1. Record Nr.   UNINA9910144927203321

   Titolo   Communication and Architectural Support for Network-Based Parallel Computing [[electronic resource]] : First International Workshop, CANPC'97, San Antonio, Texas, USA, February 1-2, 1997 Proceedings / / edited by Dhabaleswar K. Panda, Craig B. Stunkel

   Pubbl/distr/stampa   Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1997

   ISBN   3-540-68085-3

   Edizione   [1st ed. 1997.]

   Descrizione fisica   1 online resource (XI, 281 p.)

   Collana   Lecture Notes in Computer Science, , 0302-9743 ; ; 1199

   Disciplina   004.6/185

   Soggetti   Computer architecture
                          Operating systems (Computers)
                          Computer science
                          Computer networks
                          Computer programming
                          Computers
                          Computer System Implementation
                          Operating Systems
                          Popular Computer Science
                          Computer Communication Networks
                          Programming Techniques
                          Computation by Abstract Devices

   Lingua di pubblicazione Inglese

   Formato   Materiale a stampa

   Livello bibliografico Monografia

   Note generali   Bibliographic Level Mode of Issuance: Monograph

   Nota di contenuto   Efficient communication mechanisms for cluster based parallel computing -- Stream sockets on SHRIMP -- A simple and efficient process and communication abstraction for network operating systems -- Efficient adaptive routing in networks of workstations with irregular topology -- A deadlock avoidance method for computer networks -- Extending ATM networks for efficient reliable multicast -- ATLAS I: A single-chip ATM switch for NOWs -- Arachne: A portable threads library supporting migrant threads on heterogeneous network farms --

Transparent treatment of remote pointers using IPC primitive in RPC systems -- An Operating System support to low-overhead communications in NOW clusters -- Distributed hardware support for process synchronization in NSM workstation clusters -- Synchronization support in I/O adapter based SCI clusters -- Load balancing for regular data-parallel applications on workstation network -- A comparison of three high speed networks for parallel cluster computing -- Understanding the performance of DSM applications -- Performance metrics and measurement techniques of collective communication services -- CLAM: Connection-less, Lightweight, and Multiway communication support for distributed computing -- Network-wide cooperative computing architecture (NCCA) -- Data movement and control substrate for parallel scientific computing.

Sommario/riassunto	This book constitutes the refereed proceedings of the First International Workshop on Communication and Architectural Support for Network-Based Parallel Computing, CANPC'97, held in San Antonio, Texas, USA, in February 1997. The 19 revised full papers presented were carefully selected from a total of 36 submissions. Among the topics addressed are processor/network interfaces, communication protocols, high-performance network technology, operating systems and architectural issues, and load balancing techniques. All in all, the papers competently describe the state-of-the-art for network-based computing systems.