

A Survey Of Distributed File Systems

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Enterprise Service Computing - Robin G. Qui 2007-01-01

"This book focuses on providing readers a comprehensive understanding of the development cycle of enterprise service computing. Covered topics range from concept development, system design, modeling, and development technologies, to final deployment. Both theoretical research results and practical applications are provided"--Provided by publisher.

Distributed Operating Systems & Algorithms - Randy Chow 1997

Distributed Operating Systems and Algorithms integrates into one text both the theory and implementation aspects of distributed operating systems for the first time. This innovative book provides the reader with knowledge of the important algorithms necessary for an in-depth understanding of distributed systems; at the same time it motivates the study of these algorithms by presenting a systems framework for their practical application. The first part of the book is intended for use in an advanced course on operating systems and concentrates on parallel systems, distributed systems, real-time systems, and computer networks. The second part of the text is written for a course on distributed algorithms with a focus on algorithms for asynchronous distributed systems. While each of the two parts is self-contained, extensive cross-referencing allows the reader to emphasize either theory or implementation or to cover both elements of selected topics. Features: Integrates and balances coverage of the advanced aspects of operating systems with the distributed algorithms used by these systems. Includes

extensive references to commercial and experimental systems to illustrate the concepts and implementation issues. Provides precise algorithm description and explanation of why these algorithms were developed. Structures the coverage of algorithms around the creation of a framework for implementing a replicated server-a prototype for implementing a fault-tolerant and highly available distributed system. Contains programming projects on such topics as sockets, RPC, threads, and implementation of distributed algorithms using these tools. Includes an extensive annotated bibliography for each chapter, pointing the reader to recent developments. Solutions to selected exercises, templates to programming problems, a simulator for algorithms for distributed synchronization, and teaching tips for selected topics are available to qualified instructors from Addison Wesley. 0201498383B04062001

J.UCS The Journal of Universal Computer Science - Hermann Maurer 2012-12-06

J.UCS is the electronic journal that covers all areas of computer science. The high quality of all accepted papers is ensured by a strict review process and an international editorial board of distinguished computer scientists. The online journal J.UCS is a prototype for modern electronic publishing. Distributed via the Internet, it supports all the search and navigation tools of advanced online systems. This first annual print and CD-ROM archive edition contains all articles published online in J.UCS during 1995. It allows easy and durable access without logging onto the

Internet. Uniform citation of papers is guaranteed by identical page numbering and layout of all versions. J.UCS is based on HyperWave (formerly Hyper-G), a networked hypermedia information system compatible with other systems.

The Design and Implementation of a Distributed File System Based on Shared Network Storage - Steven R. Soltis 1997

Disconnected Operation in a Distributed File System - James J. Kistler 1995-12-13

This book is based on the author's PhD thesis which was selected during the 1993 ACM Doctoral Dissertation Competition as one of the three best submissions. The focus of this work is on the issue of availability in distributed file systems. It presents the important new technique called disconnected operation, in which clients mask failures and voluntary network detachments by emulating the functionality of servers where actual server-oriented solutions are inadequate. This permits client operation even under complete isolation from the server; the clean integration of mobile computers into the system is an important side-effect of the new technique. The design and implementation of disconnected file service in a working system, the Coda file system, is described in detail.

A Survey of Distributed Capability File Systems and Their Application to Cloud Environments - Naval Postgraduate School 2014-12-25

This book considers distributed capability systems as a potential solution to securing data in cloud environments. The U.S. Navy, Intelligence Community and Department of Defense have begun a significant investment to leverage scalable, distributed cloud-based solutions for information sharing. We believe capability systems suggest a promising direction for new platforms, a bold approach drawing directly from mature ideas first explored in the 60s and 70s. We survey the properties and limits of existing distributed capability file systems, as a step toward understanding how capability-based designs might serve cloud-scale systems. We highlight some lessons learned in our observations and find

that, while no existing capability-based distributed file system demonstrates all of the desirable security traits observed of smaller-scale capability systems, it should be possible to define and create one that does, using capabilities carefully designed to obey a set of known properties.

