



# HP ATA – Connected Devices Certification



## Introduction

In today's business environment, the lack of skills to execute IT technologies and cloud solutions are roadblocks for many companies trying to stay competitive. The **HP Accredited Technical Associate (ATA)** certification addresses those issues by providing the industry's first architect-level, open standards, and cloud-focused curriculum and certification designed for the academic environment. A robust curriculum with practice exams and real-world HP lab experience, infused with the relevant business context, enables students to implement an IT solution from start to finish in small- and medium-size environments.

Through HP Institute, the HP ATA certification covers these essential IT areas:

- HP ATA – Connected Devices
- HP ATA – Networks
- HP ATA – Servers and Storage
- HP ATA – Cloud

HP ATA certification helps students gain higher job and earning potential through industry-recognized certification and high-quality education that provides practical experience with HP and industry-standard technologies. The **HP ATA – Connected Devices** certification provides the skills and knowledge required to understand a customer's business objectives and to design, implement, and support IT solutions in a small-to-medium-business context. Through this course and certification, you will learn industry-standard client technologies, including the planning and designing of common desktop virtualization, mobile computing, traditional

PCs, thin clients, and cloud infrastructures for small and medium businesses. The course also covers how to install, configure, and upgrade client solutions. You will also troubleshoot and perform repair and replacement procedures for client solutions using the HP 6-step troubleshooting methodology. In addition to performing version control, backups, and maintenance tasks, you will explore the impact of client technologies on customer needs.

See "Exam and Course Details" for more information.

## Start your IT career

Achieving an HP ATA – Connected Devices certification signifies job-readiness in key IT roles:

- Desktop support
- Helpdesk support
- Client Systems Administrator
- Systems Engineer
- Technical Support Engineer
- Connected Devices Solution Architect

For HP ATA certification, training is delivered through Certiport-authorized centers and approved learning institutions. Certiport is the largest provider of academic certification programs in the world and is working with HP to deliver the HP Institute program worldwide. To find a participating school near you or to register for an exam, please visit [certiport.com/hpstudent](https://certiport.com/hpstudent).

