

## PREFACE

# The Accredited Integration Specialist (AIS) Credential

Welcome to the world of HP ProLiant servers. This book provides a foundation upon which you can build your knowledge and skills for selling, servicing, and supporting the HP ProLiant server products.

If you are pursuing the HP *Accredited Integration Specialist* (AIS) credential, this book is your main resource for beginning your study. In fact, if you attend the training courses that prepare you for the exams in these credentials, your instructor will expect that you have an understanding of the technical concepts presented here.

One of the main reasons for this book is to allow HP technical instructors to use valuable instruction time focusing on HP value-added technologies and hands-on labs, instead of explaining technologies considered to be “industry standard.” This book has the support and endorsement of both the HP Certified Professional Program and the HP training departments, and is recommended as a preparatory resource for all ProLiant server-focused credentials.

This book is organized into seven parts, as described in the following sections.

### Part 1

#### Industry-Standard Server Technologies

Part 1 of this book examines each major subsystem of an industry-standard server, including server chipsets, processors and multiprocessing, memory and cache, server storage, array technologies, and Fibre Channel.

Part 1 is intended as an overview of those technologies that are not proprietary to HP servers. The chapters in Part 1 serve as a foundation for discussing HP technologies in later chapters.

**xxxii** Preface**Part 2****HP Server Technologies**

Part 2 of this book provides a high-level introduction to important HP server-related technologies. Chapter 9 explains how the HP ProLiant server line is categorized by line and by series. This information is vital for applying the right HP server solution to the customer solution. Chapter 10 provides an overview of HP rack and power technologies.

**Part 3****HP Storage Technologies**

Part 3 of this book explains the HP storage products and technologies. Chapter 11 explains the implementation of the SCSI standards in HP ProLiant servers. Chapter 12 explains key network storage technologies, such as *direct-attached storage* (DAS), *network-attached storage* (NAS), *storage area networks* (SANs), and the HP *Enterprise Storage Architecture* (ENSA). Chapter 13 explains HP server drive array technologies.

**Part 4****Systems Integration**

Chapter 14 discusses methods for evaluating the customer environment and determining the best solution. After that solution has been determined, it must be deployed. The skills for installing, configuring, and deploying a single-server solution are explained in Chapter 15.

**Part 5****Systems Management**

HP ProLiant servers have long been differentiated from competitor's products by their manageability. Several management technologies are explained in Part 5. Chapter 16 introduces you to HP systems management. Chapter 17 focuses on HP Lights-Out management technologies, including iLO and RILOE.

**Part 6****Performance**

After the server solution has been deployed, the attention then turns to optimizing the server's performance. Chapter 18 discusses techniques for installing a variety of hardware options and hardware upgrades. Chapter 19

discusses server availability, and what measures can be taken to increase the level of availability in HP ProLiant servers. Chapter 20 provides guidelines for optimizing server storage.

**Part 7****Problem Resolution**

After the server solution has been deployed and optimized, circumstances might arise where troubleshooting is required to resolve a particular problem. Chapter 21 focuses on backup strategies that should be used to prevent data loss when a problem occurs. Finally, Chapter 22 explains the HP troubleshooting methodology.