Execution Environments for Distributed Computation Issues - Norbert Martínez Bazán 2008

Algorithms and Architectures for Parallel Processing - Guojun Wang 2015-11-16

This four volume set LNCS 9528, 9529, 9530 and 9531 constitutes the refereed proceedings of the 15th International Conference on Algorithms and Architectures for Parallel Processing, ICA3PP 2015, held in Zhangjiajie, China, in November 2015. The 219 revised full papers presented together with 77 workshop papers in these four volumes were carefully reviewed and selected from 807 submissions (602 full papers and 205 workshop papers). The first volume comprises the following topics: parallel and distributed architectures; distributed and network-based computing and internet of things and cyber-physical-social computing. The second volume comprises topics such as big data and its applications and parallel and distributed algorithms. The topics of the third volume are: applications of parallel and distributed computing and service dependability and security in distributed and parallel systems. The covered topics of the fourth volume are: software systems and programming models and performance modeling and evaluation.

Algorithms - ESA 2001 - Friedhelm Meyer 2001-08-15

It is only during the last decade that the functions of sinusoidal endothelial cells, Kupffer cells, hepatic stellate cells, pit cells and other intrahepatic lymphocytes have been better understood. The development of methods for isolation and co-culturing various types of liver cells has established that they communicate and cooperate via secretion of various intercellular mediators. This monograph summarizes multiple data that suggest the important role of cellular cross-talk for the functions of both normal and diseased liver. Special features of the book include concise

presentation of the majority of detailed data in 19 tables. Original schemes allow for the clear illustration of complicated intercellular relationships. This is the first ever presentation of the newly emerging field of liver biology, which is important for hepatic function in health and disease and opens new avenues for therapeutic interventions.

Modern Approaches in Machine Learning and Cognitive Science: A Walkthrough - Vinit Kumar Gunjan 2021-04-26

This book provides a systematic and comprehensive overview of machine learning with cognitive science methods and technologies which have played an important role at the core of practical solutions for a wide scope of tasks between handheld apps, industrial process control, autonomous vehicles, environmental policies, life sciences, playing computer games, computational theory, and engineering development. The chapters in this book focus on readers interested in machine learning, cognitive and neuro-inspired computational systems - theories, mechanisms, and architecture, which underline human and animal behaviour, and their application to conscious and intelligent systems. In the current version, it focuses on the successful implementation and step-by-step explanation of practical applications of the domain. It also offers a wide range of inspiring and interesting cutting-edge contributions to applications of machine learning and cognitive science such as healthcare products, medical electronics, and gaming. Overall, this book provides valuable information on effective, cutting-edge techniques and approaches for students, researchers, practitioners, and academicians working in the field of AI, neural network, machine learning, and cognitive science. Furthermore, the purpose of this book is to address the interests of a broad spectrum of practitioners, students, and researchers, who are interested in applying machine learning and cognitive science methods in their respective domains.

Catalogue of Distributed File/Operating Systems - Uwe M. Borghoff 2012-12-06

In general, distributed systems can be classified into Distributed File Systems (DFS) and Distributed Operating Systems (DOS). The survey which follows distinguishes between DFS approaches in Chapters 2-3,

and DOS approaches in Chapters 4-5. Within DFS and DOS, I further distinguish "traditional" and object-oriented approaches. A traditional approach is one where processes are the active components in the systems and where the name space is hierarchically organized. In a centralized environment, UNIX would be a good example of a traditional approach. On the other hand, an object-oriented approach deals with objects in which all information is encapsulated. Some systems of importance do not fit into the DFS/DOS classification. I call these systems "closely related" and put them into Chapter 6. Chapter 7 contains a table of comparison. This table gives a lucid overview summarizing the information provided and allowing for quick access. The last chapter is added for the sake of completeness. It contains very brief descriptions of other related systems. These systems are of minor interest or do not provide transparency at all. Sometimes I had to assign a system to this chapter simply for lack of adequate information about it.

