

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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CONTENTS

1	Introduction to Aruba Solutions	1
	Balancing diverse demands in the idea economy	1
	HPE Transformation Areas	2
	Transform to a hybrid infrastructure	3
	Protect the digital enterprise	4
	Empower the data-driven organization	5
	Enable workplace productivity	5
	Digital workplace	6
	Aruba Mobile First Network	7
	Aruba WLAN solutions	8
	Aruba APs	8
	Aruba Mobility Controllers	10
	Aruba switch solutions	10
	Skype for Business integration	12
	Unified wired and wireless management	13
	Unified, policy-based access management: Aruba ClearPass	14
	Summary	14
	Learning check	16
	Answers to Learning check	17
2	Basic Switch Setup	19
	Out-of-band management	19
	ArubaOS switch CLI contexts	20
	Help keys	22
	Accessing ArubaOS switch interfaces	22
	Completing basic configuration tasks on a test network	23
	Command reference	24
	Task 1: Initialize switches	25
	Core-1	25
	Core-2	26
	Access-1	26
	Access-2	27
	Task 2: Configure initial settings	27
	Core-1	27
	Access-1	29
	Access-2	31

Task 3: Explore the ArubaOS switch CLI.....	31
Task 4: Save configurations.....	35
Learning check.....	35
Answers to Learning check.....	35
Link Layer Discovery Protocol (LLDP)	36
Learning check.....	37
Answers to Learning check.....	37
Assigning IP addresses to switches.....	37
Using DHCP to assign IP address on ArubaOS switches	38
Task 1: Configure IP addresses	39
Core-1	40
Access-1	40
Access-2	40
Windows server.....	41
Windows 7 PC	45
Task 2: Verify connectivity	49
Core-1	49
Task 3: Save your configurations	51
Learning check.....	51
Answers to Learning check.....	52
Summary.....	52
Learning check.....	53
Answers to Learning check.....	54
3 Protecting Management Access	55
In-band management	55
Learning check.....	56
Answers to Learning check.....	57
Out-of-band management with an Ethernet OOBM port	57
Operator and manager roles	58
Applying local passwords.....	59
SSH	61
Set manager and operator passwords	62
Task 1: Restrict Operator and Manager Access (default usernames)	63
Task 2: Enable SSH	66
Task 3: Restrict operator and manager access to ArubaOS switches (non-default usernames)	66
Task 4: Test SSH access and the new username.....	67
Learning check.....	69
Answers to Learning check.....	69

Adding Role-based Access Control (RBAC)	71
Authorization groups and rules	72
Command rules	73
Feature rules	74
Policy rules	75
Pre-defined and default groups	76
Summary.....	77
Learning check.....	78
Answers to Learning check.....	79
4 Managing Software and Configurations	81
Software file management	81
Manage software images on ArubaOS switches	83
Learning check.....	87
Answers to Learning check.....	87
Configuration file management	88
Manage configuration files on ArubaOS switches	89
Learning check.....	93
Answers to Learning check.....	94
Planning a software upgrade	95
Summary.....	95
Learning check.....	96
Answers to Learning check.....	96
Software and configuration job aids	97
5 VLANs	105
Using VLANs to isolate communications	105
Assigning an endpoint to a VLAN	107
Extending the VLAN across multiple switches	107
Using tagging to support multiple VLANs.....	109
VLAN uses.....	110
Answers to VLAN uses.....	110
Configure a VLAN	111
Task 1: Assign the server to VLAN 11	112
Access-1	112
Windows server.....	113
Task 2: Assign the Windows PC to VLAN 11	115
Access-2	115
Windows client.....	115

