CompTIA Overview
The Computing Technology Industry Association (CompTIA) is the tech-forward community of the $5 trillion IT ecosystem, and the global hub for the more than 35 million professionals who design, deploy, manage and secure the technology that powers the modern economy. Through collaboration, education, certifications, advocacy and market research, CompTIA advances the industries and careers that rely on tech.

Mission
To deliver IT talent to the global workforce.

Vendor-Neutral Certifications
CompTIA certifications are mapped to skills and competencies needed for job roles versus vendor specific technology. Vendor neutrality helps IT professionals develop learning agility. By having mastered baseline skills, CompTIA-certified IT professionals are equipped to learn and apply new information quickly.

Value of Certification
Gaining industry-recognized certifications can help learners differentiate themselves in a challenging job market. It’s essential to validate skills and add valuable credentials to a resume or advance in an IT career. CompTIA certifications can assist with:
- A competitive edge in a highly technical job market
- Heightened career advancement opportunities

High-stakes Exam
- An extraordinarily high level of rigor is employed in developing CompTIA certifications.
- Each question created undergoes multiple layers of quality assurance and thorough psychometric statistical validation.
- CompTIA certifications are ISO/ANSI accredited.

For the Candidate:
- Competitive Edge: 91% of employers believe IT certifications play a key role in the hiring process and are a reliable predictor of a successful employee.*
- Job Satisfaction: 76% of CompTIA certified IT pros are satisfied with their job.**

For Corporate/Government:
- Valuable Employees: 82% of employers recognize that certified employees are valuable to their organizations.****
- Solid Foundation: 92% of military supervisors regard certification as important in setting a baseline of expertise among staff *****

Based on the Dice Report, IT pros need to keep their skills current in a constantly evolving industry. CompTIA certifications ensure skills meet the needs of the industry and organization. Save time and resources by using certifications to evaluate candidates. Feel confident that your staff has the competencies to get the job done.

By the numbers:
- 97% of employers value certifications enough to provide support for IT employees obtaining IT certification.
- 76% of CompTIA-certified IT pros are satisfied with their job.
- Three of the “Top 10 Certifications That Help IT Workers Get Jobs” are CompTIA certifications, according to The Dice Report.

Enterprise/Employer
IT pros need to keep their skills current in a constantly evolving industry. CompTIA certifications ensure skills meet the needs of the industry and organization. Save time and resources by using certifications to evaluate candidates. Feel confident that your staff has the competencies to get the job done.

By the numbers:
- Loyal workforce: 84% of IT professionals stay with their employer after getting CompTIA certified.
- Certified staff benefit
  - 85% more confidence: Certifications create trust and a can-do attitude.
  - 58% more knowledge: Certifications improve expertise.
  - 53% more ability: Certified staff outperform non-certified staff in job-critical tasks.

Sources:
* CompTIA Employer Perceptions of IT Training and Certification
** CompTIA 2nd Annual IT Career Insights Study
*** CompTIA 2nd Annual IT Career Insights Study
**** CompTIA IT Training and Certification: Insights and Opportunities Study
***** CompTIA Military Career Path

Government
Certifications below are updated regularly and aligned to NICE Workforce Framework.

Government employees can verify their cyber knowledge and skills and fulfill government directives like FISMA and DoD 8570/8140.

- CompTIA A+
- CompTIA Network+
- CompTIA Security+
- CompTIA Cybersecurity Analyst (CySA+)
- CompTIA Advanced Security Practitioner (CASP+)
CompTIA Pathways

Learn more about CompTIA

- Entry-level certifications for foundational IT knowledge
- For candidates with 0 – 3 years of education and/or experience

CORE SKILLS CERTIFICATIONS

- Early to mid-career level certifications
- For candidates who have at least 18 months of general IT experience, and at least 9 months in their field of expertise

INFRASSTRUCTURE PATHWAY

- Entry-level certifications for foundational IT knowledge
- For candidates with 0 – 3 years of education and/or experience

PROFESSIONAL SKILLS

- Specialized professional skills
- CompTIA's professional certifications cover versatile skillsets that help take careers to the next level

CYBERSECURITY PATHWAY

- Mid-career to advanced level certifications
- For candidates who have at least 3 years of hands-on information security or related experience
CompTIA IT Fundamentals (ITF+) (FC0-U61)

Who would benefit from ITF+?
• Students considering a career in IT
• Professionals working in fields that require a broad understanding of IT
• Marketing, sales and operations staff in IT-based organizations

Resources:
• ITF+ additional information: CompTIA.org/certifications/it-fundamentals
• Recommended Pathways: CompTIA.org/certifications/which-certification
• Posts: https://bit.ly/2JgDuAj

BATTLE CARD
Who would benefit from ITF+?
• Students considering a career in IT
• Professionals working in fields that require a broad understanding of IT
• Marketing, sales and operations staff in IT-based organizations

VALUE Prop 1 (Career Changer/Student)
ITF+ provides an opportunity to explore all aspects of IT job roles. Learners gain digital literacy skills and are inspired to pursue a career in IT.

VALUE Prop 2 (Employer)
ITF+ is a certification that establishes an IT foundation necessary in preparation for digital transformation, and on-the-job success. It is appropriate for both non-technical and technical staff.

Key Differentiators:
• ITF+ establishes an IT education framework for students in middle school and high school.
• It’s the only pre-career certification for students or career changers that validates a competency in information technology to help determine if IT is the right career path.
• It’s the only certification that covers all areas of IT foundations, making it ideal for non-technical professionals.

Competitors

<table>
<thead>
<tr>
<th>Competitors</th>
<th>Talking Points / ITF+ Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Technology Associate (MTA)</td>
<td>• ITF+ has a broad focus that allows entry to multiple IT-related paths</td>
</tr>
<tr>
<td></td>
<td>• ITF+ is 1 single exam with multiple choice; however, the knowledge, skills and abilities (KSAs) in MTA are spread out over 8 exams.</td>
</tr>
<tr>
<td>IC3 Digital Literacy Certification (IC3)</td>
<td>• IC3 prepares for digital skills only, while ITF+ prepares for digital skills as well as IT-readiness.</td>
</tr>
<tr>
<td></td>
<td>• One ITF+ exam represents concepts covered in two IC3 certifications requiring a total of 4 IC3 exams.</td>
</tr>
<tr>
<td>European Computer Driving License (ECDL)</td>
<td>• ECDL requires an extensive time commitment - 12 exams to earn the credential.</td>
</tr>
<tr>
<td></td>
<td>• One ITF+ exam represents concepts covered in five or more ECDL exams.</td>
</tr>
</tbody>
</table>

Skills and Competencies Acquired:
• Install software
• Establish basic network connectivity
• Identify/prevent basic security risks
• Explain troubleshooting theory and preventative maintenance of devices

Renewal: The CompTIA IT Fundamentals+ certification is considered good for life and does not need to be renewed.

JUN 2020

Skills and Competencies Acquired:
• Install software
• Establish basic network connectivity
• Identify/prevent basic security risks
• Explain troubleshooting theory and preventative maintenance of devices
## How Does CompTIA Compare?

<table>
<thead>
<tr>
<th>Certification</th>
<th>ITF+</th>
<th>Microsoft Technology Associate</th>
<th>IC3 Digital Literacy Certification</th>
<th>European Computer Driving License/International Computer Driving License</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Exams</td>
<td>Single, multiple choice exam</td>
<td>8 exams</td>
<td>3 multiple choice exams</td>
<td>Modular set of 17 exams</td>
</tr>
<tr>
<td>Exam Focus</td>
<td>Pre-career assessment of competency for IT</td>
<td>Microsoft-specific content</td>
<td>End users who lack IT training</td>
<td>End user skills</td>
</tr>
<tr>
<td>Experience Level</td>
<td>Pre-IT career &amp; Non-IT pros</td>
<td>Students interested in an on-ramp to a career requiring technical expertise in Microsoft products and services</td>
<td>Non-IT pros</td>
<td>Non-IT pros</td>
</tr>
<tr>
<td>Vendor Neutral</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

[Learn more about ITF+]
CompTIA A+ Intro
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.

VALUE Prop 1 (Career Changer/Student)
CompTIA A+ is the industry standard entry-level certification that proves IT knowledge in networking, security, IoT technology, cloud-based storage, hardware and more. It also develops problem-solving skills required in entry-level technical support careers.

VALUE Prop 2 (Employer)
CompTIA A+ ensures help desk technicians and IT support specialists have skills required to perform entry-level job tasks and support a hybrid workforce. It is trusted by employers around the world to identify the go-to person in end point management & technical support roles. A+ is also the building block towards meaningful career progression.

