CMA WIS Prototype

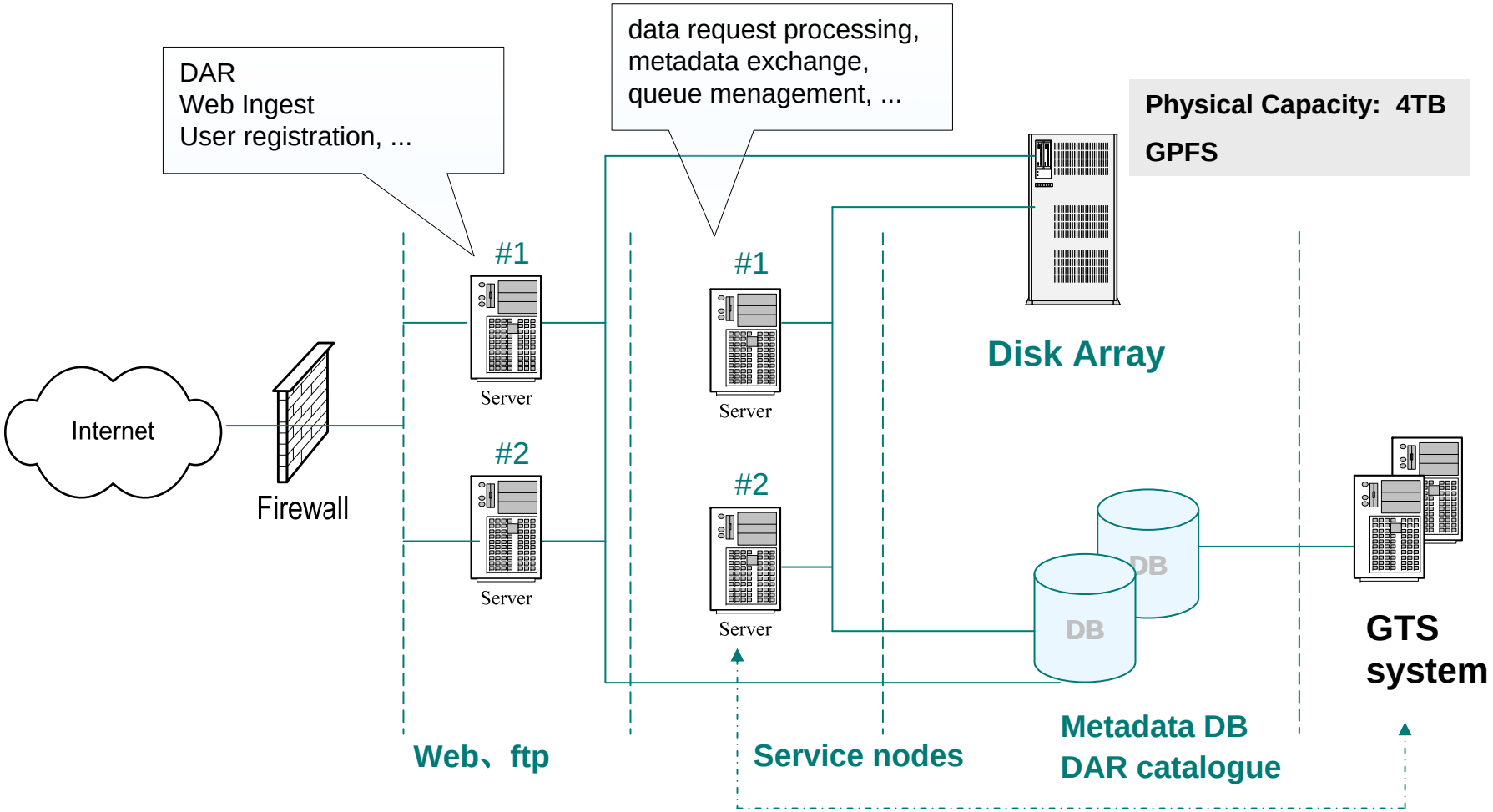
CMA's WIS prototype

Main Functions:

