a message 'They d'.
- PMD CMCast (14)**: Shows a contact named 'Shareef Ali' and a message 'They d'.
- Mongolia CMCast (7)**: Shows a contact named 'Unubolo' and a message 'hello db??'.
- CMCast DHM NEPAL (15)**: Shows a contact named 'Unubolo' and a message 'hello db??'.
- Malaysia CMCast (11)**: Shows a contact named 'Mahari' and a message 'Hello Mr. Lu'.
- TMD CMCast Thailand (4)**: Shows a contact named 'Mahari' and a message 'Hello Mr. Lu'.
- Philippines CMCast (7)**: Shows a contact named 'Rolymer' and a message 'Hello, now SWAP data'.
- Iran CMCast (6)**: Shows a contact named 'Rolymer' and a message 'Hello, now SWAP data'.
- Uzbekistan CMCast (7)**: Shows a contact named 'Rolymer' and a message 'Hello, now SWAP data'.
- Azerbaijan**: Shows a contact named 'Rolymer' and a message 'Hello, now SWAP data'.

The messages in the chats are in English and Chinese, often mentioning satellite services and antennas. For example, in the 'Uzbekistan CMCast (7)' chat, a message says: 'Manual for satellite antenna switching of CM-1845K'. In the 'Azerbaijan' chat, a message says: 'Manual for satellite antenna switching of CM-1845K'. In the 'Philippines CMCast (7)' chat, a message says: 'Hello, now SWAP data'.





International users of CMACast

And with the enlarge of CMACast broadcasting coverage from Asia Pacific to the Middle East and Africa, CMACast has opened services to all users in the aforementioned regions.

CMACast Helpdesk provides international users with free technical guidance for installation of CMACast reception station, free application software and encryption USBKey for data receiving.



CMACast Helpdesk:

Email: cmacast@cma.gov.cn

China Meteorological Administration 46,
Zhongguancun Nandajie, Beijing 100081, China
Tel: +86 10 68406543

Thanks for your attention!





02

How to become a CMAACast user?



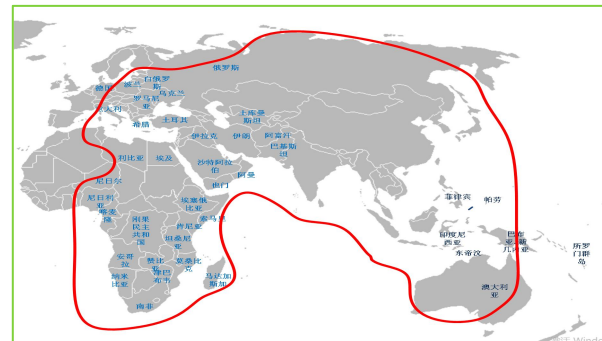


(1) Confirm whether it is within the CMACast coverage area

(1) Users need to check whether their location is within the CMACast coverage area firstly.

Communication Satellite : APSTAR-7

Project	APSTAR-7 satellite
Orbit position	76.5°E
Carrier center frequency	4120MHz
Bandwidth	36MHz
Downlink polarization	Horizontal
Downlink symbol rate	32700KSpS
Modulation coding	8PSK、3/4
Data rate	70Mbps



(2) Calculate the angles of your antenna-pointing.
Access this URL, and find the antenna-pointing angle of your location.

<https://www.apstar.com/en/antenna-pointing-angle-calculation/>

note: If the antenna elevation angle is less than 10 degrees, installation is not recommended.

APSTAR

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Tools

ANTENNA POINTING ANGLE CALCULATION

SATELLITE CENTRE OF BOX

Satellite

- ☐ APSTAR-5C (138°E)
- ☐ APSTAR-6C/4D (134°E)
- ☒ APSTAR-7 (76.5°E)
- ☐ APSTAR-9 (142°E)

Ground Station(Coordinate)

NIGERIA,PORT HARCOURT

Longitude(E)

7.17

Latitude

4.72

☒ North ☐ South

Submit

Elevation: 12.09 Degree

Azimuth: 93.78 Degree

Poli: -85.03 Degree

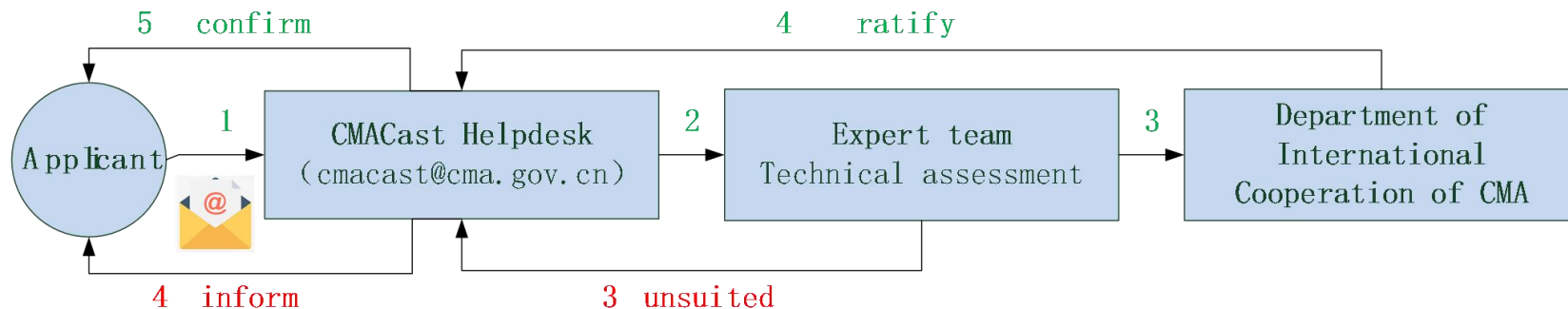


(2) Application for CMACast system



How to become a CMACast user?

Application process:



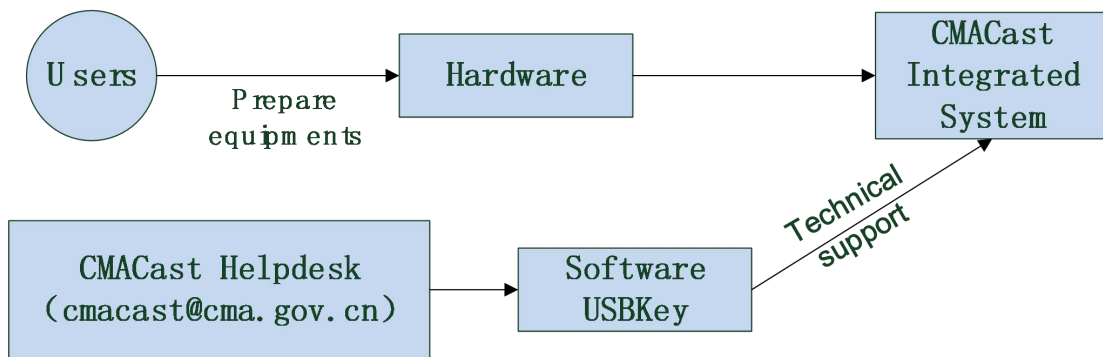


(2) Your preparation for install the CMACast system



How to become a CMACast user?

required work:



Users: *prepare system hardware equipment*

CMACast Helpdesk: *provide application software, USBKey and technical support.*



(2) Install the CMACast system

(1) To find a location for installing the antenna, ensuring no obstruction in the direction pointing to the satellite.

(2) install the hardware and software of the CMACast system.



No.	Equipments	quantity	Description
1	antenna	1	C Band; Aperture:2.4-3.7m
2	LNB	1	C Band(3.7-4.2GHz)
3	Satellite receiver	1	DVB-S2(MPE) novra 400Pro HTD-100
4	PCs	2	linux (receive software micaps server)
	PC	1	windows (micap client swap)



Contact us

If you have any question about CMACast or you want to become CMACast user, please do not hesitate to contact us.

**National Meteorological Information Centre (WMO
GISC Beijing)**

**China Meteorological Administration
46,Zhongguancun Nandajie, Beijing 100081, China**

E-mail: cmacast@cma.gov.cn



03

How to install CMAACast antenna





(1) Satellite Antenna Pointing Operation

Required Equipment:

- A dish antenna suitable for C-Band frequencies
- LNB (Low-Noise Block Downconverter) designed for C-Band
- Coaxial cable
- Satellite Signal Meter (finder) or Spectrum Analyzer
- Digital Satellite Receiver (DSR)
- Tools for mounting and aligning the antenna

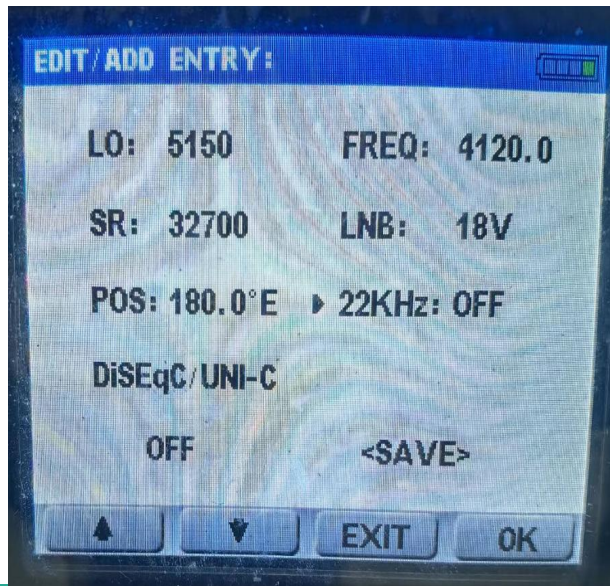


(1) Satellite Antenna Pointing Operation

Finding CMACast C-Band Signal

Satellite Signal Meter (finder) Setup: The parameters of satellite finder equipment are set as follows:

- **Local frequency:** 5150MHz;
- **Downlink carrier center frequency:** 4120MHz;
- **Symbol rate:** 32700Ksps;
- **Power supply for LNB:** horizontal or vertical
- Other parameters are set to default values.



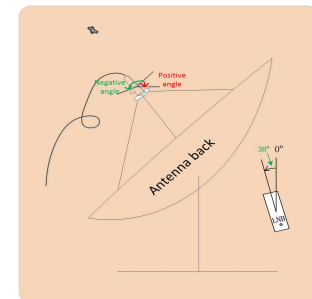
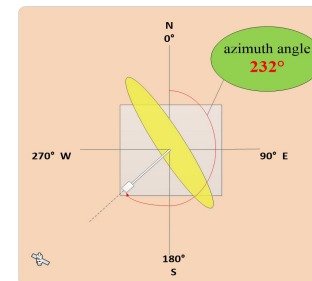
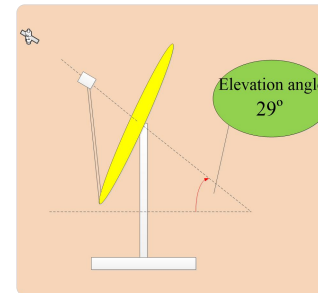


(1) Satellite Antenna Pointing Operation

Finding the signal by satellite finder

Step as followed :

1. Determine Satellite Position
2. Setup and Physical Alignment
3. Connect the Signal Meter
4. Power on and Configure the Signal Meter
5. Slowly Sweep the Sky
6. Elevation Fine-Tuning
7. Lock the Position
8. Verify on the Receiver
9. Weatherproof Connections





(1) Satellite Antenna Pointing Operation

Finding the signal by satellite finder

1. Determine Satellite Position

Calculate the azimuth (horizontal angle), elevation (vertical angle) and polarization for your specific location using satellite pointing calculators online. These angles will give you a general direction to point your satellite dish.

Access this URL, and find the antenna-pointing angle of your location.

<https://www.apstar.com/en/antenna-pointing-angle-calculation/>

1. Select APSTAR-7
2. Choose your location
/ Enter latitude and longitude
information directly
3. Get the angles for your antenna

APSTAR
by KKT MEDIA

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TOOLS CENTER

TOOLS

ANTENNA POINTING ANGLE CALCULATION

SATELLITE CENTRE OF BOX

Satellite

☐ APSTAR-5C (138°E)

☐ APSTAR-5C/6D (134°E)

☒ APSTAR-7 (26.0°E)

☐ APSTAR-7 (149°E)

Ground Station (Coordinate)

Longitude (E)

Latitude

☒ North ☐ South

Elevation: 12.09 Degree

Azimuth: 91.76 Degree

Pol: 85.01 Degree



(1) Satellite Antenna Pointing Operation

Finding the signal by satellite finder

2.Setup and Physical Alignment

Mount the dish firmly, ensuring it's not wobbly.

Set the elevation (up and down angle) of the dish according to the calculation from the previous step. Turn the dish to the approximate azimuth (left and right angle).

3.Connect the Signal Meter

Attach one end of a coaxial cable to the "LNB IN" or similar port on the signal meter.

Connect the other end to the LNB (Low Noise Block) on your satellite dish. This is the receiving component at the focus of the dish.



(1) Satellite Antenna Pointing Operation

Finding C-band signal by satellite finder

4. Power on and configure the Signal Meter:

Some signal meters may allow you to input specific satellite and transponder frequencies. If so, set your meter to the APSTAR-7 C-band frequency you're looking to lock onto.

Ensure the polarization (either Horizontal or Vertical) matches the transponder's requirement.

5. Slowly Sweep the Sky

Start with the general azimuth direction you got earlier.

Slowly move the dish left and right in small increments.

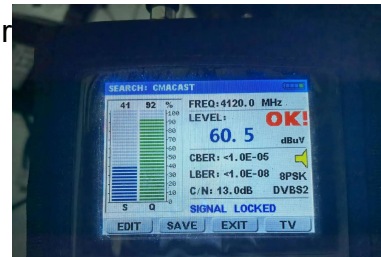
Monitor the signal meter for any increase in signal strength or quality.

Once you detect a signal, fine-tune the dish's position to maximize the signal's strength and quality on the meter.

Also, adjust the LNB skew (rotation of the LNB) for maximum signal if necessary.

6. Elevation Fine-Tuning:

If you're not getting a good signal or the right satellite, you might want to slightly adjust the elevation of the dish, then sweep again.





(1) Satellite Antenna Pointing Operation

Finding C-band signal by satellite finder

7. Lock the Position:

Once you have achieved the best possible signal, firmly tighten all the bolts and screws on the satellite dish mount to ensure it remains in position.

Disconnect the Meter and Connect Receiver:

Once you're confident in the alignment, disconnect the signal meter and connect the LNB to your satellite receiver or television system.

8. Connect the Receiver:

Turn on your satellite receiver and ensure you're receiving a clear signal from the desired transponder on APSTAR-7.

9. Weatherproof Connections:

It's important to weatherproof any exposed connections to prevent water or moisture ingress. You can use self-amalgamating tape or waterproof rubber boots for this.

A faint, light blue network diagram with nodes and connecting lines is visible in the background of the slide.