Task 3: Extending connectivity for VLAN 11	116
Access-1	116
Access-2	117
Core-1	117
Windows client.....	118
Task 4: Save	118
Troubleshooting tip.....	118
Learning check.....	119
Answers to Learning check.....	122
Trace tagging across the topology	122
Adding another VLAN.....	123
Adding another VLAN: Logical topology	124
Adding another VLAN.....	125
Make a plan.....	125
Answers for Make a plan	126
Setting up DHCP relay	126
Add VLAN 12	127
Task 1: Add VLAN 12	128
Access-2	128
Core-1	128
Access-1	129
Task 2: Verify the VLAN topology	129
Task 3: Set an IP helper address	130
Core-1	130
Windows PC	131
Task 4: Save	131
Learning check.....	132
Answers to Learning check.....	132
Routing between VLAN 11 and 12.....	133
Configuring a default route for switches	134
Set up basic routing	135
Task 1: Set up routing between VLANs 11 and 12	135
Core-1	136
Windows server.....	136
Core-1	136
Windows server.....	137
Task 2: Set up default routes on the Layer 2 switches	137
Windows server.....	137
Access-1	137
Access-2	138
Windows server.....	138

Task 3: Explore routing	138
Windows server.....	138
Core-1	139
Windows server.....	139
Core-1	139
Windows server.....	140
Core-1	140
Windows server.....	140
Core-1	141
Windows server.....	141
Task 4: Save	141
Task 5: Practice managing VLANs on ArubaOS switches.....	141
Access-2	142
Explore the solution.....	143
Learning check.....	144
Answers to Learning check.....	144
Tracing a frame across the routed topology	145
Special VLAN types on ArubaOS switches	146
MAC-based VLAN (RADIUS-assigned VLANs for multiple endpoints).....	147
Protocol-based VLANs.....	147
Voice VLANs (VoIP phones)	147
Summary.....	148
Learning check.....	149
Answers to Learning check.....	150
6 Spanning Tree	151
Issues adding redundant links to the topology.....	151
Multiple frame copies	152
Broadcast storms.....	153
Mislearned MAC addresses	153
Spanning tree solution.....	154
Overview of spanning tree protocols.....	155
Spanning tree port roles and states.....	156
Configuring Rapid Spanning Tree Protocol	158
Task 1: Configure Core-1 as the root	159
Task 2: Enable spanning tree on each switch	159
Core-1	159
Access-1	159
Access-2	159

Task 3: Add the redundant core switch and redundant links.....	160
Core-1	160
Notepad	161
Core-1	161
Notepad	161
Core-2.....	165
Access-1	165
Access-2	166
Task 4: Verify the root bridge	166
Core-1	166
Access-1	167
Access-2	167
Core-2.....	168
Task 5: Check CPU	168
Learning check.....	169
Answers to Learning check.....	170
Root election.....	171
Port costs.....	173
Consistent port costs on heterogeneous networks	175
Failing over from a root to an alternate port.....	176
Failing over from a root to a designated port	178
Reconvergence when a better path is added.....	182
Spanning tree edge ports.....	186
Issues with RSTP	188
MSTP solution	188
MSTP region.....	189
MSTP region incompatibility.....	190
Configure Multiple Spanning Tree Protocol	192
Task 1: Configure the MSTP region	192
Core-1	193
Core-2.....	193
Task 2: Configure the instance root settings	194
Core-1	195
Core-2.....	195
Task 3: Verify the configuration	195
Core-1	196
Core-2.....	197
Core-1	198
Access-1	199
Access-2	200

Task 4: Map the topology	200
Map instance 0.....	201
Core-1	201
Core-2	201
Access-1	202
Access-2	202
Map the topology in instance 1	203
Map the topology in instance 2	204
Task 5: Save your configurations	205
Task 6: Exploration activity.....	206
Task A: Add a VLAN to a switch and map it to an instance	206
Explanation of Task A.....	209
Task B: Remove a VLAN from a link.....	210
Explanation of Task B	213
Learning check.....	215
Answers to Learning check.....	216
Plan instances for load-sharing	216
Summary.....	218
Learning check.....	219
Answers to Learning check.....	220
7 Link Aggregation.....	221
Adding redundant links between the same two switches	221
Using MSTP for Redundant Links between Two Switches	222
Task 1: Verify the MSTP configuration	223
Core-1	224
Task 2: Add a redundant link	225
Core-1	225
Core-2	225
Task 3: Observe MSTP with the new link	226
Core-1	226
Core-2	227
Core-1	228
Task 4: Save	228
Learning check.....	228
Answers to Learning check.....	229
Link aggregation	229
Configure a manual link aggregation	231

