Five Steps to A+ Certification Success

For Exams 220-901 Hardware & 220-902 Software

By: Pierre J. Askmo

NOTE: This report is not aimed at teaching you the subject matter knowledge to pass the exam. This is a paper about exam structure, pass scores, question structure and type, as well as what you can expect from succeeding at the A+ exam.

REPORT SPONSORED BY: CertBlaster®

be ready!

Click Here For the CertBlaster Practice Tests

CONTENTS

▪ How the exam is made and why you should care.
▪ How the exam is configured.
▪ How many questions are there and how are they distributed?
▪ What is the passing score in plain English?
▪ The question types you will see on the exam.
▪ A brief note on exam time management

Bonus section:

▪ What’s so special about A+ Certification?
▪ What can A+ Certification do for you?
▪ Why and how the A+ test came about in the first place
How the exam is made and why you should care

Industry representatives from the leading computer vendors set the Exam Objectives. This means that, based on, their day to day needs, they define which skills the exam should address. In this phase of the exam definition the industry representatives also decide what areas to prioritize over others. They do that by assigning different weights to the different Exam Objectives (more on this later). Once these areas of expertise have been established by the industry representatives the next step is to write exam questions within those areas of expertise. This is done by Subject Matter Experts – SMEs. These are experts in the various computer fields that know which questions will help find out if a candidate knows the topics covered by the Exam Objectives. There are a few more steps but I am not going to bore you with the details. Here’s your take home from this though; the exam objectives are subject to interpretation. Why? Because when the exam objectives are handed over by the industry representatives the SMEs read in to these what they see. Now, most of the time it’s what you and I would expect. However there will be cases where there is a difference of views. This means that you have to read the objectives very carefully and make sure you understand each of them. Don’t interpret them too narrowly since the process does leave the SMEs with room for interpretation.

How the exam is configured

To become A+ Certified you need to pass two exams: A+ Exam 220-901 that is focused on hardware skills and knowledge and A+ Exam 220-902 that focuses on various operating system issues. The A+ Certification, like all CompTIA exams, is organized around its list of Exam Objectives that are published on their website. These Exam Objectives consist of a handful of “Main Domains” (the high level topic definition) and under each of the Main Domains, “Sub-Objectives” that narrow down to the specifics of what you should know in preparation of the exam. Here are the main domains of both exams with their relative weights:

**A+ Exam 220-901 “Hardware”**

<table>
<thead>
<tr>
<th>Domain</th>
<th>Percentage of Examination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Hardware</td>
<td>34%</td>
</tr>
<tr>
<td>2.0 Networking</td>
<td>21%</td>
</tr>
<tr>
<td>3.0 Mobile Devices</td>
<td>11%</td>
</tr>
<tr>
<td>4.0 Hardware &amp; Network Troubleshooting</td>
<td>11%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

**A+ Exam 220-902 “Software”**
These tables show the main Exam Objectives (Domains) and how much weight they each should have on the exam. Why do the relative weights matter? Because they give a good indication of how many questions each domain will present at your exam.

Click here for more info regarding the A+ 220-901 & 220-902 Exam Objectives.

How many questions are there and how are they distributed?

Each exam contains a maximum of 90 questions and you have an hour and a half to answer them so on average one question per minute. This is in line with certification best practices for multiple choice based tests but it will require you get organized and focused to not run out of time. Thankfully there are methods and tools available to you to make sure you don’t get overwhelmed by the quantity of questions. For that see our article “Test Taking Strategies for IT Certification”

A+ Exam 220-901 “Hardware”

<table>
<thead>
<tr>
<th>Domain</th>
<th>Approximate# of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Hardware</td>
<td>31</td>
</tr>
<tr>
<td>2.0 Networking</td>
<td>19</td>
</tr>
<tr>
<td>3.0 Mobile Devices</td>
<td>15</td>
</tr>
<tr>
<td>4.0 Hardware &amp; Network Troubleshooting</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>90 questions</td>
</tr>
</tbody>
</table>

A+ Exam 220-902 “Software”

<table>
<thead>
<tr>
<th>Domain</th>
<th>Approximate# of questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0 Windows Operating Systems</td>
<td>26</td>
</tr>
<tr>
<td>2.0 Other Operating Systems &amp; Technologies</td>
<td>11</td>
</tr>
<tr>
<td>3.0 Security</td>
<td>20</td>
</tr>
<tr>
<td>4.0 Software Troubleshooting</td>
<td>22</td>
</tr>
<tr>
<td>5.0 Operational Procedures</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>90 questions</td>
</tr>
</tbody>
</table>

On CompTIA’s Exam Objectives document you can read:
**Note: The lists of examples provided in bulleted format below each objective are not exhaustive lists. Other examples of technologies, processes or tasks pertaining to each objective may also be included on the exam although not listed or covered in this objectives document.**

This is the kind of statement you want to take seriously. It will require you not only to master the terms on the various lists but what they can do and different ways they can do it. This can be tricky but should impact how you study for the exam.