- data discovery
- data retrieval
- data access

- GTS data ingest

Platform



Linux Cluster, 6 nodes

Running environment

Operating system	SUSE Enterprise Server
Web server	Apache 2
J2EE server	Apache Tomcat 5.5
Database	Oracle 10g
JDK	SUN JDK 1.4
Third party libraries	unixODBC、POSIX、STL、ApacheAxis

Beijing WIS Portal

Data Service Metadata Upload Message board Sy

Data Request

Data Ingest

New Dataset

Service Statistics

WMO Information System

The WMO Information system (WIS) is be
WMO Members' ability to collect and diss
core information system utilized by WMO
WMO and supported programmes associ
related natural disasters. It is being built u
System of WMO's World Weather Watch
feasible for all Members.

Beijing WIS Portal

Beijing WIS portal is beging designed to p
WIS data. Currently, it provides the serive
observations and CMA's observation data

Data Request

Request of data by registered users.

Data Ingest

Input of GTS bulletins by registered users

Metadata Upload

Upload of the metadata for WIS data and

Service Statistics

Interface for inquiring about the process sta
requests.

User Management

Accept the user register , and check user s

Message Board

Receive messages from users, and exchan
the provided data among users.

User Registry

User Id*		Can the use of English letters, numbers
Password*		Less than 10 characters
Retype Password*		Please repeat input to the password above
User Name*		Can the use of English letters, numbers
Question		
Answer		
City		
Work Organization*		Less than 100 characters
Organization Address*		Less than 100 characters
Zip Code		
Telephone		Can the use of English letters, numbers

Selectable Datasets* ☐ All the Datasets

- ☐ CN_GOV_CMA_OBSERVATIONS_CLIMAT_GLOBAL show metadata
- ☐ CN_GOV_CMA_OBSERVATIONS_CLIMAT_TEMP_GLOBAL show metadata
- ☐ CN_GOV_CMA_OBSERVATIONS_SYNOP_GLOBAL show metadata
- ☐ CN_GOV_CMA_OBSERVATIONS_TEMP_GLOBAL show metadata
- ☐ CN_GOV_CMA_SATELLITE_FY_DATA show metadata
- ☐ CN_GOV_CMA_NWP_T213_DATA show metadata
- ☐ CN_GOV_CMA_THORPEX_TIGGE show metadata
- ☐ JP-JMA-TOKYO,SATAID,IR1,NC show metadata

Submit Reset

National Meteorological Information Center

Interoperation between CMA and JMA

- Metadata exchange
- Remote data request

Metadata exchange

- **protocols and mechanisms:**
  - **FTP**
    - **GET <PULL>**
  - **HTTP**
    - **Web**
    - **HTTP**
  - **OAI-PMH**

