The cloud is gaining more and more importance. Almost every IT decision maker and IT professionals have to deal with cloud technology. What do the job descriptions around the cloud look like?

"Colleague-Customer-Boss Understander": The Cloud Architect

Empowering technical competence.

They are already desperately sought today: the Cloud Architects. To better support companies in technical skills qualification, TÜV Rheinland has developed the first manufacturer-independent cloud competence model to be able to train IT specialists into cloud architects. The requirements are high and the range of applications is many and varied. Peter Holländer and Mandy Tiedemann from TÜV Rheinland Academy present in episode 3 of "What actually does a..." the superstar of the cloud specialists in more detail.

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> **"Cloud architects always have to think outside the box so that developers and administrators can use the planned architecture."**
>
> Peter Hollaender, TÜV Rheinland

He or she handles software and system migration into the public or private cloud, orchestrates hybrid cloud application scenarios, manages the sourcing of IaaS, SaaS and PaaS providers and controls the multiprovider landscape: The cloud architect is a jack-of-all-trades with a wide range of applications. This role is responsible for the design of cloud architecture and deploys the planned architecture of cloud developers and cloud administrators.

Essential duties of cloud architects are the organization of a cloud infrastructure as well as its further development. In addition, he or she is engaged in the implementation of app services and web apps, advanced applications, application storage & data access and securing resources, but at the same time is also involved in the areas of management, monitoring strategy and business continuity strategy. The analysis of manufacturer-specific topics of Microsoft, Oracle, VMware and AWS is part of the basic knowledge of cloud architects. He or she knows which options the current cloud technologies offer and can plan for a "cloud only" or a hybrid solution. He or she has a well-founded overall understanding of the core services and features as well as their application options.

Cloud architects are not only at home in cloud technologies and virtualization technology, but rather also must be well-versed in distributed systems and their global accessibility. In addition, through fundamental understanding of principles on safety and user administration, they know how to outsource parts of their own infrastructure from their own data center and plan reference designs for their customers. Cloud architects with advanced knowledge are able to design scalable and elastic AWS applications. These architects work together with extensively distributed systems. Systems with several hundred or thousands of servers must have a clear design. Experienced cloud architects can restore systems at any time and also do not lose track of the big picture even with large architectures. They also know how to rely on managed services.

Cloud architects develop solutions built upon the requirements specification of the customer. An architect does not need to be a developer or administrator, but cloud architects must always see more of the big picture so that developers and administrators can also use the planned architecture.

SOCIAL COMPETENCES REQUIRED IN EQUAL MEASURE

The purely technical qualifications and management skills have long not been the only qualities that a cloud architect had to bring to the table. Beyond these, social and communicative competences are sought in IT experts because
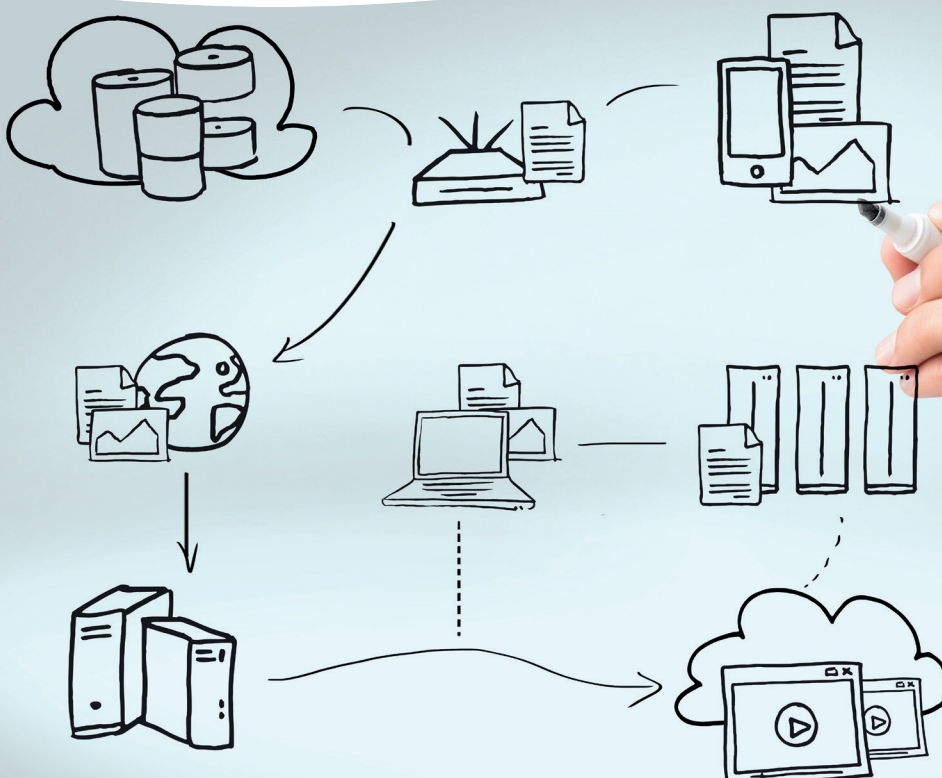
they must consult with corporate departments as well as with partner providers and customers. They negotiate contracts and are at the same time used in a consultant role for the stakeholders to always keep the most important perspectives of a project in mind: the business processes, the resources and the architecture of systems and data. In view of these comprehensive requirements, the financial prospects of a cloud architect are correspondingly rewarding. Depending on the qualification, the location, company size and personal responsibility, they earn between 3,000 and 5,500 EUR monthly.

The qualification as a cloud architect at TÜV Rheinland Academy includes acquiring all of the skills presented here in theory and in practice. It takes between 5 and 20 days, in three parts, depending on prior knowledge and desired depth. As with the qualifications for administrators and developers, the modules build upon each other. The prerequisites for certification to cloud architect by TÜV Rheinland are good fundamental knowledge in the area of IT infrastructures, server, visualization, network and storage technologies. To successfully master the expert status, the participants must be well versed in special topics from the Advanced Azure or AWS trainings or be conversant in products such as vCloud on VMware.

The manufacturer-independent cloud competence model of TÜV Rheinland Academy facilitates a hands-on qualification for companies and IT specialists. Not only IT technical personnel, but also managers have the opportunity to build or optimize their know-how in cloud technology. The model covers the three most important key qualifications that are indispensable to the IT sector: the cloud administrator, the cloud developer and the cloud architect.

**Peter Holländer and Mandy Tiedemann,
TÜV Rheinland Academy**

For more information about Cloud-Certification at TÜV Rheinland-Akademie visit http://www.tuv.com/cloud-profi

ABOUT TÜV RHEINLAND ACADEMY

A world without technical specialists is unthinkable. And the economy is changing very dynamically. Traditional jobs give way, and new ones are emerging. The need for technical know-how and well-trained specialists is higher than ever and will continue to increase worldwide. The TÜV Rheinland Academy is the leading competence partner for excellent technical qualification. With innovative learning solutions based on technical know-how and decades of experience. For the success of people and companies.

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