

A photograph of three server racks filled with server units, set against a blue sky with white clouds. The racks are black with blue and white server units. A network of glowing blue and purple lines connects the racks, symbolizing data flow and connectivity.

DTS
Virtualization / SDDC

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Virtualization is an integral part of today's data centers. Virtualization has enabled large-scale infrastructure consolidation, which has had a lasting impact on data center hardware needs throughout the last decade. At the same time, operating efficiency and availability have been drastically increased and improved. Thus, virtualization is one of the core technologies for what is now called the "cloud". It provides acceleration in the deployment of new services, porting of applications between infrastructures and the ability to deploy resources as they are consumed.

- Server, client, network, storage virtualization
- More than 20 years of experience operating in the data center environment
- Strategic partnerships with the leading suppliers

Virtualization is used in various areas today, but especially in the field of server and desktop virtualization. But the software-defined data center (SDDC) approach goes beyond that. Not only the computing element, but also the network and storage are virtualized. Only then can complete infrastructures in data centers be set up independently of hardware. The advantage is obvious: Thanks to hardware independence, complete infrastructures can be operated virtually and scaled and migrated almost endlessly. Various virtualization technologies are used to build up a comprehensive SDDC:

Server virtualization

Server virtualization is the most common variant of virtualization. Whether in your own infrastructure, with a service provider or in the public cloud, new server resources can be made available within a very short time thanks to the advantages of server virtualization. Changing business requirements can be served more quickly in this way. It is also possible to support the expansion and safeguarding of the business in the long term.

Client virtualization

Client virtualization is used wherever data is to be held centrally and users need flexible access to their data from anywhere. Particularly with increased mobile working, new locations and users can be connected more easily and quickly with a virtualized client infrastructure.

Network virtualization

Separating network hardware from higher-level management is called network virtualization. The network, including switches and routers, is mapped in virtual form, regardless of the medium. This makes it possible to implement various types of segmentation, all the way through to micro-segmentation.

Storage virtualization

By virtualizing the storage, it is possible to achieve independence of the data from the physical storage media. At the same time, this ensures that hosts can access the necessary data without having to know which storage it is located on. As a result, high availability can be achieved and hosts can continue to operate effectively even without storage systems.