Task 1: Configure a link aggregation between the Core switches.....	232
Core-1	232
Core-2	232
Core-1	232
Task 2: Observe the link aggregation.....	233
Core-2	233
Task 3: Save	234
Learning check.....	234
Answers to Learning check.....	235
Requirements for links.....	235
ArubaOS: Behavior under incompatibility.....	236
VLAN settings	236
Requirements for maximum number of links	236
Potential issue with manual link aggregations	236
LACP.....	238
LACP operational modes	239
Static mode	240
Configure an LACP link aggregation.....	241
Task 1: Configure LACP link aggregations	242
Core-1	242
Access-1	242
Core-1	242
Access-2	243
Task 2: View the link aggregation.....	243
Access-1	243
Access-2	245
Task 3: Observe load sharing.....	246
Access-2	246
Core-1	248
Access-2	248
Core-2	249
Access-2	249
Task 4: Convert a manual link aggregation to an LACP aggregation	250
Core-1	250
Core-2	251
Task 5: Save	251
Learning check.....	251
Answers to Learning check.....	252
Load-sharing traffic over a link aggregation	252

Other options for link aggregations	254
Summary.....	255
Learning check.....	256
Answers to Learning check.....	257
8 IP Routing	259
IP routes	259
Direct IP routes.....	260
Indirect IP routes and default routes	261
Topology that requires indirect routes.....	262
Configure a base topology for routing	264
Task 1: Set up the topology for routing between switches.....	264
Core-1	264
Access-1	265
Access-2	267
Core-2.....	268
Task 2: Explore why some links are unavailable.....	270
Access-1	270
Task 3: Resolve the spanning tree issues with filters	271
Access-1	271
Core-1, Core-2, and Access-2	272
Core-2.....	274
Task 4: Explore the need for routing.....	274
Access-2	274
Windows PC	275
Task 5: Save	275
Learning check.....	275
Answers to Learning check.....	275
Indirect IP routes	276
Static IP routing.....	277
Create static IP routes	278
Task 1: Configure the static routes.....	279
Access-1	279
Windows server.....	280
Core-1	281
Windows server.....	283
Access-2	283
Windows PC	284
Windows server.....	285

Task 2: Save	285
Learning check.....	285
Answers to Learning check.....	286
Managing redundant static routes	286
Create redundant static IP routes	289
Task 1: Set up static routes on Core-2	289
Task 2: Create a second default route on Access-1	290
Access-1	291
Windows server.....	291
Access-1	292
Windows server.....	293
Task 3: Create a redundant route on Core-1	293
Windows server.....	295
Access-1	296
Core-1	296
Task 4: Save	296
Learning check.....	296
Answers to Learning check.....	299
Dynamic routing protocols	301
Basic OSPF setup	303
Choosing the preferred route with static and dynamic routing.....	305
Configure basic OSPF	306
Task 1: Configure OSPF on Access-1	307
Task 2: Configure OSPF on Core-1	308
Task 3: Configure OSPF on Core-2	310
Task 4: Configure OSPF on Access-2	311
Task 5: Verify the routes	313
Access-2	314
Core-1	314
Windows server.....	316
Task 6: Save	316
Learning check.....	317
Answers to Learning check.....	318
Summary.....	320
Learning check.....	321
Answers to Learning check.....	322
9 Virtual Switching Framework (VSF)	323
VSF introduction	323

VSF use case	323
Physical and logical view of VSF	326
VSF requirements	326
VSF member roles	327
Commander	328
Standby	328
VSF link.....	329
VSF configuration	330
VSF configuration process: Plug and play	330
Create a Virtual Switching Framework (VSF) Fabric Using Plug-and-Play	332
Task 1: Configure Core-1 as the commander	332
Core-1	332
Task 2: View VSF settings on the commander	333
Core-1	333
Task 3: Provision the standby member on Core-1	336
Core-1	336
Task 4: Join Core-2 to the VSF fabric	337
Core-2	337
Core-1	338
Core-2	339
Task 5: Save	340
Learning check.....	340
Answers to Learning check.....	340
VSF provisioning use cases	341
VSF provisioning process.....	342
Manual VSF fabric configuration	344
VSF fabric operation within the network.....	345
Connecting the VSF fabric to other devices.....	346
Configure and Provision a VSF Fabric Manually.....	347
Task 1: Configure a VSF priority on member 1	349
Core-1	349
Task 2: Connect the VSF fabric to the access layer switches.....	349
Access-1	351
Access-2	353
Task 3: Verify connectivity and view VSF ports.....	354
Access-1	354
Windows server.....	354
Core-1	355