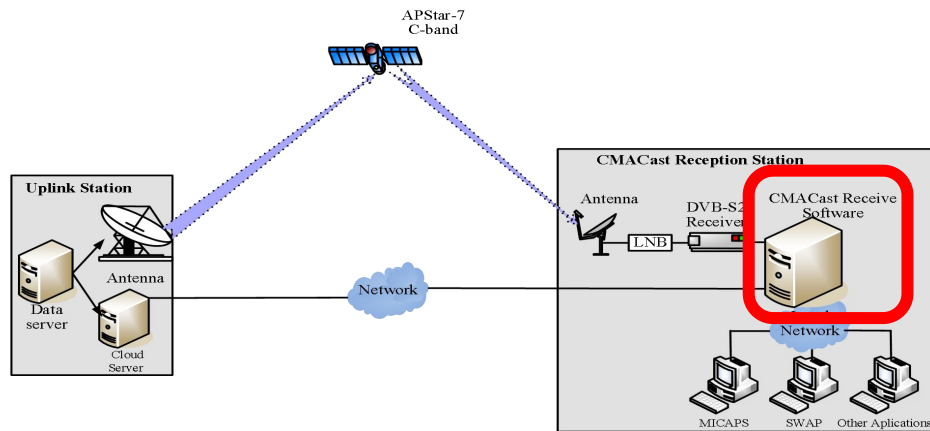
04

How to install CMAACast receive software



What is required before installation?

- 1、Antenna, receiver, and network are all deployed.
- 2、The operating system of data receiving server is installed.



CONTENTS

- 01** | **Hardware Environment**
- 02** | **Software Environment**
- 03** | **Software Installation**
- 04** | **Configuration of Logs**





Hardware Environment

❑ 1.Server Configuration

Serial No	name	OS	version	quantity
1	PC Server	Linux	Suse 11 sp4 or above (64 bit)	1 set
Hardware Configuration of Server				

technical parameter	Minimum configuration requirements	quantity
CPU	I7-7700 (3.6GHz/4c/8M/2400/65W/GT2)	2
Memory	32GB DDR4 UDIMM 2400MHz	1
SATA hard disk	4TB SATA	1
network card	1000M	4
Recommended Configurations of Server		





Hardware Environment

❑ 2.Disk Configuration

Partition name	Physical partition	size	file format	Mount point
Root partition	/dev/sda 1	Not less than 50GB	Ext3	/
swap	/dev/sda 2	Not less than 32GB	Swap	Swap
hidden partition	/dev/sda 3			
Primary partitions include "/" (root partition), "swap" (swap partition), and hidden partition . After the main partition is built, the remaining space is given to the extended partition.				
Extended	/dev/sda	All remaining space		





Hardware Environment

❑ 2.Disk Configuration

Partition name	Physical partition	size	file format	Mount point
Data partition 1	/dev/sda5	Not less than 100GB	Reiser or EXT3/4	/dvbs2/sdb1
Data partition 2	/dev/sda6	Not less than 100GB	Reiser or EXT3/4	/dvbs2/sdb2
Data partition 3	/dev/sda7	Not less than 100GB	Reiser or EXT3/4	/dvbs2/sdb3
Data partition 4	/dev/sda8	Not less than 100GB	Reiser or EXT3/4	/dvbs2/sdb4

The disk partitions of the server.

The extended partition includes four data partitions for storing data, and the mount points are shown in the table.

TIPS: The data partition of the Suse11 system uses the Reiser file format.
The data partition of the Suse12 or Suse15 system uses the ext3 or 4 file format.





Hardware Environment

❑ 2.Disk Configuration

Partition name	Physical partition	size	file format	Mount point
Data partition 1	/dev/sda5	Not less than 100GB	Reiser or EXT3/4	/dvbs2/sdb1
Data partition 2	/dev/sda6	Not less than 100GB	Reiser or EXT3/4	/dvbs2/sdb2
Data partition 3	/dev/sda7	Not less than 100GB	Reiser or EXT3/4	/dvbs2/sdb3
Data partition 4	/dev/sda8	Not less than 100GB	Reiser or EXT3/4	/dvbs2/sdb4

IMPORTANT : Make sure that the four disks are mounted at the mount point according to the table.





Hardware Environment

❑ 2.Disk Configuration

Partition name	Physical partition	size	file format	Mount point
Data partition 3	/dev/sda7	Not less than 100GB	Reiser or EXT3/4	/dev/s2/sda3

IMPORTANT: Make sure that the four disks are mounted at the mount point according to the table.

NOTE: these data disks will automatically wipe the data, so it is recommended to push the received data to the application server as soon as possible, and not to use the data directly on the receiving data server.





Hardware Environment

❑ 3.Network environment

Servers are configured with **multiple network cards**. The network card configurations and purposes are as follows:

No.	IP address	purpose
1	192.168.1.2	Connect with satellite receiver to receive data
2	x.x.x.x	Used to push data to other servers.
3	x.x.x.x	Internet address, which is used to supplement lost data and download data from the Internet platform in case of emergency.
4		spare

network card configurations





Software Environment

The recommended configuration of software environment is as follows (it may be adjusted according to the actual situation):

Software environment				
No.	name	type	edition	explain
1	operating system	Linux	Suse linux 11 sp4 or above	
2	ifconfig			system-provided
3	tar			system-provided
4	gcc		4.3.4 or above	system-provided



Software Environment

The recommended configuration of software environment is as follows (it may be adjusted according to the actual situation):

No.	name	type	edition	explain
5	Java	JDK	JDK1.8 or above	In the software installation package , /home/cmacast2/tool/
6	Dongle	Dongle drive	senseshield-2.4.0.54437-1.x86_64.rpm	
7	SQLite			system-provided
8	SpringBoot		2.2.6.RELEASE	system-provided





Software Installation

There are **five steps** to installing the CMACast software.

Step 1. Check and confirm the installation environment

Step 2. Install software

Step 3. software configuration

Step 4. Get Authorized

Step 5. Start software





Software Installation

❑ Step 1. Check and confirm the installation environment

(1) Check the operating system version.

Command : **cat /etc/issue**

The command execution result is shown:

```
CMACast-T01:~ # cat /etc/issue
```

```
Welcome to SUSE Linux Enterprise Server 11 SP4 (x86_64) - Kernel \r (\l).
```

```
CMACast-T01:~ # █
```





Software Installation

❑ Step 1. Check and confirm the installation environment

(2) Check the gcc version.

Command : **gcc -v**

The command execution result is shown:

```
CMACast-T01:~ # gcc -v
Using built-in specs.
Target: x86_64-suse-linux
Configured with: ../configure --prefix=/usr --infodir=/usr/share/info --mandir=/usr/share/man --libdir=/usr/lib64 --libexecdir=/usr/lib64 --enable-languages=c,c++,objc,fortran,obj-c++,java,ada --enable-checking=release --with-gxx-include-dir=/usr/include/c++/4.3 --enable-ssp --disable-libssp --with-bugurl=http://bugs.opensuse.org/ --with-pkgversion='SUSE Linux' --disable-libgcj --disable-libmudflap --with-slibdir=/lib64 --with-system-zlib --enable-__cxa_atexit --enable-libstdcxx-allocator=new --disable-libstdcxx-pch --enable-version-specific-runtime-libs --program-suffix=-4.3 --enable-linux-futex --without-system-libunwind --with-gnu-cpu=generic --build=x86_64-suse-linux
Thread model: posix
gcc version 4.3.4 [gcc-4_3-branch revision 152973] (SUSE Linux)
CMACast-T01:~ #
```





Software Installation

❑ Step 1. Check and confirm the installation environment

(3) Check the IP address of the network card (please configure the network card according to page 12)

Command : **ifconfig**

The command execution result is shown:

```
CMACast-T01:~ # ifconfig
eth0      Link encap:Ethernet  HWaddr 00:0C:29:49:29:4C
          inet addr:192.168.232.159  Bcast:192.168.232.255  Mask:255.255.255.0
          inet6 addr: fe80::20c:29ff:fe49:294c/64 Scope:Link
          UP BROADCAST RUNNING MULTICAST  MTU:1500  Metric:1
          RX packets:4491074 errors:0 dropped:0 overruns:0 frame:0
          TX packets:9064909 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:2578322006 (2458.8 Mb)  TX bytes:21491780272 (20496.1 Mb)

lo        Link encap:Local Loopback
          inet addr:127.0.0.1  Mask:255.0.0.0
          inet6 addr: ::1/128 Scope:Host
          UP LOOPBACK RUNNING  MTU:65536  Metric:1
          RX packets:580 errors:0 dropped:0 overruns:0 frame:0
          TX packets:580 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:0
          RX bytes:34800 (33.9 Kb)  TX bytes:34800 (33.9 Kb)

CMACast-T01:~ #
```





Software Installation

❑ Step 1. Check and confirm the installation environment

(3) Check the IP address of the network card (please configure the network card according to page 12)

If the network card is not configured this way, you can configure it in yast on your server under 'Network Devices' -> 'Network Settings'.



Tips:

The IP address of satellite receiver is 192.168.1.1, so the IP of data reception server connected to the satellite receiver must be in the same network segment (the default setting is: 192.168.1.2).





Software Installation

□ Step 2. Install software

(1) Check the disk partition to ensure that the four disk partitions exist, and it matches the mount point written on [page 10](#).

Command : **df -h**

The command execution result is shown:

```
CMACast-T01:~/yunwei # df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/sda1        99G   4.5G   90G   5% /
udev             16G   212K   16G   1% /dev
tmpfs            16G   740K   16G   1% /dev/shm
/dev/sda4        1.1T    67M   1.1T   1% /dvbs2/sdb1
/dev/sda5        1.1T    33M   1.1T   1% /dvbs2/sdb2
/dev/sda6        1.1T    33M   1.1T   1% /dvbs2/sdb3
/dev/sda7        363G    33M   362G   1% /dvbs2/sdb4
/dev/sda3        20G   173M   19G   1% /mnt/iso
CMACast-T01:~/yunwei #
```





Software Installation

❑ Step 2. Install software

(2) Use the user 'root' to copy the installation packages to any location under the path '/' (for example: /root/setup, which needs to be created manually).

The command execution result is shown:

```
CMACast-T01:~/setup # pwd
/root/setup
CMACast-T01:~/setup # ll
total 687304
-rw-r--r-- 1 root root 703798273 Mar 28 11:31 cmacast2.tar.gz
CMACast-T01:~/setup #
```

TIPS: The name of the installation package may be different from that shown in the figure. "cmacast2.tar.gz" is taken as an example.





Software Installation

❑ Step 2. Install software

(3) Unpack the compressed package.

Command : **tar -zxvf cmacast2.tar.gz**

The command execution result is shown:

```
CMACast-T01:~/setup # tar -zxvf cmacast2.tar.gz
cmacast2/
cmacast2/cmacast2-install.sh
cmacast2/jiaoben/
cmacast2/jiaoben/1.sh
cmacast2/jiaoben/2.sh
cmacast2/software.tar.gz
CMACast-T01:~/setup # ll
total 687304
drwxr-xr-x 1 root root          82 Mar 28 11:30 cmacast2
-rw-r--r-- 1 root root 703798273 Mar 28 11:31 cmacast2.tar.gz
CMACast-T01:~/setup #
```





Software Installation

❑ Step 2. Install software

(4) Enter the 'cmacast2' directory.

Command : **cd cmacast2**

The command execution result is shown:

```
CMACast-T01:~/setup # cd cmacast2/
CMACast-T01:~/setup/cmacast2 # ll
total 687212
-rwxr-xr-x 1 root root      937 Mar 24 11:10 cmacast2-install.sh
drwxr-xr-x 1 root root       16 Mar 28 11:15 jiaoben
-rw-r--r-- 1 root root 703682577 Mar 28 11:20 software.tar.gz
CMACast-T01:~/setup/cmacast2 #
```





Software Installation

□ Step 2. Install software

(5) Execute the installation script 'cmacast2-install.sh'.

Command : **./cmacast2-install.sh**

The command execution result is shown:

```
CMACast-T01:~/setup/cmacast2 # ./cmacast2-install.sh
* 1 : 省级小站安装部署
* Input 1 for Installation for provincial reception
* 2 : 市县级小站安装部署
* Input 2 for Installation for Oversea reception and other reception
* 3 : 退出
* Input 3 for Quit
Input the type of reception software to be installed:
*请选择需要安装的软件(序号): █
```





Software Installation

□ Step 2. Install software

(6) Enter type number '2', and press Enter to create account 'cmacast2' automatically. The default password is cmacast@2022.

The command execution result is shown:

```
CMACast-T01:~/setup/cmacast2 # ./cmacast2-install.sh
* 1 : 省级小站安装部署
* Input 1 for Installation for provincial reception
* 2 : 市县级小站安装部署
* Input 2 for Installation for Oversea reception and other reception
* 3 : 退出
* Input 3 for Quit
Input the type of reception software to be installed:
*请选择需要安装的软件(序号): 2
开始部署
Start installation
1.开始创建cmacast2账号
创建账号完成
#####
2.开始创建程序所需目录
mkdir: created directory '/dvbs2'
mkdir: created directory '/dvbs2/sdb1'
mkdir: created directory '/dvbs2/sdb1/cmacast2'
mkdir: created directory '/dvbs2/sdb1/cmacast2/workdir'
mkdir: created directory '/dvbs2/sdb1/cmacast2/workdir/cache'
mkdir: created directory '/dvbs2/sdb1/cmacast2/workdir/RLTask'
mkdir: created directory '/dvbs2/sdb1/cmacast2/workdir/RLFailedTask'
mkdir: created directory '/dvbs2/sdb1/cmacast2/workdir/RLFailedCache'
mkdir: created directory '/dvbs2/sdb1/cmacast2/workdir/cmacast'
mkdir: created directory '/dvbs2/sdb1/cmacast2/workdir/internet'
mkdir: created directory '/dvbs2/sdb2'
```





Software Installation

□ Step 2. Install software

(7) Select the IP address to receive multicast data. You should select '0' to skip this step. (Because your station does not support receiving multicast data)

The command execution result is shown:

```
4. 开始修改相关配置
Start configuration
*****
* 请选择地面组播数据接收的网卡地址(对应组播配置文件/home/cmacast2/cfg/MulticastClient.ini的LocalIp字段值)
* Please select the network card address for terrestrial data receive (The 'local ip' field value in multica
stclient.ini under the direction as below: /home/cmacast2/cfg/ )
* 0 : 跳过, 稍后手动修改ip地址(/home/cmacast2/cfg/MulticastClient.ini中的LocalIp值)
* 0 : Skip and manually modify the IP address later (/home/cmacast2/cfg/MulticastClient.ini 's 'Local ip' v
alue)
* 1 : 192.168.232.159
* 2 :
* 3 :
* 4 :
* 5 :
* 6 :
* 7 :
* 8 :
*****
Please select the IP address (number):
*请选择安装的IP地址(序号): 0
```





Software Installation

□ Step 2. Install software

(8) Select number of network card address for **connecting the satellite receiver**.

The network card address must be configured before installation. If it is not configured, you can skip manually and modify the IP address later in the configuration file '**mediarecv.ini**' .