Metadata exchange

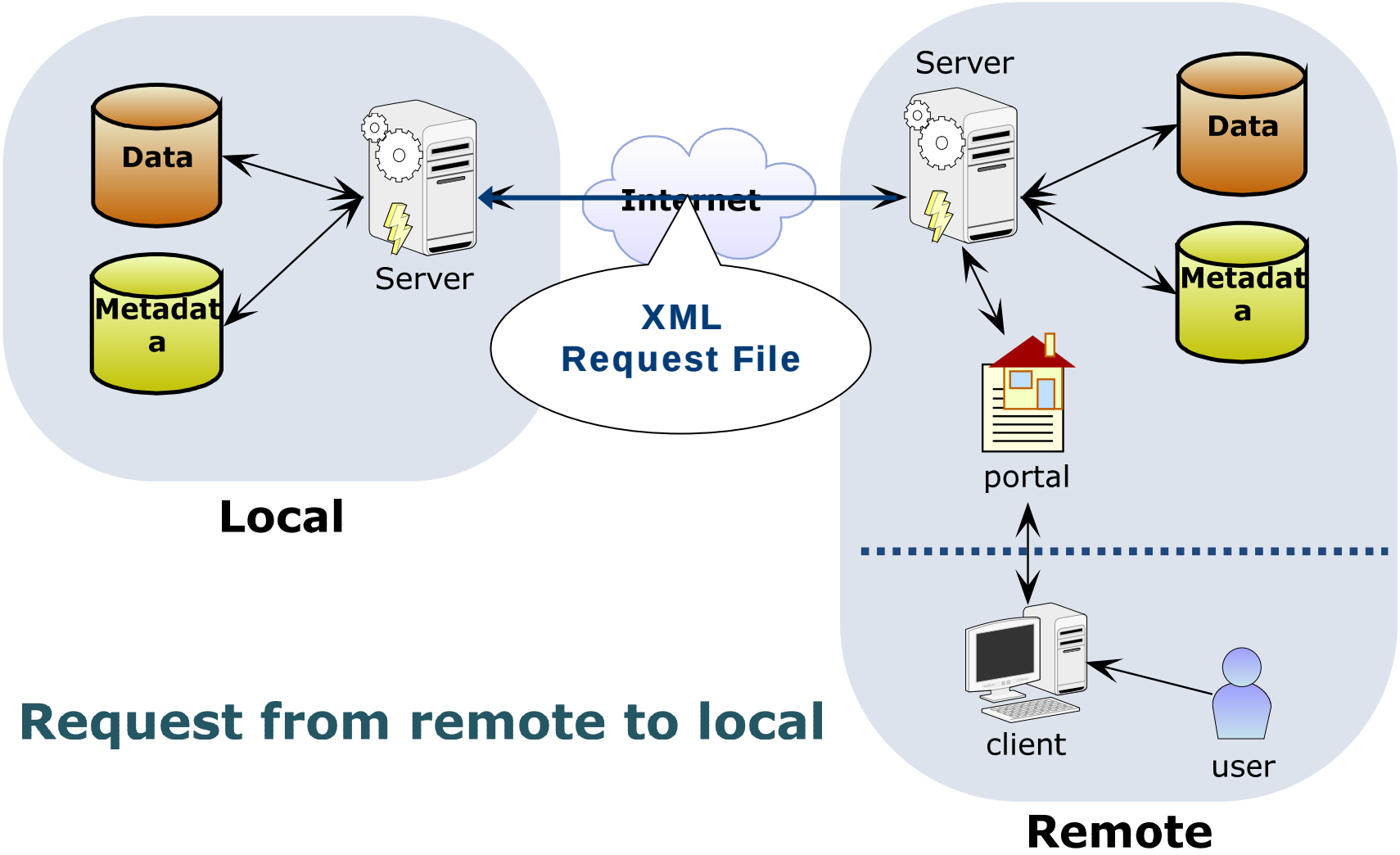
- **Implement methods:**
  - **Automatic process via FTP/HTTP/OAI**
  - **Manual upload via web**

Request Process

- Request from remote to local
- Request from local to remote
- Request from local to local

- Interface between CMA and JMA
  - Request file (filename, format)
  - Result Description File (filename, format)
  - Result data file (filename)

Request Process



Request from remote to local

Request File

- File Format

  XML document

- File Naming

  yyyymmddhhmmss-random number-the forth field of IP address-center code for request sponsor (CCCC).xml

  eg.20071120051918-0793-56-BABJ.xml

Request File

- File Content
  - Description code of request data set
  - Validation information
  - Request condition of request data set

