

1. Record Nr.	UNISA996466236203316
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	Architecture, Computer Operating systems (Computers) Computer science Computer communication systems 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.

---