CompTIA A+ Core Series

What is it?

CompTIA A+ certified professionals are proven problem solvers. They support today's core technologies from security to networking to virtualization and more. CompTIA A+ is the industry standard for launching IT careers into today's digital world.

Why is it different?

CompTIA A+ is the only industry recognized credential with performance testing to prove pros can think on their feet to perform critical IT support tasks. It is trusted by employers around the world to identify the go-to person in end point management & technical support roles. CompTIA A+ appears in more tech support job listings than any other IT credential.

About the exam

CompTIA A+ validates the skills required to install and configure end-user devices and software; connect devices to networks; perform basic cybersecurity mitigations; troubleshoot common problems to diagnose and resolve issues; and demonstrate basic knowledge of scripting, the cloud, and virtualization.

The CompTIA A+ Core 1 (220-1101) exam covers five domains.
• Mobile devices (15%)
• Networking (20%)
• Hardware (25%)
• Virtualization and Cloud Computing (11%)
• Hardware and Network Troubleshooting (29%)

The CompTIA A+ Core 2 (220-1102) exam covers four domains.
• Operating Systems (31%)
• Security (25%)
• Software Troubleshooting (22%)
• Operational Procedures (22%)

CompTIA A+ Core Series

220-1101 and 220-1102

April 2022

English, German, Japanese, Portuguese, Simplified Chinese and Spanish

What's important about this version?

The new CompTIA A+ emphasizes the technologies and skills IT pros need to support a hybrid workforce.

- CompTIA A+ reflects the increased reliance on SaaS applications for remote work.
- The new CompTIA A+ focuses more than before on troubleshooting and how to remotely diagnose and correct common software, hardware or connectivity problems.
- A+ focuses on changing core technologies from cloud infrastructure and IoT device security to data management and scripting.
- Technicians encounter multiple operating systems on a regular basis, and A+ now covers the major systems, their use cases, and how to keep them running properly.
- CompTIA A+ reflects the changing nature of the job role, where many tasks are sent to specialized providers. Certified personnel are able to assess whether it's best to fix something on site, or to save time and money by sending proprietary technologies directly to vendors.
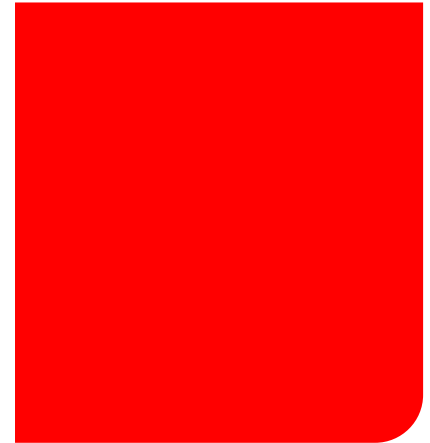
CompTIA Certification Pathway

IT support professionals work with critical-path teams, including security operations center (SOC) team members, cloud and network administrators, and applications analysts. These teams offer a glimpse of future options and a gateway to career advancement. CompTIA A+ is the key to unlocking these options and setting you on the IT career pathway of your choosing.

CompTIA certifications align with the skillsets needed to support and manage IT infrastructure and security. Enter where appropriate for you. Consider your experience and existing certifications or course of study.

