

e-Science for the Masses

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Abstract

Acting as the World-Wide Grid (WWG) and e-Science Asia Center, Academia Sinica Grid Computing Centre (ASGC) has initiated the e-Science collaborations on earthquake disaster mitigation, drug discovery, weather forecasting, and tsunami simulation in Asia Pacific region in the past 5 years. Regional advanced networking such as TEIN, APAN and ASGCNet established the solid foundation for easier data collection, sharing and distributed computing infrastructure. Closely cooperation with scientific groups and user communities in Taiwan and the partner countries provides the insight and right path of e-Science applications. Not only the scientific applications are integrated with the WWG framework, but also the research oriented production environment, workflow and long-term collaboration model are established.

e-Science application data provides very unique values and new opportunities for the new knowledge, human and environmental sustainability as well as international collaborations. Our current focus is to target on common regional concerns such as natural disaster mitigation to develop much better strategy to save lives based on the knowledge from these application data and multidisciplinary collaborations. The integration of earthquake, tsunami is one of our priorities.

Climate and environmental change based on Grid-based WRF analysis is another imperative objective in our current plan. The status and future plan of the regional e-Infrastructure, the e-Science application development and the community building will be presented as well.

