中国遥感云平台

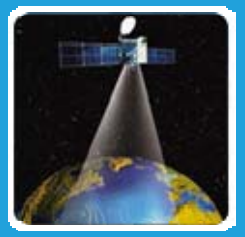
中国首家遥感云计算平台

Introduction of CRSCloud

(China Remote Sensing Cloud Compuing Platform)

Nanxiang Fu

Beijing Huadimap Info Tech Co.,Lt



What is CRSCloud?

China

Remote Sensing

Cloud

CRSCloud

www.crscloud.com

1 Introduction

2 Main Businesses

3 Cases

4 Summary

Background

Common Problems in RS applications

Where are image data
(free is the much better…)

Data process tools
(professional software)

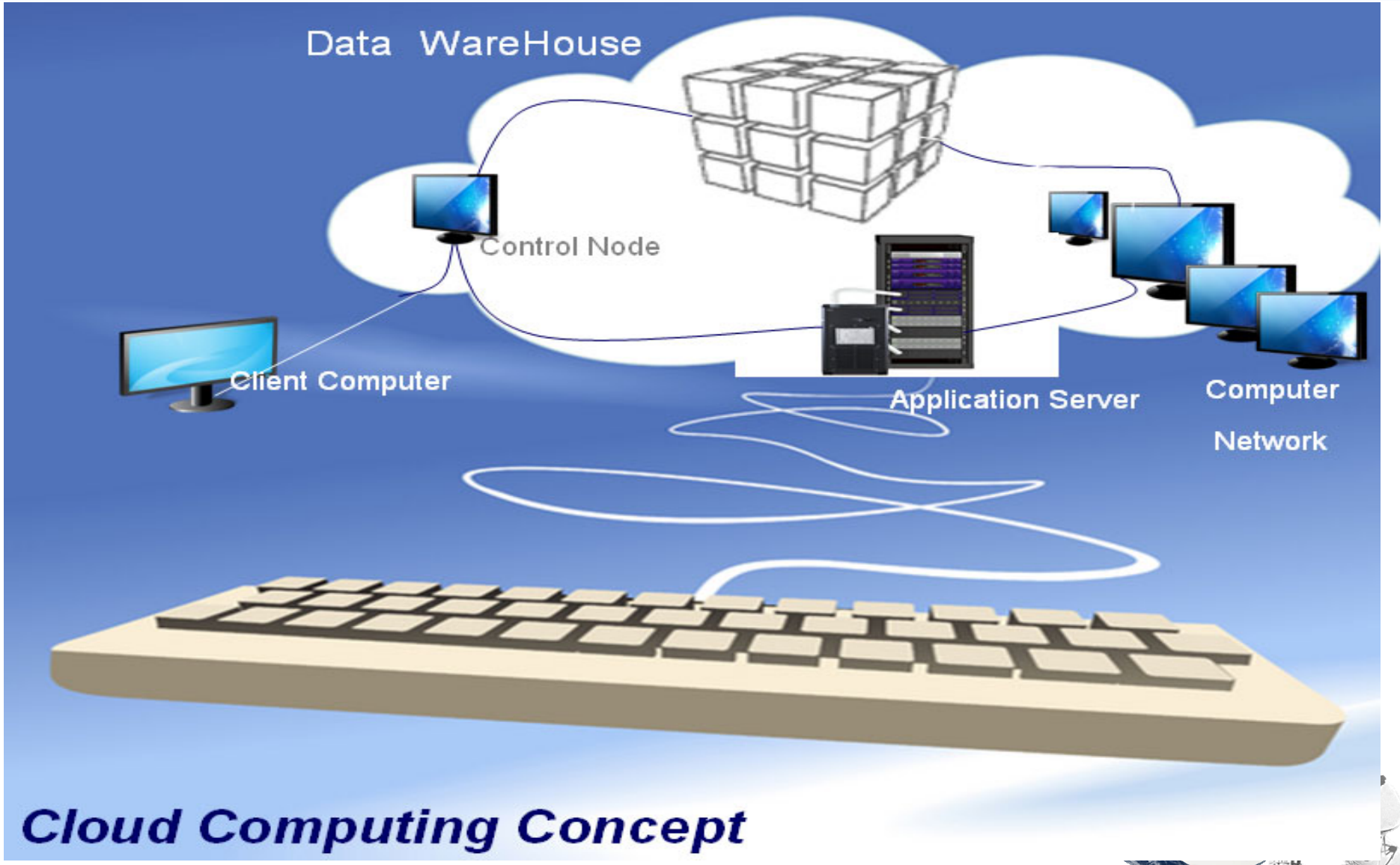
Limited storage space

?

