

Aruba Certified Switching Associate

OFFICIAL CERTIFICATION STUDY GUIDE

(EXAM HPE6-A41)

First Edition

Miriam Allred

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660 4th Street, #802
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**Aruba Certified Switching Associate
Official Certification Study Guide
(Exam HPE6-A41)**

Miriam Allred

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About the Author

Miriam Allred has spent the last 11 years configuring, testing, and troubleshooting HPE wired and wireless networks. Miriam combines this wide range of technical expertise with pedagogy and instructional design training, allowing her to create technical training courses for both advanced and entry-level networking professionals. Miriam Allred has a Masters degree from Cleveland State University and a Bachelors degree from Brigham Young University.

Introduction

This book helps you study for the Applying Aruba Switching Fundamentals for Mobility exam (HPE6-A41) to achieve the Aruba Certified Switching Associate (ACSA) certification. If you have an existing HPE ATP certification, you may be able to take the delta exam, HPE2-Z40.

The ACSA certification validates that you have the networking skills and expertise to design, implement and manage the modern network, based on Aruba wired and wireless solutions for small to mid-sized businesses.

Areas of study include the ability to:

- Perform basic configuration, access security and setup on Aruba switches
- Configure Layer 2 technologies such as Spanning Tree Protocol, Link Aggregation and VLANs
- Configure two Aruba 5400R zl Series Switches to form a Virtual Switching Fabric (VSF)
- Configure basic IP Routing with static and dynamic routing technologies (OSPF)
- Perform basic configuration tasks on Aruba Instant Access Points (IAPs) and create a cluster
- Manage and monitor networks with Aruba AirWave software

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Audience

This book is designed for presales solution architects, consultants, installation technicians and other IT professionals involved in supporting Aruba networking solutions and products.

Assumed Knowledge

This is a foundational guide to Aruba wired and wireless solutions for switching and mobility. Before reading this book, however, you should be familiar with IP addressing, broadcast domains, and the Open Systems Interconnection (OSI) model.

Minimum Qualifications

To pass the Applying Aruba Switching Fundamentals for Mobility (HPE6-A41) exam, you should have at least one year of experience in designing small and medium-sized networks with intermediate switching, basic routing and wireless technologies. Exams are based on an assumed level of industry standard knowledge that may be gained from training, hands-on experience, or other prerequisites.

Relevant Certifications

After you pass the Applying Aruba Switching Fundamentals for Mobility (HPE6-A41) exam (or the HPE2-Z40 delta exam), your achievement may be applicable toward more than one certification. To determine which certifications can be credited with this achievement, log in to The Learning Center and view the certifications listed on the exam's More Details tab. You might be on your way to achieving additional certifications.

Preparing for the HPE6-A41 Exam

This self-study guide does not guarantee that you will have all the knowledge you need to pass the exam. It is expected that you will also draw on real-world experience and would benefit from completing the hands-on lab activities provided in the instructor-led training.

Recommended Training

Recommended training to prepare for each exam is accessible from the exam's page in The Learning Center. See the exam attachment, "Supporting courses," to view and register for the courses.

Obtain Hands-on Experience

You are not required to take the recommended, supported courses, and completion of training does not guarantee that you will pass the exam. Hewlett Packard Enterprise strongly recommends a combination of training, thorough review of courseware and additional study references, and sufficient on-the-job experience prior to taking an exam.

Exam Registration

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1 Introduction to Aruba Solutions

EXAM OBJECTIVES

- ✓ Describe market trends that are leading customers to implement a digital workplace
 - ✓ Describe how Aruba, a Hewlett Packard Enterprise company, delivers the digital workplace
-

ASSUMED KNOWLEDGE

Before reading this chapter, you should have a basic understanding of:

- IP addressing
- Open Systems Interconnection (OSI) model

INTRODUCTION

In this chapter, you will consider the trends that are driving companies to move to a digital workplace.

Balancing diverse demands in the idea economy

Ideas have always fueled business success. Ideas have built companies, markets, and industries. However, there is a difference today.

Businesses operate in the idea economy, which is also sometimes called the digital, application, or mobile economy. Doing business in the idea economy means turning an idea into a new product, capability, business, or industry. This has never been easier or more accessible—for you and for your competitors.

Today, an entrepreneur with a good idea has access to the infrastructure and resources that a traditional Fortune 1000 company would have. That entrepreneur can rent compute capacity on demand, implement a software-as-a-service enterprise resource planning system, use PayPal or Square for transactions, market products and services using Facebook or Google, and have FedEx or UPS run the supply chain.