**What is the passing score in plain English?**

The grading scale is a bit funky as you are evaluated on a scale from 100 to 900. The passing score on the CompTIA A+ 901 exam is 675 and for the CompTIA 902 exam it is 700. What this works out to in terms of percentages is about 72% for 901 and about 75% for 902. This means that with a total of 90 questions per exam you will need at least 65 correct answers on 901 and no less than 68 on 902. Because the objectives are so wide ranging and unless you have a lot of professional experience, it will take a fair amount of work to prepare for this exam. If you doubt this just take a look the A+ objectives as published by CompTIA, between the two exams you are looking at 51 pages mainly of lists of items you could get a question on...

**The question types you will see on the exam**

By and large the most common question type is the multiple choice type of questions. The basic four alternatives – three detractors and one correct choice is the most common question type on the exam. Typically these questions will include one correct answer, one detractor that is very similar to the correct answer and a different detractor that is still wrong and finally the nonsense detractor(s). The nonsense detractor is the one a candidate with no idea about the topic at hand could pick. In some of these you will be facing more than one alternative that you will feel is correct, in those situations you are expected to pick the “best” answer. By that CompTIA means the alternative that is the more direct and clearly related to the question as asked. Here is an example:

A customer wants games from their child’s Windows 7 computer removed. Which of the following is the BEST way to accomplish this task?

a) Control Panel > Game Controller > Select controller > click Remove
b) Control Panel > Administrative Tools > Computer Management

**Answer c) “Control Panel > Add/Remove programs > Add/Remove Windows Components > select Accessories and Utilities > uncheck Games” is the best way to accomplish the task.** The user wants the games removed and since we are expected to take the question literally it is the only choice that will actually remove the games. So from the top, a) game controllers will only impact the devices used for gaming, not the games themselves. b) Computer Management has no capabilities in this area. The last choice is the most tempting in terms of practicality it will only hide the Games from the menus not remove them. A crafty child will still be able to find them since they haven’t been removed.

When you are facing the four alternatives – three detractors and one correct choice, you will see that the clickable area is a radio button. When you see a question that has check boxes instead of radio
buttons, that will be a multiple choice – multiple answer type question. With these questions you can expect that five alternatives will contain two correct answers and six alternatives will contain three correct answers.

In addition to the multiple choice questions you will see two more question formats: Scenario based and Performance based questions.

The scenario based questions are essentially multiple choice questions just with a longer question text. Instead of asking you (basic multiple choice):

Which of the following network devices allows for full-duplex communication?

- a) Hub
- b) Bridge
- c) Switch
- d) Firewall

...the scenario based question sets up a situation that you are expected to respond to by choosing one of the alternatives. Here is an example of that:

A technician just finished removing spyware from a computer and now they are not able to connect to any websites. Which of the following is the MOST likely cause?

- a) Automatic configuration
- b) Network card driver is damaged
- c) Proxy settings
- d) The Internet is not functioning

Because these are CompTIA exams the scenario is a “scenario of few words”... CompTIA is known for its short and terse questions. In addition to

So what is the answer? The most likely answer here would be c) Proxy Settings. Malware often reconfigures proxy settings, or in some cases initiates them, to enable their programs to operate optimally. Often this could go unnoticed by the user and the program will run indefinitely undetected. Proxy settings is the MOST likely answer because you are told in the question that “A technician just finished removing spyware”. Although in b) a damaged network card driver would cause inability to connect to the network it is not induced by malware removers and so does not qualify for the MOST likely cause. a) Automatic configuration will not disable internet connectivity by design as it is non-routable. Finally, d) if the Internet was not functioning in the workplace it's safe to assume yours would not be the only complaint!

IMPORTANT NOTE ON SCENARIO BASED QUESTIONS: There is definitely a bias towards more scenario based questions in Exam 220-902 (Software) than 220-901 (Hardware). You get that from studying the CompTIA Exam Objectives documents. The exam objectives for Exam 220-901 (Hardware) lists an impressive 16 sub-objectives starting with “Given a scenario...” while for Exam 220-902 you have a still considerable 11 objectives starting with “Given a scenario...”. To get the CompTIA Exam Objectives documents click on A+ Exam Objectives.
The performance based questions are exercise based. You complete a task in a Windows simulator or a command line interface simulator and you come to the correct answer through entering the right command or navigating correctly in the Windows menu. Below is an example of a performance based question that addresses TCP/IP.

