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BOOK REVIEW

Advantages of Grid Computing

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Grid computing is a set of standards and technologies that academics, researchers, and scientists around the world are developing to help organizations take collective advantage of improvements in microprocessor speeds, optical communications, raw storage capacity, and the Internet. By using the technique to disaggregate their computer platforms and distribute them as network resources, companies can vastly increase their computing capacity. For example, companies are using grid computing to accelerate the pace of drug development, process complex financial models, and animate movies. Linking geographically dispersed computer systems can lead to staggering gains in computing power, speed, and productivity. In *Grid Computing: A Practical Guide to Technology and Applications*, Ahmar Abbas provides an overview of the latest developments in the field. Abbas outlines the commercial and practical applications for IT professionals. The book isn't necessarily meant for academics; it's for anyone wanting to learn more about grid technology.

Grid technology

For a long time, only academics studied grid computing. Now, it's a real option for solving your business and IT infrastructure problems. Whether you're a manager or tech person, you need to understand grid computing. This book ties together the whole field: applications, business issues, tools, technologies, standards, implementation guidelines, and more. An accompanying CD-ROM provides extra resources, useful software, and tools to start using grid computing techniques.

Abbas starts with a brief overview of the problems grids can solve and the technologies that make them possible (from Web Services to optical fiber). Next, he assesses grid types: desktop, departmental, enterprise, "extraprise," and global grids; grids focused on processing or data access; and utility grids that service providers manage. He also answers the questions, "What's doable now?" "What's coming?" and "What are the obstacles?"

Architectures

Abbas then introduces the Open Grid Services Architecture, a common framework for building grids across the enterprise and beyond. Technical professionals will learn how to use OGSA to create grid services and how (and when) to grid-enable existing software. The book includes brief discussions of application integration and native programming in grid environments.

The book also delves into grid applications. From networking to life sciences, and from telecommunications to R&D and financial industry, specific area experts describe grids' multifaceted uses.

Globus

Abbas makes many references to Globus Protocols, a major benefit of the book. Globus Protocols are the most widely used protocols and the platform that enables easier grid-based application development. He also covers Open Grid Architectures.

Grid software

The included Windows-based CD-ROM contains a good freeware collection, enabling grid application development. The collection includes: the Engineered Intelligence CxC, which provides a parallel development system; GridIron Software XLR8, another grid-application development tool; and United Devices' Grid Horsepower Power Calculator. These tools are a good starting point for just about anyone.

Abbas organized the book well. Starting with the basic concepts of computing, he moves on to grids' business aspect,

then the technology behind them. Abbas edited the book, and specific grid-area experts wrote the chapters. This provides an excellent collection of information from different sources, but it can also be disadvantageous. I found while reading the book that sometimes the chapters have different tones, so a chapter might begin on a different note than the previous chapter ended.

The book concludes by surveying current grid applications in life sciences, telecommunications, finance, manufacturing, and even entertainment. Grid technology will touch you. The best way to get ready is to read the book and learn how you can contribute to and benefit from it.

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