Expectation and Challenge

- Advantage in dependability
  - Numerous resources
    - Makes the duplication and replacement of faulty resources easily possible.
    - Can avoid design fault(s).
- Difficulty in dependability
  - Decentralized autonomous management
    - Makes recovery (check-point restart) difficult.
    - Makes how to deal with the fault tolerance of the management mechanism itself difficult.
  - Distribution over network(s)
    - Makes notification/recognition of abnormity difficult

- Distribution over network(s) – continued
  - Makes how to gather and maintain the information of fault/fault-free condition of each participant in computing difficult.

- Issues to be attacked further
  - Granularity and language in computing
    - To make cooperation/collaboration efficient
  - Interface among participants in computing
    - To make the participation easy
  - Installation of the incentive to the participation
    - To let computing resources mind autonomously to participate
  - Check-pointing and recovery in distributed environment
    - How to discover faulty participant(s)
    - How to assign the replacement(s)
    - By what mechanism in the distributed environment

- How to deal with intrusion
  - Vulnerability of the distribution over network(s)
- Addition?

Diverse definition of grid

Need of standardization

Need of unifying many grid projects

Heterogeneity and dynamism of resources

Overhead

Licensing

Charging

Need experimental tools for Grid Computing

Proper placement of error detectors can help even in Grid environment