The command execution result is shown:

```
* 请选择卫星数据接收的网卡地址(对应/home/cmacast2/cfg/mediarecv.ini的LocalIP字段值)
* Please select the network card address for connecting the satellite receiver (The 'local ip' field value in mediarecv.ini under the direction as below: /home/cmacast2/cfg/ )
* 0 : 跳过 稍后手动修改ip地址 ( /home/cmacast2/cfg/mediarecv.ini 中的localIP值 )
* 0 : Skip and manually modify the IP address later ( 'Local ip' value/home/cmacast2/cfg/mediarecv.ini )
* 1 : 192.168.232.159
* 2 :
* 3 :
* 4 :
* 5 :
* 6 :
* 7 :
* 8 :
*****
Please select the IP address (number)
*请选择安装的IP地址(序号) 1
修改mediarecv.ini文件完成
Finished configuration of mediarecv.ini.
```





Software Installation

□ Step 2. Install software

(8) Select number of network card address for **connecting the satellite receiver**.

The network card address must be configured before installation. If it is not configured, you can skip manually and modify the IP address later.

The command execution result is shown:

```
* 请选择卫星数据接收的网卡地址(对应/home/cmacast2/cfg/mediarecv.ini的LocalIP字段值)
* Please select the network card address for connecting the satellite receiver (The 'local ip' field value in mediarecv.ini under the direction as below: /home/cmacast2/cfg/ )
* 0 : 跳过, 稍后手动修改ip地址 ( /home/cmacast2/cfg/mediarecv.ini 中的localIP值 )
* 0 : Skip and manually modify the IP address later ( 'Local ip' value/home/cmacast2/cfg/mediarecv.ini )
* 1 : 192.168.232.159
```

The IP address of satellite receiver is **192.168.1.1**, so the network card connected to the satellite receiver must be in the same network segment (the default setting is: 192.168.1.2).

```
*****
Please select the IP address (number)
*请选择安装的IP地址(序号) 1
修改mediarecv.ini文件完成
Finished configuration of mediarecv.ini.
```





Software Installation

❑ Step 2. Install software

(8) Select number of network card address for **connecting the satellite receiver**.

If you choose '0' to skip this configuration, after the software installed , you can modify the parameter '**LocalIP**' in the file '**mediarecv.ini**' under '/home/cmacast2/cfg/' .





Software Installation

❑ Step 2. Install software

(9) Automatically install the dongle driver.

Wait for the installation, The display of "finished installation" indicates that the installation is completed.

The command execution result is shown:

```
Preparing... ##### [100%]
Updating / installing...
 1:senseshield-2.4.0.50200-1 ##### [100%]
[debug] extra.sh: pkg_type=linux
[info] mkdir
[info] copy files
[./config/extra.sh:2022-04-01 16:48:53 1648802933] Version:2.4.0.50200
[./config/extra.sh:2022-04-01 16:48:53 1648802933] add permission
[./config/extra.sh:2022-04-01 16:48:53 1648802933] add service
install success.
[./config/extra.sh:2022-04-01 16:48:54 1648802934] install end
修改相关配置完成
Finished configuration
部署完成
Finished installation
```





Software Installation

❑ Step 3. software configuration

(1) Check that the group of the owner 'cmacast2' is 'cimsgrp'.

Command : **id cmacast2**

The command execution result is shown:

```
CMACast-T01:~/setup/cmacast2 # id cmacast2
uid=9999(cmacast2) gid=1000(cimsgrp) groups=1000(cimsgrp)
CMACast-T01:~/setup/cmacast2 #
```





Software Installation

❑ Step 3. software configuration

(2) Switch to the 'cmacast2' owner, and confirm that all the program directories shown below are in the path /home/cmacast2/.

Command : **su - cmacast2**

Command : **ll**

The command execution result is shown:

```
CMACast-T01:~/setup/cmacast2 # su - cmacast2
cmacast2@CMACast-T01:~> ll
total 0
drwxr-xr-x 1 cmacast2 cimsgrp 680 Mar 28 10:17 bin
drwxr-xr-x 1 cmacast2 cimsgrp 314 Mar 28 11:49 cfg
drwxr-xr-x 1 cmacast2 cimsgrp 2280 Mar 28 11:48 lib
drwxr-xr-x 1 cmacast2 cimsgrp 34 Mar 28 11:47 resourcefile
drwxr-xr-x 1 cmacast2 cimsgrp 80 Mar 28 11:49 software
drwxr-xr-x 1 cmacast2 cimsgrp 58 Mar 21 14:53 tool
cmacast2@CMACast-T01:~> █
```





Software Installation

❑ Step 3. software configuration

(3) Confirm the java version.

Command : **java -version**

The command execution result is shown:

```
cmacast2@CMACast-T01:~> java -version
java version "1.8.0_192"
Java(TM) SE Runtime Environment (build 1.8.0_192-b12)
Java HotSpot(TM) 64-Bit Server VM (build 25.192-b12, mixed mode)
cmacast2@CMACast-T01:~> █
```





Software Installation

□ Step 3. software configuration

(4) Confirm that all the library files shown below are in the path /home/cmacast2/lib/.

Command : **cd /home/cmacast2/lib/**

Command : **ll**

The command execution result is shown:

```
cmacast2@CMACast-T01:~> cd /home/cmacast2/lib/
cmacast2@CMACast-T01:~/lib> ll
总用量 54224
-rwxr-xr-x 1 cmacast2 cimsgrp 1288080 3月 4 09:16 CMACastJNI2.jar
-rwxr-xr-x 1 cmacast2 cimsgrp 667006 3月 4 09:16 libbase_node.a
-rwxr-xr-x 1 cmacast2 cimsgrp 209121 3月 4 09:16 libclientJNI.so
-rwxr-xr-x 1 cmacast2 cimsgrp 63512 3月 4 09:16 libcollectorJNI.so
-rwxr-xr-x 1 cmacast2 cimsgrp 3103312 3月 4 09:16 libcommon.so
-rwxr-xr-x 1 cmacast2 cimsgrp 305922 3月 4 09:16 libdoginfo.so
-rwxr-xr-x 1 cmacast2 cimsgrp 445072 3月 4 09:16 libisal.so
-rwxr-xr-x 1 cmacast2 cimsgrp 445072 3月 4 09:16 libisal.so.2
-rwxr-xr-x 1 cmacast2 cimsgrp 2880587 3月 4 09:16 liblog4cplus-1.0.so.4
-rwxr-xr-x 1 cmacast2 cimsgrp 3480104 3月 4 09:16 liblog4cplus-1.1.so.0
-rwxr-xr-x 1 cmacast2 cimsgrp 3480104 3月 4 09:16 liblog4cplus-1.1.so.0.1.0
```





Software Installation

□ Step 3. software configuration

(4) Confirm that all the library files shown below are in the path `/home/cmacast2/lib/`.

```
-rwxr-xr-x 1 cmacast2 cimsgrp 3638166 3月 4 09:16 liblog4cplus-1.1.so.5
-rwxr-xr-x 1 cmacast2 cimsgrp 662164 3月 4 09:16 liblog4cplus-1.2.so.5
-rwxr-xr-x 1 cmacast2 cimsgrp 662164 3月 4 09:16 liblog4cplus-1.2.so.5.1.4
-rwxr-xr-x 1 cmacast2 cimsgrp 8640200 3月 4 09:16 liblog4cplus.a
-rwxr-xr-x 1 cmacast2 cimsgrp 996 3月 4 09:16 liblog4cplus.la
-rwxr-xr-x 1 cmacast2 cimsgrp 662164 3月 4 09:16 liblog4cplus.so
-rwxr-xr-x 1 cmacast2 cimsgrp 773551 3月 4 09:16 liblog.a
-rwxr-xr-x 1 cmacast2 cimsgrp 1275241 3月 4 09:16 libLogInt.so
-rwxr-xr-x 1 cmacast2 cimsgrp 181217 3月 4 09:16 liblog.so
-rwxr-xr-x 1 cmacast2 cimsgrp 57471 3月 4 09:16 libprotocol.so
lrwxrwxrwx 1 cmacast2 cimsgrp 21 3月 8 13:17 libQt5Common.so -> libQt5Common.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 21 3月 8 13:17 libQt5Common.so.2 -> libQt5Common.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 21 3月 8 13:17 libQt5Common.so.2.0 -> libQt5Common.so.2.0.3
-rwxr-xr-x 1 cmacast2 cimsgrp 183122 3月 4 09:16 libQt5Common.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 20 3月 8 13:17 libQt5Core.so -> libQt5Core.so.5.13.2
lrwxrwxrwx 1 cmacast2 cimsgrp 20 3月 8 13:17 libQt5Core.so.5 -> libQt5Core.so.5.13.2
lrwxrwxrwx 1 cmacast2 cimsgrp 20 3月 8 13:17 libQt5Core.so.5.13 -> libQt5Core.so.5.13.2
```





Software Installation

□ Step 3. software configuration

(4) Confirm that all the library files shown below are in the path /home/cmacast2/lib/.

```
-rw-r--r-- 1 cmacast2 cimsgrp 6535232 3月 4 09:16 libQt5Core.so.5.13.2
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5Decoder.so -> libQt5Decoder.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5Decoder.so.2 -> libQt5Decoder.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5Decoder.so.2.0 -> libQt5Decoder.so.2.0.3
-rw-r--r-- 1 cmacast2 cimsgrp 290786 3月 4 09:16 libQt5Decoder.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5DvbCtrl.so -> libQt5DvbCtrl.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5DvbCtrl.so.2 -> libQt5DvbCtrl.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5DvbCtrl.so.2.0 -> libQt5DvbCtrl.so.2.0.3
-rw-r--r-- 1 cmacast2 cimsgrp 104127 3月 4 09:16 libQt5DvbCtrl.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 25 3月 8 13:17 libQt5MMReceiver.so -> libQt5MMReceiver.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 25 3月 8 13:17 libQt5MMReceiver.so.2 -> libQt5MMReceiver.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 25 3月 8 13:17 libQt5MMReceiver.so.2.0 -> libQt5MMReceiver.so.2.0.3
-rw-r--r-- 1 cmacast2 cimsgrp 145581 3月 4 09:16 libQt5MMReceiver.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 23 3月 8 13:17 libQt5Network.so -> libQt5Network.so.5.13.2
lrwxrwxrwx 1 cmacast2 cimsgrp 23 3月 8 13:17 libQt5Network.so.5 -> libQt5Network.so.5.13.2
lrwxrwxrwx 1 cmacast2 cimsgrp 23 3月 8 13:17 libQt5Network.so.5.13 -> libQt5Network.so.5.13.2
-rw-r--r-- 1 cmacast2 cimsgrp 1383920 3月 4 09:16 libQt5Network.so.5.13.2
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5Support.so -> libQt5Support.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5Support.so.2 -> libQt5Support.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 22 3月 8 13:17 libQt5Support.so.2.0 -> libQt5Support.so.2.0.3
-rw-r--r-- 1 cmacast2 cimsgrp 122155 3月 4 09:16 libQt5Support.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 23 3月 8 13:17 libQt5UIClient.so -> libQt5UIClient.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 23 3月 8 13:17 libQt5UIClient.so.2 -> libQt5UIClient.so.2.0.3
lrwxrwxrwx 1 cmacast2 cimsgrp 23 3月 8 13:17 libQt5UIClient.so.2.0 -> libQt5UIClient.so.2.0.3
-rw-r--r-- 1 cmacast2 cimsgrp 79134 3月 4 09:16 libQt5UIClient.so.2.0.3
-rw-r--r-- 1 cmacast2 cimsgrp 1519731 3月 4 09:16 libslm_control.so
-rw-r--r-- 1 cmacast2 cimsgrp 3646070 3月 4 09:16 libslm_runtime.so
-rw-r--r-- 1 cmacast2 cimsgrp 27440 3月 4 09:16 libSSRuntimeEasyJava.so
-rw-r--r-- 1 cmacast2 cimsgrp 1200978 3月 4 09:16 libss_user_login.so
lrwxrwxrwx 1 cmacast2 cimsgrp 19 3月 8 13:17 libstdc++.so -> libstdc++.so.6.0.20
lrwxrwxrwx 1 cmacast2 cimsgrp 19 3月 8 13:17 libstdc++.so.6 -> libstdc++.so.6.0.20
-rw-r--r-- 1 cmacast2 cimsgrp 6742158 3月 4 09:16 libstdc++.so.6.0.20
-rw-r--r-- 1 cmacast2 cimsgrp 234003 3月 4 09:16 libuiclientJNI.so
-rw-r--r-- 1 cmacast2 cimsgrp 146949 3月 4 09:16 libuiclient.so
cmacast2@CMACast-T01:~/lib>
```





Software Installation

❑ Step 3. software configuration

(5) Confirm that all the configuration files shown below are in the path `/home/cmacast2/cfg/`.

Command : **cd /home/cmacast2/cfg/**

Command : **ll**

The command execution result is shown:

```
cmacast2@CMACast-T01:~> cd /home/cmacast2/cfg/
cmacast2@CMACast-T01:~/cfg> ll
总用量 40
-rwxr-xr-x 1 cmacast2 cimsgrp 333 3月 4 02:34 class.conf
-rwxr-xr-x 1 cmacast2 cimsgrp 83 3月 9 10:45 doginfo.json
-rwxr-xr-x 1 cmacast2 cimsgrp 3909 3月 9 10:03 fileftp.ini
-rwxr-xr-x 1 cmacast2 cimsgrp 1836 3月 8 13:18 mediarecv.ini
-rwxr-xr-x 1 cmacast2 cimsgrp 12 3月 4 02:34 mmaddress.ini
-rwxr-xr-x 1 cmacast2 cimsgrp 1169 3月 8 13:17 MulticastClient.ini
-rwxr-xr-x 1 cmacast2 cimsgrp 1715 3月 4 06:32 MulticastClient.logconf
-rwxr-xr-x 1 cmacast2 cimsgrp 251 3月 4 06:48 rlf_client.ini
-rwxr-xr-x 1 cmacast2 cimsgrp 1000 3月 4 06:48 rlf_log4cplus_client.config
```





Software Installation

❑ Step 3. software configuration

(6) Confirm the value of parameter 'StationType' in mediarecv.ini is 0.

Command : **cat mediarecv.ini**

The command execution result is shown:

```
cmacast2@CMACast-T01:~/cfg> cat mediarecv.ini
#版本: V20211022
#说明: 本文档采用UTF-8字符集, 且所有字符均符合ASCII码
[TYPE]
#小站类型, 0表示市县级小站, 1表示省级小站
StationType=0
```





Software Installation

❑ Step 3. software configuration

(7) Confirm that the parameter 'LocalIP' in the mediarecv.ini file is the IP address to receive data from the satellite (You chose it in step2).

Command : **cat mediarecv.ini**

The command execution result is shown:

```
[IPPORT]
#接收数据的本机网络接口IP地址
LocalIP=192.168.232.159
```





Software Installation

❑ Step 3. software configuration

(7) Confirm that the receive data paths of the parameter 'RecvPath' in the file mediarecv.ini are consistent with the actual disk partition of the system.

