NTT-Netmagic Delivers High-Quality SAP HANA Cloud Services with VMware-Based Software-Defined Datacenters

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Overview and Background on NTT-Netmagic

NTT-Netmagic delivers managed hosting and multicloud IT services to enterprise customers globally. Netmagic has been an NTT Company since 2012 and offers cloud services to customers in all major cities across India via 10 datacenters located in five cities. With more than 1,500 employees serving over 2,500 enterprise customers, NTT-Netmagic prides itself on staying on the leading edge of cloud-based technology services to support its customers. Its multicloud services include bare metal, private cloud, public cloud, and container as a service, reflecting its focus on offering the entire breadth and depth of cloud services to its enterprise customer base.

In 2017, NTT-Netmagic added SAP HANA cloud services to its portfolio to meet emerging customer demands. Girish Sharma, Senior General Manager, Product Line Head for Cloud Services at NTT-Netmagic, explained that his company realized that offering robust, reliable, and flexible SAP HANA cloud services would require a very strong infrastructure foundation. To ensure an exceptional customer experience, NTT-Netmagic decided to build software-defined datacenters (SDDCs) in Mumbai and Bangalore for its SAP HANA cloud services based on the VMware Cloud Provider Platform and related VMware technologies.

NTT-Netmagic understood that the infrastructure beneath its SAP HANA cloud services would need to meet stringent requirements in terms of performance, security, flexibility, and cost. NTT-Netmagic concluded that its best choice was to build software-defined datacenters based on VMware technologies that include VMware Cloud Director, NSX, vSAN, vSphere, vMotion, and CloudHealth. With VMware-based SDDCs, NTT-Netmagic can offer SAP HANA cloud services through multiple deployment models, including appliances, TDI, TDI on rack servers, public cloud, and shared services.

According to Sharma, NTT-Netmagic customers have responded positively to the company’s SAP HANA cloud service offering, and NTT-Netmagic has already acquired more than 200 customers in India. Beyond the strong functionality of NTT-Netmagic’s SAP HANA offering, Sharma attributed his company’s success to the VMware SDDC infrastructure.

Business Value Highlights

LOCATION:
Mumbai, India

CHALLENGE:
Build an IT infrastructure capable of delivering high-quality, scalable, and cost-effective SAP HANA cloud services to a growing customer base

SOLUTION:
VMware-based software-defined datacenters, including solutions such as VMware Cloud Director, NSX, vSAN, vSphere, vMotion, and CloudHealth

FINANCIAL AND OPERATIONAL BENEFITS:
» 15% higher growth rate for SAP HANA cloud services
» 54% lower churn rate
» 90% faster onboarding of new customers
» 50% faster delivery of new services to existing customers
» 50% fewer SLA penalties
» 22% more cost-effective datacenters
» 25% more efficient IT infrastructure teams
Specifically, he linked higher growth rates and lower churn rates for SAP HANA cloud services to strong performance and flexibility as well as the ability to deliver new services in far less time to both new and existing customers. Meanwhile, having a VMware-based SDDC foundation for SAP HANA cloud services has provided NTT-Netmagic with a further competitive advantage by enabling it to optimize datacenter-related costs and staff time requirements.

Implementation

NTT-Netmagic's decision to build software-defined datacenters based on VMware technologies to run the company's SAP HANA cloud services was natural given NTT-Netmagic's long history of relying on VMware solutions. Although NTT-Netmagic considered other options, Sharma described the choice of VMware as relatively clear: "For having a critical SAP HANA environment on the cloud, we wanted to have those running on a stable VMware cloud for our customers." He also noted that NTT-Netmagic's experience with VMware was important: "We had more than 10 years of experience with VMware in the public cloud domain, and before that, we catered to VMware-focused large enterprises. We have a very strong practice related to VMware, so there was no need for additional resources to launch SAP HANA cloud services on VMware. Using VMware technologies allowed us to leverage the same resources and expertise to meet SLAs."

The deployment of NTT-Netmagic's VMware-based SDDC environment went smoothly and was completed in a matter of weeks in 2017. Sharma attributed the speed with which NTT-Netmagic was able to stand up these datacenter environments to its existing in-house expertise with VMware as well as efficiencies from software-defined automation embedded in the VMware solutions it is using.

NTT-Netmagic built out datacenters in Mumbai and Bangalore to host its SAP HANA cloud services with the following VMware products and solutions:

- VMware NSX to provide a flexible gateway to appliances and VMs
- VMware Cloud Director to integrate with APIs
- VMware vSAN to support the entire SAP HANA cloud management grid
- VMware vMotion to ensure performance levels
- CloudHealth by VMware to allow customers to access analytics related to performance

Additionally, NTT-Netmagic is a partner for VMware Cloud on AWS, which enables its customers to connect with ease to other AWS services, including for disaster recovery environments.