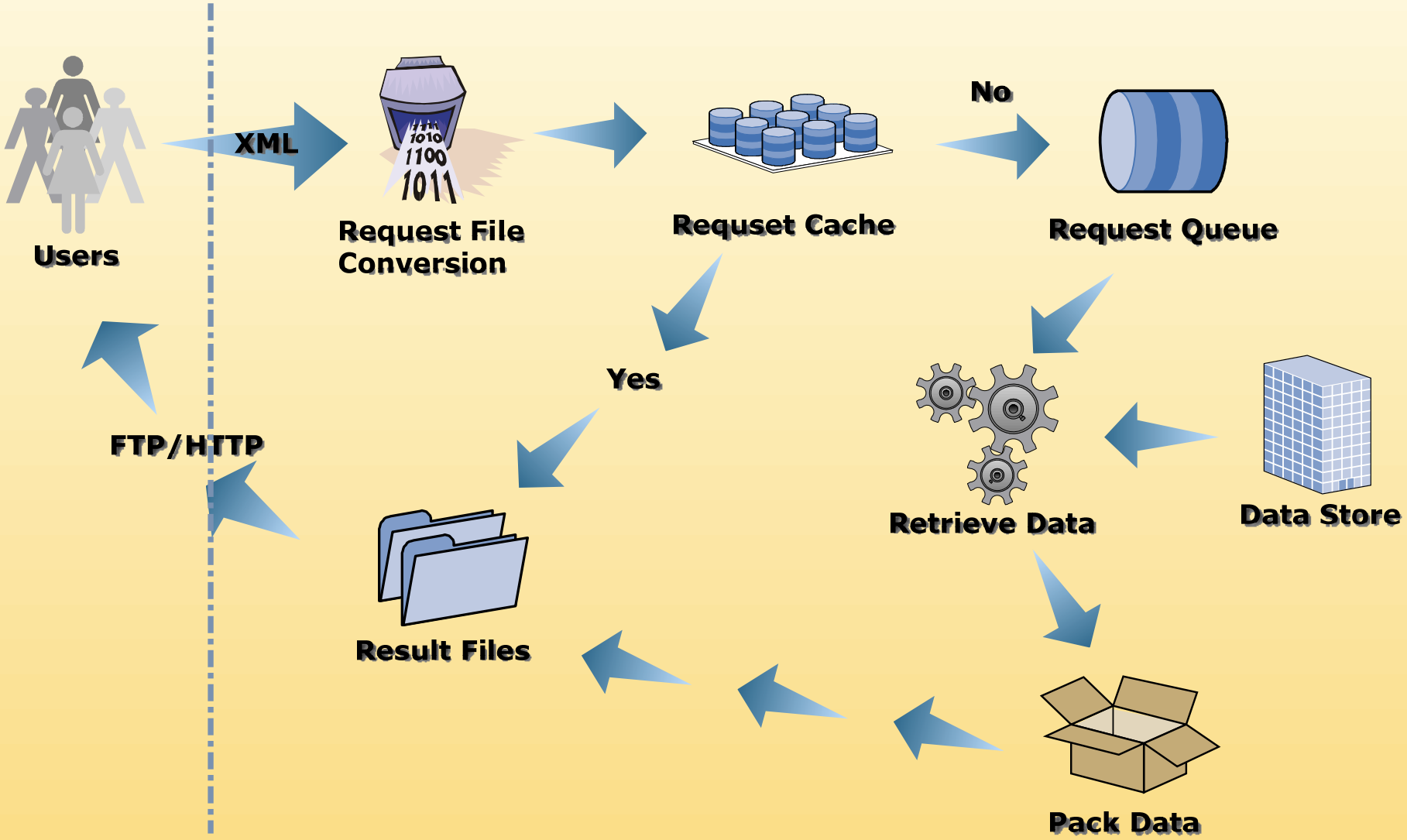
Request File

20071120051918-0793-56-BABJ.xml


```xml
<?xml version="1.0" encoding="utf-8"?>
<request>
  <dataset>JMA_SATAID_IR1nc</dataset>
  <local>
    <downloadmode>http</downloadmode>
    <usrid>test</usrid>
    <endpoint>http://wisportal.cma.gov.cn/servlet/AxisServlet</endpoint>
    <random>1426309776</random>
  </local>
  <condition>
    <date>
      <startDate>2007-11-15</startDate>
      <endDate>2007-11-16</endDate>
    </date>
    <datatimes>
      <value>00</value>
    </datatimes>
    <ii>
      <value>IR</value>
    </ii>
    <scccc>
      <value>RJTD</value>
    </scccc>
  </condition>
</request>
```