Accredited by ANSI to show compliance with the ISO 17024 Standard. It is also approved by the DoD for Directive 8140/8570.01-M.

By the Numbers:
- More than 337K job postings by US employers for tech support specialists in last 12 months.
- 43K U.S. IT job ads posted annually include A+ as a job requirement.
- Over 1.2 million active A+ certified professionals.

Additional Selling Points:
• CompTIA certifications mean proven competency on the job.
  • CompTIA performance certifications validate the skills associated with a particular job or responsibility.

Resources:
• Average Salary:
  • Glassdoor.com (https://s.comptia.org/3v031dk): IT Support Specialist
  • UK ITJobsWatch.co.uk (https://s.comptia.org/3KmF8O3): IT Support Specialist
• A+ Additional Information: CompTIA.org/certifications/a
• Recommended Pathways: CompTIA.org/certifications/which-certification
• Posts: https://bit.ly/32Hmnzo

Job Roles:
• IT Support Specialist
• Helpdesk Technician
• Field Technician
• Tier I Support Specialist
• Desktop Support Specialist
• Associate Network Engineer
• Systems Support Technician
• Junior Systems Administrator

Companies that Endorse A+:
• BlueCross BlueShield
• Dell
• HP
• Intel
• Nissan
• Ricoh

Benefits:
Candidate: CompTIA A+ opens many avenues for career development. IT-certified pros can end up working in cybersecurity, network engineering, network administration, business analysis or data analytics.

Employers: Certified employees are trusted by employers around the world as the go-to person in end point management & technical support roles.

Skills and Competencies Acquired:
• Install and configure end-user devices and software
• Address connectivity problems
• Perform basic cybersecurity mitigations
• Troubleshoot common problems to diagnose and resolve issues
• Demonstrate basic knowledge of scripting, the cloud, and virtualization.

Key Differentiators:
• A+ is the only industry recognized credential with performance-based items to prove pros can think on their feet to perform critical IT support tasks in the moment.
• CompTIA A+ assess hands-on, real world troubleshooting skills. With available hands-on training to performance based items on certification exam, candidates know how to find the problem and fix it.
• A+ is regularly revised by IT experts to ensure that it validates core skills and abilities demanded in the workplace.
## CompTIA A+ Competitive Landscape

<table>
<thead>
<tr>
<th>CompTIA A+ Alternatives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Microsoft</strong></td>
</tr>
<tr>
<td>Microsoft MCSA &amp; MTA Infrastructure</td>
</tr>
<tr>
<td><strong>Other industry certifications</strong></td>
</tr>
<tr>
<td><strong>Training but not testing</strong></td>
</tr>
<tr>
<td><strong>Trying to skip CompTIA A+</strong></td>
</tr>
</tbody>
</table>

Learn more about A+
CompTIA Network+ Intro
CompTIA Network+ validates the technical skills needed to securely establish, maintain and troubleshoot the essential networks that businesses rely on.

The new CompTIA Network+ focuses on foundational networking tools and technologies used to create secure networks and guarantee the availability of critical business information.

By the Numbers:
- 28% of organizations say they have a shortage of network security specialists. (Cybersecurity Skills Shortage: A State of Emergency, ESG)
- Over 20,000 Network+ certified professionals.
- Network+ is recognized as one of the top 10 most widely-held certs worldwide (Global Knowledge Report 2020)

Skills and Competencies Acquired:
- Implement enterprise-level wired and wireless network solutions
- Identify and troubleshoot network performance issues
- Harden networks against threats to mitigate security vulnerabilities

Companies that Endorse Network+:
- Apple (Consultants)
- Blue Cross Blue Shield
- Cisco Academy
- HP / Dell
- Konica Minolta
- Lenovo
- Microsoft MSSA
- Motorola
- New York State Office of Technology
- NY City Union
- Pomeroy
- Ricoh
- Sharp
- Verizon
- Xerox

Competitors
Cisco CCNA
Vendor-specific

Talking Points / Network+ Advantages
- Unlike CCNA, CompTIA Network+ prepares IT pros to support the network regardless of the platform rather than just maintaining a single vendor's products.
- CompTIA Network+, unlike Cisco, covers essential skills at the depth needed for early networking jobs. CCNA is so broad that it doesn't cover the depth of knowledge needed to set a firm foundation for networking expertise.
- Trends including multi-vendor architecture, multi-vendor interoperability, & white box networking make it increasingly likely IT pros will encounter more than just Cisco appliances and IOS in the workplace.

Companies that Endorse Network+:
- Apple (Consultants)
- Blue Cross Blue Shield
- Cisco Academy
- HP / Dell
- Konica Minolta
- Lenovo
- Microsoft MSSA
- Motorola
- New York State Office of Technology
- NY City Union
- Pomeroy
- Ricoh
- Sharp
- Verizon
- Xerox

Job Roles:
- Junior Network Administrator
- Datacenter Support Technician
- Network Engineer
- System Administrator
- NOC Technician
- Telecommunications Technician
- Cable Technician

Resources:
- Average Salary
- Network+ Additional Information: CompTIA.org/certifications/network
- Recommended Pathways: CompTIA.org/certifications/which-certification
- Posts: https://bit.ly/2pdQAaH

VALUE Prop 1 (Career Changer/Student)
CompTIA Network+ certifies a professional-level understanding of the latest best practices and foundational networking tools and technologies, including network architecture, high availability, wireless standards and technologies. It is the building block of a successful career in IT Infrastructure.

VALUE Prop 2 (Employer)
CompTIA Network+ validates candidates have the technical and hands-on networking skills needed to create secure networks and guarantee the availability of critical business information that drive business objectives.

Accredited by ANSI to show compliance with the ISO 17024 Standard. It is also approved by the DoD for Directive 8140/8570.01-M

Key Differentiators:
- Network+ prepares candidates to support the network regardless of the platform.
- It forms the foundation professionals need before specializing in a vendor solution.
- Network+ is created by networking professionals who support all vendors so it teaches IT Pros how to support business needs demanded in the workplace.
## How does CompTIA Compare?

<table>
<thead>
<tr>
<th>Certification</th>
<th>Network+</th>
<th>CCNA Vendor-specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance-based Questions</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Exam Length</td>
<td>1 exam, 90 minutes</td>
<td>1 exam, 90 min.</td>
</tr>
<tr>
<td>Experience Level</td>
<td>Early career</td>
<td>Early career</td>
</tr>
<tr>
<td>Exam Focus</td>
<td>Covers networking technologies across all vendors &amp; solutions</td>
<td>Covers networking for only Cisco products &amp; solutions.</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>CompTIA A+ &amp;/or a minimum of 9 months networking experience recommended</td>
<td>1-3 years experience</td>
</tr>
</tbody>
</table>

Learn more about Network+
CompTIA Security+ Intro

CompTIA Security+ is a global certification that validates the foundational cybersecurity skills necessary to perform core security functions and pursue an IT security career.

VALUE Prop 1 (Career Changer/Student)

The new CompTIA Security+ (SY0-701) represents the latest and greatest in cybersecurity, covering the most in-demand skills related to current threats, automation, zero trust, IoT, risk – and more. Once certified, you’ll understand the core skills needed to succeed on the job – and employers will notice too.

VALUE Prop 2 (Employer)

CompTIA Security+ validates core knowledge required of any cybersecurity role, and emphasizing vendor-neutral, hands-on practical skills, ensuring the security professional is better prepared to problem solve a wider variety of today’s complex issues.

Accredited by ANSI to show compliance with the ISO 17024 Standard.

Skills and Competencies Acquired:

• Assess the security posture of an enterprise environment and recommend and implement appropriate security solutions.
• Monitor and secure hybrid environments, including cloud, mobile, Internet of Things (IoT), and operational technology.
• Operate with an awareness of applicable regulations and policies, including principles of governance, risk, and compliance.
• Identify, analyze, and respond to security events and incidents.

Job Roles:

• Security Specialist
• Security Administrator
• Systems Administrator
  • Help Desk Analyst
  • Security Analyst
  • Security Engineer

Key Differentiators:

• Launch a Successful Cybersecurity Career. Develop a core foundation of essential skills, paving the way for a fulfilling career. More job roles use Security+ for baseline cybersecurity skills than any other certification in the industry.
• Assess On-the-Job Skills. Security+ is the most widely adopted ISO/ANSI-accredited early career cybersecurity certification on the market with hands-on, performance-based questions on the certification exam. These practical questions assess your ability to effectively problem solve in real-life situations and demonstrate your expertise to potential employers immediately.
• Embrace the Latest Trends. Understand and use the most recent advancements in cybersecurity technology, terms, techniques, and tools. By acquiring early career skills in the latest trends such as automation, zero trust, risk analysis, operational technology, and IoT, you will be well-equipped to excel in the ever-evolving cybersecurity landscape.

