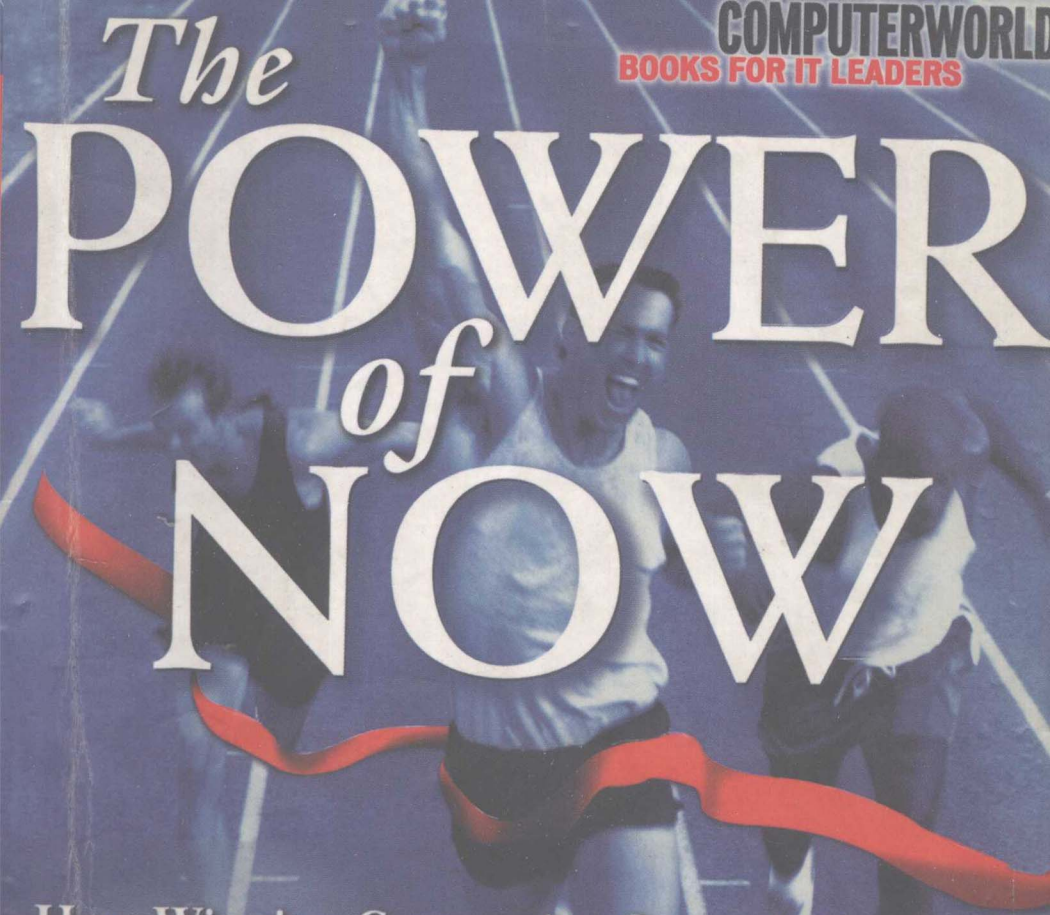
COMPUTERWORLD
BOOKS FOR IT LEADERS

The POWER of NOW



How Winning Companies Sense & Respond To Change Using Real-Time Technology

决胜未来

Vivek Ranadivé

Foreword by Scott McNealy, CEO Sun Microsystems

McGraw-Hill Book Co
世界图书出版公司

The Power of Now

How Winning Companies Sense and Respond to Change Using Real-Time Technology

江苏工业学院图书馆
藏书章

Vivek Ranadivé

McGraw-Hill
New York • San Francisco • Washington, D.C. • Auckland • Bogotá
Caracas • Lisbon • London • Madrid • Mexico City • Milan
Montreal • New Delhi • San Juan • Singapore
Sydney • Tokyo • Toronto

McGraw-Hill

A Division of The McGraw-Hill Companies

Copyright © 1999 by The McGraw-Hill Companies, Inc. All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this book may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

2 3 4 5 6 7 8 9 0 DOC/DOC 9 0 4 3 2 1 0 9

ISBN 0-07-135684-3

The sponsoring editor for this book was Simon Yates and the production supervisor was Clare Stanley. It was set in Times by Multiscience Press, Inc.

Printed and bound by R. R. Donnelley and Sons Company.

McGraw-Hill books are available at special quantity discounts to use as premiums and sales promotions, or for use in corporate training programs. For more information, please write to the Director of Special Sales, McGraw-Hill, 11 West 19th Street, New York, NY 10011. Or contact your local bookstore.

