Current status of telepresence system with omni-directional cameras

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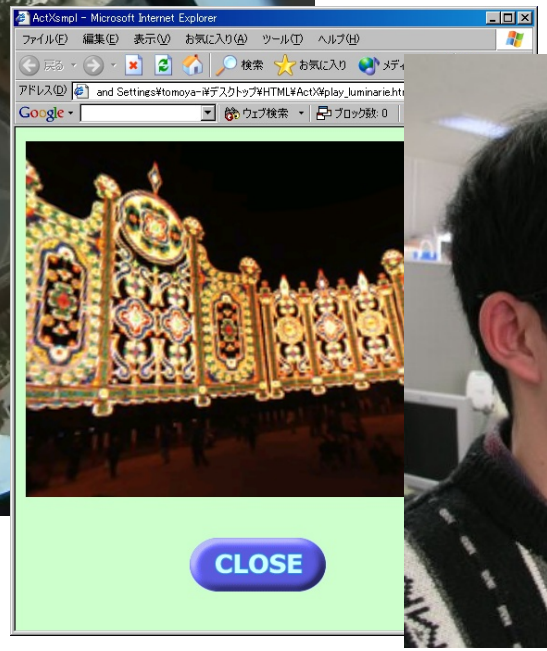
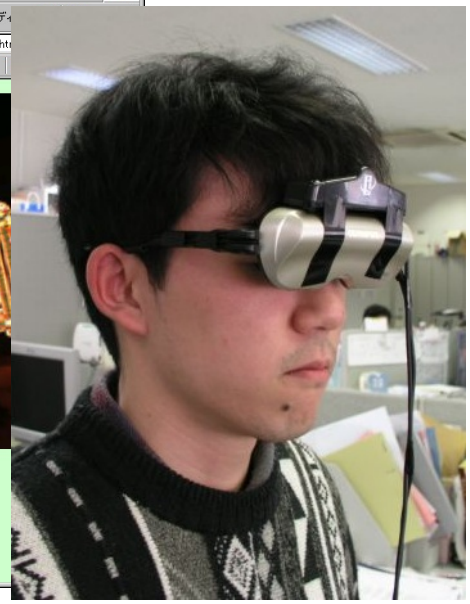
Omni-directional camera and viewers

