

# Challenges in the Building of a National Scale Grid Infrastructure in Thailand

Putchong Uthayopas  
Director  
Thai National Grid Project,  
Software Industry Promotion Agency (Public Organization),  
Ministry of Information and Communication Technology, Thailand  
Email: [p\\_uthayopas@thaigrid.net](mailto:p_uthayopas@thaigrid.net)

The competitiveness of any economy depends heavily on the presence of a strong communication and computation infrastructure. Although Internet has been flourished in Thailand for many years, the availability of advanced high performance computing infrastructure is still very limited. This situation creates a lot of challenges in increasing Thailand's the level of competitiveness research, education, and industry to the international level. Recently, Thai Government created a new initiative called ***Thai National Grid Project***. The goal of this project is to construct an advanced high performance computing and networking infrastructure in Thailand to support advanced research in area such as pharmaceutical, life science, simulation and modeling, nano-science, computational mechanics. In addition, the same infrastructure can be used to service many local industries such as auto industry, oil and gas, financial services, and digital media animation. Grid technology is viewed as a key technology that enables the integration of these infrastructures into a unified and usable system.

In this presentation, the background information about Thai National Grid project will be introduced. Furthermore, the key application domains, technical issues, and solution will be presented. Finally, it has been found that the creation of very focus and strong user's communities is critical to the success of the project more than overcoming the technical problems.

## Biography



Dr. Putchong Uthayopas research interest is in cluster and Grid computing technology. He published more than 80 refereed publications in this area. Dr. Putchong is instrumental in the building of 72 nodes Pirun Beowulf Cluster at Kasetsart University, the fastest computing system in Thailand in 1999. He also served as a program committee for numerous conferences such as IEEE Cluster Computing, IEEE Grid2005, IEEE ccgrid, and HPCAsia. He was a visiting scholar at Argonne National Laboratory working with MPICH during the summer of 1998, 1999, 2000, and 2001. Dr. Putchong is the co-founder of ThaiGrid project (2000-2006), an academics project formed by many universities in Thailand to explore the use of Grid technology. He served as a Co-Chair of Grid Working group under Asia Pacific Advanced Network Consortium (APAN) during 2004-2006. Currently, Dr. Putchong served as the Director of Thai National Grid project, Software Industry Promotion Agency (SIPA), Ministry of Communication and Information Technology, Thailand.