Distributed Computing - Raman Khanna 1994

Focusing on distributed computing implementation, this work presents the current state-of-the-art in distributed computing in industry and academia. Covers OSF DCE and DME, ONC, NFS, distributed file systems, user services management and security in a distributed environment. Features case studies of actual implementations at leading corporations, universities, and industry consortia.

A Survey of Distributed File Systems - M. Satyanarayanan 1989

Distributed Operating Systems - Doreen L. Galli 2000

Doreen Galli uses her considerable academic and professional experience to bring together the worlds of theory and practice providing leading edge solutions to tomorrow's challenges. "Distributed Operating Systems: Concepts and Practice" offers a good balance of real world examples and the underlying theory of distributed computing. The flexible design makes it usable for students, practitioners and corporate training. This book describes in detail each major aspect of distributed operating systems from a conceptual and practical viewpoint. The operating systems of Amoeba, Clouds, and Chorus(TM) (the base technology for JavaOS(TM))

are utilized as examples throughout the text; while the technologies of Windows 2000(TM), CORBA(TM), DCOM(TM), NFS, LDAP, X.500, Kerberos, RSA(TM), DES, SSH, and NTP demonstrate real life solutions. A simple client/server application is included in the appendix to demonstrate key distributed computing programming concepts. This book proves invaluable as a course text or as a reference book for those who wish to update and enhance their knowledge base. A Companion Website provides supplemental information. A broad range of distributed computing issues and concepts: Kernels, IPC, memory management, object-based operating systems, distributed file systems (with NFS and X.500), transaction management, process management, distributed synchronization, and distributed security A major case study of Windows 2000 to demonstrate a real life commercial solution Detail Boxes contain in-depth examples such as complex algorithms Project-oriented exercises providing hands-on-experience Relevant sources including 'core' Web and ftp sites, as well as research papers Easy reference with complete list of acronyms and glossary to aid readability

Design of a High Performance, High Availability, Distributed File System - Chetan Ahuja 2001

Database Internals - Alex Petrov 2019-09-13

When it comes to choosing, using, and maintaining a database, understanding its internals is essential. But with so many distributed databases and tools available today, it's often difficult to understand what each one offers and how they differ. With this practical guide, Alex Petrov guides developers through the concepts behind modern database and storage engine internals. Throughout the book, you'll explore relevant material gleaned from numerous books, papers, blog posts, and the source code of several open source databases. These resources are listed at the end of parts one and two. You'll discover that the most significant distinctions among many modern databases reside in subsystems that determine how storage is organized and how data is distributed. This book examines: Storage engines: Explore storage classification and taxonomy, and dive into B-Tree-based and immutable Log Structured storage

engines, with differences and use-cases for each Storage building blocks: Learn how database files are organized to build efficient storage, using auxiliary data structures such as Page Cache, Buffer Pool and Write-Ahead Log Distributed systems: Learn step-by-step how nodes and processes connect and build complex communication patterns Database clusters: Which consistency models are commonly used by modern databases and how distributed storage systems achieve consistency
Model and Data Engineering - Alfredo Cuzzocrea 2013-09-10
This book constitutes the refereed proceedings of the Third International Conference on Model and Data Engineering, MEDI 2013, held in Amantea, Calabria, Italy, in September 2013. The 19 long papers and 3 short papers presented were carefully reviewed and selected from 61 submissions. The papers specifically focus on model engineering and data engineering with special emphasis on most recent and relevant topics in the areas of model-driven engineering, ontology engineering, formal modeling, security, and database modeling.

Replication Techniques in Distributed Systems - Abdelsalam A. Helal 1996-08-31

Replication Techniques in Distributed Systems organizes and surveys the spectrum of replication protocols and systems that achieve high availability by replicating entities in failure-prone distributed computing environments. The entities discussed in this book vary from passive untyped data objects, to typed and complex objects, to processes and messages. Replication Techniques in Distributed Systems contains definitions and introductory material suitable for a beginner, theoretical foundations and algorithms, an annotated bibliography of commercial and experimental prototype systems, as well as short guides to recommended further readings in specialized subtopics. This book can be used as recommended or required reading in graduate courses in academia, as well as a handbook for designers and implementors of systems that must deal with replication issues in distributed systems.

