An XML-based Knowledge Management System of Workflow

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ABSTRACT

With the rising popularity of the Internet and the EDI technology, many enterprises are investing resources to push forward electronic data management in their companies. It is found that most enterprises use the workflow system to enhance efficiency and consistency of knowledge management on electronic data management. However, several drawbacks of workflow system for knowledge management purpose have been identified. These drawbacks include integration of heavy data, implicit definition of vocabulary, and inflexible control of authentication access. Without a right way for conquering these drawbacks, the knowledge of enterprise is hard to be applied and reused effectively in workflow system.

In this research, we develop an eXtensible Markup Language (XML) based workflow system to fulfill the need of current requirement. XML describes data in a well-defined structure format so that it is suitable for knowledge interchange in heterogeneous systems. To solve the problem of ambiguous vocabulary definition in an enterprise, ontology technology is embedded in our XML based workflow system. It represents relationship and property of several important organization concepts so that the accuracy of searching result in the workflow system can be dramatically increased. Meanwhile, to provide detail authorization access control for users, we propose an XML based authorization handler. With the handler, the knowledge can be

shared in a more secured way. Our experiment shows that our XML based workflow system work well in terms of efficiency and consistency for knowledge management.

Keywords：eXtensible Markup Language (XML), Ontology, Authorization Control, Workflow System, Knowledge Management