Inconvenient to share products

Limited computational resource

Cloud Computing



Introduction

By applying cloud computing techs and integrating data searching/ordering, online service and product sharing, the China cloud computing platform of remote sensing makes it much more convenient for users to access data and services, which are extendable and on demand.

Searching Data

And

Sharing Applications

1 Introduction

2 Main Businesses

3 Cases

4 Summary

Business - Image Store

In image store, users can:

✓Search your interested data in massive data efficiently

✓Order image data obtained from multi-sensor with multi-level safely

✓Download public data for free

- **Data Search**

Associated with powerful image searching tools, users can browse remote sensing data conveniently by setting several conditions, e.g. geographical region, date, sensor type, etc.

Business -- Image Store

- **Multi-source Data**

  The massive data are obtained from various sources (e.g. satellites and air-based platforms) with multiple resolutions and levels

- **Data Ordering**

  All remote sensing image data searchable are available. Both large and retail order are accepted.

- **Data dissemination**

  The image data can be disseminated by several approaches, including FTP, CD-ROM and online download.

Business -- App Store

- **Online Application**

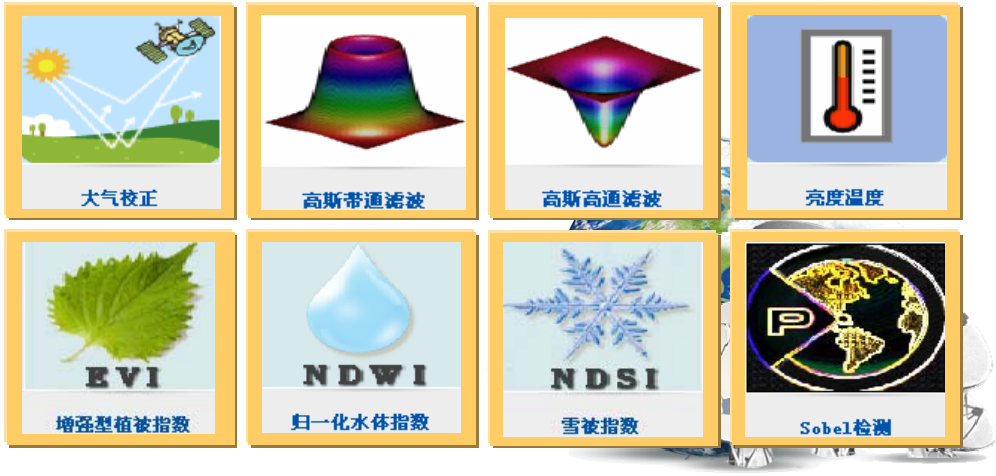
✓Complete application classification system

✓Applications in various fields, such as meteorology, ocean, land survey and mapping,……

✓Special applications in the Wenchuan earthquake、oil spills in bohai sea and so on

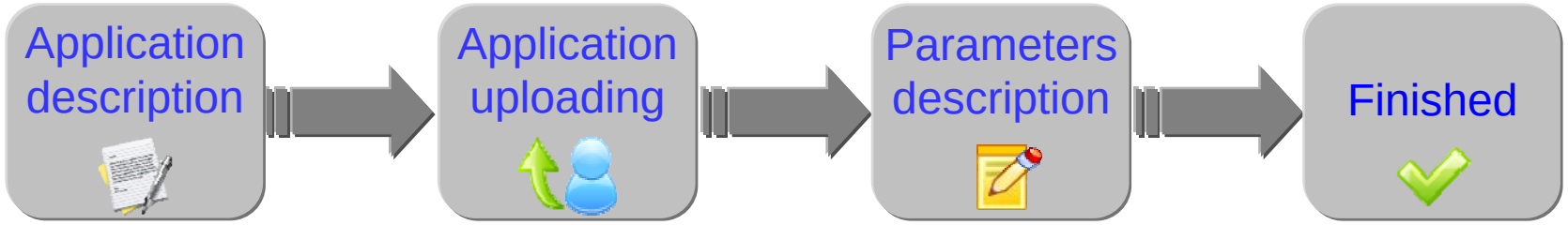
✓All the applications can be called and executed online