The command execution result is shown:

```
#市县级小站接收路径，多路径（单个路径依次包含设备和目录名，由:分隔）则用分号;分隔，  
RecvPath=/dev/sda5:/dvbs2/sdb1;/dev/sda6:/dvbs2/sdb2;/dev/sda7:/dvbs2/sdb3
```

```
cmacast2@linux-4dku:~> df -h | grep /dvbs2/sdb | awk -F " " '{print $1,$6}'  
/dev/sda7 /dvbs2/sdb3  
/dev/sda4 /dvbs2/sdb4  
/dev/sda5 /dvbs2/sdb1  
/dev/sda6 /dvbs2/sdb2  
cmacast2@linux-4dku:~>
```





Software Installation

□ Step 3. software configuration

(8) Enter the path `/home/cmacast2/bin/`, and confirm that all programs shown below are included.

Command : **cd /home/cmacast2/bin/**

Command : **ll**

The command execution result is shown:

```
cmacast2@CMACast-T01:~/cfg> cd /home/cmacast2/bin/
cmacast2@CMACast-T01:~/bin> ll
总用量 3144
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 06:08 cmacast-chanstatus
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 10:14 cmacast-monitor
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 06:12 contentmonitor
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 09:56 Data
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 8 00:32 decrypt
-rwxr-xr-x 1 cmacast2 cimsgrp 21037 3月 4 09:03 doginfo
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 06:14 filemonitor
-rwxr-xr-x 1 cmacast2 cimsgrp 47568 3月 4 09:03 hymkfs
-rwxr-xr-x 1 cmacast2 cimsgrp 484237 3月 4 09:03 mediarecv
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 06:26 monitor-inter
-rwxr-xr-x 1 cmacast2 cimsgrp 882424 3月 4 09:03 multicast_client
-rwxr-xr-x 1 cmacast2 cimsgrp 78707 3月 4 09:03 recvdDaemon
-rwxr-xr-x 1 cmacast2 cimsgrp 1336160 3月 4 09:03 rlf_client
-rwxr-xr-x 1 cmacast2 cimsgrp 40 3月 4 09:03 rundoginfo.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 194 3月 4 09:08 runmulticast_client.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 38 3月 4 09:03 runrecvdDaemon.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 76 3月 4 09:08 runrlf_client.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 28 3月 4 09:03 runsysinfo.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 570 3月 4 10:41 startall.sh
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 06:27 station-back
-rwxr-xr-x 1 cmacast2 cimsgrp 76 3月 4 09:03 stopmulticast_client.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 70 3月 4 09:03 stoprecvdDaemon.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 70 3月 4 09:03 stoprlf_client.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 257960 3月 4 09:03 sysinfo
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 09:58 TransData
cmacast2@CMACast-T01:~/bin>
```





Software Installation

❑ Step 4. Get Authorized

(1) Before starting the software, you should start the server fingerprint information collection program.

1) Use the account 'cmacast2', enter the path /home/cmacast2/bin/, and execute the script 'runsysinfo.sh'.

Command : **./runsysinfo.sh**

2) You will get a file named 'getSysInfo.txt'.

```
cmacast2@CMACast-T01:~> cd /home/cmacast2/bin/
cmacast2@CMACast-T01:~/bin> ll
总用量 3768
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 06:08 cmacast-chanstatus
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 9 09:51 cmacast-monitor
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 06:12 contentmonitor
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 9 15:24 Data
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 8 00:32 decrypt
-rwxr-xr-x 1 cmacast2 cimsgrp 21037 3月 4 09:03 doginfo
-rwxr-xr-x 1 cmacast2 cimsgrp 83 3月 9 10:45 doginfo.json
-rw-rw-r-- 1 cmacast2 cimsgrp 623144 3月 9 15:25 error.log
drwxr-xr-x 2 cmacast2 cimsgrp 4096 3月 4 06:14 filemonitor
-rw-rw-r-- 1 cmacast2 cimsgrp 328 3月 9 15:16 getSysInfo.txt
-rwxr-xr-x 1 cmacast2 cimsgrp 47568 3月 4 09:03 hymkfs
```





Software Installation

❑ Step 4. Get Authorized

(1) Before starting the program, you should start the server fingerprint information collection program.

3) The fingerprint information of the server is written in this file.

Command : **cat getSysInfo.txt**

```
cmacast2@CMACast-T01:~/bin> cat getSysInfo.txt
2022/03/09 15:16:45 [info] system.hardware.product: 30CBA49KCW.
2022/03/09 15:16:45 [info] system.hardware.serial: PC1CYRMK.
2022/03/09 15:16:45 [info] system.hardware.vendor: LENOVO.
2022/03/09 15:16:45 [info] system.hardware.deviceinfo: UEMxQ1lSTUs=TEV0T1ZPMzBDQkE00UtDVw==.
```





Software Installation

❑ Step 4. Get Authorized

(1) Before starting the program, you should start the server fingerprint information collection program.

4) You should **send 'getSysInfo.txt' to cmacast@cma.gov.cn**. We will create a secret key file with the **suffix 'd2c'** and send it back to you.

You need to insert the **USB KEY** and put the file with the suffix 'd2c' under the path /home/cmacast2/resourcefile/d2c by account '**cmacast2**'.

```
cmacast2@linux-cnyf:~> cd resourcefile/d2c/  
cmacast2@linux-cnyf:~/resourcefile/d2c> ll  
总用量 12  
-rw-r--r-- 1 cmacast2 cimsgrp 10430 9月 22 09:48 787199220159_20220922094239.d2c  
cmacast2@linux-cnyf:~/resourcefile/d2c> █
```

TIPS: The receiving station must have a legal dongle to operate normally





Software Installation

❑ Step 4. Get Authorized

(2) Confirm the running state of the dongle program.

1) check whether the dongle driver is running.

Command : **sscfig - s**

```
cmacast2@AAAA:~/bin> sscfig -s
Service Information
Host Name:          AAAA
Service Name:       SenseShield Service
Version:            2.4.0.50200
Status:             Running
Service Mode:       Client
Port:               10334
Message Timeout:    3000
Filter Strategy:    Disable
cmacast2@AAAA:~/bin> █
```





Software Installation

❑ Step 4. Get Authorized

(2) Confirm the running state of the dongle program.

If the Status is 'Not Running', execute the following corresponding command to start the service.

Suse11 System command: (The service start/stop command needs the root account to execute)

Start service command : **service senseshieldd start**

Stop service command : **service senseshieldd stop**

View the service status command :

service senseshieldd status





Software Installation

❑ Step 4. Get Authorized

(2) Confirm the running state of the dongle program.

If the Status is 'Not Running', execute the following corresponding command to start the service.

Suse12 and above System command: (The service start/stop command needs the root account to execute)

Start service command : **systemctl start senseshield**

Stop service command : **systemctl stop senseshield**

View the service status command :

systemctl status senseshield





Software Installation

❑ Step 4. Get Authorized

(3) Contact NMIC for authorization.

Send **cmacast@cma.gov.cn** an email telling us that you have installed the software and require authorization.

cmacast@cma.gov.cn is NMIC set up to provide technical support for international users (CMACast HelpDesk) , with an annual average exchange of more than 300 emails.





Software Installation

❑ Step 5. Start software

(1) Start the main program.

Use the cmacast2 account, enter the path /home/cmacast2/bin/, and execute one-click startup script.

Command : **cd /home/cmacast2/bin/**

Command : **./startall.sh**

The command execution result is shown:

```
cmacast2@CMACast-T01:~/bin> ./startall.sh
```

-rwxr-xr-x	1	cmacast2	cimsgrp	257960	3月	4	09:03	sysinfo
drwxr-xr-x	2	cmacast2	cimsgrp	4096	3月	4	09:58	TransData



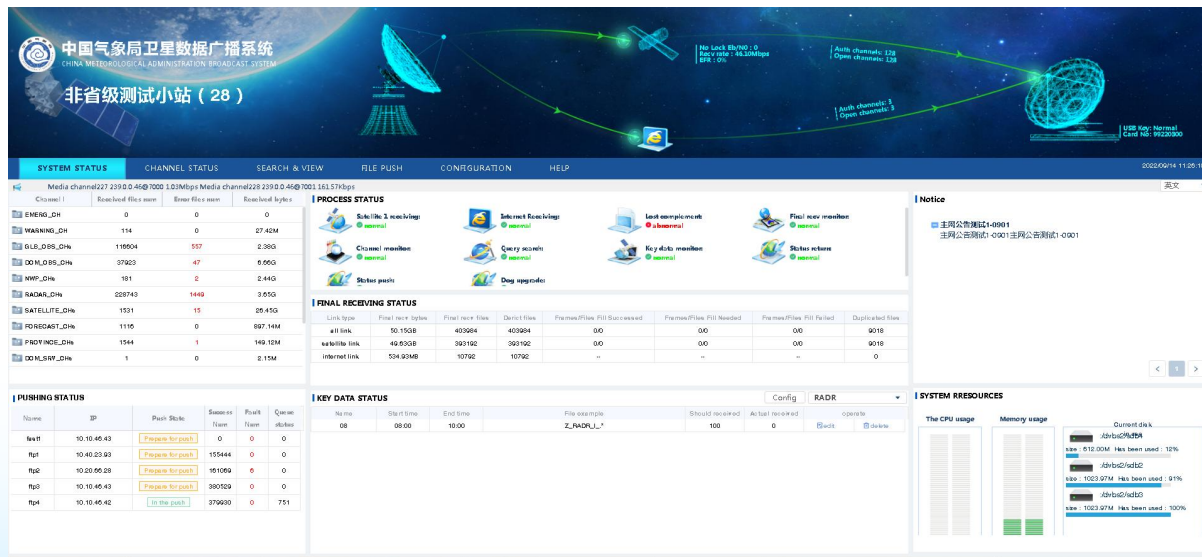


Software Installation

❑ Step 5. Start software

(2) Use a browser to access `ip:9210/cmacast-monitor/#/` .

If you see the page, and it's not blank, it indicates that the installation is successful.





Software Installation

❑ stop software

(1) Stop the program.

Use the cmacast2 account, enter the path /home/cmacast2/bin/, and execute the stop-script.

Command : **cd /home/cmacast2/bin/**

Command : **./stopall.sh**

The command execution result is shown:

```
-rwxr-xr-x 1 cmacast2 cimsgrp 523 Mar 14 15:46 stopall.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 67 Mar 14 15:48 stopdoginfo.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 76 Mar 4 17:03 stopmulticast_client.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 70 Mar 4 17:03 stoprecvDaemon.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 70 Mar 4 17:03 stoprlf_client.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 257960 Mar 14 15:09 sysinfo
drwxr-xr-x 1 cmacast2 cimsgrp 164 Mar 24 15:12 TransData
cmacast2@CMACast-T01:~/bin> ./stopall.sh
```





Software Installation

❑ Redeployment

(1) Use the root account to enter the three path **/dvbs2/sdb1/cmacast2,/dvbs2/sdb2/cmacast2,/dvbs2/sdb3/cmacast2**, and delete the 'workdir' directory.

```
AAAA:~/setup # cd /dvbs2/sdb1/cmacast2/
AAAA:/dvbs2/sdb1/cmacast2 # ll
total 0
drwxrwxr-x 1 cmacast2 cimsgrp 102 Mar 28 13:01 workdir
AAAA:/dvbs2/sdb1/cmacast2 # rm -rf workdir
AAAA:/dvbs2/sdb1/cmacast2 # ll
total 0
AAAA:/dvbs2/sdb1/cmacast2 # cd /dvbs2/sdb2/cmacast2/
AAAA:/dvbs2/sdb2/cmacast2 # ll
total 0
drwxrwxr-x 1 cmacast2 cimsgrp 102 Mar 28 13:01 workdir
AAAA:/dvbs2/sdb2/cmacast2 # rm -rf workdir
AAAA:/dvbs2/sdb2/cmacast2 # ll
total 0
AAAA:/dvbs2/sdb2/cmacast2 # cd /dvbs2/sdb3/cmacast2/
AAAA:/dvbs2/sdb3/cmacast2 # ll
total 0
drwxrwxr-x 1 cmacast2 cimsgrp 102 Mar 28 13:01 workdir
AAAA:/dvbs2/sdb3/cmacast2 # rm -rf workdir
AAAA:/dvbs2/sdb3/cmacast2 # ll
total 0
AAAA:/dvbs2/sdb3/cmacast2 #
```





Software Installation

❑ Redeployment

(2) Enter the path **/dvbs2/sdb4/cmacast2** and delete the **'log'** directory.

```
AAAA:/dvbs2/sdb3/cmacast2 # cd /dvbs2/sdb4/cmacast2/  
AAAA:/dvbs2/sdb4/cmacast2 # ll  
total 0  
drwxrwxr-x 1 cmacast2 cimsgrp 86 Mar 28 13:01 log  
AAAA:/dvbs2/sdb4/cmacast2 # rm -rf log/  
AAAA:/dvbs2/sdb4/cmacast2 # ll  
total 0  
AAAA:/dvbs2/sdb4/cmacast2 #
```





Software Installation

❑ Redeployment

(3) Enter the path **/home/cmacast2/** and delete the four **directories: lib, bin, cfg and software.**

```
-rwxr-xr-x 1 cmacast2 cimsgrp 1112 Sep 22 2014 .xinitrc.template
AAAA: /home/cmacast2 # rm -rf lib bin cfg software
AAAA: /home/cmacast2 # ll
total 64
-rw----- 1 cmacast2 cimsgrp  0 May 19 1996 .bash_history
-rwxr-xr-x 1 cmacast2 cimsgrp 408 Mar 10 16:04 .bash_profile
-rwxr-xr-x 1 cmacast2 cimsgrp 408 Mar 10 16:04 .bash_profile.bak
-rw-r--r-- 1 cmacast2 cimsgrp 1177 Sep 27 2014 .bashrc
drwx----- 1 cmacast2 cimsgrp  0 Sep 21 2014 .config
-rw-r--r-- 1 cmacast2 cimsgrp 1637 Sep 11 2014 .emacs
drwxr-xr-x 1 cmacast2 cimsgrp  0 Sep 21 2014 .fonts
-rw-r--r-- 1 cmacast2 cimsgrp 18517 Oct  9 2014 .gnu-emacs
-rw-r--r-- 1 cmacast2 cimsgrp 305 Aug 21 2015 .il8n
-rw-r--r-- 1 cmacast2 cimsgrp 861 Sep 11 2014 .inputrc
drwx----- 1 cmacast2 cimsgrp  0 Sep 21 2014 .local
-rw-r--r-- 1 cmacast2 cimsgrp 6043 Dec  5 2014 .muttrc
-rw-r--r-- 1 cmacast2 cimsgrp 1028 Sep 27 2014 .profile
drwxr-xr-x 1 cmacast2 cimsgrp 20 Feb 10 18:03 public_html
drwxr-xr-x 1 cmacast2 cimsgrp 34 Mar 10 08:52 resourcefile
drwxr-xr-x 1 cmacast2 cimsgrp 96 Feb 25 17:24 tool
-rw-r--r-- 1 cmacast2 cimsgrp 1952 Aug 21 2015 .xim.template
-rwxr-xr-x 1 cmacast2 cimsgrp 1112 Sep 22 2014 .xinitrc.template
```





Software Installation

❑ Redeployment

(4) Uninstall the dongle driver.

