An Excellent Addition to Your Library!

Released: April 2012

Technology Integration Advancements in Distributed Systems and Computing

PREMIER REFERENCE SOURCE

Technology Integration Advancements in Distributed Systems and Computing



Nik Bossis

ISBN: 9781466609068; © 2012; 426 pp.
Print: US \$195.00 | Perpetual: US \$295.00 | Print + Perpetual: US \$390.00

Nik Bessis (University of Derby, UK)

The functionality of distributed computing systems has advanced greatly in recent months, and staying abreast of the latest research within the field is difficult.

Technology Integration Advancements in Distributed Systems and Computing offers a vital compendium of research and developments within the field of distributed computing, giving case studies, frameworks, architectures, and best practices for academics and practitioners alike. With authors from around the world and the latest research from experts within the field, this resource acts as both a reference guide and research handbook.

Topics Covered:

- · Parallel computing
- Distributed algorithms
- Complexity measures
- Client server
- Peer to peer

- Distributed programming
- architectures
- distributed system properties
- computational problems
- Turing machines

Market: This premier publication is essential for all academic and research library reference collections. It is a crucial tool for academicians, researchers, and practitioners and is ideal forclassroom use.

Nik Bessis is currently a Head of Distributed and Intelligent Systems (DISYS) research group, a full Professor and a Chair of Computer Science in the School of Computing and Mathematics at University of Derby (full-time), UK. He is also a part-time academic member in the Department of Computer Science and Technology at University of Bedfordshire (UK). He obtained a BA (1991) from the TEI of Athens, Greece, and completed his MA (1995) and PhD (2002) at De Montfort University (Leicester, UK). His research interest is the analysis, research, and delivery of user-led developments with regard to data integration, annotation, and data push methods and services in distributed dynamic environments. These have a particular focus on the study and use of next generation, web-centric, grid and cloud technologies methods for the benefit of various virtual organizational settings including disaster management. He is involved in (more than £2.3m) and leading a number of funded research and commercial projects (more than £0.7m) in these areas. Prof. Bessis has published over 150 papers, won 2 best paper awards and is the editor of several books and the Editor-in-Chief of the International Journal of Distributed Systems and Technologies (IJDST). In addition, Prof. Bessis is a regular reviewer and has served several times as a keynote speaker, conferences/workshops/ track chair, associate editor, session chair and scientific program committee member.



Section 1: Advanced Integration Methods and Services

Chapter 1

Web Services in Distributed Information Systems:

Zhao Xia (University of Bedfordshire, UK)

Wang Tao (University of Bedfordshire, UK)

Liu Enjie (University of Bedfordshire, UK)

Clapworthy Gordon J. (University of Bedfordshire, UK)

Chapter 2

Towards a More Scalable Schema Matching:

Sellami Sana (LIRIS, National Institute of Applied Science of Lyon, France)

Benharkat Aïcha-Nabila (LIRIS, National Institute of Applied Science of Lyon, France) Amghar Youssef (LIRIS, National Institute of Applied Science of Lyon, France)

Load Balancing to Increase the Consistency of Replicas in Data Grids

Belalem Ghalem (University of Oran, Es Senia, Algeria)

Belayachi Naima (University of Oran, Es Senia, Algeria)

Behidji Radjaa (University of Oran, Es Senia, Algeria)

Yagoubi Belabbes (University of Oran, Es Senia, Algeria)

Chapter 4

MaGate:

Huang Ye (University of Fribourg, Switzerland)

Brocco Amos (University of Fribourg, Switzerland)

Courant Michele (University of Fribourg, Switzerland)

Hirsbrunne Beat (University of Fribourg, Switzerland)

Kuonen Pierre (University of Applied Sciences of Western Switzerland, Switzerland)

Chapter 5

Toward a Quality-of-Service Framework for Peer-to-Peer Applications

Gupta Ankur (Model Institute of Engineering and Technology, India)

Awasthi Lalit K. (National Institute of Technology, India)

Chapter 6

A Study on the Effect of Application and Resource Characteristics on the QoS in

Service Provisioning Environments

Varvarigou Theodora (National Technical University of Athens, Greece)

Tserpes Konstantinos (National Technical University of Athens, Greece)

Kyriazis Dimosthenis (National Technical University of Athens, Greece)

Silvestri Fabrizio (Italian National Research Council, Italy) Psimogiannos Nikolaos (University of the Aegean, Greece)

Section 2: State-of-the-Art Middleware Technologies and Architectures

Chapter 7

The Crystal Ball in HPC has Never Been More Exciting, nor More Important

Kuonen Pierre (University of Applied Sciences of Western Switzerland, Switzerland) Sawley Marie-Christine (Swiss Federal Institute of Technology Zurich, Switzerland)

Chapter 8

On the Path to Exascale

Alvin Ken (Sandia National Laboratories, USA)

Barrett Brian (Sandia National Laboratories, USA)

Brightwell Ron (Sandia National Laboratories, USA) Dosanjh Sudip (Sandia National Laboratories, USA)

Geist Al (Oak Ridge National Laboratory, USA)

Hemmert Scott (Sandia National Laboratories, USA)

Heroux Michael (Sandia National Laboratories, USA)

Kothe Doug (Oak Ridge National Laboratory, USA) Murphy Richard (Sandia National Laboratories, USA)

Nichols Jeff (Oak Ridge National Laboratory, USA)

Oldfield Ron (Sandia National Laboratories, USA)

Rodrigues Arun (Sandia National Laboratories, USA) Vetter Jeffrey S. (Oak Ridge National Laboratory, USA)

Application Performance on the Tri-Lab Linux Capacity Cluster -TLCC

Rajan Mahesh (Sandia National Laboratory, USA)