Annual Review of Computer Science - Joseph F. Traub 1990

The series will be suspended after this volume. Although critical reception has been good, according to the preface written by the editor-in-chief,

finding computer scientists willing to write critical review articles has been difficult and the editors have concluded that the series was launched prematurely. The impact of computers on all of modern science, technology, and society is indisputably enormous, but the pool of available writing talent is too small. This volume contains ten review articles and a special topics section with ten presentations. Annotation copyrighted by Book News, Inc., Portland, OR

Cloud Computing - Dan C. Marinescu 2013-05-30

Cloud Computing: Theory and Practice provides students and IT professionals with an in-depth analysis of the cloud from the ground up. Beginning with a discussion of parallel computing and architectures and distributed systems, the book turns to contemporary cloud infrastructures, how they are being deployed at leading companies such as Amazon, Google and Apple, and how they can be applied in fields such as healthcare, banking and science. The volume also examines how to successfully deploy a cloud application across the enterprise using virtualization, resource management and the right amount of networking support, including content delivery networks and storage area networks. Developers will find a complete introduction to application development provided on a variety of platforms. Learn about recent trends in cloud computing in critical areas such as: resource management, security, energy consumption, ethics, and complex systems Get a detailed hands-on set of practical recipes that help simplify the deployment of a cloud based system for practical use of computing clouds along with an in-depth discussion of several projects Understand the evolution of cloud computing and why the cloud computing paradigm has a better chance to succeed than previous efforts in large-scale distributed computing

Operating Systems (Self Edition 1.1.Abridged) - Sibsankar Haldar 2016-05-29

Some previous editions of this book were published from Pearson Education (ISBN 9788131730225). This book, designed for those who are taking introductory courses on operating systems, presents both theoretical and practical aspects of modern operating systems. Although the emphasis is on theory, while exposing you (the reader) the subject

matter, this book maintains a balance between theory and practice. The theories and technologies that have fueled the evolution of operating systems are primarily geared towards two goals: user convenience in maneuvering computers and efficient utilization of hardware resources. This book also discusses many fundamental concepts that have been formulated over the past several decades and that continue to be used in many modern operating systems. In addition, this book also discusses those technologies that prevail in many modern operating systems such as UNIX, Solaris, Linux, and Windows. While the former two have been used to present many in-text examples, the latter two are dealt with as separate technological case studies. They highlight the various issues in the design and development of operating systems and help you correlate theories to technologies. This book also discusses Android exposing you a modern software platform for embedded devices. This book supersedes ISBN 9788131730225 and its other derivatives, from Pearson Education India. (They have been used as textbooks in many schools worldwide.) You will definitely love this self edition, and you can use this as a textbook in undergraduate-level operating systems courses.

Handbook of Industry 4.0 and SMART Systems - Diego Galar Pascual 2019-09-17

Industry 4.0 refers to fourth generation of industrial activity characterized by smart systems and internet-based solutions. This book describes the fourth revolution based on instrumented, interconnected and intelligent assets. The different book chapters provide a perspective on technologies and methodologies developed and deployed leading to this concept. With an aim to increase performance, productivity and flexibility, major application area of maintenance through smart system has been discussed in detail. Applicability of 4.0 in transportation, energy and infrastructure is explored, with effects on technology, organisation and operations from a systems perspective.

