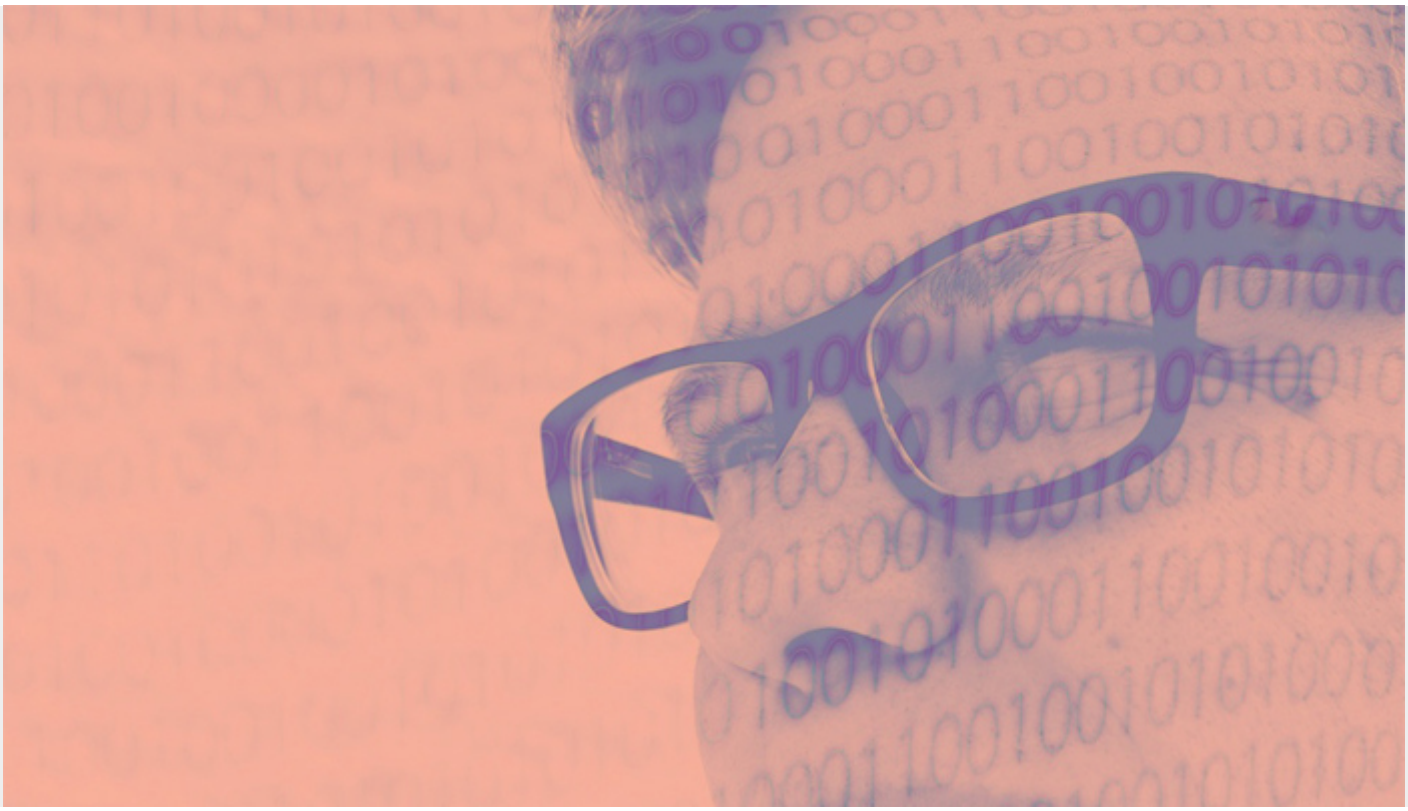
GCP CLOUD ARCHITECT CERTIFICATION: AN INTRODUCTION



Brand new IT professionals or even veterans looking to level up their skills can propel their careers and salaries into the highest paying field through Google's Cloud Professional (GCP) Cloud Architect certifications, according to new research by Global Knowledge. For the second year in a row in their survey of the 15 Top-Paying IT Certifications for 2020, respondents with Google Certified Professional Cloud Architect credentials revealed they ranked highest in annual salaries with average pay of $175,761. This is more than $25,000 than those with certifications in AWS Certified Solutions Architect who came in second at $149,446.

While Amazon Web Services (AWS) owns 33% of the cloud marketplace versus Google Cloud Platform's 8%, Google is increasingly appealing to newer startups with modern modular applications compatible across any cloud environment. As a result, GCP certification is in high demand and commands one of the highest IT salaries.

As more and more businesses leverage the power of the cloud, they are finding it difficult to find qualified candidates to fill cloud IT positions. In fact, because of the exponential growth of cloud services and the growing importance of security, the top four certifications in this year's report are in these fields, demonstrating why so many IT professionals are seeking to put these credentials on their resumes.