Information contained in this work has been obtained by The McGraw-Hill Companies, Inc. ("McGraw-Hill") from sources believed to be reliable. However, neither McGraw-Hill nor its authors guarantee the accuracy or completeness of any information published herein and neither McGraw-Hill nor its authors shall be responsible for any errors, omissions, or damages arising out of use of this information. This work is published with the understanding that McGraw-Hill and its authors are supplying information but are not attempting to render engineering or other professional services. If such services are required, the assistance of an appropriate professional should be sought.

Copyright ©2001 by McGraw-Hill Companies, Inc. All Rights reserved. Jointly Published by Beijing World Publishing Corporation/McGraw-Hill.
This edition may be sold in the People's Republic of China only. This book cannot be re-exported and is not for sale outside the People's Republic of China.

IE ISBN 0-07-118902-5

FOREWORD

The Power of Now: How Winning Companies Sense and Respond to Change Using Real-Time Technology is about the future. It is a book that details an emerging trend that will affect all of us, in one way or another, as we progress through the twenty-first century. It is a book about business, about speed, about competition, about technology, and about success in an increasingly global networked society.

I first met Vivek Ranadivé more than ten years ago, when he called to ask if he could borrow a workstation (he still hasn't given it back). At the time—the early 1980s—Sun was still a young company, even by Silicon Valley standards, and the Internet, UNIX, personal computers, even networks, were all relatively unknown technologies. The future was beyond our greatest expectations. Today, technology has become vital to the speed and performance of business. How the "event-driven" enterprise works—its technology, its culture and organization, and its business practices—is what Vivek describes in this book.

The systems Sun and TIBCO first installed together were for investment banks, which represent a sector of the financial industry that has the most demanding requirements of any industry I've encountered. All industries have mission-critical requirements, but the pace, pressure, and vast sums of money flowing through the systems of the world's largest investment banks and financial trading firms add a unique drama—and impact—to their technology requirements.

What we observed in that high-paced and high-stakes world has now begun infiltrating the halls of businesses everywhere—the extensive use of high-speed IP networks, powerful desktop computers, real-time information, and integrated information across many systems and sources are now increasingly the requirements of all businesses across all industries. Almost every significant business today is concerned about reducing the time it takes to accomplish a business transaction or bring a product to market. Processing customer orders in real time, over the Internet or over the telephone, and being able to tell your custom-

ers instantly the status of their orders, have become almost commonplace. Customers are demanding that everything be done faster—without sacrificing quality. They want what they want right away. At the same time, customers continue to demand more.

This obsession with speed and efficient business processes has only been further exaggerated by the emergence of the Internet. Technologies such as the Java platform and increasingly "intelligent" mobile devices—cell phones, pagers, set-top boxes, and even home appliances—are distributing computing power throughout all aspects of our lives. Sun's development of Jini is about extending Java to enable communications between all types of computing devices. With Jini, a laptop can plug into a network and immediately begin using "services," such as printers, on that network.

Functionality goes beyond mere plug-and-play and becomes "plug-and-work." But with all this connected computing power comes information. The Internet and the technology to integrate applications and computing devices will eventually mean complete information access and integration across the globe for business and personal use.

The new technologies that extend the reach and power of the computer and the network generate new possibilities for business. Those who can take advantage of these capabilities will benefit; those who can't will fail. It's really that simple.

Vivek's book is a great read. His topic is timely and is one that I believe will be extremely helpful for anyone trying to come to terms with how best to compete in this age of globalization, ubiquitous technology, and increasing competition. Being event-driven, you will find, involves more than simply employing technology to create real-time operations. Being event-driven means you have the tools, the mindset, and the organizational structure that enables you to do the right thing at the right time.

Scott McNealy
Chairman, President, and CEO
Sun Microsystems, Inc.
Palo Alto, California
July 1999

此为试读,需要完整PDF请访问: www.ertongbook.com

PREFACE

Over the years, I have been fortunate to interact with over 500 world-class companies that have taught me invaluable lessons. These experiences have provided me with the advantage of a unique perspective on how companies improve their competitiveness through technology. The challenges of the world taking shape around us today—the advent of the Internet, wireless technology, global markets, and the commoditization of everything—will require every company to constantly evolve its competitive edge.

The ideas presented in this book have their root in a technical concept I helped develop in the mid-1980s. The concept was to create a software technology that would facilitate the distribution of information across discrete software applications. The technology we developed allowed an exciting transformation in the way information could be distributed. Information was no longer a passive resource but rather an intelligent and active catalyst that could prompt meaningful business responses automatically and in real time throughout the enterprise.