## Exam and course details

### Course name: Designing & Deploying Connected Device Solutions (#00421698)

Exam HP4-A01

Section	Objective
<b>1. Explain and recognize industry-standard client technologies and their implications on customer needs</b>	1.1 Describe and recognize common desktop virtualization technologies and products <ul style="list-style-type: none"><li>Describe the concept of desktop virtualization and virtual machines</li></ul>
	1.2 Describe and recognize mobile computing technologies and their implications on customer needs <ul style="list-style-type: none"><li>Describe and contrast between tablet, netbook, and phone form factors and their implications on customer needs</li><li>Describe the difference between x86 (Atom-based) and ARM-based architectures, including processor and memory requirements</li><li>Describe the process to sync mobile devices to PCs</li><li>Describe mobile device network connectivity</li><li>Describe the need, security capabilities, and requirements for mobile PCs</li></ul>
	1.3 Describe and recognize traditional PC technologies and their implications on customer needs <ul style="list-style-type: none"><li>Describe and contrast desktop, notebook, and tablet form factors and their implications on customer needs</li><li>Identify the installed processor and its attributes</li><li>Describe and recognize the differences between various memory types</li><li>Describe common PC storage technologies</li><li>Explain and recognize the typical accessory bus technologies, including USB, Firewire, and other devices (SCSI)</li><li>Recognize the type of network interface in the system and describe the performance implications, including Ethernet 10/100/1000/10Gb, Wi-Fi ABGN, GSM/CDMA, POTS (dial up), and PAN</li><li>Recognize and describe common PC video technologies, including display types, resolution, and touch technology</li></ul>
	1.4 Describe and recognize thin client technology and solutions <ul style="list-style-type: none"><li>Describe the elements of a thin client solution (terminal approach and virtualization approach only)</li><li>Describe desktop virtualization technologies</li></ul>
	1.5 Describe and recognize cloud technology as it relates to client solutions <ul style="list-style-type: none"><li>Describe the concept of “user state” and what it means to maintain “state” across a number of devices</li><li>Describe the mechanisms to synchronize “user state,” including data storage and synchronization (mail, calendar, POP, IMAP)</li><li>Describe the mechanisms that will provide a unified/integrated view of data from multiple sources (e.g., across various local data folders, websites, and applications) through a single application (such as calendars, contacts, and messaging)</li><li>Contrast between local apps, online apps, and hybrid apps (e.g., Office, Office365, Google docs, OpenOffice)</li><li>Describe the commonly available vertical applications (e.g., Salesforce.com and QuickBooks online)</li><li>Identify and describe the common client operating systems and built-in applications</li></ul>
<b>2. Plan and design client solutions for SMB customers</b>	2.1 Consult with an SMB customer to assess their business and technical needs and create a plan for a client solution <ul style="list-style-type: none"><li>Gather and analyze customer business requirements (including existing assets, standards, and strategies), determine what business problems the customer is trying to solve, and anticipate current or future business problems that the customer may not be considering</li><li>Plan for user requirements based on user characteristics, locations, and usage patterns (power users, administrators, etc.)</li><li>Determine which form factors are appropriate to a particular role (desktop, laptop, netbook, tablet, etc.)</li><li>Plan for network connectivity requirements—LAN, Wi-Fi, WWAN, POTS (dial up), PAN</li><li>Plan for management and security requirements, including asset security, user security, and data security</li><li>Plan for printing requirements based on user/job requirements and the implications on the print infrastructure</li><li>Plan for cross-platform interoperability issues, including file sharing, printing, and application and file-level compatibility</li><li>Plan for data archiving, data storage, and retrieval</li></ul>
	2.2 Design a client solution to meet the customer needs identified in the planning stage <ul style="list-style-type: none"><li>Use appropriate tools to size and validate a given situation, including HP website, white papers, QuickSpecs, and IT Resource Center</li><li>Select the client platforms to be used—selection criteria includes application availability mobility and data security</li><li>Design a business continuity strategy</li></ul>

