Hybrid Clouds and the Software-Defined Data Center

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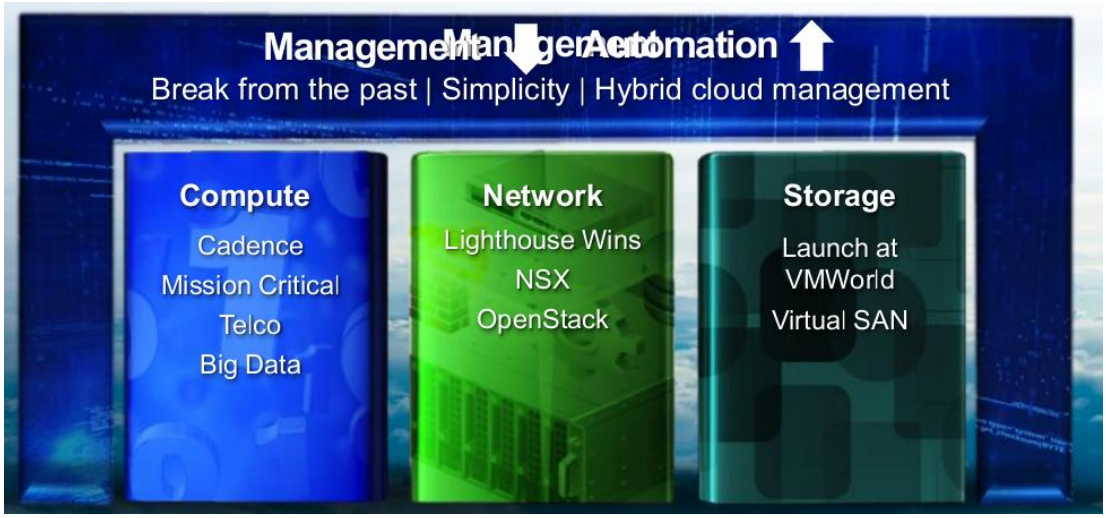
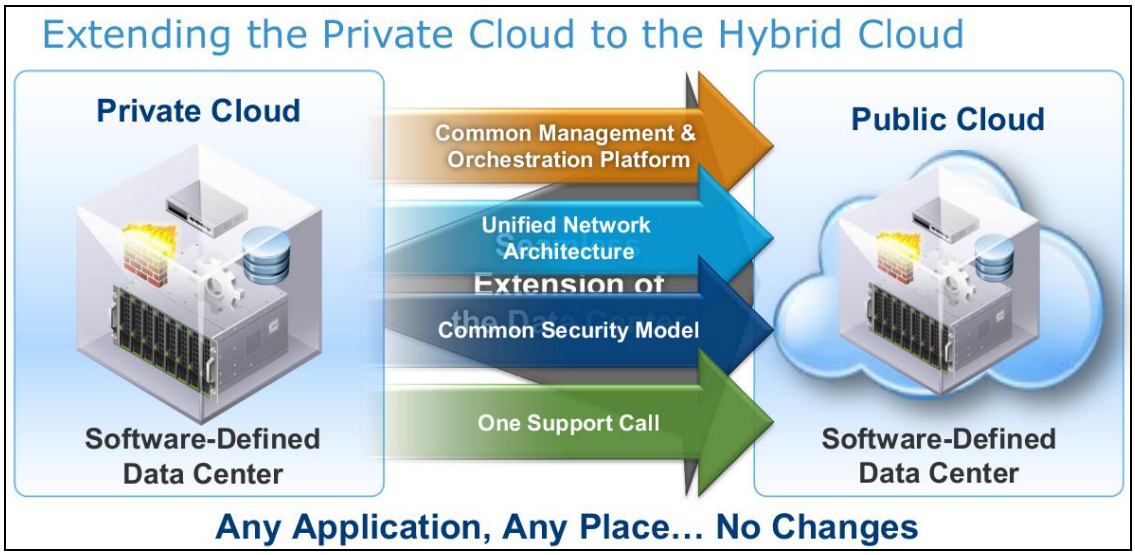
EMC Corp. and VMware Inc. held a Strategic Forum last week for financial analysts in which it announced corporate visions and plans for delivering software-defined data center (SDDC) offerings and a VMware hybrid cloud. In other cloud news, ATScloud, the cloud services unit of ATS National Inc., and ExaGrid Systems Inc. have partnered up to offer cloud-based Disaster Recovery as a Service (DRaaS). ExaGrid customers will now have the option to replicate their backup data to ATScloud's secure cloud infrastructure, reducing or eliminating the need to vault tapes off-site for disaster protection.