Assured Cloud Computing - Roy H. Campbell 2018-10-02

Explores key challenges and solutions to assured cloud computing today and provides a provocative look at the face of cloud computing tomorrow This book offers readers a comprehensive suite of solutions for resolving

many of the key challenges to achieving high levels of assurance in cloud computing. The distillation of critical research findings generated by the Assured Cloud Computing Center of Excellence (ACC-UCoE) of the University of Illinois, Urbana-Champaign, it provides unique insights into the current and future shape of robust, dependable, and secure cloud-based computing and data cyberinfrastructures. A survivable and distributed cloud-computing-based infrastructure can enable the configuration of any dynamic systems-of-systems that contain both trusted and partially trusted resources and services sourced from multiple organizations. To assure mission-critical computations and workflows that rely on such systems-of-systems it is necessary to ensure that a given configuration does not violate any security or reliability requirements. Furthermore, it is necessary to model the trustworthiness of a workflow or computation fulfillment to a high level of assurance. In presenting the substance of the work done by the ACC-UCoE, this book provides a vision for assured cloud computing illustrating how individual research contributions relate to each other and to the big picture of assured cloud computing. In addition, the book: Explores dominant themes in cloud-based systems, including design correctness, support for big data and analytics, monitoring and detection, network considerations, and performance Synthesizes heavily cited earlier work on topics such as DARE, trust mechanisms, and elastic graphs, as well as newer research findings on topics, including R-Storm, and RAMP transactions Addresses assured cloud computing concerns such as game theory, stream processing, storage, algorithms, workflow, scheduling, access control, formal analysis of safety, and streaming Bringing together the freshest thinking and applications in one of today's most important topics, Assured Cloud Computing is a must-read for researchers and professionals in the fields of computer science and engineering, especially those working within industrial, military, and governmental contexts. It is also a valuable reference for advanced students of computer science.

ACM SIGMETRICS and Performance ... International Conference on Measurement and Modelling, Proceedings - 1992

Measuring Technology and Mechatronics Automation in Electrical Engineering - Zhixiang Hou 2012-02-14

Measuring Technology and Mechatronics Automation in Electrical Engineering includes select presentations on measuring technology and mechatronics automation related to electrical engineering, originally presented during the International Conference on Measuring Technology and Mechatronics Automation (ICMTMA2012). This Fourth ICMTMA, held at Sanya, China, offered a prestigious, international forum for scientists, engineers, and educators to present the state of the art of measuring technology and mechatronics automation research.

Client Data Caching - Michael J. Franklin 2012-12-06

Despite the significant ongoing work in the development of new database systems, many of the basic architectural and performance tradeoffs involved in their design have not previously been explored in a systematic manner. The designers of the various systems have adopted a wide range of strategies in areas such as process structure, client-server interaction, concurrency control, transaction management, and memory management. This monograph investigates several fundamental aspects of the emerging generation of database systems. It describes and investigates implementation techniques to provide high performance and scalability while maintaining the transaction semantics, reliability, and availability associated with more traditional database architectures. The common theme of the techniques developed here is the exploitation of client resources through caching-based data replication. *Client Data Caching: A Foundation for High Performance Object Database Systems* should be a value to anyone interested in the performance and architecture of distributed information systems in general and Object-based Database Management Systems in particular. It provides useful information for designers of such systems, as well as for practitioners who need to understand the inherent tradeoffs among the architectural alternatives in order to evaluate existing systems. Furthermore, many of the issues addressed in this book are relevant to other systems beyond the ODBMS domain. Such systems include shared-disk parallel database systems, distributed file systems, and distributed virtual memory

systems. The presentation is suitable for practitioners and advanced students in all of these areas, although a basic understanding of database transaction semantics and techniques is assumed.

Advances in Computing and Communications, Part IV - Ajith

Abraham 2011-07-06

This volume is the fourth part of a four-volume set (CCIS 190, CCIS 191, CCIS 192, CCIS 193), which constitutes the refereed proceedings of the First International Conference on Computing and Communications, ACC 2011, held in Kochi, India, in July 2011. The 62 revised full papers presented in this volume were carefully reviewed and selected from a large number of submissions. The papers are the papers of the Workshop on Cloud Computing: Architecture, Algorithms and Applications (CloudComp2011), of the Workshop on Multimedia Streaming (MultiStreams2011), and of the Workshop on Trust Management in P2P Systems (IWTMP2PS2011).

