INTEGRATING GEOSPATIAL WEB SERVICES INTO ENTERPRISE BUSINESS SYSTEM BASED ON SERVICE INTELLIGENT AGENTS AND BAYESIAN NETWORK

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ABSTRACT—Integrating Geospatial Web Services into the enterprise business system seamlessly has become one of the major tasks in the enterprise information construction projects. The authors design a services integration system based on Bayesian Network and Service Intelligent Agents which provides an effective way for the enterprise to integrate Geospatial Web Services into the existing business system seamlessly. In this system, the authors build a Quality of Service reasoning model based on Bayesian network and propose a method of services executing result monitoring and feedback based on Service Intelligent Agents, which can effectively improve the efficiency and the success rate of services discovery and composition. The feedback information of services chain’s executing will be send to a QoS database, which can help to correct and update the QoS information.

Key Words: Geospatial Web Services, Service Intelligent Agents, Bayesian Network, Enterprise Business System, Spatial Data Integration.