Task 4: Save	356
Learning check.....	356
Answers to Learning check.....	357
Tracing Layer 2 traffic: Broadcasts, multicasts, and unknown traffic	358
Tracing traffic flow: Layer 2 and Layer 3 unicasts.....	359
VSF failover	361
VSF link failure without MAD	362
MAD.....	363
MAD to protect against split brain	363
OOBM MAD	363
LLDP MAD setup	364
LLDP MAD behavior	365
Maintain the VSF Fabric and Set Up LLDP MAD.....	366
Learning check.....	367
Answers to Learning check.....	367
Summary.....	368
Learning check.....	370
Answers to Learning check.....	371
10 Wireless for Small-to-Medium Businesses (SMBs)	373
Introduction to wireless technologies	373
Wireless communications with the 802.11 standard	374
Infrastructure mode communications	375
Data rates and throughput	376
802.11n and 802.11ac features	378
Channel bonding	378
Spatial streaming.....	379
Multi User MIMO (MU-MIMO)	379
Summary	379
WLAN	379
WLAN security: Encryption and authentication	380
WLAN security: MAC authentication	382
VLAN for the WLAN	383
Default.....	383
Static	384
Dynamic.....	384
Provisioning an Aruba IAP.....	384
Provisioning an IAP through the Instant SSID	384
Configure Wireless Services on an Aruba Instant Access Point.....	385

Task 1: Connect the IAP to the network.....	386
Core-1	386
Task 2: Access the Instant UI.....	389
Windows PC	389
Task 3: Set system settings.....	392
Task 4: Create a WLAN.....	393
Task 5: Connect to the ATPNk-Ss WLAN	398
Wireless Windows PC.....	398
Windows PC	401
Task 6: Save	401
Learning check.....	402
Answers to Learning check.....	402
PoE	403
PoE/PoE+ classes.....	403
Initial power up	404
LLDP allocation	404
Usage allocation	405
Class allocation	405
Value allocation	405
Priority	405
Device profiles	406
Clustering Aruba IAPs	407
Autonomous versus controlled APs.....	407
Aruba IAP cluster and virtual controller (VC)	408
Automatic cluster formation: No master election	409
Automatic cluster formation: Master election	410
Cluster distribution of responsibilities	411
Create an Aruba Instant Access Point cluster	412
Task 1: Ensure that your existing IAP becomes master	413
Windows PC	413
Task 2: Connect the second IAP and establish the cluster	418
Core-1	418
Windows PC	419
Task 3: Assign the WLAN to a VLAN	420
Task 4: Create the VLAN for wireless users in the wired network	422
Task 5: Create a device profile to automatically tag AP ports for the wireless user VLAN.....	423
Task 6: Connect the client to the WLAN and monitor the connection.....	425
Wireless Windows PC.....	425
Windows PC	426

Task 7: Save	426
Learning check.....	427
Answers to Learning check.....	427
Summary.....	428
Learning check.....	429
Answers to Learning check.....	430
Job aid.....	431
11 Aruba AirWave.....	435
Introduction to Aruba AirWave	436
Key AirWave capabilities	436
AirWave deployment options	437
Discovering and managing an existing Aruba Instant cluster	438
Preparing ArubaOS switches for AirWave monitoring and management.....	440
SNMP	440
Logging into the CLI	441
Discovering ArubaOS switches in AirWave.....	442
Discovery and communication settings	443
Discover and Monitor Devices in Aruba AirWave	443
Task 1: Connect AirWave to the network.....	445
Access-1	446
Core-1	447
Task 2: Access the AirWave Management Platform	449
Windows server.....	449
Task 3: Configure AirWave settings on the Instant cluster	451
Windows server.....	451
Task 4: Authorize the Instant cluster in AirWave.....	453
Windows server.....	453
Task 5: Configure SNMP settings on ArubaOS switches.....	457
Core-1	458
Access-1	459
Core-1 (Optional)	460
Task 6: Discover the ArubaOS switches in AirWave	460
Windows server.....	460
Task 7: Create AirWave groups and folders	462
Windows server.....	462
Task 8: Authorize the ArubaOS switches.....	469
Task 9: Explore monitoring options	472
Learning check.....	477
Answers to Learning check.....	477