This ability for information to trigger productive responses within organizations serves as the foundation for the central theme of this book—the event-driven company. Being event-driven is more than a technological characteristic—it is the infrastructure, culture, and mindset that I believe is required for companies to stay competitive today and in the future.

In writing this book, I took to heart a question often asked by a CEO friend of mine in response to overly theoretical business models: "That is all well and good, but what am I to do on Monday morning?" I have attempted to focus on the concept of the event-driven company by considering not only where we have been and where we hope to go, but also practical instructions on how to get there. It is my belief that the concept of the event-driven company has wide-ranging business implications. It is my hope that this book can stimulate new thinking, thus providing value to the readers who need to meet challenges that await them Monday morning.

Vivek Ranadivé
Palo Alto, California
July 1999

ACKNOWLEDGMENTS

Before I begin, I would like to thank the many individuals who have helped bring this book to fruition, especially the many colleagues and business partners who, over the years, have shared their technical skills and business insights that form the foundation of many of the ideas presented here. I am enormously indebted to my colleague Murray Rode, without whom this book would never have been realized. His intelligence and patience have been invaluable in transforming the thoughts of this book into a concept worthy of publication. George Turin, my friend and mentor, contributed greatly to this book. Suzi Berry's contribution and editing were greatly appreciated, as were Tiffany Gumfroy's research efforts. I'm also grateful to Bill Mandel for his help, and to Simon Yates, my editor, for his patience and support. I would also like to thank several colleagues who contributed to this book's content: Amlan Debnath, Jeff Harmon, Tommy Joseph, Rob Knourek, Raj Mashruwala, John Mathon, Fred Meyer, Dick O'Donnell, Jeff Risberg, Jayesh Shah, S. SriniVasan, Murat Sönmez, Alan Williams, and many others too numerous to mention. In addition, my business mentors, Steve Leavitt, Gerry Burnett, and Harvey Wagner, have impacted me greatly, providing important stimulation and inspiration for many of the ideas presented here. And, finally, I would like to dedicate this book to my three wonderful children and my wife, Deborah, who inspire me daily.

SELECT ENDORSEMENTS

"*The Power of Now* is about the future. It is a book that details an emerging trend that will affect all of us, in one way or another, as we progress through the 21st century. It is a book about business, about speed, about competition, about technology, and about success in an increasingly global networked society."

—Scott McNealy, CEO, Sun Microsystems
(from the Foreword)

"Vivek Ranadivé offers a fresh look at the hurdles businesses face in the new Internet Economy and why this will be a world where the fast beat the slow. Leading companies will use the power of the Internet to create and manage new world networks that will leave their competition far behind."

—John Chambers, President and CEO, Cisco Systems

"The Internet is the single-most revolutionary thing to happen to business since the invention of the computer. It's brought us closer together, while expanding the range of information and services we can access on a global basis. Everything is now a click-of-the-mouse away. Ranadivé's book provides an exciting look at how the Internet and information portals allow companies to profit from—and consumers to benefit from—the availability of real-time information and services."

—Tim Koogle, Chairman and CEO, Yahoo!

"A company that acquires, deploys, and wisely exploits real-time, active information is what Vivek Ranadivé dubs an "event-driven enterprise." Such companies sense and respond to the events that drive their business and achieve competitive advantage by creating virtual, integrated, real-time supply webs. Ranadivé provides an insightful look at how to stay ahead of the competition by staying close to customers."

—Dr. Eric Schmidt, CEO, Novell

"Any company whose value proposition relies upon the close collaboration of its business units and whose efficiency depends upon its ability to compress its supply chain needs more real-time intelligence in its IT environment. The virtual integrated real-time supply web advocated by Vivek

Ranadivé in this fresh look at business in the information age is a breakthrough. Ranadivé outlines why and how we must reformulate our business and IT strategies to compete in our increasingly global and networked society."

—Eric Benhamou, CEO, 3Com

"Ranadivé offers a captivating tale of the migration of technology from behind the closed doors of the information-intensive financial trading rooms of the mid-1980s to today's worlds of e-commerce, on-line brokerages, and multimedia communications. This book provides business leaders with important lessons on succeeding in today's information-rich environment."

—Peter Job, Chief Executive, Reuters Group PLC

"*The Power of Now* provides both the inspiration and blueprint for success in the Information Age. Ranadivé explains how information can be leveraged to gain competitive advantage by developing both the technical infrastructure to deliver integrated, real-time, active information and the human culture that transforms that information first into knowledge and then into informed, ongoing action."

