

Distributed Geospatial Information Processing

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Abstract

Distributed Geospatial Information Processing (DGIP) refers to the geospatial information processing resides on multiple computers connected through computer networks. DGIP originates from the interdisciplinary of computer networks and geospatial information system, and also known as network GIS, Internet GIS, or distributed GIS. This talk will introduce the major research components of DGIP, including 1) geocomputation: algorithms and techniques of DGIP; 2) modeling and framework: spatial information analysis and framework of DGIP; 3) interoperability at levels of data, information, service, and knowledge; 4) High Performance Computing (HPC), such as grid-based geospatial computing; and 5) applications of significance to national and international interests. Air quality and public health examples will be used to illustrate how DGIP research can be adopted in real applications of importance to national and international interests.