

Introduction

Table of contents

1 An Introduction to the Grid.....2
2 The Book's Content.....2

1. An Introduction to the Grid

The Grid concepts and technologies are all very new, first expressed by Foster and Kesselman in 1998 [1]. Before this, efforts to orchestrate wide-area distributed resources were known as metacomputing [2]. Even so, whichever date we use to identify where efforts in this area started, compared to general distributed computing, the Grid is a very new discipline and its exact focus and the core components that make up its infrastructure are still being investigated and still being determined. Generally it can be said that the Grid has evolved from a carefully configured infrastructure that supported a limited number of grand challenge applications executing on high performance hardware between a number of US national centres [3], to what we are aiming at today, which can be seen as a seamless and dynamic virtual environment. In this book we take a step-by-step approach to describe the middleware components that make up this virtual environment, which is now called the Grid.

- [1] Ian Foster and Carl Kesselman (Editors), *The Grid: Blueprint for a New Computing Infrastructure*, published by Morgan Kaufmann Publishers; 1st edition (November 1, 1998), ISBN: 1558604758
- [2] L. Smarr, and C. Catlett, *Metacomputing*, *Communication of the ACM*, 35, 1992, pp. 44-52, ISSN: 0001-0782
- [3] D. De Roure, M.A. Baker, N. Jennings, and N. Shadbolt, *The Evolution of the Grid*, in *Grid Computing: Making The Global Infrastructure a Reality*, editors Fran Berman, Anthony J.G. Hey and Geoffrey Fox, pages 65 -100, John Wiley and Sons; (April 8, 2003), ISBN: 0470853190

2. The Book's Content

- Chapter 1 - An Introduction to the Grid
- Chapter 2 - OGSA and WSRF
- Chapter 3 - The Semantic Grid and Autonomic Computing
- Chapter 4 - Grid Security
- Chapter 5 - Grid Monitoring
- Chapter 6 - Job Management and User Interaction
- Chapter 7 - Workflow Management for the Grid
- Chapter 8 - Grid Portals
- Chapter 9 - Applications