Omni-directional cameras

Acquired image

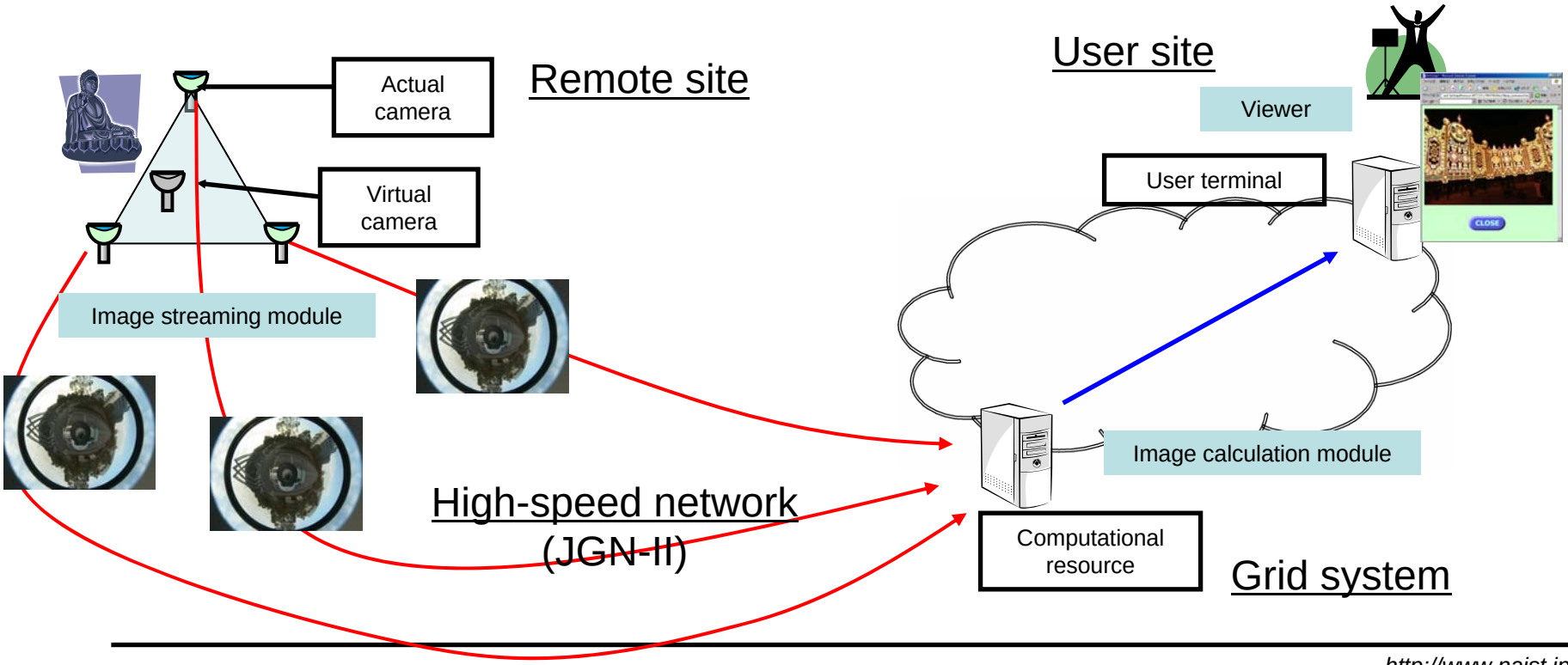
Viewing tools





Prototype system

- Almost same system as presented SC05
  - It consists of image streaming module, Image calculation module, and viewer.
  - Images come from one PC with mutiple omni-directional cameras.



Weakness of current system

- Three omni-directional cameras are connected to a single PC.
- The resolution of each camera is same as VGA.

Enhancement plan

- High resolution camera such as "*LadyBug*" will replace the current omni-diretional camera.
  - Calibration will be needed.
  - Computational resource must have GPU.
- A dynamic resource assignment mechanism has been designed.

- There is a serious problem…
  - Lack of human resources

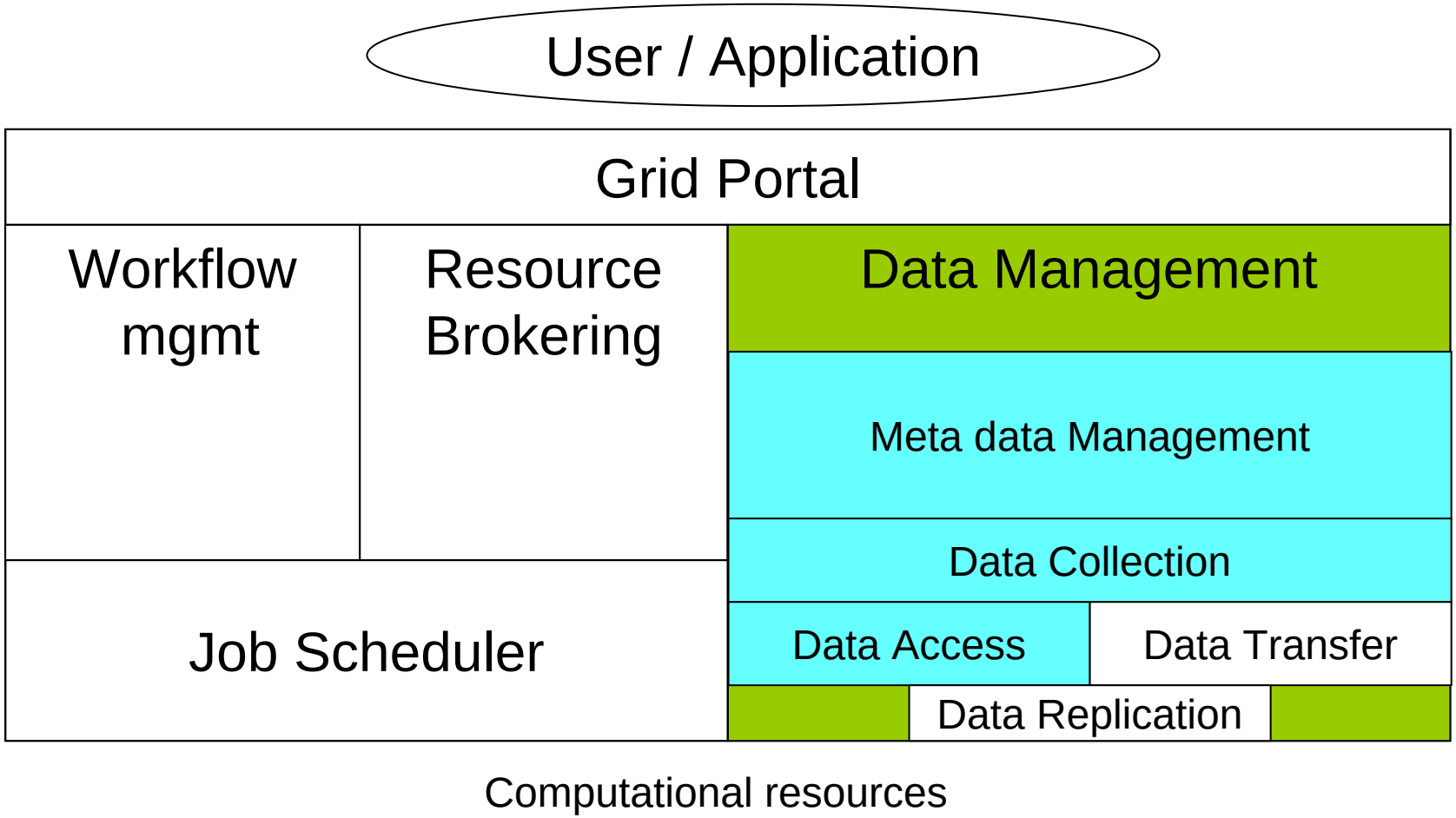
Unsolved issues

- Synchronization mechanism among images from difference cameras
  - I need human resource too.
- Access control for omni-directional cameras
  - Prof. Date will take care!?