Competitors

| ISCC Systems Security Certified Practitioner (SSCP) | Both SSCP and Security+ cover baseline security skills and are vendor-neutral; however, Security+ includes performance-based questions to validate hands-on skills. | Both SSCP and Security+ cover baseline security skills and are vendor-neutral; however, Security+ includes performance-based questions to validate hands-on skills. |
| GIAC Security Essentials (GSEC) | SSCP requires working experience before taking the exam while Security+ does not. | Security+ is listed in 10% of cybersecurity job ads while SSCP is only listed in 3%. |

Talking Points / Security+ Advantages

By the Numbers:

• There are over 700,000 Security+ certified professionals.
• 24% of the total employed cybersecurity workforce in the U.S. are Security+ certified.

Resources:

• Average Salary:
  • UK Security Administrator: ITJobsWatch.co.uk (https://bit.ly/3ZkPoiv)
• Security+ Additional Information: CompTIA.org/security
• Recommended Pathways: (https://bit.ly/42DCNb6)

Organizations That Helped Develop Security+:

• Blue Chip Talent
• Brotherhood Mutual
• Contentful
• Cyber Warfare Tactics LLC
• Deakin University
• Deloitte
• Fidelis Risk Advisory
• Fidelity Investments
• Five9
• General Dynamics IT (GDIT)
• Growth Arbor
• Johns Hopkins University Applied Physics Laboratory
• L3Harris
• Linford and Company LLC
• Lippert Components
• Microsoft
• MindPoint Group
• Nationwide
• Organon
• SecureWorks
• SenseOn
• SS&C Technologies
• U.S. Navy Center for Information Dominance
• Washington State Patrol
• Wells Fargo
• Zoom
### How does CompTIA compare?

<table>
<thead>
<tr>
<th>Certification</th>
<th>ISC2 Systems Security Certified Practitioner (SSCP)</th>
<th>GIAC Security Essentials (GSEC)</th>
<th>EC-Council Certified Ethical Hacker (CEH)</th>
<th>ISC2 Certified in Cybersecurity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Performance-Based Questions</strong></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Vendor Neutral</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Experience Level</strong></td>
<td>Early Career</td>
<td>Early career</td>
<td>Early career</td>
<td>Entry level</td>
</tr>
<tr>
<td><strong>Exam Focus</strong></td>
<td>Baseline cybersecurity skills, core cybersecurity knowledge</td>
<td>Security administrator job role</td>
<td>Pen testing and ethical hacking</td>
<td>Cybersecurity terms and concepts</td>
</tr>
<tr>
<td><strong>Training Products</strong></td>
<td>Full suite of online test prep tools, LOT, books</td>
<td>Self-paced online, LOT, courseware, mobile toolkit</td>
<td>In-person training and online</td>
<td>Online review course and answers database, courseware</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Self-paced online, LOT</td>
</tr>
</tbody>
</table>
**CompTIA Linux+ Intro**

CompTIA Linux+ is a globally recognized certification that validates mastery of the tools and technologies required to manage, secure, optimize, and troubleshoot production Linux systems.

<table>
<thead>
<tr>
<th>VALUE Prop 1 (Career Changer/Student)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CompTIA Linux+ validates the skills that modern IT professionals need to secure platforms and systems, power the cloud and keep critical business services running. It is the only foundational job-role-based Linux certification that confirms the most relevant skills demanded by hiring managers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VALUE Prop 2 (Employer)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CompTIA Linux+ ensures candidates have the skills and knowledge required to configure, manage, operate, and troubleshoot Linux on-premises and cloud-based server environments while using best practices around security, scripting, containerization, and automation. It prepares staff to be proactive in securing organizations, scale and improve operations, and contribute to the bottom line. CompTIA Linux+ meets the Computing Environment (CE) requirement to renew other CompTIA Certifications.</td>
</tr>
</tbody>
</table>

**Key Differentiators:**

- CompTIA Linux+ is the only job-focused Linux certification covering the latest foundational skills demanded by hiring managers.
- Unlike other certifications, the new exam includes performance-based and multiple-choice questions to identify the employees who can do the job.
- The exam covers tasks associated with all major distributions of Linux, setting the foundation for advanced vendor/distro-specific knowledge.

### Skills and Competencies Acquired:

- Configure and manage software, storage, network tools and process and services
- Understand best practices for permissions and authentication, firewalls, and file management
- Create simple shell scripts, manage containers and execute basic BASH scripts, version control using Git, and orchestration processes
- Analyze system properties and processes and troubleshoot user, application and hardware issues

### Resources:

- **Average Salary:**

- **Linux+ Additional Information:**
  - CompTIA.org/certifications/linux
  - CompTIA.org/certifications/which-certification

### Competitors

- Red Hat Certified Systems Administrator (RHCSA)
  - RHCSA targets a higher experience level, validates only one way to troubleshoot Linux systems and is performance-based ONLY.
  - CompTIA Linux+
    - Targets mid-level professionals
    - Covers a wide scope of skills and knowledge
    - Should be used as a foundation to vendor specific certs like RHCSA.

- Linux Professional Institute (LPIC-1 from LPI)
  - LPIC-1 is a two-exam certification still containing certain outdated topics with no performance-based questions creating greater risk for unqualified candidates.
  - CompTIA Linux+ is a single exam with refined objectives and performance-based questions designed to stay current with today's technology.

- Linux Foundations LFCS
  - Linux Foundations LFCS only tests tools, does not cover knowledge of broader topics.
  - It is limited to Ubuntu/ CentOS; Content is all task-based

### Job Roles:

- Linux Administrator
- Junior Cloud Engineer
- Junior DevOps Support Engineer
- Technical Support Specialist
- Systems Administrator
- Network Administrator
- Web Administrator/ Developer
- Cybersecurity Engineer
- Linux Engineer

### Organizations that use Linux+:

- Amazon
- American Airlines
- Dell
- GEICO
- U.S. Department of Defense
- U.S. Navy
## How does Linux+ Compare to Alternatives?

<table>
<thead>
<tr>
<th></th>
<th>Linux+</th>
<th>LPIC-1 from LPI</th>
<th>Red Hat Certified Systems Administrator (RHCSA)</th>
<th>Linux Foundations LFCS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Certification</strong></td>
<td>Linux+</td>
<td>LPIC-1 from LPI</td>
<td>Red Hat Certified Systems Administrator (RHCSA)</td>
<td>Linux Foundations LFCS</td>
</tr>
<tr>
<td><strong>Performance-based Questions</strong></td>
<td>Yes, as well as multiple choice (single &amp; multiple response) and drag and drop. Many of the questions are scenario-based.</td>
<td>No</td>
<td>Only tests tools, does not cover knowledge of broader topics</td>
<td>Only tests tools, does not cover knowledge of broader topics</td>
</tr>
<tr>
<td><strong>Exam Length</strong></td>
<td>1 exam with a maximum of 90 questions, 90 minutes</td>
<td>2 exams</td>
<td>10-15 hands-on assignments; 2 1/2 hours</td>
<td>2 hours</td>
</tr>
<tr>
<td><strong>Experience Level</strong></td>
<td>12 months as a Junior Linux Engineer</td>
<td>Early career</td>
<td>High-level Red Hat sys admin experience. Very hard to pass without significant hands-on experience and is recommended for advanced Linux professionals.</td>
<td>Linux system administrators early in their career</td>
</tr>
<tr>
<td><strong>Exam Focus</strong></td>
<td>Focuses on the latest technology and trends for IT professionals in an enterprise environment. Covers all major distributions of Linux. Recognized in job ads</td>
<td>Does not focus on working in an enterprise environment, therefore not all items are relevant or up-to-date for IT professionals</td>
<td>Covers only Red Hat systems. As a 100% performance-based exam, it is difficult to study for.</td>
<td>Limited to Ubuntu/CentOS; Content is all task-based</td>
</tr>
<tr>
<td><strong>Prerequisites</strong></td>
<td>Recommended CompTIA A+, CompTIA Network+ and 12 months as a Junior Linux Engineer</td>
<td>None</td>
<td>Recommended Red Hat sys admin experience. Though not a prerequisite, Linux+ makes an excellent &quot;ramp-up&quot; to this certification.</td>
<td>None</td>
</tr>
</tbody>
</table>

Learn more about Linux+
CompTIA Server+ Intro
CompTIA Server+ validates the hands-on skills of IT professionals who install, manage and troubleshoot servers in data centers as well as on-premise and hybrid environments.