Command : **rpm -e senseshield**

The command execution result is shown:

```
AAAA:~ # rpm -e senseshield
[debug] extra.sh: pkg_type=linux
[/usr/lib/senseshield/extra.sh:2022-04-14 05:43:35 1649929415] uninstall
[/usr/lib/senseshield/extra.sh:2022-04-14 05:43:35 1649929415] Version:2.4.0.50200
[/usr/lib/senseshield/extra.sh:2022-04-14 05:43:35 1649929415] remove service
[debug] extra.sh: pkg_type=linux
/usr/lib/senseshield/extra.sh: line 367: /sbin/iptables: No such file or directory
/usr/lib/senseshield/extra.sh: line 368: /sbin/iptables: No such file or directory
/usr/lib/senseshield/extra.sh: line 369: /sbin/iptables: No such file or directory
[/usr/lib/senseshield/extra.sh:2022-04-14 05:43:40 1649929420] delete files
uninstall success
AAAA:~ # █
```

(5) Follow **Step 2** to redeploy.





Software Installation

□ Now , you have finished the software installation, here is a video for your reference





Configuration of Logs

❑ Data and log storage path

(1) The data is stored under the path `/dvbs2/sdb1/cmacast2/workdir/`.

```
AAAA:~ # cd /dvbs2/sdb1/cmacast2/workdir/
AAAA:/dvbs2/sdb1/cmacast2/workdir # ll
total 0
drwxrwxr-x 1 cmacast2 cimsgrp 0 Mar 31 19:40 RLFailedCache
drwxrwxr-x 1 cmacast2 cimsgrp 0 Mar 31 19:40 RLFailedTask
drwxrwxr-x 1 cmacast2 cimsgrp 0 Mar 31 19:40 RLTask
drwxrwxr-x 1 cmacast2 cimsgrp 0 Mar 31 19:40 cache
drwxrwxr-x 1 cmacast2 cimsgrp 0 Mar 31 19:40 cmacast
drwxrwxr-x 1 cmacast2 cimsgrp 0 Mar 31 19:40 internet
AAAA:/dvbs2/sdb1/cmacast2/workdir #
```





Configuration of Logs

❑ Data and log storage path

(2) The logs are stored under the path `/dvbs2/sdb4/cmacast2/log/`.

```
AAAA:~ # cd /dvbs2/sdb4/cmacast2/log/
AAAA:/dvbs2/sdb4/cmacast2/log # ll
total 0
drwxrwxr-x 1 cmacast2 cimsgrp 256 Mar 31 19:42 cmacast-monitor
drwxrwxr-x 1 cmacast2 cimsgrp  32 Mar 31 19:42 decrypt
drwxrwxr-x 1 cmacast2 cimsgrp  22 Mar 31 19:41 doginfo
drwxrwxr-x 1 cmacast2 cimsgrp   0 Mar 31 19:40 internet
drwxrwxr-x 1 cmacast2 cimsgrp  64 Mar 31 19:41 mediarecv
drwxrwxr-x 1 cmacast2 cimsgrp 106 Mar 31 19:41 rlf
drwxrwxr-x 1 cmacast2 cimsgrp  40 Mar 31 19:43 surface
drwxrwxr-x 1 cmacast2 cimsgrp  52 Mar 31 19:42 transData
AAAA:/dvbs2/sdb4/cmacast2/log #
```





Configuration of Logs

❑ Location and configuration of log automatic clearing script

- (1) The script is located under the path `/home/cmacast2/tool/sx_delete_log/`.
The script is used to delete the log files generated 11 days ago.

```
cmacast2@linux-i3en:~> cd /home/cmacast2/tool/sx_delete_log/
cmacast2@linux-i3en:~/tool/sx_delete_log> ll
total 16
-rwxr-xr-x 1 cmacast2 cimsgrp 325 Apr 14 15:09 autoSetCrontab.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 113 Apr 14 17:34 delete_log_crontab
drwxr-xr-x 1 cmacast2 cimsgrp 18 Apr 14 10:05 logs
-rwxr-xr-x 1 cmacast2 cimsgrp 376 Apr 14 11:35 rmdirandlog.sh
-rwxr-xr-x 1 cmacast2 cimsgrp 768 Apr 14 11:37 rmdir.sh
cmacast2@linux-i3en:~/tool/sx_delete_log> cat rmdir.sh
#!/bin/bash

cd /home/cmacast2/tool/sx_delete_log
echo "===== " >> /home/cmacast2/tool/sx_delete_log/logs/rmdir.log
echo `date +%Y-%m-%d %H:%M:%S` "开始清理目录" >> /home/cmacast2/tool/sx_delete_log/logs/rmdir.log

df -h /dvbs2/sdb4 >> /home/cmacast2/tool/sx_delete_log/logs/rmdir.log
# 以天为单位，清理 归档目录 (-maxdepth 1)，清理24小时前进行最后建立的目录 (-ctime +n -- n+1 天前)
find /dvbs2/sdb4/cmacast2/log -mindepth 1 -maxdepth 5 -type f -mtime +10 -name "*.log*" |xargs -I {} ./rmdirandlog.sh {} >> /home/cmacast2/tool/sx_delete_log/logs/rmdir.log

echo `date +%Y-%m-%d %H:%M:%S` "清理目录完成" >> /home/cmacast2/tool/sx_delete_log/logs/rmdir.log

cmacast2@linux-i3en:~/tool/sx_delete_log>
```





Configuration of Logs

❑ Location and configuration of log automatic clearing script

(2) The log clearing task will be executed at 10:00 every day.

```
cmacast2@linux-i3en:~/tool/sx_delete_log> crontab -l
# DO NOT EDIT THIS FILE - edit the master and reinstall.
# (delete_log_crontab installed on Thu Apr 14 17:34:00 2022)
# (Cronie version 4.2)
0 10 * * * /home/cmacast2/tool/sx_delete_log/rmdir.sh >> /home/cmacast2/tool/sx_delete_log/logs/rmdir.log 2>&1 &
cmacast2@linux-i3en:~/tool/sx_delete_log>
```



05

Frequently Asked Questions (FAQs) about CMACast



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Frequently Asked Questions

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Question 9: The disk '/dvbs2/sdb4/' for storing software logs is insufficient.





Frequently Asked Questions

- ❑ 1. Question:
Inability to access the monitor page .

Solution :

- 1、 Check whether the software is started, and whether the port is normal.

Command : **ps -ef | grep java | grep cmacast2**

```
cmacast2@linux-i3en:~/bin> ps -ef | grep cmacast2
root      58609  58109  0 02:21 pts/1    00:00:00 su - cmacast2
cmacast2  58610  58609  0 02:21 pts/1    00:00:00 -bash
cmacast2  58661      1  0 02:21 pts/1    00:00:00 ./recvDaemon
cmacast2  58663      1  0 02:21 pts/1    00:00:00 ./rlf_client
cmacast2  58665      1 14 02:21 pts/1    00:00:02 java -jar -Xms256m -Xmx1024m -Dloader.path=/home/cmacast2/lib/Java -Dspring.config.location=/home/cmacast2/cfg/cmacast-monitor-application.yml cmacast-monitor-1.3.5.jar --receiveType=HYTD
cmacast2  58735      1 10 02:21 pts/1    00:00:01 java -jar -Xms256m -Xmx1024m -Dloader.path=/home/cmacast2/lib/Java -Dspring.config.location=/home/cmacast2/cfg/cmacast-chanstatus-application.yml chanstatus-0.0.1-SNAPSHOT.jar
cmacast2  58738      1 10 02:21 pts/1    00:00:01 java -jar -Xms256m -Xmx1024m -Dloader.path=/home/cmacast2/lib/Java -Dspring.config.location=/home/cmacast2/cfg/cmacast-monitor-application.yml cmacast-monitor-1.3.5.jar --receiveType=HYTD
```

Command : **netstat -tupln | grep 9210**

```
cmacast2@linux-i3en:~/bin> netstat -tupln | grep 9210
(Not all processes could be identified, non-owned process info
will not be shown, you would have to be root to see it all.)
tcp        0      0  :::9210                :::*                    LISTEN      58665/java
cmacast2@linux-i3en:~/bin>
```

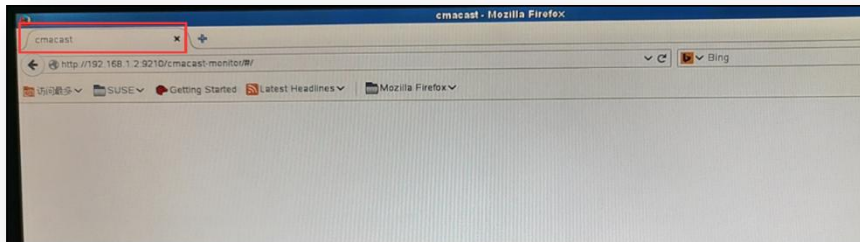




Frequently Asked Questions

❑ 1. Question: Inability to access the monitor page .

2、 If all of the above are present and the website is still not displayed (only ‘cmacast’ is displayed and the content is blank,as shown in the picture), verify the firewall of this server is turned off.



3、 If they don't exist, start the service:

Command : **cd /home/cmacast2/bin/monitor-inter**

Command : **./run_monitor-inter.sh**





Frequently Asked Questions

❑ 1. Question: Inability to access the monitor page .

4、 If the program fails to start, check that the disk mount partition exists and whether the permission belongs to cmacast2.

Command : **df -h**

```
cmacast2@CMACast-TD:~> df -h
文件系统      容量  已用  可用  已用% 挂载点
/dev/sda1      40G   17G   21G   45%   /
udev           7.8G   200K   7.8G    1%   /dev
tmpfs          7.8G   1.7M   7.8G    1%   /dev/shm
/dev/sda3      9.9G   151M   9.2G    2%   /mnt/iso
/dev/sda8      102G   43G   59G   43%   /dvbs2/sdb4
/dev/sda5      320G   289G   32G   91%   /dvbs2/sdb1
/dev/sda6      320G   289G   32G   91%   /dvbs2/sdb2
/dev/sda7      320G   39G   282G   12%   /dvbs2/sdb3
cmacast2@CMACast-TD:~>
```

Command : **cd /dvbs2**

Command : **ll**

Command : **chown sdb* cmacast2**

```
cmacast2@CMACast:~> cd /dvbs2/
cmacast2@CMACast:/dvbs2> ll
总用量 6
drwxr-xr-x 81 cmacast2 cimsgrp 2456 10月 27 17:44 sdb1
drwxr-xr-x 80 cmacast2 cimsgrp 2440 10月 22 08:32 sdb2
drwxr-xr-x 80 cmacast2 cimsgrp 2440 10月 25 06:19 sdb3
drwxrwxr-x 5 cmacast2 cimsgrp 104 7月 20 15:33 sdb4
cmacast2@CMACast:/dvbs2>
```

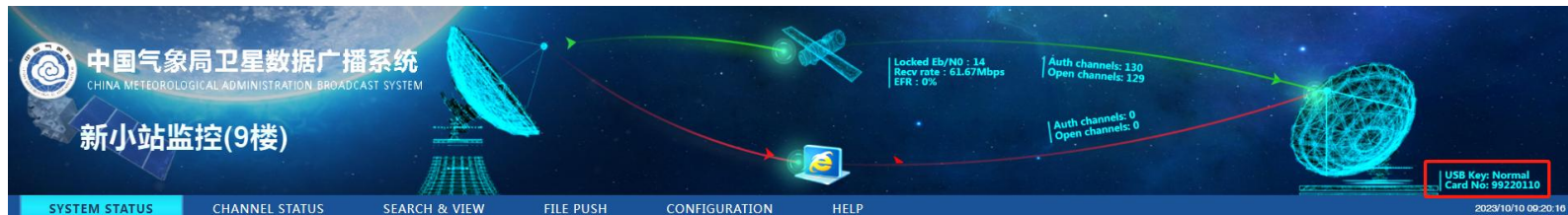




Frequently Asked Questions

❑ 2. Question:

The monitor page shows **wrong fingerprint information**.



Solution :

- 1、 Please put the file with suffix 'd2c' under the directory '/home/cmacast2/resourcefile/d2c'.
- 2、 Change the permission of the file to cmacast2.

Command : **chown cmacast2 filename**

```
cmacast2@CMACast-TD:~/resourcefile/d2c> ll 787199220100_20220923164534.d2c  
-rw-rw-r-- 1 cmacast2 cimsgrp 10338  9月 23 08:32 787199220100_20220923164534.d2c  
cmacast2@CMACast-TD:~/resourcefile/d2c> █
```

- 3、 restart the software.

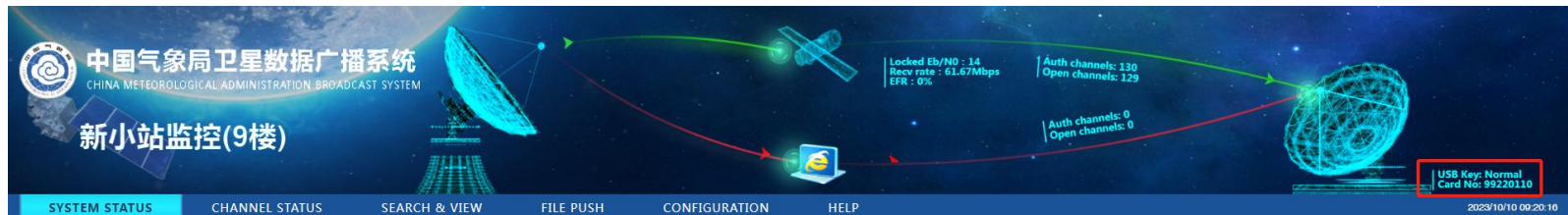




Frequently Asked Questions

❑ 2. Question:

The monitor page shows **wrong fingerprint information**.



After restarting the software, if it still shows ‘wrong fingerprint information ‘:

- 1、 Change to directory ‘/home/cmacast2/bin’ and execute the command `./testdog`.