Context-Aware Pervasive Systems and Applications - Parikshit N. Mahalle
2019-09-19

This textbook explores the current challenges in and future prospects of context-aware pervasive systems and applications. The phenomenal advances in broadband technology and ubiquitous access to the Internet have transformed Internet computing into the Internet of Things (IoT), which is now evolving toward the Internet of Everything. Modern scientific, engineering, and business applications are increasingly dependent on machine-to-machine communication, wherein there is less human intervention. In turn, this creates a need for context-aware pervasive systems and applications in which RFID, sensors, and smartphones play a key role. The book provides an essential overview of context, context management, and how to perform context management in various use cases. In addition, it addresses context-aware computing and personalization, various architectures for context-aware systems, and security issues. The content is explained using straightforward language and easy-to-follow examples, case studies, technical descriptions, procedures, algorithms, and protocols for context-aware systems.

Distributed System Design - Jie Wu 2017-12-14

Future requirements for computing speed, system reliability, and cost-effectiveness entail the development of alternative computers to replace the traditional von Neumann organization. As computing networks come into being, one of the latest dreams is now possible - distributed computing. Distributed computing brings transparent access to as much computer power and data as the user needs for accomplishing any given task - simultaneously achieving high performance and reliability. The subject of distributed computing is diverse, and many researchers are investigating various issues concerning the structure of hardware and the design of distributed software. Distributed System Design defines a distributed system as one that looks to its users like an ordinary system, but runs on a set of autonomous processing elements (PEs) where each PE has a separate physical memory space and the message transmission delay is not negligible. With close cooperation among these PEs, the system supports an arbitrary number of processes and dynamic extensions. Distributed System Design outlines the main motivations for building a distributed system, including: inherently distributed applications performance/cost resource sharing flexibility and extendibility availability and fault tolerance scalability Presenting basic concepts, problems, and possible solutions, this reference serves graduate students in distributed system design as well as computer professionals analyzing and designing distributed/open/parallel systems. Chapters discuss: the scope of distributed computing systems general distributed programming languages and a CSP-like distributed control description language (DCDL) expressing parallelism, interprocess communication and synchronization, and fault-tolerant design two approaches describing a distributed system: the time-space view and the interleaving view mutual exclusion and related issues, including election, bidding, and self-stabilization prevention and detection of deadlock reliability, safety, and security as well as various methods of handling node, communication, Byzantine, and software faults efficient interprocessor communication mechanisms as well as these mechanisms without specific constraints, such as adaptiveness, deadlock-freedom, and fault-tolerance virtual channels and virtual networks load distribution

problems synchronization of access to shared data while supporting a high degree of concurrency

DISTRIBUTED OPERATING SYSTEMS - PRADEEP K. SINHA 1998-01-01

The highly praised book in communications networking from IEEE Press, now available in the Eastern Economy Edition. This is a non-mathematical introduction to Distributed Operating Systems explaining the fundamental concepts and design principles of this emerging technology. As a textbook for students and as a self-study text for systems managers and software engineers, this book provides a concise and an informal introduction to the subject.

Distributed File Systems: Concepts and Examples - University of Texas at Austin. Dept. of Computer Sciences 1989

Computational Science and Its Applications -- ICCSA 2013 -

Beniamino Murgante 2013-06-22

The five-volume set LNCS 7971-7975 constitutes the refereed proceedings of the 13th International Conference on Computational Science and Its Applications, ICCSA 2013, held in Ho Chi Minh City, Vietnam, in June 2013. Apart from the general track, ICCSA 2013 also include 33 special sessions and workshops, in various areas of computational sciences, ranging from computational science technologies, to specific areas of computational sciences, such as computer graphics and virtual reality. There are 46 papers from the general track, and 202 in special sessions and workshops.

Information Logistics. Decentralized Approaches of Information Allocation in Information Exchange Networks - Sven Grolik

2012-02-24

The use of modern planning and optimization systems for process synchronization in value networks requires the optimal information exchange between the entities involved. The central focus of Sven Grolik's study is the development of efficient mechanisms for the coordination of information allocation by the example of interconnected transportation marketplaces. Unlike traditional information allocation algorithms, the algorithms developed in his analysis are based on update mechanisms

which maintain a weak consistency of replicated information in the network. Sven Grolik shows that these algorithms enable savings concerning the update costs as well as increase the performance within the network, but at the same time guarantee compliance with quality of service levels concerning the currency of information. The focus of this work is the development of decentralized, online algorithms which make a logically distributed computation possible on the basis of local information. The development of these innovative algorithms is based on approaches of multi-agent system theory as well as distributed simulated annealing techniques.