VALUE Prop 1 (Career Changer/Student)
CompTIA Server+ validates the skills necessary to be a server administrator. Server+ covers essential hardware and software technologies of on-premise and hybrid server environments including high availability, cloud computing and scripting, providing an opportunity to advance toward a rewarding career in infrastructure and cybersecurity.

VALUE Prop 2 (Employer)
CompTIA Server+ ensures your IT staff have the skills and competencies necessary to strategically leverage both sides of data centers and cloud environments to deliver a successful infrastructure that meets business objectives.

Skills and Competencies Acquired:
- Install, configure, and manage server hardware and server operating systems
- Implement proper server hardening and security controls
- Successfully troubleshoot common server problems
- Demonstrate an understanding of key disaster recovery, high availability, and backup concepts

Renewal:
The CompTIA Server+ certification is considered good for life and does not need to be renewed.

Key Differentiators:
- CompTIA Server+ certified candidates can work in any environment.
- It is the only certification not restricted to a single platform.
- It is the only industry certification that covers the latest server technologies of on-premise and hybrid server environments including high availability, cloud computing and scripting.
- CompTIA Server+ includes performance-based questions that require the candidate to demonstrate multi-step knowledge to securely deploy, administer and troubleshoot servers.

Resources:
- Average Salary:
- Server+ Additional Information: CompTIA.org/certifications/server
- Recommended Pathways: CompTIA.org/certifications/which-certification
- Posts: https://bit.ly/2JzdQqJ

Competitors

Talking Points / Server+ Advantages

Dell EMC Certified Associate
- DECA verifies the fundamental knowledge and skills only in the area of Dell EMC DCA-PowerEdge servers.
- Unlike Dell EMC Certified Associate that only covers a single vendor, CompTIA Server+ focuses on multivendor products and implementations, based on industry standards.

CCNA
- CCNA covers networking for only Cisco products and solutions.
- It is not specifically server administrator role.
- Unlike CCNA, CompTIA Server+ doesn't just focus on networking but on skills needed to install, manage and troubleshoot servers.

- The closest competitors, MCSA Server Administration & CCNA Data Center have both been discontinued.
- Not holding a certification is likely the closest “competitor” for CompTIA Server+.
- 70% of jobs listings do not include any certification. Stand out from other IT professionals by validating skills with Server+.

Primary Job Roles:
- Systems Administrator
- Data Center Technician
- Server Administrator

Secondary Job Roles:
- Network Administrator
- Field Service Technician or Engineer
- IT Technician
- Data Center Engineer

Companies that Endorse Server+
- Microsoft
- Wells Fargo
- AECOM
- General Mills
- U.S. Navy
- General Mills
- U.S. Navy
### CompTIA Server+ (SK0-005)

<table>
<thead>
<tr>
<th>Certification</th>
<th>CompTIA Server+</th>
<th>Dell EMC Certified Associate</th>
<th>CCNA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exam Length</strong></td>
<td>1 exam, 90 min.</td>
<td>1 exam, 90 minutes</td>
<td>1 exam, 90 minutes</td>
</tr>
<tr>
<td><strong>Experience Level</strong></td>
<td>Early career</td>
<td>Early career</td>
<td>Early career</td>
</tr>
<tr>
<td><strong>Exam Focus</strong></td>
<td>Focuses on multivendor products and implementations, based on industry standards</td>
<td>Verifies the fundamental knowledge and skills in the area of Dell EMC DCA-PowerEdge servers</td>
<td>Job role based. Networking for Cisco products &amp; solutions</td>
</tr>
<tr>
<td><strong>Pre-requisites</strong></td>
<td>Recommended CompTIA A+ and two years of IT experience</td>
<td>None</td>
<td>1-3 years experience</td>
</tr>
<tr>
<td><strong>Vendor Neutral</strong></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

[Learn more about Server+]
CompTIA Cloud+

**CompTIA Cloud+ Intro**

CompTIA Cloud+ certification validates the skills needed of system administrators/system engineers to deploy and automate secure cloud environments that support business systems and data.

**VALUE Prop 1 (Career Changer/Student)**

CompTIA Cloud+ ensures IT infrastructure professionals have validated skills in the areas of cloud architecture and design, security, automation and virtualization, disaster recovery, providing a wide range of job opportunities.

**VALUE Prop 2 (Employer)**

IT professionals certified in Cloud+ can better realize the return on investment of cloud infrastructure services. Unlike other certifications, which may focus on a specific vendor or a single function like security or networking, Cloud+ reflects the breadth of skills needed to protect an organization's mission critical applications and data storage.

**Accredited** by ANSI to show compliance with the ISO 17024 Standard. It is also approved by the DoD for Directive 8140/8570.01-M.

**Key Differentiators:**

- IT professionals certified in Cloud+ demonstrate a high level of skill in cloud computing and infrastructure management in either a hybrid or cloud only environment.
- Cloud+ is the only independent, job-role based, vendor neutral cloud certification that validates the technical skills needed to operate in the cloud.

**Skills and Competencies Acquired:**

- Understand cloud architecture and design
- Deploy cloud services and solutions
- Successfully maintain, secure, and optimize a cloud environment
- Troubleshoot common issues related to cloud management

**Research:**

**Challenge:** Businesses report that a lack of expertise is among their top challenges.

**Solution:** Cloud+ ensures IT pros can fill the cloud technical skills gap.

**Competitors**

- Microsoft Certified Azure Administrator
- Amazon Web Services (AWS) IT Operations Pathway
- ISC2 Certified Cloud Security Professional (CCSP)

**Talking Points / Cloud+ Advantages**

- Azure Administrator covers only Microsoft products and solutions, while Cloud+ covers a variety of vendor solutions.
- AWS covers only Amazon products and solutions.
- AWS tests at a very high experience level- late systems admins, analyst, and engineer-level roles. Cloud+ tests a wide range from early-mid career.
- CompTIA Cloud+ provides the foundation for future vendor specific certs like AWS.
- CCSP is not job role-based. Cloud+ maps to the skills needed for a cloud engineer. CCSP only covers cloud security and not the complete range of topics needed to do the job.

**Companies that Endorse Cloud+**

- NTT Communications Corp.
- Oracle
- MacAulay-Brown, Inc.
- General Dynamics Information Technology

**Job Roles:**

- Sr. Systems Administrator
- Systems Engineer
- Cloud Engineer
- Sr. Network Administrator

**Resources:**

- Average Salary:
  - U.S. Cloud Developer: Glassdoor.com
  - UK Cloud Developer: ITJobsWatch.co.uk
    (https://bit.ly/2XyFkS0)
- Cloud+ Additional Information:
  - CompTIA.org/certifications/cloud
  - Recommended Pathways:
    CompTIA.org/certifications/which-certification
- Posts:

**BATTLE CARD Resources:**

- Average Salary:
  - U.S. Cloud Developer: Glassdoor.com
  - UK Cloud Developer: ITJobsWatch.co.uk
    (https://bit.ly/2XyFkS0)
- Cloud+ Additional Information:
  - CompTIA.org/certifications/cloud
- Recommended Pathways:
  CompTIA.org/certifications/which-certification
- Posts:

**Companies that Endorse Cloud+**

- NTT Communications Corp.
- Oracle
- MacAulay-Brown, Inc.
- General Dynamics Information Technology

**Job Roles:**

- Sr. Systems Administrator
- Systems Engineer
- Cloud Engineer
- Sr. Network Administrator

**Companies that Endorse Cloud+**

- NTT Communications Corp.
- Oracle
- MacAulay-Brown, Inc.
- General Dynamics Information Technology

**Job Roles:**

- Sr. Systems Administrator
- Systems Engineer
- Cloud Engineer
- Sr. Network Administrator

**Companies that Endorse Cloud+**

- NTT Communications Corp.
- Oracle
- MacAulay-Brown, Inc.
- General Dynamics Information Technology

**Job Roles:**

- Sr. Systems Administrator
- Systems Engineer
- Cloud Engineer
- Sr. Network Administrator

**Companies that Endorse Cloud+**

- NTT Communications Corp.
- Oracle
- MacAulay-Brown, Inc.
- General Dynamics Information Technology

**Job Roles:**

- Sr. Systems Administrator
- Systems Engineer
- Cloud Engineer
- Sr. Network Administrator

**Companies that Endorse Cloud+**

- NTT Communications Corp.
- Oracle
- MacAulay-Brown, Inc.
- General Dynamics Information Technology

**Job Roles:**

- Sr. Systems Administrator
- Systems Engineer
- Cloud Engineer
- Sr. Network Administrator
How does CompTIA Cloud+ Compare to Alternatives?