CompTIA pathway to jobs
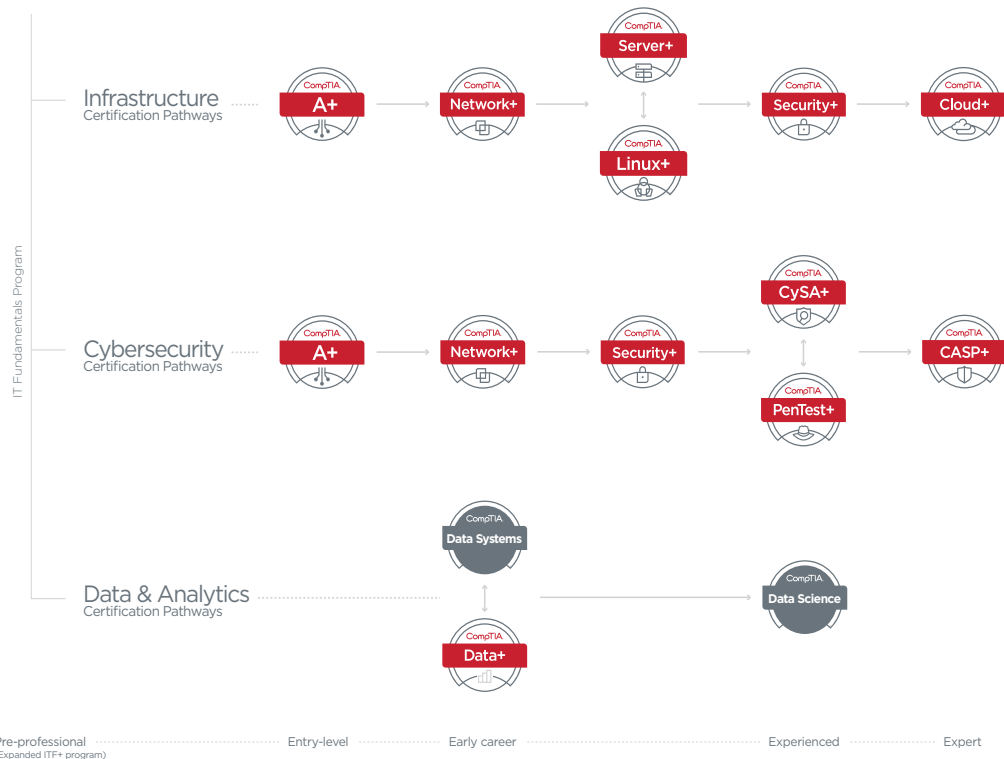
Organizations that Use A+

- Best Buy/Geek Squad
- Blue Cross Blue Shield
- Canon
- Dell
- General Dynamics
- HP
- Intel
- Nissan
- Ricoh
- Sharp
- U.S. Department of Defense (DoD)
- Verizon
- Wells Fargo

Technical Areas Covered in the Certification

CompTIA A+ Core 1 (220-1101)

Mobile Devices 15%

- Install & configure laptop hardware & components
- Compare & contrast the display components of mobile devices
- Set up & configure accessories & ports of mobile devices
- Configure basic mobile-device network connectivity & application support
- Explain the characteristics of network topologies & network types
- Summarize the types of cables & connectors and explain which is the appropriate type for a solution
- Configure a subnet & use appropriate IP addressing schemes
- Explain common ports & protocols, their application, & encrypted alternatives
- Explain the use & purpose of network services
- Explain basic corporate & data-center network architecture
- Summarize cloud concepts & connectivity options

Networking 20%

- Compare and contrast Transmission Control Protocol (TCP) & User Datagram Protocol (UDP) ports, protocols, & their purposes
- Compare & contrast common networking hardware
- Compare & contrast protocols for wireless networking
- Summarize services provided by networked hosts
- Install & configure basic wired/wireless small office/home office (SOHO) networks
- Compare & contrast common network configuration concepts
- Compare & contrast Internet connection types, network types, & their features
- Use networking tools

Hardware 25%

- Explain basic cable types and their connectors, features, and purposes
- Install the appropriate RAM
- Select and install storage devices
- Install and configure motherboards, central processing units (CPUs), and add-on cards
- Install or replace the appropriate power supply
- Deploy and configure multifunction devices/printers and settings
- Install and replace printer consumables

Virtualization and Cloud Computing 11%

- Summarize cloud-computing concepts
- Summarize aspects of client-side virtualization

Network and Hardware Troubleshooting 29%

- Apply the best practice methodology to resolve problems
- Troubleshoot problems related to motherboards, RAM, CPU and power
- Troubleshoot and diagnose problems with storage drives and RAID arrays
- Troubleshoot video, projector and display issues
- Troubleshoot common issues with mobile devices
- Troubleshoot and resolve printer issues
- Troubleshoot problems with wired and wireless networks