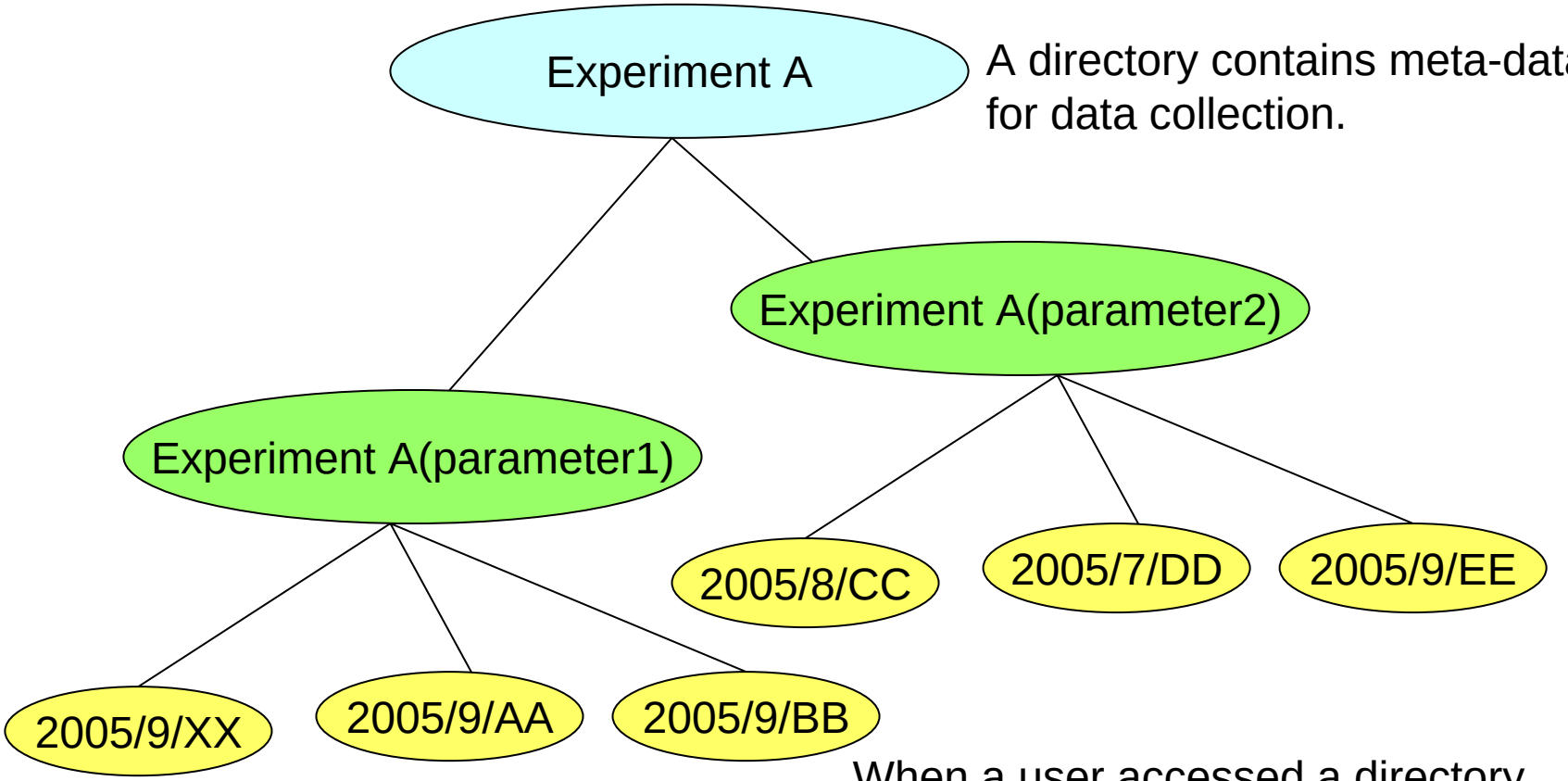
Other activity

- Data management mechanism for data generated distributedly using meta-data
  - Sensor data
  - Results of Grid computation

Architecture



Data access (1/2)



A directory contains meta-data for data collection.

When a user accessed a directory, some query is issued to collect data.

Data access (2/2)