Doerfler Douglas (Sandia National Laboratory, USA)

Vaughan Courtenay T. (Sandia National Laboratory, USA)

Epperson Marcus (Sandia National Laboratory, USA)

Ogden Jeff (Sandia National Laboratory, USA)

Abstractions and Middleware for Petascale Computing and Beyond

Sbalzarini Ivo F. (ETH Zurich, Switzerland)

Chapter 11

A Simulator for Large-Scale Parallel Computer Architectures

Janssen Curtis L. (Sandia National Laboratories, USA)

Adalsteinsson Helgi (Sandia National Laboratories, USA) Cranford Scott (Sandia National Laboratories, USA)

Kenny Joseph P. (Sandia National Laboratories, USA)

Pinar Ali (Sandia National Laboratories, USA)

Evensky David A. (Sandia National Laboratories, USA)

Mayo Jackson (Sandia National Laboratories, USA)

Chapter 12

The Red Storm Architecture and Early Experiences with Multi-Core Processors

Tomkins James L. (Sandia National Laboratories, USA)

Brightwell Ron (Sandia National Laboratories, USA)

Camp William J. (Sandia National Laboratories, USA)

Dosanjh Sudip (Sandia National Laboratories, USA)

Kelly Suzanne M. (Sandia National Laboratories, USA) Lin Paul T. (Sandia National Laboratories, USA)

Vaughan Courtenay T. (Sandia National Laboratories USA)

Levesque John (Cray Inc., USA)

Tipparaju Vinod (Oak Ridge National Laboratory, USA)

The Sicilian Grid Infrastructure for High Performance Computing

Iacono-Manno Carmelo Marcello (Consorzio COMETA, Italy)

Fargetta Marco (Consorzio COMETA, Italy)

Barbera Roberto (Consorzio COMETA, Italy, and Università di Catania, Italy)

Falzone Alberto (NICE srl, Italy)

Andronico Giuseppe (Istituto Nazionale di Fisica Nucleare, Italy)

Monforte Salvatore (Istituto Nazionale di Fisica Nucleare, Italy)

Muoio Annamaria (Consorzio COMETA, Italy)

Bruno Riccardo (Consorzio COMETA, Italy) Di Primo Pietro (Consorzio COMETA, Italy)

Orlando Salvatore (Istituto Nazionale di Astro-Fisica, Palermo)

Leggio Emanuele (Consorzio COMETA, Italy)

Lombardo Alessandro (Consorzio COMETA, Italy)

Passaro Gianluca (Consorzio COMETA, Italy)

De Francisci-Morales Gianmarco (Consorzio COMETA, Italy, and Università degli Studi di Catania, Catania)

Blandino Simona (Consorzio COMETA, Italy, and Università degli Studi di Catania, Catania)

Section 3: High Performance Distributed Systems and Applications

Credential Management Enforcement and Secure Data Storage in gLite

Tusa Francesco (Università degli Studi di Messina, Italy)

Villari Massimo (Università degli Studi di Messina, Italy) Puliafito Antonio (Università degli Studi di Messina, Italy)

Chapter 15

A Grid-Aware Emergency Response Model (G-AERM) for Disaster Management

Asimakopoulou Eleana (University of Bedfordshire, UK)

Anumba Chimay J (Loughborough University, UK)

Bouchlaghem Dino (The Pennsylvania State University, USA)

A Mathematical Analysis of a Disaster Management Data-Grid Push Service

Bessis Nik (University of Bedfordshire, UK)

Brown Antony (University of Bedfordshire, UK)

Asimakopoulou Eleana (University of Bedfordshire, UK)

Chapter 17

Service and Management Oriented Traffic Information Grid

Fang Yu (Tongji University, China)

Zhang Dong Liang (Tongii University, China)

Yan Chun Gang (Tongji University, China) Chen Hong Zhong (Tongji University, China)

Jiang Changjun (Tongji University, China)

Chapter 18 Mining Environmental Data in the ADMIRE Project Using New Advanced Method Habala Ondrej (The Slovak Academy of Sciences, Slovakia) Šeleng Martin (The Slovak Academy of Sciences, Slovakia) Tran Viet (The Slovak Academy of Sciences, Slovakia) Šimo Branislav (The Slovak Academy of Sciences, Slovakia) Hluchý Ladislav (The Slovak Academy of Sciences, Slovakia)	ts and Tools
Chapter 19 Collaborative e-Learning and ICT Tools to Develop SME Managers: Genoveffa (Jeni) Giambona (University of Reading, UK) Birchall David W. (University of Reading, UK)	
Chapter 20 Sketch Based Video Annotation and Organization System in Distributed Teaching E Chen Jia (Chinese Academy of Sciences & the Graduate University of Chi ences, China) Ma Cui-xia (Chinese Academy of Sciences, China) Wang Hong-an (Chinese Academy of Sciences, China) Yang Hai-yan (Chinese Academy of Sciences and the Graduate University Sciences, China) Teng Dong-xing (Chinese Academy of Sciences, China) Chapter 21 OBIRE: Liu Xiangyu (Brunel University, UK)	inese Academy of Sci-
Li Maozhen (Brunel University, UK) Liu Yang (Brunel University, UK) Qi Man (Canterbury Christ Church University, UK)	
Order Your Copy Today!	
Name:	
Organization:	US Dollars, drawn on a US-based bank
Address:	☐ Credit Card ☐ Mastercard ☐ Visa ☐ Am. Express
City, State, Zip:	3 or 4 Digit Security Code:
Country:	Name on Card:
Tel:	Account #:

Fax: ___

E-mail: _____

Expiration Date: _____