

# Monitoring, Control and Optimization in large scale distributed systems

*Wednesday 26 August 2009 17:15 (45 minutes)*

An important part of managing large-scale, distributed data-processing facilities is a monitoring system for computing facilities, storage, networks, and the very large number of applications running on these systems in near realtime. The monitoring information gathered for all the subsystems is essential for developing the required higher-level services—the components that provide decision support and some degree of automated decisions—and for maintaining and optimizing workflow in large-scale distributed systems. These management and global optimization functions are performed by higher-level agent-based services. To satisfy the demands of data-intensive applications the high level services we are developing provide synergetic relationships between the applications, computing, and storage facilities and the network infrastructure. Current applications higher-level services include optimized dynamic routing, control, and optimization for large-scale data transfers on dedicated circuits, data-transfer scheduling, distributed job scheduling, and automated management of remote services among a large set of grid facilities.

**Author:** LEGRAND, Iosif (Caltech)

**Presenter:** LEGRAND, Iosif (Caltech)

**Session Classification:** Lectures (Wednesday afternoon)