Command : **`./testdog`**

```
cmacast2@cmacast-bfcs-recv:~/bin> ./testdog
2022/10/24 10:58:35 [error] read_fileT: doginfo.json size failed.
2022/10/24 10:58:35 [error] read_fileT: /home/cmacast2-test/cfg/doginfo.json size
failed.
2022/10/24 10:58:36 [error] dog_info_auth failed.
2022/10/24 10:58:36 [error] mem_info_read error.
2022/10/24 10:58:36 [error] get_dog_info_staver: Unknown error.
original dogid = "", size = 0, retval = 0x60003001
2022/10/24 10:58:36 [error] mem_info_read error.
```

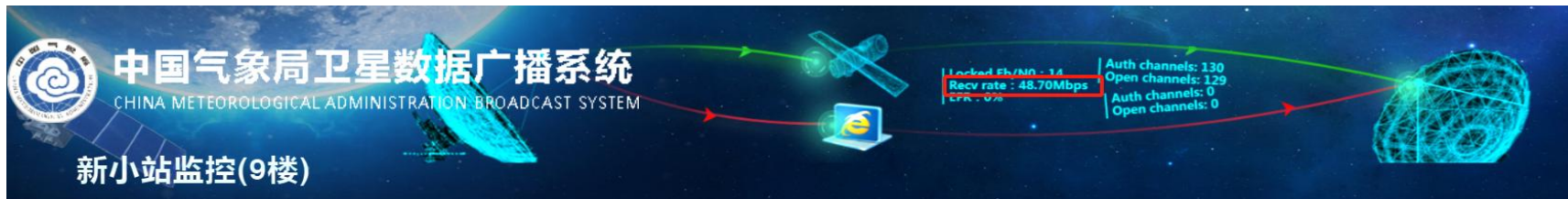
- 2、 If "**dog_info_auth_failed**" is returned(as shown in the picture), execute the script 'runsysinfo.sh' again to generate getSysInfo.txt. And send it to cmacast@cma.gov.cn (see ‘Instructions on the Installation of CMACast Receiving Software’ for details)





Frequently Asked Questions

- ❑ 3. Question:
Recv rate displayed as 0.



Solution :

- 1、 Verify that the **LocalIP** configured in the file '/home/cmacast2/cfg/mediarecv.ini' belongs to the same network segment as the receiver's ip (default configuration: 192.168.1.2).

Command : **more /home/cmacast2/cfg/mediarecv.ini |grep LocalIP**

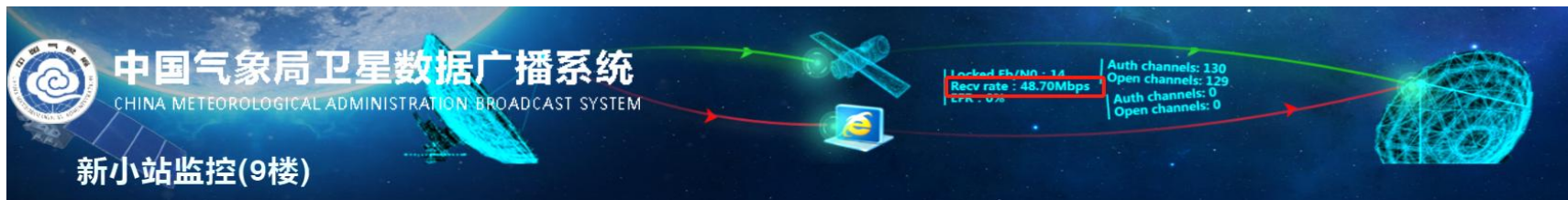
```
cmacast2@CMACast03:~/bin/monitor-inter> more /home/cmacast2/cfg/mediarecv.ini |grep LocalIP
LocalIP=192.168.1.120
cmacast2@CMACast03:~/bin/monitor-inter>
```





Frequently Asked Questions

- ❑ 3. Question:
Recv rate displayed as 0.



2、Execute the command 'ping 192.168.1.1' on the server to check whether the network connection is normal.

Command : **ping 192.168.1.1**

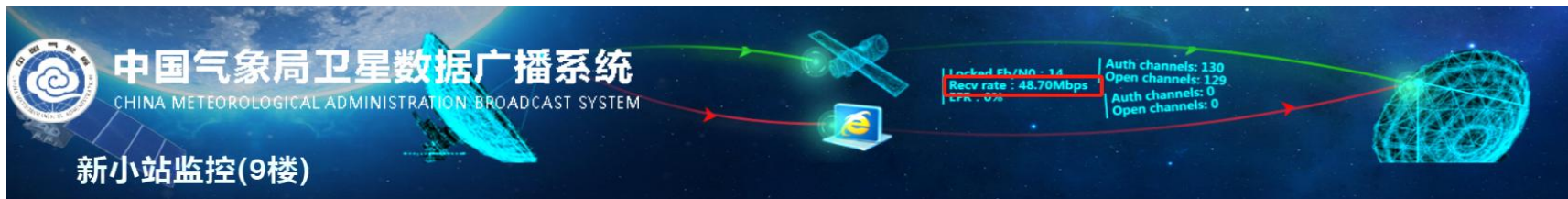
```
cmacast2@CMACast03:~> ping 192.168.1.1
PING 192.168.1.1 (192.168.1.1) 56(84) bytes of data:
64 bytes from 192.168.1.1: icmp_seq=1 ttl=64 time=3.92 ms
64 bytes from 192.168.1.1: icmp_seq=2 ttl=64 time=0.654 ms
64 bytes from 192.168.1.1: icmp_seq=3 ttl=64 time=0.712 ms
64 bytes from 192.168.1.1: icmp_seq=4 ttl=64 time=0.669 ms
^C
--- 192.168.1.1 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3002ms
rtt min/avg/max/mdev = 0.654/1.489/3.923/1.405 ms
```





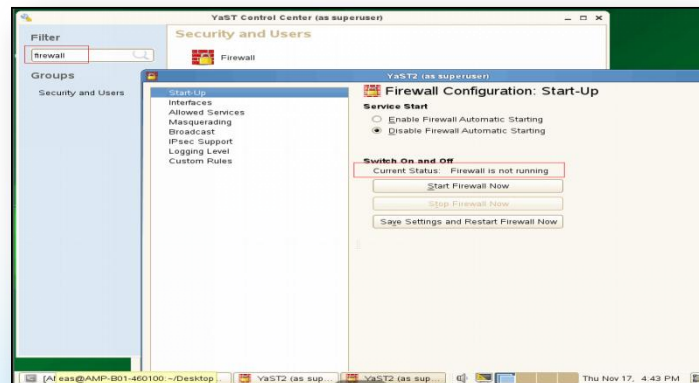
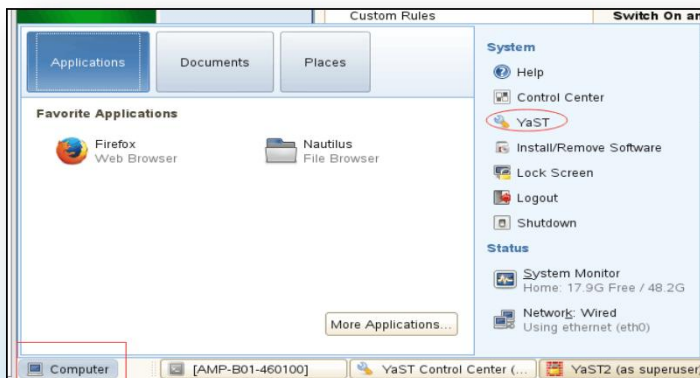
Frequently Asked Questions

- ❑ 3. Question:
Recv rate displayed as 0.



3、Check if the server's firewall is disabled.

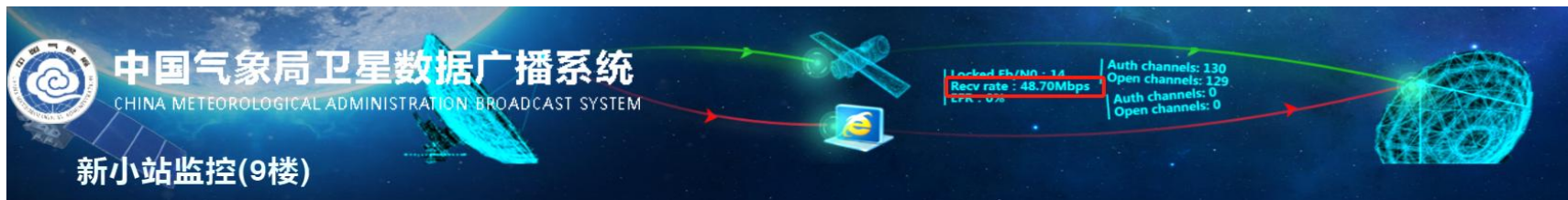
Firewall can be viewed by yast in the menu at the bottom left corner of the system desktop.





Frequently Asked Questions

- ❑ 3. Question:
Recv rate displayed as 0.



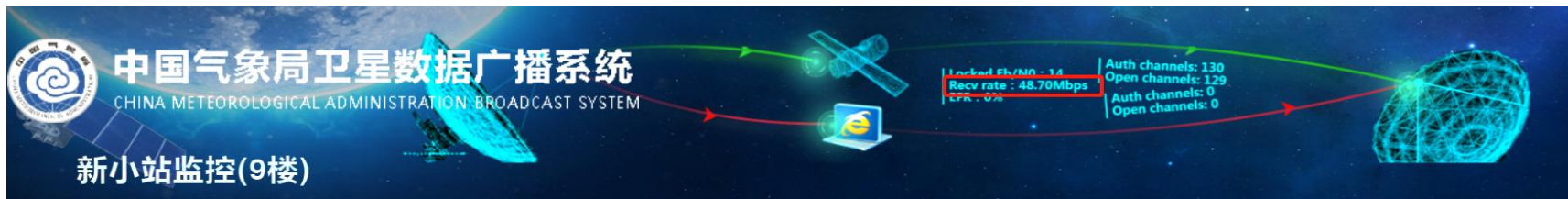
4. Verify that the rate is available on the receiver.





Frequently Asked Questions

- ❑ 3. Question:
Recv rate displayed as 0.



5、restart software.

If all of the above are normal, switch to the account 'cmacast2'. And go into the /home/cmact2/bin directory, execute the commands to restart the software.

Command : **su - cmacast2**

Command : **cd /home/cmact2/bin**

Command : **./stopall.sh**

Command : **./startall.sh**





Frequently Asked Questions

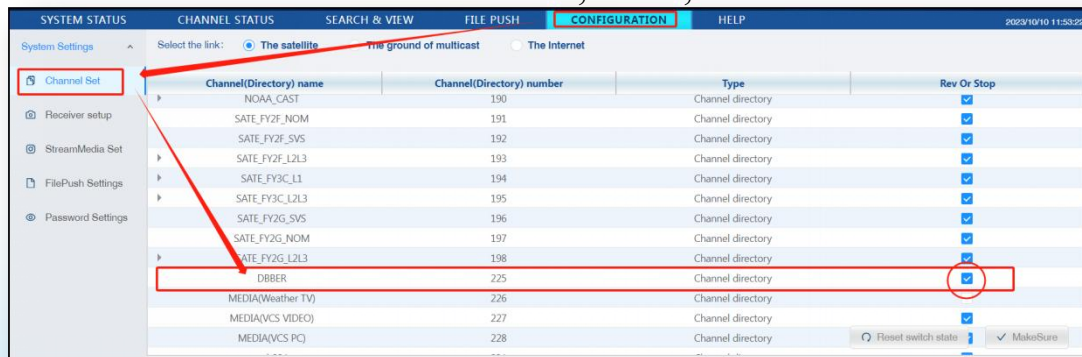
❑ 4. Question:

EFR(error frame rate) displayed as 100%.



Solution :

- 1、Confirm authorization (Email cmacast@cma.gov.cn).
- 2、Confirm that channel '**DBBER**' is turned on, if not, check the box and click 'MakeSure'.

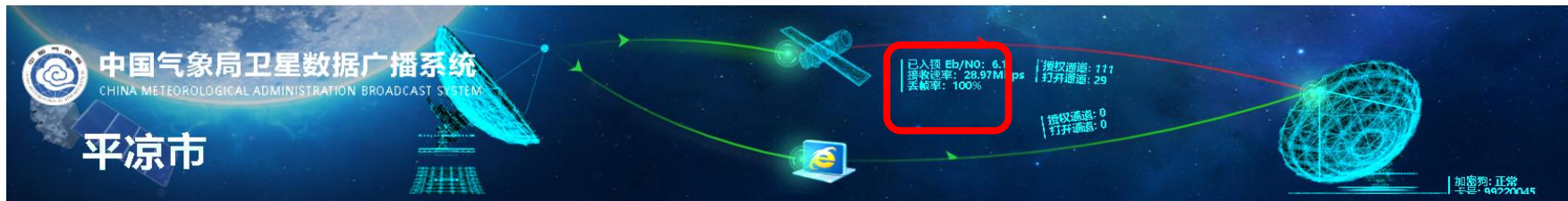




Frequently Asked Questions

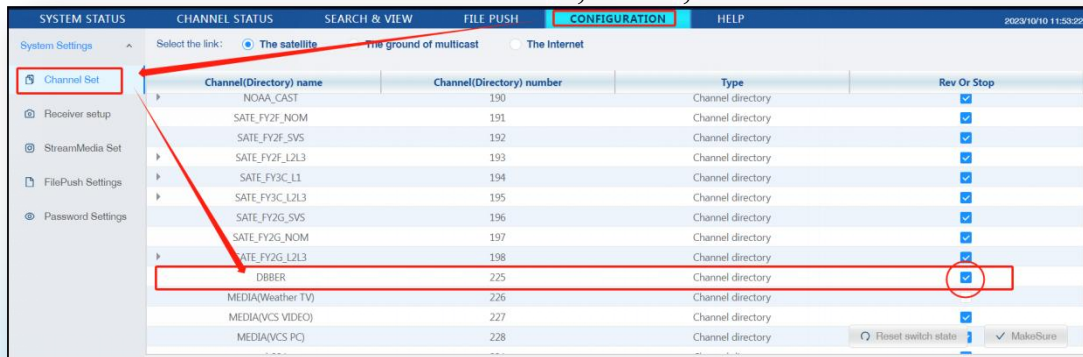
❑ 4. Question:

EFR(error frame rate) displayed as 100%.



Solution :

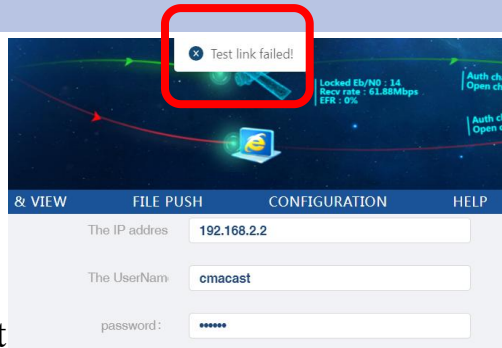
- 1、Confirm authorization (Email cmacast@cma.gov.cn).
- 2、Confirm that channel '**DBBER**' is turned on, if not, check the box and click 'MakeSure'.





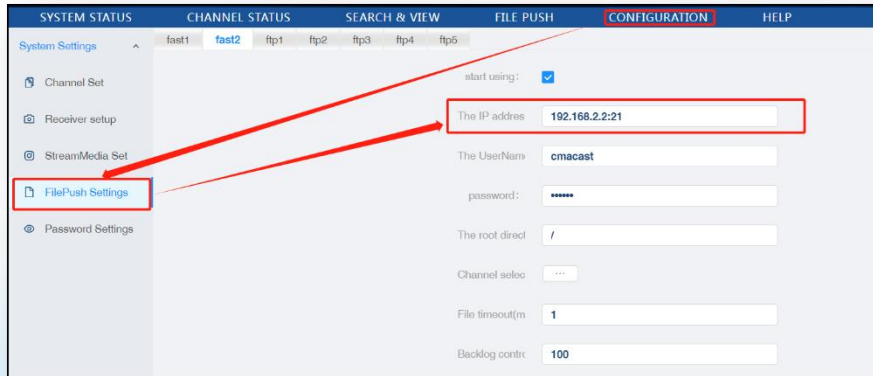
Frequently Asked Questions

❑ 5. Question: File Push Setup Failure.