—André Lussi, Chief Executive, Cedel Group

"Vivek Ranadivé's assertion that business must be strengthened with integrated, real-time, active information delivery systems to enable swift, creative responses across the enterprise is one that will likely become a key tenet of business strategy in the tweny-first century. This book will help you reshape your thinking about your company's IT strategy and how you think about business in general."

—Bill Pade, McKinsey & Company

"Ranadivé makes a strong case for the business imperative of becoming event-driven—that is, for turning your enterprise into an integrated organism that shares critical business information in real time on a global scale. *The Power of Now* offers the critical "how-to" recipe for obtaining bottom-line results in the twenty-first century."

—Larry Sonsini, Partner, Wilson Sonsini Goodrich & Rosati

CONTENTS

	Foreword	ix
	Preface	xi
	Acknowledgments	xiii
	Select Endorsements	xv
Chapter 1	The Event-Driven Company	1
	The Event-Driven Revolution	5
	The Global Networked Society	10
	What I Believe	13
	Event-Driven: The Metamanagement Theory	16
	How Bechtel Corporation Is Event-Driven	17
	The Age of Punctuated Equilibrium	19
	It All Starts with the Customer	22
	Let's Get Busy	24
	There Are No Silver Bullets	26
Chapter 2	Becoming Event-Driven	27
	Is Yours an Event-Driven Company?	28
	Your Company Needs to Change, but How?	30
	Becoming Event-Driven: The Ultimate IT Upgrade	34
	Your Dreams for Your Business	35
	Some Advice about Becoming Event-Driven	39
Chapter 3	From the Trading Floor to the Event-Driven Enterprise	43
	The Event-Driven Warrior	44
	Trading: The Oldest Human Profession	46
	85 Broad Street	49
	The Way It Was	52
	How the Trading Floor Eventually Became Event-Driven	55

Chapter 4 The Event-Driven IT Architecture 61

From the Trading Floor to the Enterprise to the Internet 62
Information Is Knowledge Is Power 65
The Publish/Subscribe Paradigm 67
The Information Bus 72
Middleware and Infrastructure Software 78
Reliable Multicast/PGM 81
How NASDAQ Is Using Multicasting 83
Event-Driven Technology Infrastructure 84
Management by Exception 98

Chapter 5 event-driven.com 105

Make the Internet Work for You 106
Extend Your Business with a Portal 108
How Sticky Is Your Portal? 111
Creating an E-Community 113
The EIP—Your Showroom for the Twenty-First Century 115

Chapter 6 The Event-Driven Philosophy 121

"Contemporary" to "Cellular" 122
"Industry" to "Ecosystem" 125
Knowledge Management in the Event-Driven Company 127
All from Column A, All from Column B, All from Column C 130
Embedding Your Core Competencies 132

Chapter 7 Leadership and Organization 135

The Star System 136
Compensation, Partnership, and Ownership 140
The Mission Statement: Guiding Star 146
Tips on How to Lead by Following 149

此为试读,需要完整PDF请访问: www.ertongbook.com

Chapter 8 The Ecosystem: Competitors, Customers, and Partners 151

Competitors: A Fine Distraction 152
Customers and the Many Markets Inside Each One 157
Partners and Allies: Learning from Hollywood 162

Chapter 9 Leading the Change to the Event-Driven Company 165

Beating the Odds 166
Leadership: Beyond Charisma 169
Missionaries 171
Overcoming Barriers to Change 172

Chapter 10 Conclusion 177

The Age of the Knowledge Worker 178
How Becoming Event-Driven Can Spur Your Company's Productivity 183
The New Meaning of Life/Workspace 184
The Event-Driven Future 185

Glossary 187
References 201
Index 207

CHAPTER 1

THE EVENT-DRIVEN COMPANY

How many of these statements ring true for your company?

- Speed is God, time is the devil, and change is the sole constant.
- Business is no longer about return on investment but return on minutes.
- Yesterday's value-added products or services too quickly become today's commodities.
- Your customers expect customized products at commodity prices, immediately.
- Every time you look around, there are more competitors (or the old ones are gaining).
- Your people don't get the information they need, when they need it.

My guess is that most of these statements will ring true, because, as with all business people today, you're competing in the Information Age—a time, as Peter Drucker [1] warns, that "is far more competitive than any previous period in history, for the simple reason that with knowledge universally accessible, there are no excuses for nonperformance."

You may have already known that. What you may not know is what to do about it—what to do to raise your company above the ravages of creeping commoditization and gain that crucial, elusive *competitive advantage.* The current pace and global scope of business have accelerated everything, including the rate at which rust forms on yesterday's most profitable ideas, reducing high-margin products and services into low-margin commonplaces available from any number of sources.