**What is the IPv4 address on this machine?**

This question is testing your knowledge of the TCP/IP utilities and the associated commands. For you to answer this question you have to know that IPCONFIG is the command that will reveal the IP address.
After entering ipconfig you can see that the IPv4 address is: 192.168.204.131.

Another performance based question type asks you to “configure” a system based on custom needs. Below is an example of what those questions look like at the exam. Here you are supposed to figure out, based on what the systems are to be used for, which components belong under which system. Those questions are supposed to satisfy the exam sub-objective 1.9: “Given a scenario, select the appropriate components for a custom PC configuration, to meet customer specifications or needs.”

There are other types such as list and re-order and drag and drop etc. but those are pretty self-explanatory (and all exist in CertBlaster).

**A brief Note on Time Management**

At the exam many question banks front-load the performance based questions. This means that you will see most if not all the performance based questions in the first ten or so questions on your exam (ou of 90). The performance based questions are more time consuming as there can be 4 – 5 steps in one compare to a single click in a multiple chance question. This means you have to be smart about your time management as although more time consuming, the performance based questions do not give you more points. If you don’t immediately know what the correct steps are for a performance based question then make sure to rapidly use the “Flag for Later” feature and move on to the multiple choice questions, make sure to answer those and then circle back to the performance based questions. This will offer you the chance to take your time on these at the end with a lot less stress knowing that you answered already the great majority of questions.
**BONUS SECTION**

**What can A+ Certification do for you?**

There are two major things A+ can do for you: 1) Get you a job, and 2) get you better pay. If you are new to the industry, point one is by far the most critical. When you are competing with other non-experienced, non-certified applicants for a PC Support or Helpdesk position there is no question that you are far more likely to be the one to get hired. This is something we hear from both recruiters and job seekers that have experienced it firsthand. Additionally there are employers that will require A+ certification for any warranty work, making recruitment of A+ certified individuals inevitable.

The second point is increased compensation. One of the largest salary surveys in our industry is the Robert Half Technology annual salary survey. In their 2014 Salary Guide for Technology Professional they list the 2013 income range for PC Technicians at $31,250-$46,000. Contrast that to the average CompTIA A+ certified tech salary at $50,364 (Source CompTIA 2013 at comptia.org). There is bump for being certified.

**What's so special about A+ Certification?**

A+ Certification was the first vendor neutral IT certification to gain any traction in the market place. This is important and, till this day still relevant, as it ensures that if you pass, you get a credential that is recognized and wanted by the whole computing industry - not just one vendor. A+ is also a “gateway certification”. It is a great stepping stone to further certification such as Network+ and Security+ or towards the new MCSE certifications. Finally A+ Certification is the best benchmark for I.T. professionals to determine if a candidate has a fundamental understanding of a computer and other basic subject matter related to the I.T. field.

One thing you do NOT want to do is underestimating it just because it is an entry level certification. The two tests cover vast amounts of information. Taken together the exam objectives published by CompTIA for exams 220-901 and 220-902 cover 44 pages! Granted, of those two are cover pages and two are “Proposed lists of Hardware and Software”. However that leaves you with 22 pages of exam objectives plus 14 pages of acronyms... In short preparation is everything!

Being the largest IT certification on the planet, with over 1,000,000 certified individuals, A+ sets the standard for both the profession and other certification developers.

The bottom line is that A+ has credibility and that’s all you really want and need from a credential.

**Why and how the A+ test came about in the first place**

In the early nineties there was a concern with some users that certain PC Support Technicians did not have all the required skills to be let loose safely on their machines. The main worry was that an ignorant or sloppy PC Tech had the ability to lose a whole lot of data on a PC while “fixing” it. This fear did not come out of thin air. These were the Wild West days of PC computing and anyone knowing a little terminology and a couple of DOS commands would pass for a whiz kid and therefore could easily be entrusted with a bit more than warranted. The nightmare scenario was of course the loss of say the last few years of your accounting. Not a good situation. This and other less than ideal scenarios would
happen with enough frequency that various state legislatures were moving towards regulating the PC Repair profession. In response to these moves the industry, thinking that self-regulation beats government involvement any day, stepped in. Under the umbrella of the Computing Technology Industry Association – CompTIA, the industry got organized and crafted the A+ Certification. This author was, with others, sitting on the A+ Executive Committee formulating the very first 1993 exam objectives and deciding on the design of the exams. The A+ Certification was created as a dual test with a “Software” exam (mainly addressing operating system issues) and a Hardware exam. This is a structure that in various forms has survived till this day. When the exam went live we were hoping to break 5,000 exam sittings year one: it took just a few months to achieve this and the rest is history. Today the A+ Certification is the No 1 leading IT certification worldwide with over 1,000,000 people having earned this credential (since a PC Tech from Colorado succeeded at the exam in February of 2015).