Solution :

- 1、 Confirm whether the username and password are correct
- 2、 Add port of the ftp service in the IP address, such as 21.





Frequently Asked Questions

❑ 6. Question:

The file push status is 'push failed' .

PUSHING STATUS					
Name	IP	Push State	Success Num	Fault Num	Queue status
fast2	192.168.2.2	Prepare for push	23800	0	0

Solution :

- 1、 Check if there is space on the disk of the other side (application server receiving data) .
- 2、 Check whether the number of ip connections is limited in the configuration file 'my.cnf' .
- 3、 Check whether the ftp account has the write permission.





Frequently Asked Questions

❑ 7. Question:

The current utilization rate of the receiving data disk is 100% due to the failure of format switching of the receiving data disks sdb1, sdb2 and sdb3.

```
cmacast2@linux-mmp2:~/tool/sx_delete_log> df -h
df: "/root/.gvfs": 权限不够
文件系统      容量  已用  可用  已用% 挂载点
/dev/sda1      50G   30G   17G   64% /
udev           63G   184K   63G    1% /dev
tmpfs          63G   740K   63G    1% /dev/shm
/dev/sda3       2.0G   13M   2.0G    1% /boot/efi
/dev/sda5       500G    76G  425G   16% /dvbs2/sdb1
/dev/sda6       493G    80G  388G   18% /dvbs2/sdb2
/dev/sda8       426G    7.0G  398G    2% /dvbs2/sdb4
/dev/sda4       1.4T    3.6G  1.4T    1% /home
/dev/sdb1       5.0G   232M   4.8G    5% /media/EASYU
/dev/sda7       394G   374G    0  100% /dvbs2/sdb3
cmacast2@linux-mmp2:~/tool/sx_delete_log>
```

Solution :

- 1、Check if the next disk to currently receiving data disk is occupied by a process, causing the format disk to fail. (For example, if sdb3 is currently receiving data, the next disk is sdb1.)

Command : **lsdf | grep /dvbs2/sdb1**





Frequently Asked Questions

❑ 7. Question:

The current utilization rate of the receiving data disk is 100% due to the failure of format switching of the receiving data disks sdb1, sdb2 and sdb3.

```
cmacast2@linux-mmp2:~/tool/sx_delete_log> df -h
df: "/root/.gvfs": 权限不够
文件系统      容量  已用  可用  已用% 挂载点
/dev/sda1      50G   30G   17G   64%   /
udev           63G   184K   63G    1%   /dev
tmpfs          63G   740K   63G    1%   /dev/shm
/dev/sda3       2.0G   13M   2.0G    1%   /boot/efi
/dev/sda5       500G    76G  425G   16%   /dvbs2/sdb1
/dev/sda6       493G    80G  388G   18%   /dvbs2/sdb2
/dev/sda8       426G    7.0G  398G    2%   /dvbs2/sdb4
/dev/sda4       1.4T    3.6G  1.4T    1%   /home
/dev/sdb1       5.0G   232M   4.8G    5%   /media/EASYU
/dev/sda7       394G   374G    0  100%   /dvbs2/sdb3
cmacast2@linux-mmp2:~/tool/sx_delete_log>
```

Solution :

- 1、Check if the next disk to currently receiving data disk is occupied by a process, causing the format disk to fail. (For example, if sdb3 is currently receiving data, the next disk is sdb1.)

Command : **lsdf | grep /dvbs2/sdb1**





Frequently Asked Questions

❑ 7. Question:

The current utilization rate of the receiving data disk is 100% due to the failure of format switching of the receiving data disks sdb1, sdb2 and sdb3.

```
cmacast2@linux-m7p2:~/tool/sx_delete_log> df -h
df: "/root/.gvfs": 权限不够
文件系统      容量  已用  可用  已用% 挂载点
/dev/sda1      50G   30G   17G   64%   /
udev           63G   184K   63G    1%   /dev
tmpfs          63G   740K   63G    1%   /dev/shm
/dev/sda3      2.0G   13M   2.0G    1%   /boot/efi
/dev/sda5      500G   76G   425G   16%   /dvbs2/sdb1
/dev/sda6      493G   80G   388G   18%   /dvbs2/sdb2
/dev/sda8      426G   7.0G   398G    2%   /dvbs2/sdb4
/dev/sda4      1.4T   3.6G   1.4T    1%   /home
/dev/sdb1      5.0G   232M   4.8G    5%   /media/EASYU
/dev/sda7      394G   374G    0  100%   /dvbs2/sdb3
cmacast2@linux-m7p2:~/tool/sx_delete_log>
```

Solution :

2、 From the above figure, it can be seen that there is a process accessing the directory under /dvbs2/sdb1, which causes formatting sdb1 fail. Therefore, either quit accessing the /dvbs2/sdb1/ directory , or kill the process.

```
linux-m7p2:~ # lsof |grep /dvbs2/sdb1
bash      8855   cmacast2  cwd      DIR      0,5    120      5 /dvbs2/sdb1/cmacast2/workdir
linux-m7p2:~ #
```





Frequently Asked Questions

❑ 7. Question:

The current utilization rate of the receiving data disk is 100% due to the failure of format switching of the receiving data disks sdb1, sdb2 and sdb3.

```
cmacast2@linux-mp2:~/tool/sx_delete_log> df -h
df: "/root/.gvfs": 权限不够
文件系统      容量  已用  可用  已用% 挂载点
/dev/sda1      50G   30G   17G   64%   /
udev           63G   184K   63G    1%   /dev
tmpfs          63G   740K   63G    1%   /dev/shm
/dev/sda3       2.0G   13M   2.0G    1%   /boot/efi
/dev/sda5       500G   76G   425G   16%   /dvbs2/sdb1
/dev/sda6       493G   80G   388G   18%   /dvbs2/sdb2
/dev/sda8       426G   7.0G   398G    2%   /dvbs2/sdb4
/dev/sda4       1.4T   3.6G   1.4T    1%   /home
/dev/sdb1       5.0G   232M   4.8G    5%   /media/EASYU
/dev/sda7       394G   374G    0  100%   /dvbs2/sdb3
cmacast2@linux-mp2:~/tool/sx_delete_log>
```

Solution :

3、 Another possible cause of this failure is that the actual mount point of the disk is inconsistent with the configuration file medirecv.ini.

If it is caused by this reason, the solution is consistent with next Question.

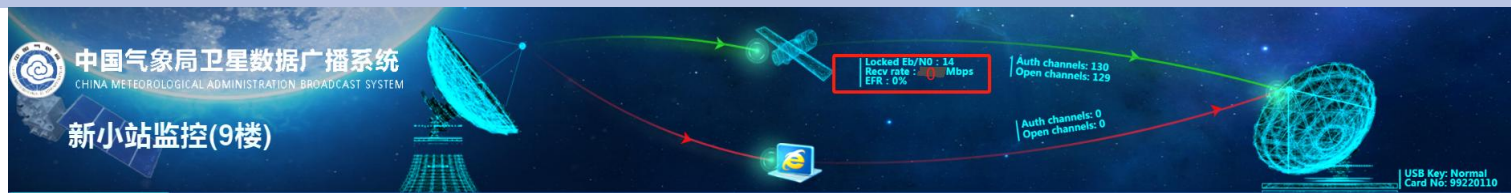




Frequently Asked Questions

❑ 8. Question:

The software has no display error, the lock status is normal, but no receive rate or the 'Received files num' is 0.

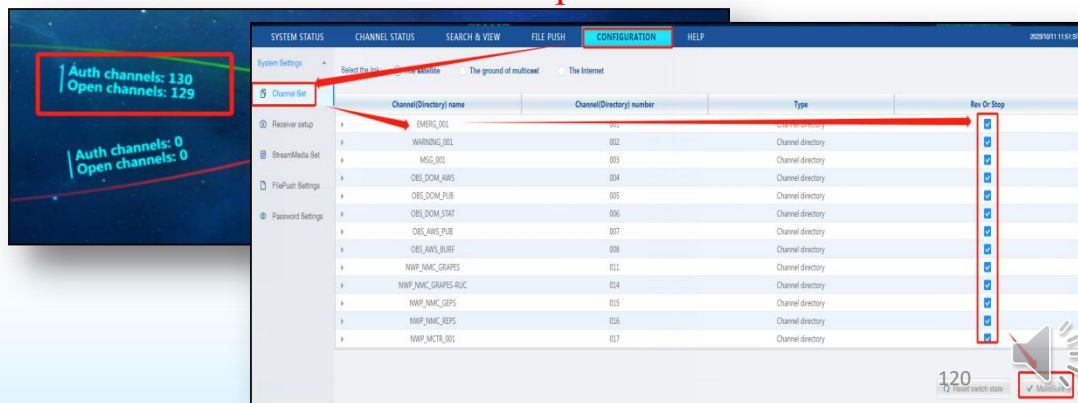


Solution :

- 1、Verify that the number of 'Auth channels' is not 0 and the number of 'Open channels' is not 0.

If 'Auth channels' is 0, send email to 'cmacast@cma.gov.cn' for authorization;

If 'Auth channels' is not 0, but 'Open channels' is 0, then select the Channel you want to open in the Channel Set of CONFIGURATION and **save** it.





Frequently Asked Questions

Select the link : ☒ The satellite ☐ The ground of multicast ☐ The Internet

Channel(Directory) name	Channel(Directory) number	Type	Rev Or Stop
▶ EMERG_001	001	Channel directory	☒
▶ WARNING_001	002	Channel directory	☒
▼ MSG_001	003	Channel directory	☒
▼ GLB	003001	The first directory	☒
PUB	003001001	The secondary directory	☒
▶ RAI1	003002	The first directory	☒
▶ DOM	003003	The first directory	☒

Display the channel and its primary and secondary directories in a tree structure, with default display to the channel.

- **Checked : receiving data from the directory**
- **Blank : No longer receiving data from the directory**
- **Supports separate start stop channels and primary and secondary directories**
- **The header information bar will update the number of open channels in real-time after setting the channel**

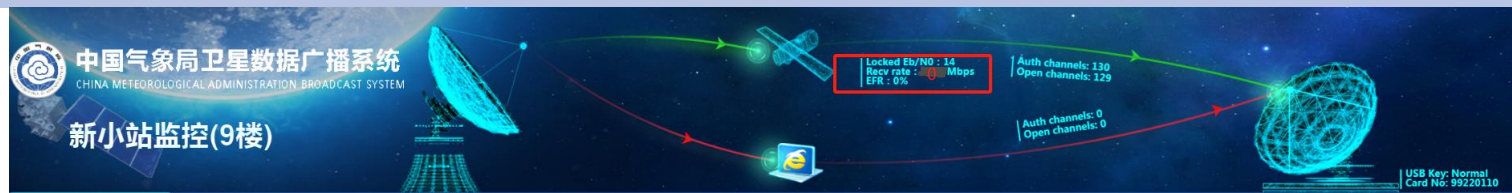




Frequently Asked Questions

❑ 8. Question:

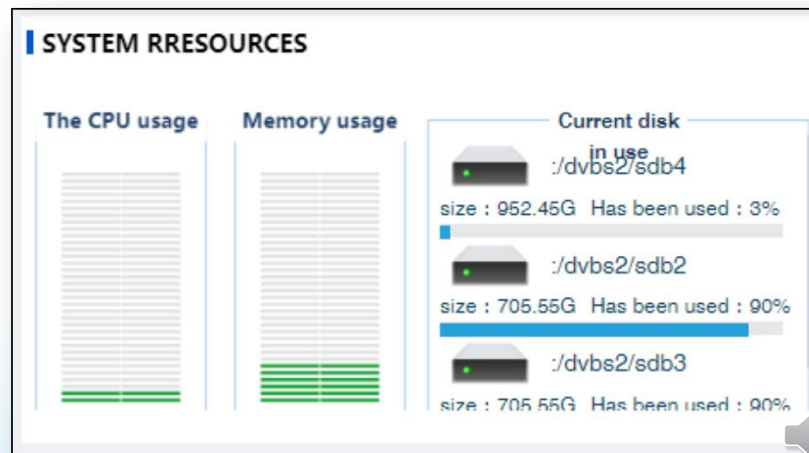
The software has no display error, the lock status is normal, but no receive rate or the 'Received files num' is 0.



2、Check whether the disk for receiving data is full.

Normally, the disks will be formatted cyclically .

If the disk is full, refer to the solution to the previous problem.

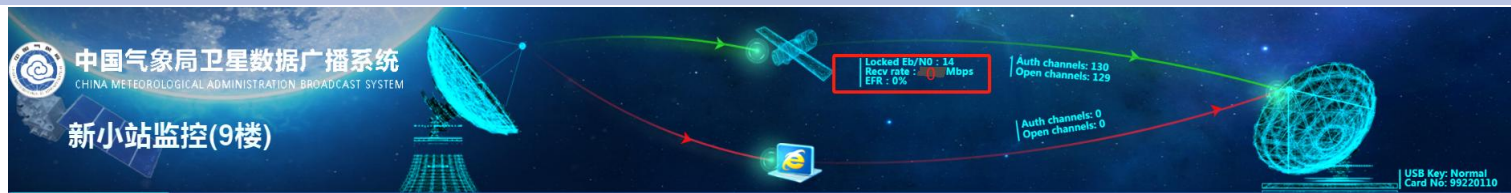




Frequently Asked Questions

❑ 8. Question:

The software has no display error, the lock status is normal, but no receive rate or the 'Received files num' is 0.



3、Check whether the data receiving disks owner is 'cmacast2'.

If not, use the command to modify the owner.

```
cmacast2@CMAcast:~> cd /dvbs2/
cmacast2@CMAcast:/dvbs2> ll
总用量 6
drwxr-xr-x 81 cmacast2 cimsgrp 2456 10月 27 17:44 sdb1
drwxr-xr-x 80 cmacast2 cimsgrp 2440 10月 22 08:32 sdb2
drwxr-xr-x 80 cmacast2 cimsgrp 2440 10月 25 06:19 sdb3
drwxrwxr-x 5 cmacast2 cimsgrp 104 7月 20 15:33 sdb4
cmacast2@CMAcast:/dvbs2>
```

Command : **chown cmacast2 sdb***

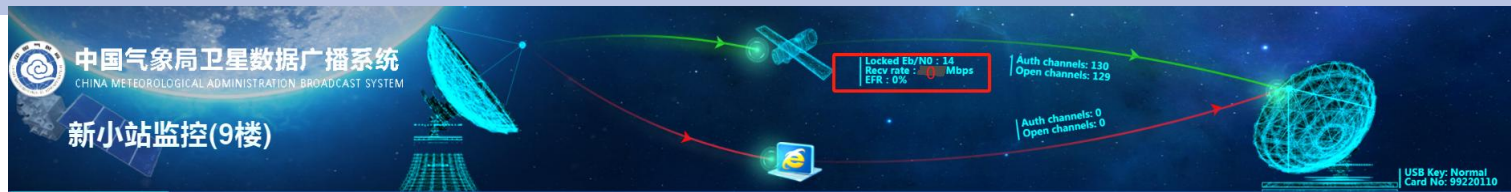




Frequently Asked Questions

❑ 8. Question:

The software has no display error, the lock status is normal, but no receive rate or the 'Received files num' is 0.