Request Process

Request Process From Remote To Local



Request Result

- Description file of request result
  - File naming

    Same as the request filename excluding the extension
  - File content

    Contain several lines mainly:

    The first line includes description code of request result;

    The second line includes the number of result data files;

    From the third line, it lists result filename if the request result files have been retrieved;
- Request Result data file
  - File naming
    - Same as the request filename, but the filename extension is replaced by compress type
  - File format
    - Compress File

Result Description File

2007 -BABJ

Process result identifier of request:
0: process successfully
1: there is no response data
2: the response data is too large

0

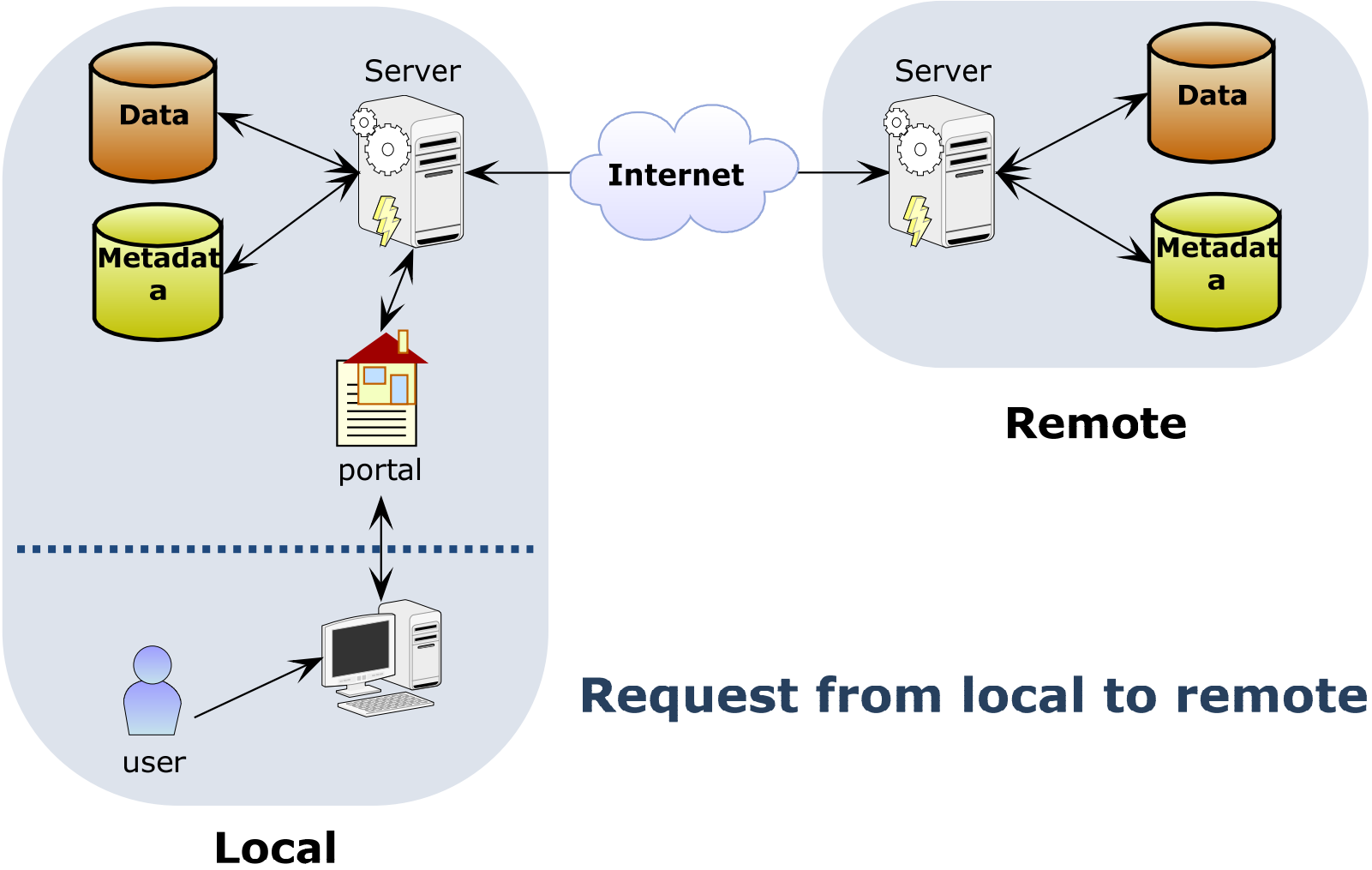
The number of result data files

3

20071120051918-0793-56-BABJ-1.zip
20071120051918-0793-56-BABJ-2.zip
20071120051918-0793-56-BABJ-3.zip