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exam Length</td>
<td>1 exam, 90 min.</td>
<td>125 questions, 4 hours</td>
<td>1 exam, 180 minutes</td>
<td>2 exams, 130 minutes each</td>
</tr>
<tr>
<td>Experience Level</td>
<td>2-3 years in system administration (5 years total IT experience)</td>
<td>5 years (3 in InfoSec &amp; 1 in an exam domain)</td>
<td>2+ years hands-on experience with the AWS cloud</td>
<td>Intermediate career</td>
</tr>
<tr>
<td>Performance-based Questions</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Varied</td>
</tr>
<tr>
<td>Exam Focus</td>
<td>Job role based, covers cloud technologies across all vendors and solutions</td>
<td>Not based on job roles; covers cloud security across job roles</td>
<td>Covers only Amazon products &amp; solutions</td>
<td>Covers only Microsoft products &amp; solutions</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>No pre-requisites, but 24 to 36 months of systems administration experience recommended</td>
<td>Experience required</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Vendor Neutral</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Learn more about Cloud+
**CompTIA PenTest+ Intro**

CompTIA PenTest+ is the most comprehensive cybersecurity exam covering all red team activities and is designed for cybersecurity professionals tasked with penetration testing and vulnerability management.

**VALUE Prop 1 (Student)**

PenTest+ is a unique exam that demonstrates hands-on skills and knowledge of the most relevant pen testing skills for the cloud, hybrid environments, web applications, customized systems (IoT), and traditional on-premises that employers seek to improve the overall resiliency of enterprise networks.

**VALUE Prop 2 (Employer)**

PenTest+ validates the most up-to-date skills and competencies needed to determine the resiliency of any network. It focuses on the latest pen testing techniques, attack surfaces, vulnerabilities management, post-delivery, and compliance tasks that are ideal for your company's red team employees to develop a robust security strategy that meets business objectives.

**Accredited** by ANSI to show compliance with the ISO 17024 Standard. It is also approved by the DoD for Directive 8140/8570.01-M.

**Key Differentiators:**

- PenTest+ is the most comprehensive exam covering all penetration testing stages. It uses both performance-based and knowledge-based questions to ensure all stages are addressed.
- PenTest+ is the only exam on the market to include aspects of vulnerability management covering hands-on vulnerability assessment, scanning, and analysis, including planning, coping, and managing weaknesses, not just exploiting them.
- PenTest+ is the most current penetration testing exam covering the latest techniques against expanded attack surfaces, such as cloud, hybrid environments, web applications, customized systems (IoT), and traditional on-premises.

**Skills and Competencies Acquired:**

- Plan and scope a penetration testing engagement
- Understand legal and compliance requirements
- Perform vulnerability scanning and penetration testing using appropriate tools and techniques, and then analyze the results
- Produce a written report containing proposed remediation techniques, effectively communicate results to the management team, and provide practical recommendations

**By the Numbers:**

- The U.S. Bureau of Labor Statistics predicts that information security analysts will be the fastest-growing job category, with 31% overall growth between 2019 and 2029.
- The penetration testing market is expected to grow 22% from 2020 to 2025.

**Competitors**

<table>
<thead>
<tr>
<th>EC-Council Certified Ethical Hacker (CEH)</th>
<th>GIAC Penetration Tester (GPEN)</th>
<th>Offensive Security Certified Professional (OSCP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• CEH assesses vulnerability tools, such as scanners, but NOT vulnerability management like PenTest+.</td>
<td>• Unlike GPEN, PenTest+ is based upon cybersecurity industry survey results, providing a heightened real-word applicability compared to other certs.</td>
<td>• OSCP tests at an advanced level of experience and costs 2X as much.</td>
</tr>
<tr>
<td>• CEH does NOT cover soft skills, such as business processes, project flow, best practices and professionalism in penetration testing. PenTest+ cover both technical and soft skills.</td>
<td></td>
<td>• OSCP is a 24 hour “capture the flag” exam making PenTest+ both cost and time efficient.</td>
</tr>
</tbody>
</table>

**Talking Points / PenTest+ Advantages**

- CEH only covers penetration testing job roles, while PenTest+ covers two job roles, both pen testing and vulnerability assessment and management.

**Companies that Endorse PenTest+:**

- Paylocity
- SecureWorks
- Jon Hopkins University Applied Physics Laboratory
- Ricoh
- U.S. Navy Center for Information Dominance

**Job Roles:**

- Penetration Tester
- Security Consultant
- Cloud Penetration Tester
- Web App Penetration Tester
- Cloud Security Specialist
- Network & Security Specialist
- Information Security Engineer
- Security Analyst

**OCT 2021**

**Resources:**

- Average Salary:
  - U.S. Penetration Tester: indeed.com (https://indeedhi.re/2KN2Zdv)
  - UK Penetration Tester: ITJobsWatch.co.uk (https://bit.ly/2XyFh9K)
- PenTest+ Additional Information: CompTIA.org/certifications/pentest
- Recommended Pathways: CompTIA.org/certifications/which-certification

**Talking Points / PenTest+ Advantages**

- CEH assesses vulnerability tools, such as scanners, but NOT vulnerability management like PenTest+.
- CEH does NOT cover soft skills, such as business processes, project flow, best practices and professionalism in penetration testing. PenTest+ cover both technical and soft skills.
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### How does CompTIA Compare?

<table>
<thead>
<tr>
<th>Certification</th>
<th>PenTest+</th>
<th>EC-Council Certified Ethical Hacker (CEH)</th>
<th>GIAC Penetration Tester (GPEN)</th>
<th>Offensive Security Certified Professional (OSCP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance-based Questions</td>
<td>Yes</td>
<td>No. Second exam required, CEH Practical</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Exam Length</td>
<td>1 exam, 90 questions, 165 minutes</td>
<td>1 exam, 4 hours</td>
<td>1 exam, 3 hours</td>
<td>1 exam, 24 hours</td>
</tr>
<tr>
<td>Experience Level</td>
<td>Intermediate</td>
<td>Beginner / Intermediate</td>
<td>Intermediate</td>
<td>Intermediate / Advanced</td>
</tr>
<tr>
<td>Exam Focus</td>
<td>Penetration testing and vulnerability management</td>
<td>Penetration testing</td>
<td>Penetration testing from a business-value</td>
<td>Real World-based with a lab and submitted report</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Network+, Security+ or equivalent knowledge. Minimum of 3-4 years of hands-on experience working in a security consultant or penetration tester job role.</td>
<td>CEH Training, 2 years information security experience, Endorsement</td>
<td>None</td>
<td>Must first complete the Penetration Testing with Kali Linux training course (self-paced)</td>
</tr>
</tbody>
</table>

Learn more about PenTest+
CompTIA CySA+ Intro
CompTIA Cybersecurity Analyst (CySA+) is an IT workforce certification that assesses the security analyst and incident response analyst skills needed to prevent, detect and respond to cybersecurity threats on networks and devices.

VALUE Prop 1 (Student)
CompTIA CySA+ proves candidates can detect and analyze indicators of malicious activity using the most up-to-date methods and tools, such as threat intelligence, security information and event management (SIEM), endpoint detection and response (EDR) and extended detection and response (XDR). IT pros gain unique skills sought after by organizations to protect and defend their networks.

VALUE Prop 2 (Employer)
CompTIA CySA+ qualifies employees to proactively monitor, identify and respond to cybersecurity threats, vulnerabilities and attacks. It is an internationally targeted validation of information security analyst skills and knowledge, making it ideal for any organization’s blue team employees tasked with ensuring the protection of applications and systems across the organization.

Accredited by ANSI to show compliance with the ISO 17024 Standard.

Skills and Competencies Acquired:
- Detect and analyze indicators of malicious activity
- Understand threat hunting and threat intelligence concepts
- Use industry tools to mitigate attacks, threats & vulnerabilities
- Perform incident response
- Understand reporting and communication

Job Roles:
- Security Analyst
- Security Operations Center (SOC) Analyst
- Incident Response Analyst
- Vulnerability Management Analyst
- Security Engineer
- Threat Hunter

Key Differentiators:
- Proactively Monitor and Detect. Demonstrate skills in detecting and analyzing indicators of malicious activity using the most up-to-date methods and tools, such as threat intelligence, security information and event management (SIEM), endpoint detection and response (EDR) and extended detection and response (XDR).
- Respond to Threats, Attacks, and Vulnerabilities. Prove knowledge of incident response and vulnerability management processes and highlight the communication skills critical to security analysis and compliance.
- Demonstrate Competency of Current Trends. Show knowledge of current trends that affect the daily work of security analysts, such as cloud and hybrid environments.