Groups and folders	479
Groups	479
Folders.....	480
Management level.....	480
Monitor Only + Firmware Updates	481
Manage Read/Write.....	481
Management levels and configuration templates	481
ZTP with Aruba Activate	483
AirWave setup.....	483
Activate setup	483
ZTP with Activate process	484
ZTP with DHCP.....	485
Manage Devices in Aruba AirWave and Use ZTP	487
Task 1: Change devices' management level in AirWave	488
Manage an ArubaOS switch	489
Windows server.....	489
Access-1	493
Manage an Instant cluster.....	493
Windows server.....	493
Task 2: Set up ZTP for an Instant cluster.....	498
Windows server.....	498
Core-1	500
Windows server.....	501
Core-1	505
Windows server.....	506
Wireless Windows PC.....	507
Windows server.....	507
Task 3: Use ZTP to deploy Access-2	509
Access-2	509
Windows server.....	509
Core-1	515
Access-2	516
Windows server.....	517
Access-2	518
Windows server.....	518
Task 4: Remove passwords from switches	521
Learning check.....	521
Answers to Learning check.....	522
Summary.....	522
Learning check.....	523
Answers to Learning check.....	524

12 Practice Exam525

 Minimum qualifications525

 HPE6-A41 exam details526

 HPE6-A41 testing objectives526

Test preparation questions and answers528

 Questions.....528

 Answers.....539

Index.....545

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.

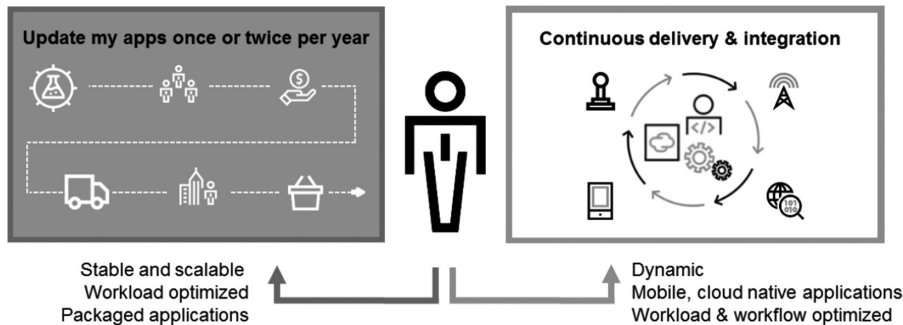


Figure 1-1: Balancing diverse demands in the idea economy

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.

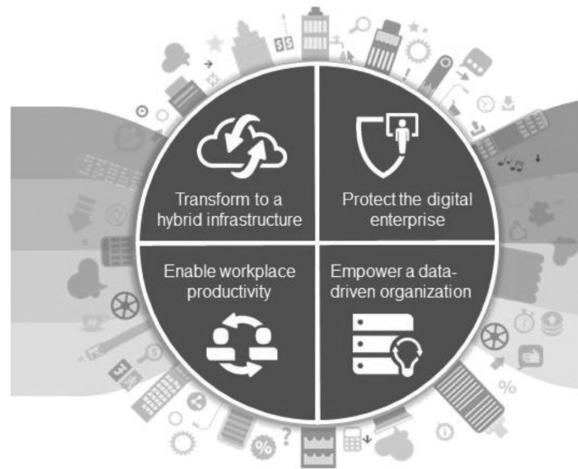


Figure 1-2: HPE transformation areas

- **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.