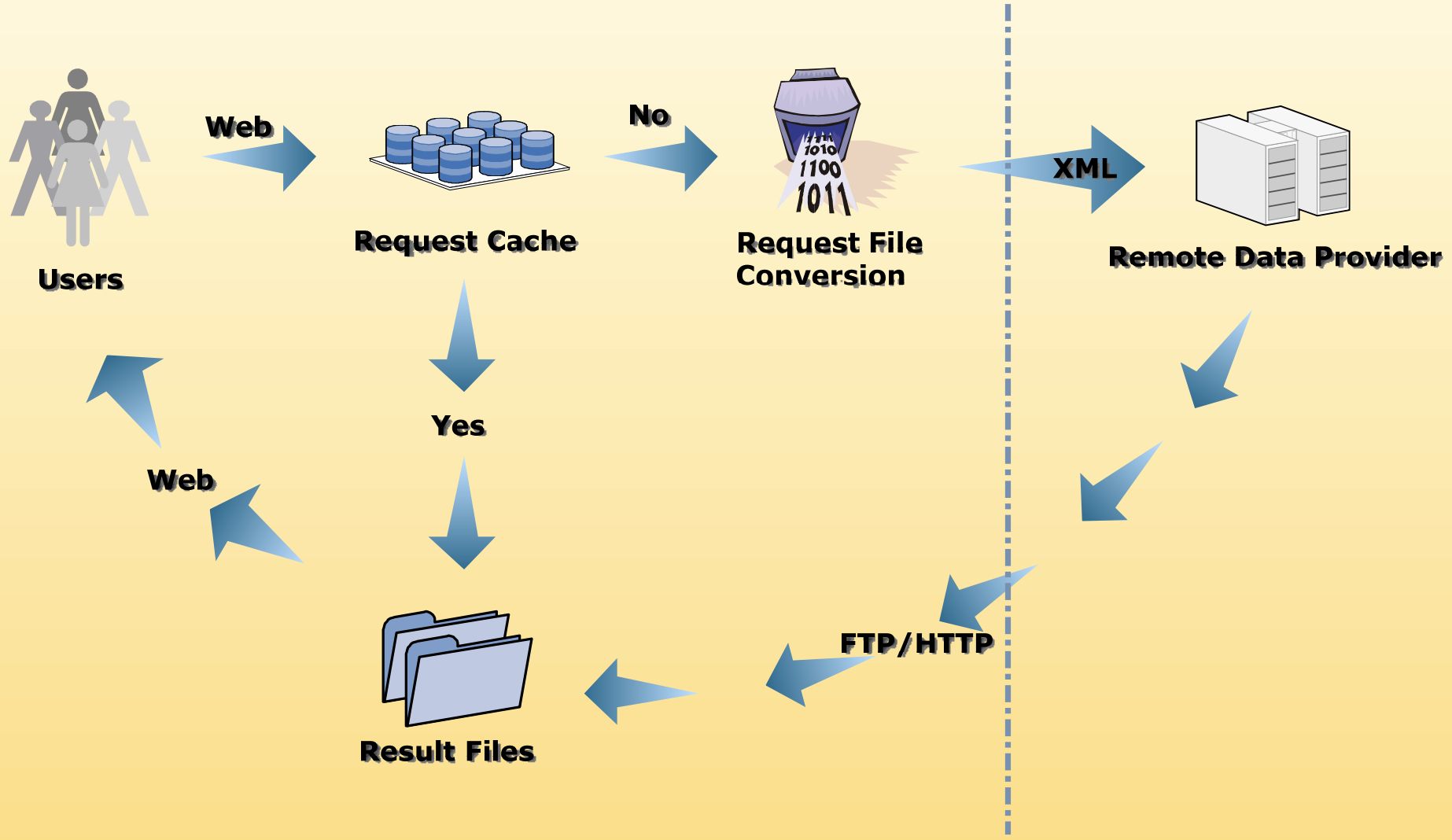
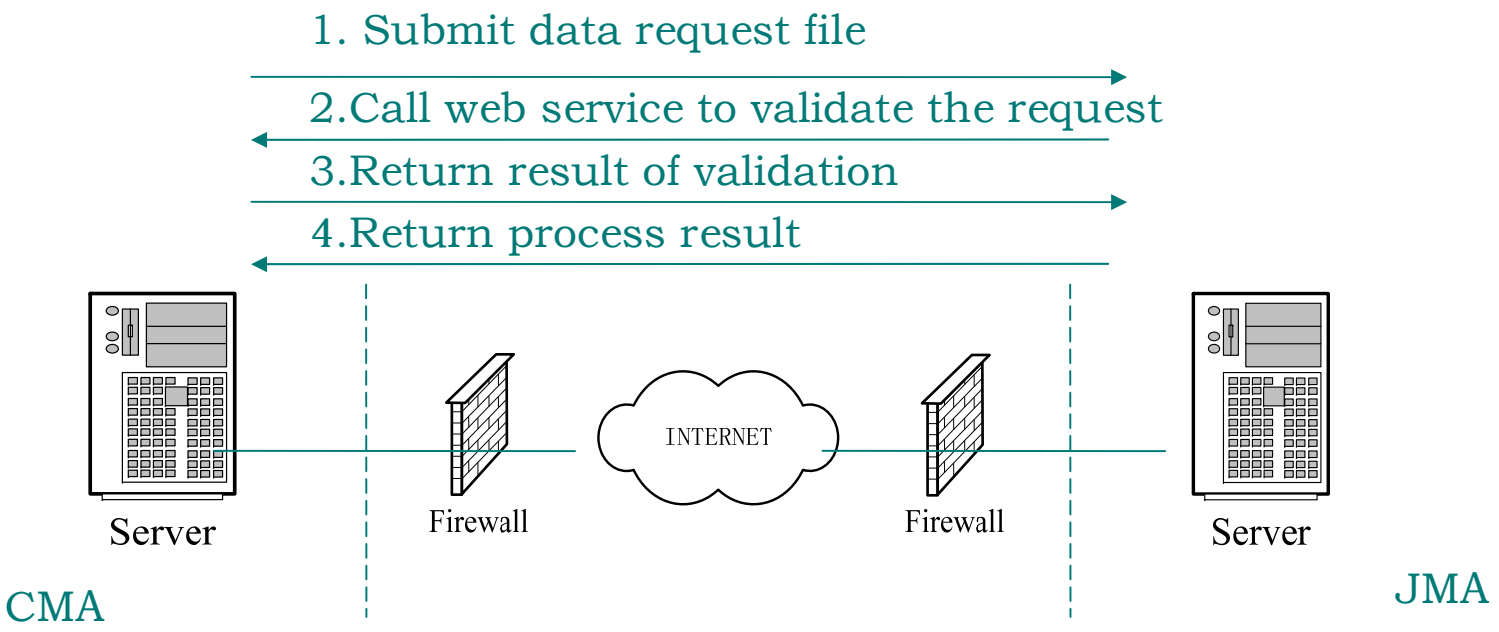
Result data filename list

Request Process



Request Process

Request Process From Local To Remote



Request Validation