Competitors
EC-Council Certified Security Analyst (ECSA)
- ECSA is a continuation of CEH and goes beyond the foundational ethical hacking skill set. CySA+ is not as advanced as ECSA because CySA+ is also focused heavily on vulnerability management, unlike ECSA.
- CySA+ includes hands-on, performance-based assessments as well as multiple-choice questions, while ECSA is multiple choice only.
- CySA+ costs only 1/3 of the price of ECSA and has more job roles associated with the exam.

GIAC Continuous Monitoring Certification (GMON)
- CySA+ includes hands-on, performance-based assessments as well as multiple-choice questions, while GMON is multiple choice only.
- CySA+ and GMON both cover the core security analyst job role. CySA+ is hands-on, nearly 5x less expensive and covers additional job roles, such as application security analyst and incident response.

ISACA Certified Information Systems Auditor (CISA)
- CISA is for IT auditors and audit managers to validate their ability to assess vulnerabilities and institute IT controls for an organization. CySA+ covers more domains and is for security analysts who will audit as a part of their role.
- CySA+ is available year-round. CISA is only available three times a year through ISACA.
- CySA+ has performance-based questions and is half the cost of CISA.
- CySA+ maps to seven job roles in the U.S. DoD 8570.01-M approved job categories, including Auditor. CISA only maps to two categories.

Companies that Endorse CompTIA CySA+:
- Amazon Web Services
- Bank of Montreal (BMO)
- Booz Allen Hamilton
- Deloitte
- Fidelity Investments
- General Dynamics IT (GDIT)
- Microsoft
- U.S. Department of Defense
- U.S. Navy
- Visa
- Zoom

By the Numbers:
- Information security analyst is one of the fastest growing U.S. job categories, with 35% growth expected between 2021 and 2031.¹
- On average, there are over 30K job openings specifically looking for qualified cybersecurity analysts in the U.S. every year.²

### How does CompTIA compare to alternatives?

<table>
<thead>
<tr>
<th>Certification</th>
<th>Performance-based Questions</th>
<th>Experience Level</th>
<th>Exam Focus</th>
<th>Training Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>CompTIA CySA+</td>
<td>Yes</td>
<td>Intermediate</td>
<td>Security analytics, intrusion detection and response</td>
<td>Full suite of online test prep tools, live online training, books</td>
</tr>
<tr>
<td>EC-Council Certified Security Analyst (ECSA)</td>
<td>No</td>
<td>Intermediate</td>
<td>Pentesting methodology</td>
<td>Self-paced and live online training, courseware, mobile toolkit</td>
</tr>
<tr>
<td>GIAC Continuous Monitoring Certification (GMON)</td>
<td>No</td>
<td>Intermediate</td>
<td>Defensible security and continuous security monitoring</td>
<td>In-person training and online</td>
</tr>
<tr>
<td>ISACA Certified Information Systems Auditor (CISA)</td>
<td>No</td>
<td>Advanced</td>
<td>Auditing and vulnerability assessment</td>
<td>Online review course and answers database, courseware</td>
</tr>
</tbody>
</table>

Learn more about CySA+
CompTIA CASP+ Intro

CompTIA Advanced Security Practitioner (CASP+) is an advanced-level cybersecurity certification for security architects and senior security engineers charged with leading and improving an enterprise's cybersecurity readiness.

**VALUE Prop 1 (Student)**

CASP+ provides hands-on technical mastery and is the ideal certification for advanced practitioners of cybersecurity who require the necessary skills to design, implement, and manage cybersecurity solutions on complex networks to skillfully build a resilient enterprise and prevent the next attack.

**VALUE Prop 2 (Employer)**

CASP+ verifies the expertise and technical skills of an established IT security professional in security, governance, risk, and compliance, assessing enterprise cybersecurity readiness, and leading technical teams to implement enterprise-wide cybersecurity solutions.

It was born out of an industry need for a hands-on, advanced-level cybersecurity assessment for organizations that require mastery-level skills to work directly with cybersecurity technologies and tools that protect the organization and prevent future threats.

**Accredited** by ANSI to show compliance with the ISO 17024 Standard. It is also approved by the DoD for Directive 8140/8570.01-M.

**Key Differentiators:**

- CASP+ is the only hands-on, performance-based certification for advanced practitioners
- Unlike other certifications, CASP+ covers both security architecture and engineering
- It is the only certification that qualifies technical leaders to assess cyber readiness within an enterprise, and design and implement solutions to ensure the organization is ready for the next attack.

**By The Numbers:**

- **2.3 million** and growing CompTIA ISO/ANSI-accredited exams have been delivered since January 1, 2011. Regulators and government rely on ANSI accreditation because it provides confidence and trust in the outputs of an accredited program.
- Over the next ten years, positions aligned to CASP+ will experience an **18 percent growth rate**, according to Burning Glass.

**Resources:**

- **Average Salary:**
- **CASP+ Additional Information:**
  - CompTIA.org/certifications/comptia-advanced-security-practitioner
  - Recommended Pathways: CompTIA.org/certifications/which-certification

**Competitors**

- (ISC)2 Certified Information Systems Security Professional (CISSP)
- GIAC Certified Enterprise Defender (GCED)
- ISACA Certified Information Security Manager (CISM)

**Talking Points / CASP+ Advantages**

- Both CASP+ and CISSP assess advanced-level cybersecurity skills and are vendor-neutral, however:
  - CISSP does NOT use simulations to test hands-on skills to build cybersecurity systems and programs. CASP+ has both simulations and performance-based questions.
  - CISSP requires a minimum of five years cumulative paid work experience in two or more of the eight exam domains.
  - CASP+ is mandated by organizations like the U.S. Navy to assess cybersecurity roles of personnel not in management positions.
- GCED costs almost 4x as much and requires a training bundle. CASP+ allows you to choose your preferred training methods.
- CISM focuses on management skills, while CASP+ assesses the skills of professionals who are actively engaged as individual contributors not only management roles.

**Skills and Competencies Acquired:**

- Architect, engineer, integrate, and implement secure solutions across complex environments to support a resilient enterprise.
- Consider the impact of governance, risk and compliance requirements throughout the enterprise.

**Job Roles:**

- Security Architect
- Senior Security Engineer
- SOC Manager
- Security Analyst
- IT Cybersecurity Specialist/INFOSEC Specialist
- Cyber Risk Analyst

**Companies that Endorse CASP+**

- RxSense
- Ricoh
- U.S. Marine Corps
- U.S. Navy Center for Information Dominance
- U.S. Army
## How does CompTIA Compare?

<table>
<thead>
<tr>
<th>Certification</th>
<th>CASP+</th>
<th>(ISC)2 Certified Information Systems Security Professional (CISSP)</th>
<th>GIAC Certified Enterprise Defender (GCED)</th>
<th>ISACA Certified Information Security Manager (CISM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance-based Questions</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Exam Length</td>
<td>90 questions, 165 minutes</td>
<td>100-150 questions, 3 hours</td>
<td>115 questions, 3 hours</td>
<td>150 questions, 4 hours</td>
</tr>
<tr>
<td>Experience Level</td>
<td>Advanced</td>
<td>Advanced</td>
<td>Advanced</td>
<td>Advanced</td>
</tr>
<tr>
<td>Exam Focus</td>
<td>Cybersecurity Practitioner Skills, Architect &amp; Engineer</td>
<td>Cybersecurity Management Skills</td>
<td>Cybersecurity Practitioner Skills, Engineer</td>
<td>Cybersecurity Management Skills</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>Recommend 10 years of IT administration, including 5 years hands-on, technical security experience.</td>
<td>Documented proof of minimum 5 years full-time IT work experience in two or more of the eight domains.</td>
<td>None. However, learners should be aware of the technical level required for the certification.</td>
<td>Documented proof of minimum 5 years IS work experience in three or more of the job practice analysis areas.</td>
</tr>
</tbody>
</table>

Learn more about CASP+
CompTIA Data+ (DA0-001)

**CompTIA Data+ Intro**
CompTIA Data+ is an early-career data analytics certification for professionals tasked with developing and promoting data-driven business decision-making. Data+ is an ideal certification for not only data-specific careers but other career paths outside of IT can also benefit from analytics processes and data analytics knowledge.

**VALUE Prop 1 (Career Changer/Student)**
Data+ ensures professionals have the confidence to bring data analysis to life. Data+ arms candidates with foundational, tool-agnostic data skills that help organizations listen and make critical business decisions.

Candidates who can effectively analyze data and validate those skills with an industry-recognized certification could be considered an invaluable asset to any team.

