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#### The Management System for Heterogeneous Networks

The Management System for Heterogeneous Networks (MSHN) project is part of the DARPA/ITO Quorum program. Quorum's goal is to develop technologies to allow mission-critical defense applications to achieve survivable, predictable, and controllable quality of service on a globally managed pool of distributed resources.

The goal of the MSHN Project is to explore the application of adaptive and heuristic matching and scheduling techniques, and modern distributed security methods, to a distributed heterogeneous resource management system (RMS) which allows system resources to be accessed by both MSHN-controlled and external applications. To validate our research and engineering assumptions, a prototype version of MSHN has been developed and demonstrated.

A complete description of the MSHN technical program is found in the research papers. The <u>Final Report</u> provides both a high-level overview of the MSHN technical program and a reference guide to the research papers.

The MSHN Project began in 1997, under the direction of Dr. Debra Hensgen. In the fall of 1999, Dr. Cynthia Irvine took on oversight for MSHN. The primary project contract concluded on March 31, 2000

#### **MSHN Publications**

"An Overview of the Management System for Heterogeneous Networks (MSHN), 8th Workshop on Heterogeneous Computing Systems (HCW '99)", San Juan, Puerto Rico, Apr. 1999 (PDF)

Kim, J-K, Hensgen, D.A., Kidd, T., Siegel, H.J., St. John, D., Irvine, C. E., Levin, T., Porter, N.W., Prasanna, V.K., and Freund, R.F., "A QoS Performance Measure Framework for Distributed Heterogeneous Networks", Proceedings of the 8th Euromicro Workshop on Parallel and Distributed Processing, Rhodos, Greece, pp. 18-27, January 2000 (PDF)

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"Design, Implementation, and Testing of MSHN's Application Resource Monitoring Library" Masters Thesis, Naval Postgraduate School, Monterey, CA, Dec. 1998 (PDF)

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