Handbook of Data Intensive Computing - Borko Furht 2011-12-09

Data Intensive Computing refers to capturing, managing, analyzing, and understanding data at volumes and rates that push the frontiers of current technologies. The challenge of data intensive computing is to provide the hardware architectures and related software systems and techniques which are capable of transforming ultra-large data into valuable knowledge. Handbook of Data Intensive Computing is written by leading international experts in the field. Experts from academia, research laboratories and private industry address both theory and application. Data intensive computing demands a fundamentally different set of principles than mainstream computing. Data-intensive applications typically are well suited for large-scale parallelism over the data and also require an extremely high degree of fault-tolerance, reliability, and availability. Real-world examples are provided throughout the book. Handbook of Data Intensive Computing is designed as a reference for practitioners and researchers, including programmers, computer and system infrastructure designers, and developers. This book can also be beneficial for business managers, entrepreneurs, and investors.

High Performance Computing - HiPC 2006 - Yves L. Robert 2006-11-27

This book constitutes the refereed proceedings of the 13th International Conference on High-Performance Computing, HiPC 2006, held in Bangalore, India in December 2006. The 52 revised full papers presented together with the abstracts of 7 invited talks were carefully reviewed and selected from 335 submissions. The papers are organized in topical

sections on scheduling and load balancing, architectures, network and distributed algorithms, application software, network services, applications, ad-hoc networks, systems software, sensor networks and performance evaluation, as well as routing and data management algorithms.

The MOSIX Distributed Operating System - Amnon Barak 1993-05-27

This book describes the design and internals of the MOSIX distributed operating system. MOSIX, an acronym for Multicomputer Operating System for UNIX, integrates a cluster of loosely integrated computers into a virtual single-machine UNIX environment. The main property of MOSIX is the high degree of integration among the processors, which may include personal workstations and shared memory and non-shared memory multiprocessors, connected by fast communication links. This integration includes network transparency, cooperation between the processors to provide services across machine boundaries, support of dynamic configuration, and system-initiated load balancing by process migration. Another property of MOSIX is the ability to scale up the system configuration to encompass a large number of computers. The development of MOSIX was begun in 1981. The book is intended primarily for readers who are interested in distributed and multiprocessor systems. The reader is assumed to have some knowledge in programming and operating systems, preferably UNIX. Readers without this background will still benefit from the techniques and algorithms discussed.

Distributed Systems - George F. Coulouris 1994

The new edition of this bestselling title on Distributed Systems has been

thoroughly revised throughout to reflect the state of the art in this rapidly developing field. It emphasizes the principles used in the design and construction of distributed computer systems based on networks of workstations and server computers.

Big Data Management, Technologies, and Applications - Hu, Wen-Chen 2013-10-31

"This book discusses the exponential growth of information size and the innovative methods for data capture, storage, sharing, and analysis for big data"--Provided by publisher.

Benchmarking, Measuring, and Optimizing - Felix Wolf 2021-03-01

This book constitutes the refereed post-conference proceedings of the Third International Symposium on Benchmarking, Measuring, and Optimization, Bench 2020, held virtually in November 2020. The 12 revised full papers and 1 revised short paper presented were carefully reviewed and selected from 28 submissions. The papers are organized in topical sections named: best paper session; data management and storage; supercomputing; benchmarking on GPU; and application and dataset.

NFS Illustrated - Brent Callaghan 2000

One of the original developers of the NFS and WebNFS offers unique insight into these key technologies, for both programmers creating and debugging NFS-based applications and network engineers creating new implementations. Readers can gain a deeper understanding of how network file protocols are designed and learn how NFS is implemented on UNIX, Windows NT, Java and web browsers.