CompTIA A+ Core 2 (220-1102)

Operating Systems 31%

- Identify basic features of Microsoft Windows editions
- Use the appropriate Microsoft command-line tool
- Use features & tools of the Microsoft Windows 10 operating system (OS)
- Use the appropriate Microsoft Windows 10 Control Panel utility
- Use the appropriate Windows settings
- Configure Microsoft Windows networking features on a client/desktop
- Apply application installation & onfiguration concepts
- Explain common OS types & their purposes
- Perform OS installations & upgrades in a diverse OS environment
- Identify common features & tools of the macOS/desktop OS
- Identify common features & tools of the Linux client/desktop OS

Security 25%

- Summarize various security measures and their purposes
- Compare and contrast wireless security protocols and authentication methods
- Detect, remove, and prevent malware using the appropriate tools and methods
- Explain common social-engineering attacks, threats and vulnerabilities
- Manage and configure basic security settings in the Microsoft Windows OS
- Configure a workstation to meet best practices for security
- Explain common methods for securing mobile & embedded devices
- Use common data destruction & disposal methods
- Configure appropriate security settings on small office/home office (SOHO) wireless & wired networks
- Install & configure browsers & relevant security settings

Software Troubleshooting 22%

- Troubleshoot common Windows OS problems
- Troubleshoot common personal computer (PC) security issues
- Use best practice procedures for malware removal
- Troubleshoot common mobile OS & application issues
- Troubleshoot common mobile OS & application security issues

Operational Procedures 22%

- Implement best practices associated with documentation & support systems information management
- Explain basic change-management best practices
- Implement workstation backup & recovery methods
- Use common safety procedures
- Summarize environmental impacts & local environmental controls
- Explain the importance of prohibited content/activity & privacy, licensing, & policy concepts
- Use proper communication techniques & professionalism
- Identify the basics of scripting
- Use remote access technologies

More Domain Knowledge

CompTIA A+ staff have more core domain knowledge than uncertified staff with the same amount of experience. In addition, **CompTIA certified staff with less than 1 year experience even demonstrate more domain knowledge** than uncertified staff with 3 years experience.[1]

Long Term Job Growth

In 2021, in the United States, there were almost 700K open tech support jobs. This number is expected to grow to 752K by 2031. CompTIA A+ is the most requested certification by employers hiring for these open jobs.[2]

Salary Snapshot

The CompTIA IT Employment snapshot shows a median national salary for Tech Support jobs of $52,690.[2]

* What does it mean to be a "high stakes" exam?

An extraordinarily high level of rigor is employed in developing CompTIA certifications. Each question created for a CompTIA exam undergoes multiple layers of quality assurance and thorough psycho-metric statistical validation, ensuring CompTIA exams are highly representative of knowledge, skills and abilities required of real job roles. This is why CompTIA certifications are a requirement for many professionals working in technology. Hiring managers and candidates alike can be confident that passing a CompTIA certification exam means competence on the job. This is also how CompTIA certifications earn the ANSI/ ISO 17024 accreditation, the standard for personnel certification programs. Over 2.3 million CompTIA ISO/ANSI-accredited exams have been delivered since January 1, 2011.

* What does it mean to be a "vendor-neutral" exam?

All CompTIA certification exams are vendor-neutral. This means each exam covers multiple technologies, without confining the candidate to any one platform. Vendor-neutrality is important because it ensures IT professionals can perform important job tasks in any technology environment. IT professionals with vendor-neutral certifications can consider multiple solutions in their approach to problem-solving, making them more flexible and adaptable than those with training in just one technology.

* What is a Performance Certification?

CompTIA performance certifications validate the skills associated with a particular job or responsibility. They include simulations that require the test taker to demonstrate multi-step knowledge to complete a task. CompTIA has a higher ratio of these types of questions than any other IT certifying body.

1. https://www.bls.gov/ooh/computer-and-information-technology/computer-support-specialists.htm#tab-6
2. CompTIA analysis of data from Burning Glass Technologies Labor Insights, EMSI, and U.S. Bureau of Labor Statistics.

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