Distributed Database Management Systems. A Practical Approach

Description: This book addresses issues related to managing data across a distributed database system. It is unique because it covers traditional database theory and current research, explaining the difficulties in providing a unified user interface and global data dictionary. The book gives implementers guidance on hiding discrepancies across systems and creating the illusion of a single repository for users. It also includes three sample frameworks—implemented using J2SE with JMS, J2EE, and Microsoft .Net—that readers can use to learn how to implement a distributed database management system. IT and development groups and computer sciences/software engineering graduates will find this guide invaluable.

Contents:

Preface.

1 Introduction.

1.1 Database Concepts.

1.2 DBE Architectural Concepts.

1.3 Archetypical DBE Architectures.

1.4 A New Taxonomy.

1.5 An Example DDBE.

1.6 A Reference DDBE Architecture.

1.7 Transaction Management in Distributed Systems.

1.8 Summary.

1.9 Glossary.

References.

References.

2 Data Distribution Alternatives.

2.1 Design Alternatives.

2.2 Fragmentation.

2.3 Distribution Transparency.

2.4 Impact of Distribution on User Queries.

2.5 A More Complex Example.

2.6 Summary.

2.7 Glossary.

References.

Exercises.
6.3 Deadlocks in Distributed Systems.
6.4 Summary.
6.5 Glossary.
References.
Exercises.
7 Replication Control.
7.1 Replication Control Scenarios.
7.2 Replication Control Algorithms.
7.3 Summary.
7.4 Glossary.
References.
Exercises.
8 Failure and Commit Protocols.
8.1 Terminology.
8.2 Undo/Redo and Database Recovery.
8.3 Transaction States Revisited.
8.4 Database Recovery.
8.5 Other Types of Database Recovery.
8.6 Recovery Based on Redo/Undo Processes.
8.7 The Complete Recovery Algorithm.
8.8 Distributed Commit Protocols.
8.9 Summary.
8.10 Glossary.
References.
Exercises.
9 DDBE Security (Bradley S. Rubini).
9.1 Cryptography.
9.2 Securing Communications.
9.3 Securing Data.
9.4 Architectural Issues.
9.5 A Typical Deployment.
9.6 Summary.
9.7 Glossary.
References.
Exercises.
10 Data Modeling Overview.
10.1 Categorizing MLs and DMs.
10.2 The Conceptual Level of the CLP.
10.3 Conceptual Modeling Language Examples.
10.4 Working With Data Models.
10.5 Using Multiple Types of Modeling.
10.6 Summary.
10.7 Glossary.
References.
Exercises.
11 Logical Data Models.
11.1 The RDM.
11.2 The Network Data Model.
11.3 The Hierarchical Data Model.
11.4 The OODM.
11.5 Summary.
11.6 Glossary.
References.
Exercises.
12 Traditional DDBE Architectures.
12.1 Applying Our Taxonomy to Traditional DDBE Architectures.
12.2 The MDBS Architecture Classifications.
12.3 Approaches for Developing A DDBE.
12.4 Deployment of DDBE Software.
12.5 Integration Challenges.
12.6 Schema Integration Example.
12.7 Example of Existing Commercial DDBEs.
12.8 The Experiment.
16 The J2EE Platform.
16.1 Java 2 Enterprise Edition (J2EE) Overview.
16.2 J2EE Support for Distributed Process Platform Requirements.
16.3 J2EE Support for Distributed Data Platform Requirements.
16.4 J2EE Platform Implementation Alternatives.
16.5 Summary.
16.6 Glossary.
References.
Exercises.

17 The J2EE Starter Kit.
17.1 Java 2 Enterprise Edition Starter Kit (J2EE-SKIT) Overview.
17.2 J2EE-SKIT Design Overview.
17.3 Summary.
17.4 Glossary.
References.
Exercises.

18 The Microsoft .NET Platform.
18.1 Platform Overview.
18.2 Support for Distributed Process Platform Requirements.
18.3 Distributed Data Platform Requirements.
18.4 Summary.
18.5 Glossary.
References.
Exercises.

19 The DNET Starter Kit.
19.1 DNET-SKIT Overview.
19.2 DNET-SKIT Design Overview.
19.3 Summary.
19.4 Glossary.
Reference.
Exercises.

Index.

Order by Fax - using the form below

Order by Post - print the order form below and send to

Research and Markets,
Guinness Centre,
Taylors Lane,
Dublin 8,
Ireland.
Fax Order Form
To place an order via fax simply print this form, fill in the information below and fax the completed form to 646-607-1907 (from USA) or +353-1-481-1716 (from Rest of World). If you have any questions please visit http://www.researchandmarkets.com/contact/

Order Information
Please verify that the product information is correct.

- **Product Name:** Distributed Database Management Systems. A Practical Approach
- **Web Address:** [http://www.researchandmarkets.com/reports/2170802/](http://www.researchandmarkets.com/reports/2170802/)
- **Office Code:** SCEJBX5P

Product Format
Please select the product format and quantity you require:

**Quantity**
- Hard Copy (Hard Back): [ ] USD 159 + USD 28 Shipping/Handling

* Shipping/Handling is only charged once per order.

Contact Information
Please enter all the information below in **BLOCK CAPITALS**

- **Title:** [ ] Mr  [ ] Mrs  [ ] Dr  [ ] Miss  [ ] Ms  [ ] Prof
- **First Name:** [ ]
- **Last Name:** [ ]
- **Email Address:** [ ]
- **Job Title:** [ ]
- **Organisation:** [ ]
- **Address:** [ ]
- **City:** [ ]
- **Postal / Zip Code:** [ ]
- **Country:** [ ]
- **Phone Number:** [ ]
- **Fax Number:** [ ]

* Please refrain from using free email accounts when ordering (e.g. Yahoo, Hotmail, AOL)
Payment Information

Please indicate the payment method you would like to use by selecting the appropriate box.

☐ Pay by credit card: You will receive an email with a link to a secure webpage to enter your credit card details.

☐ Pay by check: Please post the check, accompanied by this form, to:

Research and Markets,
Guinness Center,
Taylors Lane,
Dublin 8,
Ireland.

☐ Pay by wire transfer: Please transfer funds to:

Account number 833 130 83
Sort code 98-53-30
Swift code ULSBIE2D
IBAN number IE78ULSB98533083313083
Bank Address Ulster Bank,
27-35 Main Street,
Blackrock,
Co. Dublin,
Ireland.

If you have a Marketing Code please enter it below:

Marketing Code: __________________________

Please note that by ordering from Research and Markets you are agreeing to our Terms and Conditions at http://www.researchandmarkets.com/info/terms.asp

Please fax this form to:
(646) 607-1907 or (646) 964-6609 - From USA
+353-1-481-1716 or +353-1-653-1571 - From Rest of World