**VALUE Prop 2 ( Employer)**
CompTIA Data+ validates candidates have the knowledge and skills to effectively mine data, confidently interpret insights, and analyze complex datasets while adhering to governance and quality standards that drive business priorities and promote data-driven business decision making.

**Key Differentiators:**
- **Better Analyze and Interpret Data**
  Mine data more effectively. Analyze with rigor. Avoid confounding results.

- **Communicate Insights**
  Highlight what’s important. Produce reports that persuade, not confuse. Make informed data-driven decisions.

- **Demonstrate Competency**
  Proof of data literacy means employability and more upward mobility.

- **Recruit and Train (Employers)**
  Develop teams that have the right talent and training to make the best use of company data.

**Skills and Competencies Acquired:**
- Identify basic concepts of data schemas and understand the difference between common data structures and file formats
- Explain data acquisition concepts, reasons for cleansing and profiling, and techniques for data manipulation
- Apply the appropriate descriptive statistical methods and summarize types of analysis
- Translate business requirements to form the appropriate visualization
- Summarize important data governance concepts and apply data quality control concepts

**By the Numbers:**
- **20%** job growth expected for positions aligned to Data+ over the next ten years, according to Burning Glass.
- **70%** of data job roles fall outside of Tech Occupations (Burning Glass, Feb 2022)

**Vendor Neutral**
CompTIA Data+ is the only data analyst certification that covers baseline data analytics skills, assesses hands-on abilities and is vendor neutral.

Vendor-neutral certifications provide analyst skills needed to perform various job roles regardless of the specific programs and tools being used. Compare this to vendor-specific certifications, which equip your team to work with just one platform (such as SAS, Tableau, or Microsoft).

**Competitors**
- SAS Certified Specialist: Visual Business Analytics
- Tableau Certified Data Analyst
- Microsoft Certified: Data Analyst Associate

**Talking Points / Data+ Advantages**
- SAS Certified Specialist: Visual Business Analytics is designed for analysts who are using SAS® Visual Analytics to analyze data and design reports.
- A Tableau Data Analyst is designed for analysts specifically using Tableau to make business decisions by understanding the problem, identifying data to explore, and delivering actionable insights.
- Those who earn Microsoft Certified: Data Analyst Associate are proficient in data preparation, data modeling, data visualization and data analysis in the context of Power BI.

**Companies That Contributed to Data+**
- University of Maryland Global Campus
- Discover Financial Services
- Rogers Communications
- PayPal
- Molina Healthcare
- Woz U
- CDW
- Sears Home Services
- Cars.com
- SunSource

**Job Roles:**
- Data Analyst
- Business Intelligence Analyst
- Reporting Analyst
- Clinical Analyst
- Business Data Analyst
- Operations Analyst
- Marketing Analyst
<table>
<thead>
<tr>
<th>Certification</th>
<th>Data+</th>
<th>SAS® Certified Specialist: Visual Business Analytics</th>
<th>Tableau Certified Data Analyst</th>
<th>Microsoft Certified: Data Analyst Associate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vendor-neutral</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Performance-based Questions</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Exam Length</td>
<td>1 exam, 90 minutes</td>
<td>1 exam, 100 minutes</td>
<td>1 exam, 2 hours</td>
<td>1 exam, 180 minutes</td>
</tr>
<tr>
<td>Experience Level</td>
<td>Early-career</td>
<td>Beginner</td>
<td>Beginner</td>
<td>Beginner</td>
</tr>
<tr>
<td>Exam Focus</td>
<td>Transform business requirements in support of data-driven decisions</td>
<td>Data analysts using SAS® Visual Analytics to analyze data and design reports</td>
<td>Comprehensive functionality and Tableau expertise</td>
<td>Designing and building data models and enabling analytic capabilities with Microsoft Power BI</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>18-24 months of experience in a report/business analyst role</td>
<td>Experience or training using either version, including VA on SAS Viya 8.3 or later</td>
<td>None, but suggest 6+ months product experience</td>
<td>Passed the Analyzing Data with Microsoft Power BI exam</td>
</tr>
</tbody>
</table>

Learn more about Data+
The CompTIA DataSys+ exam sets a unified standard of skills for the successful management and securing of data assets. It covers what database administrators need to deploy, manage, and maintain systems, including employing the fundamentals of scripting and programming in a database environment while using security and business continuity best-practices.

**Value Prop 1 (Career Changer/Student)**

Comprehensive Skill Set: CompTIA DataSys+ certification provides a standardized and comprehensive skill set required for database administrators, covering database fundamentals, deployment, management, security, and business continuity.

**Value Prop 2 (Employer)**

The new CompTIA DataSys+ proves certified professionals have the skills to oversee, maintain and protect the increasing quantity of data organizations are collecting. It ensures that IT pros have the database management skills to do the job securely, accurately and efficiently, supporting and driving data-driven business strategies.

**Key Differentiators:**

- DataSys+ is the only vendor-neutral data management certification available, and was developed following ANSI/ISO processes; pending approval.
- DataSys+ includes performance-based questions in the certification exam, proving individuals have working skills rather than memorized theoretical knowledge.
- DataSys+ is a springboard to both vendor-specific database certifications as well as more advanced level data science certifications.

**Job Roles:**

- Database Administrator
- Sr. Database Administrator
- System Database Administrator
- Task-Oriented Database Administrator
- Application Database Administrator
- Cloud Database Administrator
- Specialist Database Administrator
- Performance Database Administrator
- Database Manager
- BlueOwl LLC
- Cisco Systems Inc
- City of Alexandria
- Uganda Registrations Services Bureau
- University Of Utah
- IBM
- Pom Analytics, Inc.
- CriticalRiver
- EITZAC LLC
- TAPFIN

**Resources:**

- Average Salary:
  - UK Database Administrator: ITJobsWatch.co.uk ([https://www.itjobswatch.co.uk/jobs/uk/dba.do](https://www.itjobswatch.co.uk/jobs/uk/dba.do))
- CompTIA DataSys+ Additional Information: ([CompTIA.org/certifications/datasys](https://CompTIA.org/certifications/datasys))

**Skills and Competencies Acquired:**

- An understanding of database structure types and the ability to develop, modify and run code provides the groundwork for database administrators to gather, store, and drive data assets.
- Compare and contrast the different aspects of database planning and design and explain the various phases of the implementation, testing, and deployment of collected data.
- Understand the purpose of monitoring and reporting database performance, explain common database maintenance processes, and produce critical documentation.
- Secure databases, protect against attacks, and control authorization while ensuring governance and regulatory compliance.
- Prepare for and recover from incidents by implementing best practices for backup and restoration of data.

**Competitors**

- IBM Associate Certified DBA - Db2 12 for z/OS Fundamentals
- Oracle Database Administration 2019 Certified Professional Certification
- Microsoft Certified: Azure Database Administrator Associate

**Talking Points / CySA+ Advantages**

- Is limited to IBM’s specific database - Db2 12 for z/OS - without a discussion of other database options.
- Security is only a small portion of the IBM certification (8%), while it is a significant portion of DataSys+ (23%).
- Is limited to Oracle’s specific database - Oracle’s certification is vendor-specific.
- Oracle requires passing two exams (Oracle Database Administration I and II) making it more cost effective for learners to sit for CompTIA DataSys+.
- Is limited to SQL databases - ours is not. DataSys+ includes various popular database tools, such as such as Cassandra, MongoDB, Neo4j, and Amazon DynamoDB.
- DataSys+ goes into more detail regarding logging and documenting issues.

**By the Numbers:**

- The 10-year projected growth rate for database administrators is 35% above the national rate.
- The need for database administrators will continue to grow, reaching about 163,000 by 2033.
## How does CompTIA compare to alternatives?

<table>
<thead>
<tr>
<th>Certification</th>
<th>CompTIA DataSys+</th>
<th>Microsoft</th>
<th>Oracle</th>
<th>IBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance-based Questions</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Vendor Neutral?</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Experience Level</td>
<td>Foundational</td>
<td>Intermediate</td>
<td>Entry-Level</td>
<td>Entry-Level</td>
</tr>
<tr>
<td>Exam Focus</td>
<td>Deploy, manage, and maintain databases</td>
<td>Implement and manage cloud-native &amp; hybrid data platform solutions built on SQL Server and SQL database services</td>
<td>Demonstrate understanding of fundamental SQL concepts needed to undertake any database project</td>
<td>Acquire the basic skills to administer a Z/OS database</td>
</tr>
<tr>
<td>Training Products</td>
<td>Full suite of online test prep tools, books, labs, and instructor-led training</td>
<td>Self-paced and instructor-led training</td>
<td>Self-paced training</td>
<td>Instructor-led training</td>
</tr>
</tbody>
</table>

Learn more about DataSys+
CompTIA Project+ (PKO-005)

CompTIA Project+ Intro
CompTIA Project+ gives IT professionals hands-on project management skills to coordinate small- to medium-sized projects using waterfall and agile methodologies.