Companies such as Vimeo, One Kings Lane, Dock to Dish, Uber, Pandora, Salesforce, and Airbnb used their ideas to change the world with very little start-up capital. Uber had a dramatic impact after launching its application connecting riders and drivers in 2009. Three years after its founding, the company expanded internationally. Without owning a single car, Uber serves more than 473 cities in 76 countries (as of July 28, 2016, according to the web site <http://uberestimator.com/cities>).

In a technology-driven world, it takes more than just ideas to be successful, however. Success is defined by how quickly ideas can be turned into value.

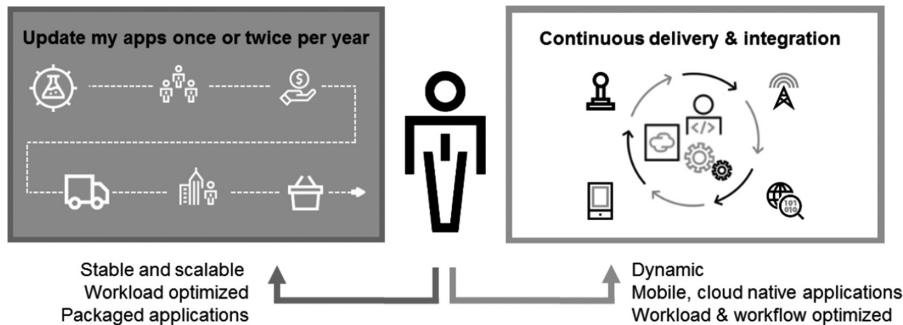


Figure 1-1: Balancing diverse demands in the idea economy

The idea economy presents an opportunity and a challenge for most enterprises. On one hand, cloud, mobile, big data, and analytics give businesses the tools to accelerate time to value. This increased speed allows organizations to combine applications and data to create dramatically new experiences, even new markets.

On the other hand, most organizations were built with rigid IT infrastructures that are costly to maintain. This rigidity makes it difficult, if not impossible, to implement new ideas quickly.

Creating and delivering new business models, solutions, and experiences requires harnessing new types of applications, data, and risks. It also requires implementing new ways to build, operate, and consume technology. This new way of doing business no longer just supports the company—it becomes the core of the company.

To respond to the disruptions created by the idea economy, IT must transform from a cost center to a value creator.

HPE Transformation Areas

To succeed in the idea economy companies must transform. After talking to customers and researching their needs and requirements, HPE has found that customers consider four areas of transformation most important.

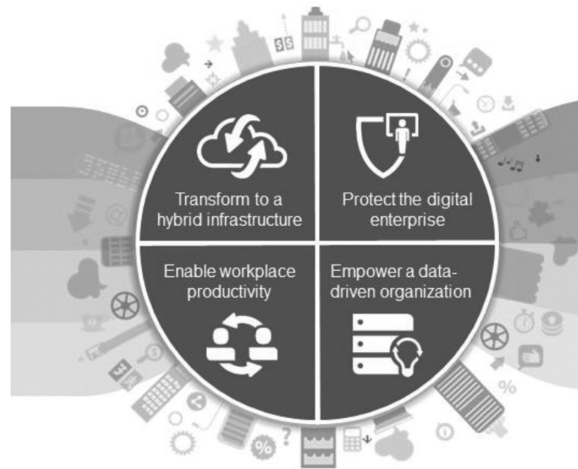


Figure 1-2: HPE transformation areas

- **Transforming to a hybrid infrastructure**—A hybrid infrastructure enables customers to get better value from the existing infrastructure and delivers new value quickly and continuously from all applications. This infrastructure should be agile, workload optimized, simple, and intuitive.
- **Protecting the digital enterprise**—Customers consider it a matter of when, not if, their digital walls will be attacked. The threat landscape is wider and more diverse than ever before. A complete risk management strategy involves security threats, backup and recovery, high availability, and disaster recovery.
- **Empowering the data-driven organization**—Customers are overwhelmed with data; the solution is to obtain value from information that exists. Data-driven organizations generate real-time, actionable insights.
- **Enabling workplace productivity**—Many customers are increasingly focused on enabling workplace productivity. Delivering a great digital workplace experience to employees and customers is a critical step.

The transformation areas are described in more depth on the following pages.

Transform to a hybrid infrastructure

An organization might see cloud services as a key component to access the IT services they need, at the right time and the right cost. A hybrid infrastructure is based on open standards, is built on a common architecture with unified management and security, and enables service portability across deployment models.