4、Verify that actual disk mount partitions are consistent with those in the configuration file
'/home/cmacast2/cfg/mediarecv.ini'.

If not, use the cmacast2 account, remount the disk, then reinstall the software.

Please refer to the "Instructions on the Installation of CMACast Receiving Software" course for software reinstallation methods.

```
#市县级小站接收路径，多路径（单个路径依次包含设备和目录名，由·分隔）则用分号分隔，  
RecvPath=/dev/sda5:/dvbs2/sdb1;/dev/sda6:/dvbs2/sdb2;/dev/sda7:/dvbs2/sdb3
```

```
CMACast-1s:~# df -h  
Filesystem      Size  Used Avail Use% Mounted on  
devtmpfs        16G   0    16G   0% /dev  
tmpfs           16G  180K   16G   1% /dev/shm  
tmpfs           16G  226M   16G   2% /run  
tmpfs           16G   0    16G   0% /sys/fs/cgroup  
/dev/sdb4       50G   14G   37G  27% /  
/dev/sdb6      124G   61M  123G   1% /dvbs/sdb4  
/dev/sdb2      231G   61M  230G   1% /dvbs/sdb2  
/dev/sdb3      231G   61M  230G   1% /dvbs/sdb3  
/dev/sdb1      231G   61M  230G   1% /dvbs/sdb1  
tmpfs          3.2G   24K   3.2G   1% /run/user/9999
```





Frequently Asked Questions

❑ 9. Question:

The disk `'/dvbs2/sdb4/'` for storing software logs is insufficient.

Solution :

- 1、Run the following command to check whether any process occupies the historical logs.

Command : **lsuf | grep deleted**

```
cmacast2@cmacast-611890-recv:~$ lsuf | grep deleted
lsuf: WARNING: can't stat() fuse.gvfs-fuse-daemon file system /root/.gvfs
Output information may be incomplete.
java      4537    cmacast2    5w    REG    0,0      9038    50 /dvbs2/sdb4/cmacast2/log/cmacast-monitor/cmacast-upgrade.log (deleted)
java      4537    cmacast2    7w    REG    0,0      0       51 /dvbs2/sdb4/cmacast2/log/cmacast-monitor/error/cmacast-upgrade_error.log (deleted)
java      23680   cmacast2    5w    REG    0,0      6714    1246 /dvbs2/sdb4/cmacast2/log/cmacast-monitor/error/cmacast-monitor_error.log (deleted)
java      23733   cmacast2    7w    REG    0,0      0       383 /dvbs2/sdb4/cmacast2/log/cmacast-monitor/error/cmacast-chanstatus_error.log (deleted)
java      23733   cmacast2    62r    REG    0,0      0       2477 /dvbs2/sdb4/cmacast2/log/internet/receive_20221211.log (deleted)
java      23733   cmacast2    69r    REG    0,0      0       878 /dvbs2/sdb4/cmacast2/log/internet/receive_20221218.log (deleted)
java      23733   cmacast2    70r    REG    0,0      0       442 /dvbs2/sdb4/cmacast2/log/internet/receive_20221216.log (deleted)
java      23733   cmacast2    71r    REG    0,0      0       1336 /dvbs2/sdb4/cmacast2/log/internet/receive_20221213.log (deleted)
java      23733   cmacast2    72r    REG    0,0      0       1202 /dvbs2/sdb4/cmacast2/log/internet/receive_20221212.log (deleted)
java      23733   cmacast2    75r    REG    0,0      0       2003 /dvbs2/sdb4/cmacast2/log/internet/receive_20221215.log (deleted)
java      23733   cmacast2    76r    REG    0,0      0       1708 /dvbs2/sdb4/cmacast2/log/internet/receive_20221214.log (deleted)
java      23733   cmacast2    78r    REG    0,0      0       538 /dvbs2/sdb4/cmacast2/log/internet/receive_20221217.log (deleted)
java      23733   cmacast2    79r    REG    0,0      0       767 /dvbs2/sdb4/cmacast2/log/internet/receive_20221224.log (deleted)
java      23733   cmacast2    80r    REG    0,0      0       1291 /dvbs2/sdb4/cmacast2/log/internet/receive_20221219.log (deleted)
java      23733   cmacast2    81r    REG    0,0      0       1403 /dvbs2/sdb4/cmacast2/log/internet/receive_20221220.log (deleted)
java      23733   cmacast2    82r    REG    0,0      0       1816 /dvbs2/sdb4/cmacast2/log/internet/receive_20221222.log (deleted)
java      23733   cmacast2    83r    REG    0,0      0       1524 /dvbs2/sdb4/cmacast2/log/internet/receive_20221221.log (deleted)
java      23733   cmacast2    84r    REG    0,0      0       2107 /dvbs2/sdb4/cmacast2/log/internet/receive_20221223.log (deleted)
java      23751   cmacast2    7w    REG    0,0      0       390 /dvbs2/sdb4/cmacast2/log/cmacast-monitor/error/cmacast-contentmonitor_error.log (deleted)
java      23751   cmacast2    67r    REG    0,0      0       2477 /dvbs2/sdb4/cmacast2/log/internet/receive_20221211.log (deleted)
java      23751   cmacast2    76r    REG    0,0      0       1816 /dvbs2/sdb4/cmacast2/log/internet/receive_20221222.log (deleted)
java      23751   cmacast2    77r    REG    0,0      308342982 1750 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221211.log (deleted)
java      23751   cmacast2    78r    REG    0,0      0       1708 /dvbs2/sdb4/cmacast2/log/internet/receive_20221214.log (deleted)
java      23751   cmacast2    79r    REG    0,0      0       1202 /dvbs2/sdb4/cmacast2/log/internet/receive_20221212.log (deleted)
java      23751   cmacast2    80r    REG    0,0      306144291 1209 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221212.log (deleted)
java      23751   cmacast2    81r    REG    0,0      0       1336 /dvbs2/sdb4/cmacast2/log/internet/receive_20221213.log (deleted)
java      23751   cmacast2    82r    REG    0,0      308751553 1265 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221213.log (deleted)
java      23751   cmacast2    83r    REG    0,0      0       2003 /dvbs2/sdb4/cmacast2/log/internet/receive_20221215.log (deleted)
java      23751   cmacast2    84r    REG    0,0      308505715 1724 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221214.log (deleted)
java      23751   cmacast2    85r    REG    0,0      0       878 /dvbs2/sdb4/cmacast2/log/internet/receive_20221218.log (deleted)
java      23751   cmacast2    86r    REG    0,0      321913165 1113 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221215.log (deleted)
java      23751   cmacast2    87r    REG    0,0      0       442 /dvbs2/sdb4/cmacast2/log/internet/receive_20221216.log (deleted)
java      23751   cmacast2    88r    REG    0,0      333538812 443 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221216.log (deleted)
java      23751   cmacast2    89r    REG    0,0      0       538 /dvbs2/sdb4/cmacast2/log/internet/receive_20221217.log (deleted)
java      23751   cmacast2    90r    REG    0,0      324975240 494 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221217.log (deleted)
java      23751   cmacast2    91r    REG    0,0      0       2107 /dvbs2/sdb4/cmacast2/log/internet/receive_20221223.log (deleted)
java      23751   cmacast2    92r    REG    0,0      314505691 881 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221218.log (deleted)
java      23751   cmacast2    93r    REG    0,0      0       1291 /dvbs2/sdb4/cmacast2/log/internet/receive_20221219.log (deleted)
java      23751   cmacast2    94r    REG    0,0      308575347 1339 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221219.log (deleted)
java      23751   cmacast2    95r    REG    0,0      0       1403 /dvbs2/sdb4/cmacast2/log/internet/receive_20221220.log (deleted)
java      23751   cmacast2    96r    REG    0,0      322032453 441 /dvbs2/sdb4/cmacast2/log/mediarecv/chan/recv20221220.log (deleted)
```





Frequently Asked Questions

❑ 9. Question:

The disk `'/dvbs2/sdb4/'` for storing software logs is insufficient.

Possible cause :

- 1、 It is possible that processes in filemonitor, contentmonitor, and chanstatus open the historical receive log file and do not close it in time.

Solution :

- 2、 Restart the filemonitor, contentmonitor or chanstatus to free up disk space.

Command : `./home/cmacast2/bin/filemonitor/stop_filemonitor.sh`

Command : `./home/cmacast2/bin/filemonitor/run_filemonitor.sh`

Command : `./home/cmacast2/bin/contentmonitor/stop_contentmonitor.sh`

Command : `./home/cmacast2/bin/contentmonitor/run_contentmonitor.sh`

Command : `./home/cmacast2/bin/cmacast-chanstatus /stop_chanstatus.sh` Command : `./home/cmacast2/bin/cmacast-chanstatus /run_chanstatus.sh`





Notes

- ❑ 1. Actual disk mount partitions are consistent with those in the configuration file `'/home/cmacast2/cfg/mediarecv.ini'` .

If the configurations are incorrect, the data receiving will be affected.

TIPS :

- 1、 Check whether the receiving data paths configured in the **'RecvPath'** parameter of the `/home/cmacast2/cfg/mediarecv.ini` file correspond to the actual disk partitions of the system.

#市县级小站接收路径，多路径（每个路径依次包含设备和目录名，由:分隔）则用分号;分隔，
RecvPath `/dev/sda5:/dvbs2/sdb1;/dev/sda6:/dvbs2/sdb2;/dev/sda7:/dvbs2/sdb3`

```
cmacast2@CMACast-TD:~/cfg> df -h
```

文件系统	容量	已用	可用	已用%	挂载点
/dev/sda1	40G	17G	21G	45%	/
udev	7.8G	200K	7.8G	1%	/dev
tmpfs	7.8G	1.7M	7.8G	1%	/dev/shm
/dev/sda3	9.9G	151M	9.2G	2%	/mnt/iso
/dev/sda8	102G	46G	57G	45%	/dvbs2/sdb4
/dev/sda6	320G	289G	32G	91%	/dvbs2/sdb2
/dev/sda7	320G	289G	32G	91%	/dvbs2/sdb3
/dev/sda5	320G	156G	165G	49%	/dvbs2/sdb1

for example : `/dev/sda5` mount point is `/dvbs2/sdb1`





Notes

❑ 2. Restart the program, first execute `./shopall.sh`, then execute `./startall.sh`.

The `startall.sh` script cannot be executed consecutively to prevent running multiple identical processes at the same time.

TIPS :

- 1、 Using the account 'cmacast2' .
- 2、 Go into the directory '/home/cmacast2/bin/'
- 3、 Execute the command. `./shopall.sh`, then execute the command `./startall.sh`.

```
cmacast2@linux-i3en:~/bin> ./stopall.sh ← Firstly
./stopall.sh: line 2: 126452 Terminated
./stopall.sh: line 3: 126528 Terminated
./stopall.sh: line 4: 126537 Terminated
./stopall.sh: line 5: 126548 Terminated
sh /home/cmacast2/bin/stoprlf_client.sh
sh /home/cmacast2/bin/stopfile_rltask.sh
sh /home/cmacast2/bin/stoprecvDaemon.sh
sh /home/cmacast2/bin/stopdoginfo.sh
find result: 58665
find result: 58735
find result: 58738
kill -9 58757
find result: 58760
find result: 58763
find result: 58768
kill -9 58786
cmacast2@linux-i3en:~/bin> ./startall.sh ← Secondly
kill: not enough arguments
cmacast2@linux-i3en:~/bin> █
```





Notes

❑ 3. Switching account to 'cmacast2' .

The command is '`su - cmacast2`'.

TIPS :

- 1、 Note that you need to add '-' between 'su' and 'cmacast2', otherwise you will get an error, because it cannot match the environment variable.





Notes

❑ 4. Set the software to start automatically upon startup.

(Take suse11 sp4 as an example).

TIPS :

- 1、 Go into the directory ‘/etc/init.d/’ and create an autostart script file.

```
CMACast01:~ #  
CMACast01:~ # cd /etc/init.d/  
CMACast01:/etc/init.d # touch after.local  
CMACast01:/etc/init.d #
```

- 2、 Edit the autostart script after.local.

```
CMACast01:/etc/init.d # vim after.local  
CMACast01:/etc/init.d #
```

Script content:

```
#!/bin/bash  
su - cmacast2 -s /bin/bash /home/cmacast2/bin/startall.sh
```





Notes

- ❑ **4. Set the software to start automatically upon startup.**
(Take suse11 sp4 as an example).

TIPS :

- 3、 Give the script executable permission.

```
CMACast01:/etc/init.d #  
CMACast01:/etc/init.d # chmod 755 after.local  
CMACast01:/etc/init.d #  
CMACast01:/etc/init.d # ll after.local  
-rwxr-xr-x 1 root root 71 Feb 27 11:56 after.local  
CMACast01:/etc/init.d # _
```

- 4、 Open the script file and verify that the content is correct

```
CMACast01:/etc/init.d # cat after.local  
#!/bin/bash  
su - cmacast2 -s /bin/bash /home/cmacast2/bin/startall.sh  
  
CMACast01:/etc/init.d # █
```





❑ 5. **Receiving server change.**

If you need to replace the CMACast data receiving server, you need to re-collect the fingerprint information and send it to `cmacast@cma.gov.cn`, you will get a new file with the d2c suffix.

TIPS :

1、 Use the account 'cmacast2', enter the path `/home/cmacast2/bin/`, and execute the script 'runsysinfo.sh'.

· Command : **`./runsysinfo.sh`**

2、 You will get a file named 'getSysInfo.txt'.

3、 You should send 'getSysInfo.txt' to `cmacast@cma.gov.cn`. We will create a secret key file with the suffix 'd2c' and send it back to you.

4、 Insert the USB KEY into the new server, and put the file with the suffix 'd2c' under the path `/home/cmacast2/resourcefile/d2c` by account 'cmacast2'.





❑ 5. **Receiving server change.**

If you need to replace the CMACast data receiving server, you need to re-collect the fingerprint information and send it to cmacast@cma.gov.cn, you will get a new file with the d2c suffix.

TIPS :

1、 Use the account 'cmacast2', enter the path /home/cmacast2/bin/, and execute the script 'runsysinfo.sh'.

· Command : **./runsysinfo.sh**

2、 You will get a file named 'getSysInfo.txt'.

3、 You should send 'getSysInfo.txt' to cmacast@cma.gov.cn. We will create a secret key file with the suffix 'd2c' and send it back to you.

4、 Insert the USB KEY into the new server, and put the file with the suffix 'd2c' under the path /home/cmacast2/resourcefile/d2c by account 'cmacast2'.





Contact us

If you have any question about CMACast system, please do not hesitate to contact us.

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Thank you for listening!