**VALUE Prop 1 (Career Changers/Student)**
Project+ certifies that IT professionals have the skills needed to succeed within a project team, hit deadlines and meet compliance goals in order to drive business outcomes.

**VALUE Prop 2 (Employers)**
Project+ is ideal for professionals who need to manage smaller, less complex projects. It provides candidates with a more expansive skillset to oversee IT projects that meet goals and drive business outcomes.

**Skills and Competencies Acquired:**
- Manage the project life cycle.
- Coordinate small-to-medium-size projects.
- Establish a communication plan, manage resources and maintain documentation
- Support the completion of larger projects within an IT environment.

**Key Differentiators:**
- Project+ is the only baseline IT project management certification aimed at providing IT pros with the knowledge to coordinate projects and communicate with teams as part of other job duties.
- Project+ is now mapped to Jr. Project Manager and Project Coordinator job roles that could lead to full-time employment after successfully certifying.
- The new exam includes performance-based and multiple-choice questions to identify the employees who can do the job.

**Renewal:**
The CompTIA Project+ certification is considered good for life and does not need to be renewed.

<table>
<thead>
<tr>
<th>By the Numbers:</th>
<th>Resources:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 20% of IT hiring managers request project management skills in their IT job openings.</td>
<td>• Average Salary:</td>
</tr>
</tbody>
</table>
| • A report by the Project Management Institute (PMI) on the talent situation for project management professionals reveals there will be a need for around 25 million new project management professionals by 2030. | • U.S. Junior IT Project Manager: Glassdoor.com (https://s.CompTIA.org/3cyJfLu)
| • Over 36K and growing Project+ certified professionals. | • UK Junior IT Project Manager: ITJobsWatch.co.uk (https://s.CompTIA.org/3v4MUqx)
| **Project Management is one of the most in-demand skill sets.** | • Project+ Additional Information: CompTIA.org/certifications/project
| | • Recommended Pathways: CompTIA.org/certifications/which-certification
| | • Posts: https://bit.ly/2C5Cjjc

<table>
<thead>
<tr>
<th>Competitors</th>
<th>Talking Points / Project+ Advantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>PMI CAPM</td>
<td>• CAPM is intended for entry-level project managers or those starting a project management career.</td>
</tr>
<tr>
<td></td>
<td>• Follows specific PMI management methodology.</td>
</tr>
<tr>
<td></td>
<td>• Leads into the more rigorous PMP exam.</td>
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<tr>
<td>PMI PMP</td>
<td>• PMP follows one specific methodology.</td>
</tr>
<tr>
<td></td>
<td>• PMP is designed for full-time project managers who manage medium to large scale enterprise projects, whereas Project+ is for IT Pros who manage small to medium sized projects (which may be outside of other job duties).</td>
</tr>
<tr>
<td></td>
<td>• Unlike Project+, PMP has extensive requirements, including:</td>
</tr>
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<td></td>
<td>• 4,500 hours leading and directing projects,</td>
</tr>
<tr>
<td></td>
<td>• a post-secondary degree and</td>
</tr>
<tr>
<td></td>
<td>• 35 hours of project management education</td>
</tr>
<tr>
<td>Axelos PRINCE2 Foundation</td>
<td>• Prince2 focuses on a process-based project management method for enterprise management, recognized largely within the UK industry for a pathway for career project managers</td>
</tr>
</tbody>
</table>

**Compared to Other Certifications:**
1. Project+ covers a high-level introduction to Agile as part of one of the objectives. If a candidate would like to focus on Scrum, he/she would take Scrum Alliance’s Certified Scrum Master certification.
2. Project+ is cost and time-efficient given its exam length.

**Job Roles:**
- Junior IT project manager
- Project coordinator
- SCRUM masters
- Level II help desk technicians
- Development leads
- Product owners
- Associate/business analysts
- QA leads
- Project control analysts (PMO team members)

**Organizations that contributed to the development of Project+:**
- Accenture
- Advantage Health
- Canon
- Dell
- Fayetteville College
- Fuji Xerox
- GDIT
- HP
- John Hopkins Applied Physics Lab
- Kirkpatrick Price
- Microsoft
- U.S. Army
- U.S. Department of the Interior
- U.S. Navy
- Western Governors University

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| • Project+ Additional Information: CompTIA.org/certifications/project
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**SEP 2022**
# How does CompTIA Compare to Alternatives?

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<th>Axelos PRINCE2Foundation</th>
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<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Exam Length</td>
<td>1 exam, 90 questions, 90 minutes</td>
<td>1 exam, 150 questions, 3 hours</td>
<td>1 exam, 60 questions, 60 min</td>
</tr>
<tr>
<td>Experience Level</td>
<td>Entry</td>
<td>Entry</td>
<td>Entry</td>
</tr>
<tr>
<td>Exam Focus</td>
<td>IT Project Management&lt;br&gt;Small- to medium-sized projects</td>
<td>Enterprise Management&lt;br&gt;Medium- to large projects following PMI methodology</td>
<td>Enterprise Management&lt;br&gt;Medium- to large projects following PRINCE2 framework</td>
</tr>
<tr>
<td>Prerequisites</td>
<td>No prerequisite, but at least 6–12 months of hands-on experience managing projects in an IT environment</td>
<td>Secondary degree (high school diploma, associate's degree or equivalent) and 23 hours of project management education</td>
<td>No prerequisites, but must have some understanding of Project Management</td>
</tr>
</tbody>
</table>
CompTIA Cloud Essentials+ ensures that IT Professionals and other business decision makers who either work for cloud service providers - or who may need to guide their organization in the utilization of cloud services – have the skills they need.

**VALUE Prop 1 (Career Changer/Student)**

Cloud Essentials+ demonstrates learners ability to function within any company, regardless of what cloud platform they are using, in order to participate in creating assessments and make business decisions regarding cloud products and services.

**VALUE Prop 2 (Employer)**

Cloud Essentials+ certification validates that both technical and none technical staff are prepared to evaluate and make decisions related to the cloud that will ultimately increase efficiency, manage costs, and reduce security risks.

**Cloud Essentials+ Advantages:**

- Cloud Essentials+ is the ONLY vendor-neutral cloud business certification.
- It’s job-focused and aligned with employers needs.
- It’s current with today’s cloud environment- the technology and how it works.
- Cloud Essential+ should be viewed as a foundation to vendor specific certifications such as:
  - AWS Certified Cloud Practitioner
  - MTA Cloud Fundamentals
  - Azure Fundamentals

Cloud Essentials+ ensures the fundamental principles of business decisions are well understood within any cloud platform.

**Skills and Competencies Acquired:**

- Explain cloud principles, identify cloud networking concepts and storage techniques, and understand cloud design aspects
- Comprehend the financial aspects of engaging a cloud provider, as well as the business aspects of managing vendor relationships in cloud adoptions
- Explain aspects of operating within the cloud, such as data management, availability, and monitoring
- Understand how DevOps plays a role in cloud environments, such as with provisioning or API integration
- Understand risk management concepts related to cloud services and identify the importance and impacts of compliance in the cloud

**Key Differentiators:**

- It ensures an ability to analyze information using business principles to make cloud product and service decisions.
- It has strong coverage of business principles including creating cloud assessments based on financial and business aspects.
- Covers a broad range of technology options, setting a solid foundation for vendor-specific certifications.

**By the Numbers:**

- #1 concern of today’s organizations regarding their IT Pros is a lack of business acumen, according to Quartz.
  - **Solution:** Cloud Essentials+ helps fill this unmet need in the market.
- 90% of all companies have moved at least some work to the cloud and need decision makers, analysts, and process owners who understand cloud principles from a business and operations perspective.

**Objection**

**Candidate:** I don't think I want to be in management.

**Response**

Whether or not you choose to manage people, understanding how cloud business decisions are made gives you perspective, a potential “voice at the table” on the decisions that impact your job, and makes you more valuable to employers.

**Candidate:** It isn't listed in the job role.

**Response**

Business skills are a benefit in any job and certifying in those skills demonstrates a pro-active desire and competency for professional growth and upward-moving positions.

**Employer:** I think my people already make good business decisions.

**Response**

The benefit to Cloud Essentials is that it ensures your staff is solid in their cloud-specific business decisions, as opposed to having general business acumen. It is also ideal for employees who may have a very strong technical background, but do not have a business degree.

**Renewal:**

The CompTIA Cloud Essentials+ certification is considered good for life and does not need to be renewed.