Focal Points:

- EMC and VMware outlined their vision for data centers morphing into software-defined data centers and their plans for being a leader in the transformation. In a SDDC all infrastructure is virtualized and delivered as a service, and control of the data center is entirely automated by software. The data center is thus abstracted and components pooled and then control and management is all automated and orchestrated. The companies gave an overview of the targeted markets and how they will address the compute, network and storage domains. (See chart.)



- VMware announced a new hybrid cloud strategy whereby it delivers a common platform that allows customers to easily shift workloads and data between an internal VMware-based cloud environment and a new VMware-operated public cloud. The company believes that by providing consistency across the private and public cloud environments customers would more rapidly adopt environments that incorporate an on-premises private cloud with a hosted public cloud. Executives extolled the advantage of achieving "hybrid cloud nirvana" in which applications can scale between either environment based on resource need without any changes. The company did not release any information on pricing or how the service will be set up. However, VMware is moving into a space where its infrastructure as a service (IaaS) offering will be competing with its partners. VMware's hybrid cloud vision is shown below.



- ATScloud and ExaGrid launched their joint cloud-based DRaaS solution which will allow customers to secure storage of data in ATScloud's tier IV data centers in the U.S. The companies state that a worldwide offering will be available at a later date. Users of ExaGrid backup appliances can now choose the cloud service for a remote copy of their backed-up data instead of maintaining a separate ExaGrid device or a tape system. Should their primary backup appliance fail or not be reachable in a disaster, those customers will be able to get their data back from ATScloud over the Internet or in a shipped appliance. Customers can buy storage capacity in the ATScloud on an as-needed basis and pay per gigabyte. The executives claim the use of this method should cost about half as much as a dedicated ExaGrid appliance at a collocation site but actual prices will be set by ExaGrid's channel partners and ATScloud's Managed Service Providers (MSPs).

RFG POV: Software-defined data centers will become the standard over the next decade but the market is still immature and there are a lot of issues yet to be resolved. The least developed component is the software-defined network. While Cisco Systems Inc. and Hewlett-Packard Co. (HP) have offerings and it is rumored IBM Corp. will soon follow, most enterprises have yet to make major headway in this area. Until the networks can be virtualized and then automated, managed and orchestrated, the SDDC will struggle to become reality. Thus, it will take four to five years before all the components have matured and the solutions are accepted as mainstream; then, software-defined data centers will start to become the norm. VMware's move into becoming an operator of a public cloud should be viewed as a defensive one, even though the opportunity for them is large and they will make headway in the market. Microsoft Corp. already has its Windows System Center offering that can manage Microsoft-based internal private clouds and its Windows Azure public cloud. There are OpenStack solutions as well and even Amazon Inc.'s Amazon Web Services (AWS) has partners, like Eucalyptus Systems Inc., that claim to offer the private-cloud equivalent of AWS. The ATScloud offering provides ExaGrid users with what is claimed to be a less expensive solution to data backup and disaster recovery. From a data protection standpoint the offerings provides users with a level of confidence that in case of onsite data loss, the company can recover – either by use of the ATScloud or via a shipped appliance. However, the claim that the costs will be less remains to be seen. IT executives should walk before they leap into the next-generation of data center and cloud environments. IT executives should pilot their preferred solutions to ensure the IT services can be delivered as promised and then use the lessons learned as inputs to when they move forward with the next phase of the data center transformation.