- ➢Radiometric Correction
- ➢Geometric Correction
- ➢Image Classification
- ➢Land Surface Parameters inversion
- ➢Change Detection
- ➢ ……



Business -- App Store

- **Application Release**



- ✓ Application description: including its name, key words, group belongs to and description
- ✓ Application uploading：
  - ➢ Web service deployment file（*war）
  - ➢ Web service description language file （*WSDL）
- ✓ Supported programming language：including java、 C++ 、 Fortran 、C#……
- ✓ Parameters description：descriptions of the input and output parameters

Business -- Product Sharing

- **Product Sharing**

  share remote sensing value-added products (such as thematic map and other products)

- **Product downloading**

  obtain the demanded remote sensing value-added products conveniently and swiftly

The ONLY domestic website that sharing remote sensing data products

Business -- User Space

Extra large independent storage space

Registered users can :

✓Upload and manage their massive image data

✓Collect the original data and the results of online execution

- **Application center**
  - ➢records of shared applications
  - ➢records of called applications
  - ➢focused applications
- **Product center**
  - ➢records of shared products
  - ➢records of downloaded products
  - ➢focused products
- **Order center**
  - ➢Tracking orders' statuses
- **Account center**
  - ➢account information
  - ➢password
  - ➢scores

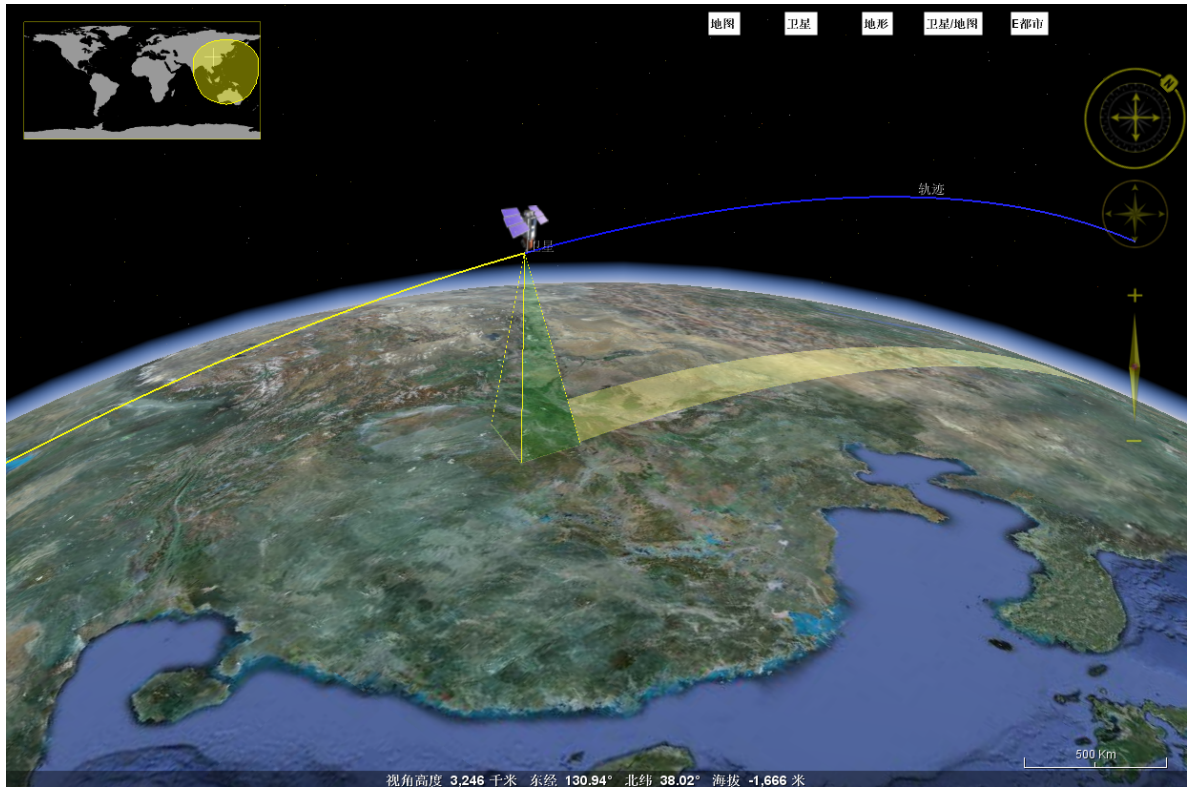
1 Introduction

2 Main Businesses

3 Cases

4 Summary

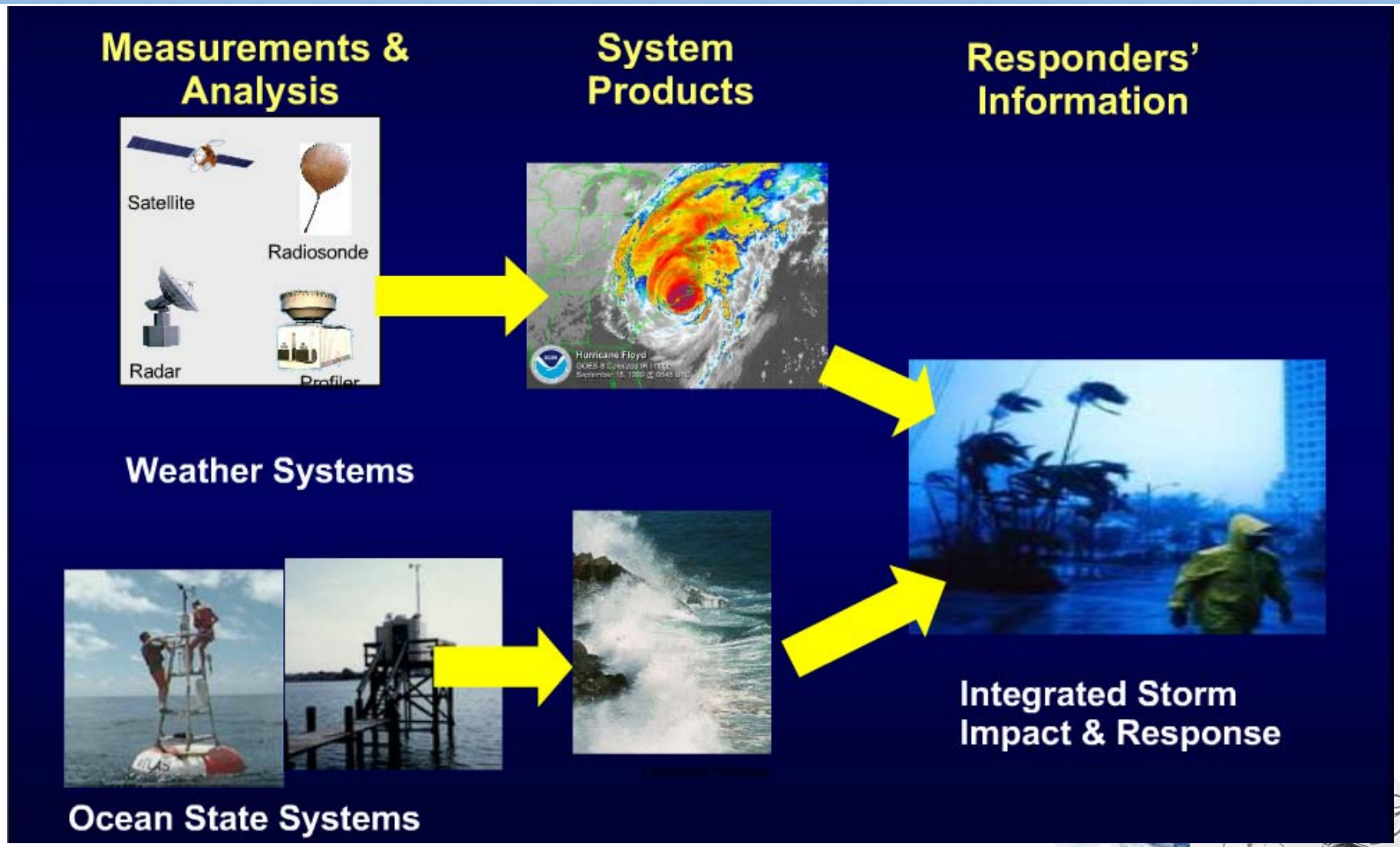
Cases -- Display coverage of satellite



- Compute the ephemeris data of various satellites, such as SPOT, Landsat, EOS AQUA/TERRA,FY and CBERS etc, from which the satellite's position and altitude, acquisition times, and its field of view can be obtained.

