EIA9972883
MSI: A Research Infrastructure for Integrated Quality of Service Management of Multimedia Computing Environments
Purdue University, West Lafayette, IN.
Investigators: Ahmed Elmagarmid, Arif Ghafoor, Tim Korb, Kihong Park, Gene Spafford
Website: http://www.cs.purdue.edu/msi/

**Project Description:**
The MSI research project addresses the integration of databases, networking and security – three pillars of today’s digital society – through a computing environment capable of meeting user and application requirements on the Internet. The three subsystems, (1) context-sensitive information retrieval, storage and dissemination, (2) QoS-sensitive information transport, and (3) security-sensitive information processing, are coordinated by the MSI framework to achieve a seamless and efficient single-system image. MSI presents a user-friendly abstraction that facilitates single-stop computing in the digital space.

**An MSI-developed Tool to Strengthen Video Database Research Potential.**
A significant and ever increasing portion of the information created today has audio-visual components, and most of it is now available in digital form. Real world video-based applications require database technology that is capable of storing this information in the form of video databases and providing content-based video search and retrieval. Methods for handling traditional data storage and retrieval cannot be extended to provide this functionality, and current approaches for handling video hide the video data from the database system, so that meaningful processing and optimization is not possible. The development of the VDBMS video database management system within the MSI project was motivated by the requirements of video-based applications to retrieve portions of video data based on content and by the need for testbed facilities to facilitate research in the area of video database management. VDBMS provides a full range of functionality for video as a well-defined data type, with its own description, parameters and applicable methods. The development and integration of a video data type into the...
The VDBMS Query Interface to the Video Database Management System