Top-paying certifications as of February 2020:

1. Google Certified Professional Cloud Architect — $175,761

2. AWS Certified Solutions Architect – Associate — $149,446
3. CISM – Certified Information Security Manager — $148,622
4. CRISC – Certified in Risk and Information Systems Control — $146,480
5. PMP® – Project Management Professional — $143,493
6. CISSP – Certified Information Systems Security Professional — $141,452
7. CISA – Certified Information Systems Auditor — $132,278
8. AWS Certified Cloud Practitioner — $131,465
9. VCP6-DCV: VMware Certified Professional 6 – Data Center Virtualization — $130,226
10. ITIL® Foundation — $129,402
11. Microsoft Certified: Azure Fundamentals — $126,653
12. Microsoft Certified: Azure Administrator Associate — $125,993
13. CCA-N: Citrix Certified Associate – Networking — $125,264
14. CCNP Routing and Switching — $119,178
15. CCP-V: Citrix Certified Professional – Virtualization — $117,069

What is GCP Cloud Architect Certification?

Google describes their GCP program as providing participants the opportunity to deploy solution elements, including infrastructure components such as networks, systems and applications services while gaining real world experience through a number of hands-on Qwicklabs projects. GCP certification shows that an individual has the skills to design, develop, and manage a secure, scalable cloud architecture using GCP technologies.

Google goes on say a GCP Cloud Architect will be able to assume the following responsibilities:

- Designing and planning a cloud solution architecture that is scalable, reliable, fault tolerant and suited for a particular use case — financial services, IOT, Gaming, Mobile applications, and more.
- Managing and provisioning the cloud solution infrastructure. Capturing infrastructure and configuration as a code; building and provisioning repeatable and redeployable solutions.
- Designing for robust security (limiting access to data and network using IAM, ACLs, encryption keys, and more) and compliance (considering GDPR, HIPAA, PCI regulations, in addition to others.)
- Analyzing and optimizing technical and business processes (by monitoring usage metrics on Stackdriver).
- Managing implementations of cloud architecture.
- Ensuring solution and operations reliability (considering disaster recovery and high-availability solutions).

What does it take to become certified?

To become a certified GCP Cloud Architect you must pass a rigorous exam. The GCP exam takes two hours to complete, costs $200, and can be taken online or at a local testing center. Google recommends at least three years of industry experience, including at least one year of designing and managing solutions using GCP for anyone wanting to take the GCP certification exam. Once certified, the GCP certification is valid for two years and then an individual will need to get recertified by taking the exam again.

The exam itself assesses your ability to:

- Design and plan a cloud solution architecture
- Manage and provision the cloud solution infrastructure
- Design for security and compliance
- Analyze and optimize technical and business processes
- Manage implementations of cloud architecture
- Ensure solution and operations reliability

Prerequisites

Google considers hands-on real world experience as being critical to preparing for Google Cloud certification exams where completion of any training is not required before taking the exam. There are, however, a variety of resources which can provide the foundational training and knowledge of Google's recommended best practices, thus filling any technical knowledge gaps. Many courses are available on-demand, virtual or in-person and each learning path can be tailored to your interests and desired role whether you're new to the cloud or building on an existing skill set.

The exam focuses on six main topics

1. Designing and planning a cloud solution architecture
2. Managing and provisioning a solution Infrastructure
3. Designing for security and compliance
4. Analyzing and optimizing technical and business processes
5. Managing implementation
6. Ensuring solution and operations reliability

Under these main topics rest many subtopics centered around the following concepts:

- IAM
- Bigquery
- CloudSQL
- Interconnecting networks
- VPN working with cloud routers
- Kubernetes
- Load balancers
- App engine
- Stackdriver

There are also case three studies that describes a fictitious business and solution concept on which you should be prepared to solve several questions about each of them on the exam:

- Terramearth
- Dress4win
- Mount Kirk

Benefits

Other than the obvious benefits of a potential pay increase, the survey results also show that individuals with GCP certifications say they are able to validate their expertise in the latest cloud skills, becoming in-demand, high-impact IT professionals. They also reported that these credentials give them confidence in their mastery of new cloud skills and helped with achieving promotions, raises, and career changes.

Upon successful completion of this program, you will earn a certificate of completion to share with your professional network and potential employers that signals your ability to design, develop and manage a secure, scalable and reliable cloud architecture.

Next steps

If you would like to become Google Cloud certified and demonstrate your proficiency in the understanding of cloud architecture and Google Cloud Platform, while designing, developing, and managing solutions to drive business objectives, you will need to register for, and pass the official Google Cloud certification exam. You can find more details on how to register and additional resources to support your preparation at cloud.google.com/certification.