Cloud Transformation is a challenging process and requires a delicate touch to ensure the smooth migration to cloud platforms without changing existing applications. Cloud platforms should be capable of rapid transformation of enterprises while reusing the current equipment in order to protect customers’ investments. In addition, the new platforms must be based on open architectures, in order to build an ecosystem with multiple developers and ISVs and to prevent vendor lock-in.

With the SD-DC solution, IT resources are physically separated and logically centralized. The allocation, deployment, and elastic expansion of resources are dictated by services in order to respond to market requirements with higher agility. The outcome is an efficient, agile, reliable, and open environment, purpose-built to accelerate cloud transformation of enterprise IT infrastructures.
As enterprises step into the digital era, transformation of traditional data centers becomes more and more urgent. Resource and information isolation, low business rollout efficiency, and complex management of traditional data centers limit enterprises’ potential. At the same time, finding a balance between Internet-based business models and traditional business models during IT transformation is a challenge that each enterprise must face.

Enterprises hope to transform traditional IT systems into easy-to-manage cloud systems and also to overhaul their business modes and technical frameworks to be more Internet-oriented.

Service-Driven Distributed Cloud Data Center (SD-DC²) provides the infrastructure, cloud platform, and cloud management solutions that enterprises need to successfully deploy cloud services. SD-DC² solutions focus on adapting existing IT infrastructures for businesses in the process of cloud transformation, helping them develop service-driven IT infrastructures.

Building the FusionSphere platform on the OpenStack architecture facilitates unified management of computing resources by supporting the unified monitoring, allocation, and reclamation of physical machines, VMware, VRM, and KVM resources. FusionSphere also supports convergence between heterogeneous storage systems of different types and vendors. Different storage specifications and requirements are satisfied using different resources, in order to meet the service SLA. Network resources are streamlined with VXLAN resources through automation, implementing automatic network configuration and cross-domain business deployment. These solutions apply to physical networks, virtual networks, and WANs.

During cloud transformation, the biggest challenge is the existing organization, processes, and O&M habits of an organization. VDCs can divide resources between resource pools and schedule resources according to the organization structure, implementing rights-and-domain-based cloud resource management. VDCs support self-operation, which means that business departments can allocate cloud resources by themselves, as opposed to traditional systems, with IT departments handle maintenance needs. This separation of platform construction and use enables business departments to focus implementing service-driven resource scheduling to maximize their business potential.

Unified cloud service access platforms support quick access and flexible cloud service orchestration. Management of distributed cloud data centers services allows for services to be automatically deployed across data centers in just minutes.

Each enterprise has its own unique set of requirements for performance and functions. Division of SLA facilitates allocation of different resources for different businesses to meet their diverse requirements.

In addition, the performance and resource requirements may change dynamically during operations. As SD-DC² architecture receives these updated requirements, it can initiate a corresponding strategy to elastically allocate and schedule resources.

Seven BC&DR sub-solutions are provided for traditional IT environments, meeting the varied and numerous customer requirements on DR levels. The HyperMetro-based active-active data center solution features the highest level of DR protection, ensuring zero business interruption and zero data loss. In addition, it supports smooth evolution from traditional IT environments to cloud environments.

The private cloud DR solution provides DR as a service based on OpenStack. Backup service and active-passive protection service are now available.