## Exam and course details, continued

### Course name: Designing & Deploying Connected Device Solutions (#00421698)

Exam HP4-A01

Section	Objective
<b>3. Install, configure, and upgrade client solutions for SMB customers</b>	3.1 Create pre-installation checklist <ul style="list-style-type: none"> <li>Describe safety precautions, including personal and data safety, electrical shock protection, and ESD protection</li> <li>Assess and implement acceptable environmental conditions, including physical surroundings, thermal conditions, humidity considerations, and magnetic interference</li> </ul>
	3.2 Set up a new PC (hardware) <ul style="list-style-type: none"> <li>Install and upgrade system and accessory components</li> <li>Verify UPS and overload and ground considerations from planning documents</li> <li>Configure BIOS, including identifying BIOS version, accessing BIOS, and configuring BIOS features</li> </ul>
	3.3 Install the OS (operating system) <ul style="list-style-type: none"> <li>Restore HP factory software image</li> <li>Describe OS and driver recovery media</li> <li>Describe and use media to install factory image (QuickRestore)</li> <li>Install operating system from OS media</li> <li>Install OS-specific drivers</li> <li>Configure user profile settings</li> <li>Install and configure applications</li> </ul>
	3.4 Set up a new mobile device <ul style="list-style-type: none"> <li>Activate the device with the carrier</li> <li>Set up user profile</li> </ul>
	3.5 Set up a thin client <ul style="list-style-type: none"> <li>Install peripherals</li> <li>Customize and configure according to specs</li> <li>Reset thin client image to factory defaults</li> </ul>
	3.6 Configure management tools and resources <ul style="list-style-type: none"> <li>Automated admin tasks</li> <li>Describe how to create a standard PC software image/profile, including making, testing, and replicating</li> </ul>
	3.7 Conduct user training, handoff, and performance tuning <ul style="list-style-type: none"> <li>Documentation, support information</li> <li>User customization</li> </ul>
<b>4. Troubleshoot and perform repair/replacement procedures for client solutions for SMB customers</b>	4.1 Troubleshoot common client issues using the HP 6-step troubleshooting methodology <ul style="list-style-type: none"> <li>Gather information on the problem</li> <li>Evaluate data to determine the problem</li> <li>Develop an action plan to resolve the issue</li> <li>Execute the plan</li> <li>Test if the fault has been resolved using appropriate tools</li> <li>Implement preventive measures by taking necessary steps to ensure the problem does not reoccur</li> </ul>
	4.2 Describe how to best use support resources <ul style="list-style-type: none"> <li>Evaluate service-level agreement (SLA)</li> <li>Recognize which contact method to use based on priority and urgency—contact methods include phone, email, Web, channel services network, instant support</li> <li>Know which information to have and where to find it before you call</li> <li>Recognize when to escalate</li> </ul>
<b>5. Perform</b>	5.1 Perform change management and version control <ul style="list-style-type: none"> <li>Configure and update system software</li> <li>Configure hardware</li> </ul>
	5.2 Perform backups <ul style="list-style-type: none"> <li>Describe the various backup procedures, test restores</li> <li>Perform Imaging/ghosting</li> </ul>
	5.3 Perform administrative and maintenance tasks <ul style="list-style-type: none"> <li>Describe how to start/stop/restart system services</li> <li>Understand and describe how to load/unload device drivers</li> <li>Understand and describe how to manage disks, partitions, and file systems, and recover from failures</li> <li>Manage client solutions with HP and industry-standard resources</li> </ul>

## Exam Details

To maximize results, it is recommended that students successfully complete the training and hands-on labs prior to the exam. The following are details about this exam:

- **Item types**  
Multiple choice
- **Exam time**  
50 minutes
- No online or hard copy reference material allowed

An email notification of test results will be sent two to five days after taking the exam.

## Continuing career development

To continue your career development, **HP ExpertOne** provides everything you need to stay relevant and able to support the evolving needs of business and IT. ExpertOne provides training and certification for architecting, implementing, and supporting complete, end-to-end IT solutions with skill levels ranging from professional to master.

## Certiport and HP Institute

HP is partnering with Certiport, Inc. to co-develop and distribute the HP Institute Program. Certiport is the world leader in performance-based certification program management solutions with more than 12,000 academic institutions worldwide. HP and Certiport have developed a complete set of academic solution components, including HP official courseware textbooks, remote lab facilities, practice tests, and certification exams. All of these are designed for use by educators directly in the classroom environment.

## HP ExpertOne

HP helps organizations address the widening IT expertise gap with HP ExpertOne, the industry's first end-to-end learning and expertise program. It delivers comprehensive knowledge with real-world, hands-on experience to attain the critical skills needed to architect, design, and integrate multivendor, multiservice converged infrastructure and cloud solutions. HP Institute extends the ExpertOne approach, bringing the industry's first academic architect-level certification to high school and secondary schools and traditional two- and four-year institutions. By injecting business value and practical experience into technology education, HP Institute helps academic institutions prepare more qualified IT professionals. Graduates will have the business insight and knowledge of HP and industry-standard solutions needed to be productive from day one—the same skills employers will seek most to help their businesses implement critical new technology strategies and solutions.

For more information on the HP Institute or how you can be involved, please contact [hpinstituteprogram@hp.com](mailto:hpinstituteprogram@hp.com)

## Resources

Students who want more information, visit [certiport.com/hpjobready](http://certiport.com/hpjobready)

For information about HP Institute, visit [hp.com/go/Institute](http://hp.com/go/Institute)

For information about HP ExpertOne, visit [hp.com/go/ExpertOne](http://hp.com/go/ExpertOne)

For information about Certiport, visit [certiport.com/hp](http://certiport.com/hp)

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