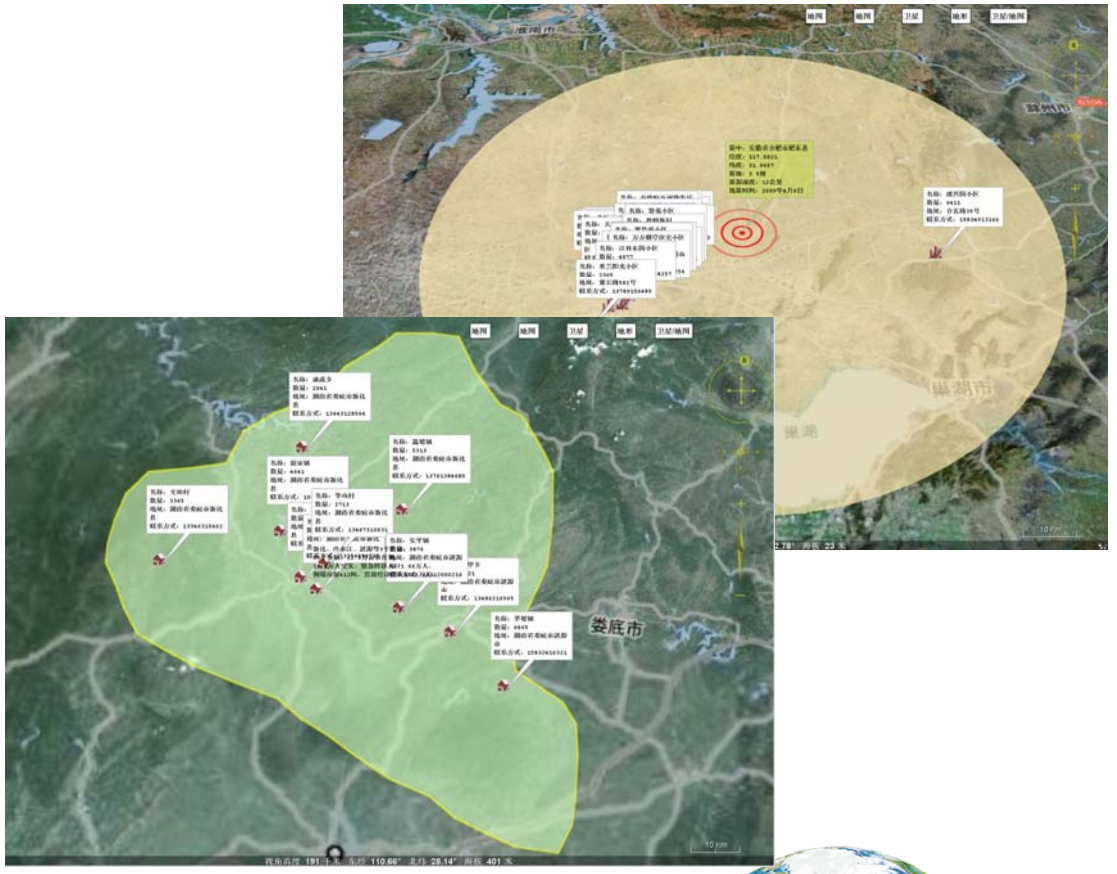
- Display the satellite sensor's coverage at a specified period of time based on the computed ephemeris data in a configured pattern.

Applications----Disaster Management



Cases -- Disaster Management

- Display the disaster area according to its geographical coordinates
- Display information about the disaster obtained from various sources including videos, data, images, etc.
- Some basic tools: such as overlay, zoom in/out ,roam, etc.
- Annotation tool is provided for users to label the disaster information on the map.



Outline

1. Introduction
2. Functions
3. Cases
4. Summary

Summary

Our goals:

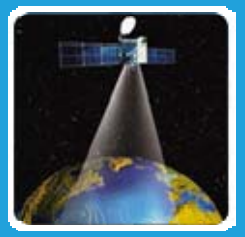
- Search in the most complete and comprehensive metadatabase
- Build the largest online application store
- Provide the most remote sensing products to share

Summary

Our goals：

- Search in the most complete and comprehensive metadatabase
- Build the largest online application store
- Provide the greatest number of remote sensing products for sharing

中国遥感云平台

中国首家遥感云计算平台

Thank You!