I have helped more than 500 companies in many different industries stay ahead of deadly rust. My experience shows that the best way to outrun commoditization, maximize your company's return on minutes, and gain the competitive upper hand is to strengthen your business with integrated, real-time, active information delivery systems that report on significant business events throughout your entire scope of operation and enable swift, creative responses across the enterprise.

Coursing real-time, value-added information through every part of your organization is just the beginning. Information is

nothing more than what Thomas Stewart [2], in *Intellectual Capital: The New Wealth of Organizations*, calls "the raw materials of knowledge." The company with a competitive advantage develops both the *technical infrastructure* to deliver integrated, real-time, active information and the *human culture* that transforms information first into knowledge and then into informed, ongoing action.

A company that acquires, deploys, and wisely exploits real-time, active information is what I call an "event-driven" company—one that, on one hand, instantly senses and responds to the events that *drive* its business and, on the other hand, uses the power of information to *drive* the development of new products and services.

Event-driven companies achieve competitive advantage by creating virtual, integrated, real-time supply networks for and with their customers. (The old term for supply network is "supply chain," but, as we'll see, there's no place for fixed *chains* in the new, wide-open global economy.) "Virtual" means that all elements of the supply network need not exist within the event-driven company's walls. "Integrated" means that every system within the event-driven company, its customers and its allies, is linked and intercommunicating via the event-driven information technology infrastructure. "Real-time" means instantly, zero-lag, as we speak: the time frame in which your customer wants satisfaction. "Supply network," finally, means the sum of the other three elements combined appropriately to solve your customers' problems. No matter what your company makes or does, it cannot survive as a product company alone. It can only survive by using the virtual, integrated, real-time supply network to solve your customers' problems.

Event-driven companies can be described as follows:

- They define themselves as being, above all, customer-centric.
- They create superior value for their customers.
- They cater profitably and transparently to their emerging Web customer base.
- They keep their sales and marketing ahead of the competition.

- They put the best information management tools in their employees' hands.
- They operate manufacturing and product development at optimal levels.
- They implement true knowledge management programs to leverage their valuable intellectual capital wisely.
- They maintain flexibility to weather market complexity and chaos.
- They update workers, customers, and partners instantly with crucial business information and events.
- They benefit from what appear to be "lucky accidents," which are, in fact, the benefits of being better informed sooner.

By deploying information technology to create and exploit active information, the event-driven company meets the definition of the "superior competitor" laid out by Michael Porter [3] in his 1980 classic *Competitive Strategies: Techniques for Analyzing Industries and Competitors*, "[a company that] anticipates shifts in competitive forces and responds to them before rivals, thereby exploiting change," and by M. Mitchell Waldrop [4] as "adaptive, creative . . . actively turning whatever happens to its advantage, evolving for better survival in a changing environment."

Becoming event-driven—staying ahead of commoditization and above the rust—is one of the key strategic challenges facing modern corporate leadership. In these pages I will explain *why* your company should become event-driven to survive and prosper in the emerging global business network, and *how to go about it.* Not just the usual generalities and motivational platitudes, but *specifics* regarding the following facets of the event-driven company:

- Information technology infrastructure
- Preference for value-creating "star" employees over just team players
- Leadership, management, and motivational models

- Policies and practices regarding customers, partners/allies, and competitors

I'll challenge you with litmus tests to see how close to event-driven your company is today, suggest ways to implement the cultural changes required to become event-driven, and offer advice on smoothing the transition. And I'll share some stories of highly effective companies that have become event-driven and enjoyed enormous gains as a result.

The Event-Driven Revolution

Despite the central position of technology infrastructure in the event-driven company, this book is not for the technology expert only. It is for anyone who wants to win in that mercenary territory known as modern business. Although the most complete implementation of the event-driven architecture utilizes a real-time software integration infrastructure, any wise business leader can benefit from this winning approach, because being event-driven is also a state of mind: a keen, continuous scanning of the horizon to anticipate events that change the status quo, and then applying event-driven tools to either shape change to the company's advantage or surf the changes one can't control in order to be first to the beach.

The event-driven state of mind is by no means an invention of the digital age. Its existence long preceded the wheel. In commerce, the event-driven state of mind has been in evidence for thousands of years wherever traders competed in the marketplace and practiced the fine art of custom-tailored, knowledge-based personal service to a clientele small enough to be managed by one brain. Today's event-driven technical infrastructure merely enables the event-driven state of mind to be projected on a global scale in the automated processes of business organizations, allowing those organizations to share critical information as quickly and easily as if they, too, were being managed by one brain: the event-driven information architecture.

此为试读,需要完整PDF请访问: www.ertongbook.com