Importantly, NTT-Netmagic supports various deployment scenarios for its customers with its VMware SDDCs. Sharma noted: "Today, customers have a variety of choices and want to be able to choose the deployment scenario by workload, and VMware gives us that flexibility."

NTT-Netmagic already has more than 200 customers for its SAP HANA cloud services, including many large Indian corporations. NTT-Netmagic can offer flexibility in the size of its SAP HANA offerings, ranging from 4 vCPUs to 32 vCPUs and up to 1.5TB in vRAM. Sharma put the typical SAP HANA customer environment at 256GB and around 7–8 VMs, although he noted that some customers have significantly larger environments.
Benefits of Having VMware-Based Software-Defined Datacenters

Sharma described NTT-Netmagic's VMware-based software-defined datacenters as the foundation for the success of the company's SAP HANA cloud services. He linked strong customer take-up of SAP HANA cloud services to high performance, security, and flexibility as well as the ability to compete on price by optimizing infrastructure costs and staff time requirements.

Strong Performance and Reliability

NTT-Netmagic's VMware-based software-defined datacenters have ensured strong performance for the company's SAP HANA cloud services in both absolute and relative terms compared with services running on other types of infrastructure. The importance of SAP HANA for NTT-Netmagic's customers as a tool for running their own businesses means that uptime and availability for NTT-Netmagic's services are paramount. According to Sharma, his company's VMware-based SDDCs have provided the requisite levels of availability and uptime to meet customer requirements, with incidents affecting performance occurring only one-third as frequently, compared with other platforms. Importantly, NTT-Netmagic can do this while maintaining an optimized infrastructure footprint: "Our uptime SLA is 99.99%, and we typically need to keep spare resources to meet this. However, with VMware, we can maintain a cluster of 8+1 that leads to higher uptime despite other resource optimizations."

NTT-Netmagic's ability to monitor and control workload distribution on the fly with VMware vMotion helps ensure optimum performance levels for the company's SAP HANA cloud services. Further, NTT-Netmagic provides its customers with a self-service portal to monitor performance through VMware Cloud Director and leverages CloudHealth by VMware to offer robust performance monitoring and analytics to its customers. Sharma also described customers' ability to connect to NTT-Netmagic's SAP HANA cloud services as "really fantastic" via the normal public internet with a VPN, a site-to-site VPN, or an MPLS connection and that NTT-Netmagic faces "no challenges in providing these different types of connectivity" with NSX and its broader VMware-based SDDC ecosystem.

Sharma summarized the broader impact of having a reliable and robust infrastructure for NTT-Netmagic's SAP HANA cloud services: "The reliability of our VMware environment has helped us position ourselves as a service provider for hosting critical analytics workloads like SAP HANA. With a better SLA, higher uptime, and more hours of platform expertise, we are able to put forward a strong value proposition for our customers."

Timely Delivery of New Services and Customer Flexibility

Sharma also associated having a VMware-based SDDC with NTT-Netmagic's ability to deliver SAP HANA cloud services to customers in a timely manner. He tied this advantage to the automation embedded in VMware Cloud Director as well as the confidence in being able to scale as needed to meet customer demand and the ability of its VMware-based SDDC to run significant SAP HANA environments on virtualized infrastructure. He noted: "We are able to readily scale up to SAP HANA virtual environments as large as 6TB. We are quite confident in supporting environments of this size efficiently. With other platforms, we would have to recommend a physical infrastructure for such large VMs."
The strong agility of the VMware SDDC platform is evident in NTT-Netmagic's ability to deliver new services to both new and existing customers with ease. Sharma estimated that, on average, NTT-Netmagic can now onboard an entirely new customer in around two days rather than almost a month (90% faster) and deliver new services to an existing customer in an average of around two days rather than four days (50% faster). He also noted the benefit for NTT-Netmagic's customers of being able to easily scale up their SAP HANA environments: "Our customers can start as small as possible with our SAP HANA cloud services and see their usage on dashboards and then easily scale up in terms of resources and VMs as needed while monitoring their costs." He also emphasized the ease with which NTT-Netmagic can move its SAP HANA customers across different deployment models, including from appliance-based to TDI-based or even cloud-based deployment models.

Management and Cost Efficiencies
Sharma also described the value of NTT-Netmagic’s VMware-based software-defined datacenters in terms of cost and staff competency. He associated these efficiencies with VMware technologies such as vSAN that provide a strong management grid for its HANA cloud and NSX on the back end to ensure the stability and availability of the environment as well as integrating APIs into its broader environment with Cloud Director. For NTT-Netmagic, these proficiencies provide an important advantage in a very competitive market by lowering the costs incurred in offering SAP HANA cloud services on a per-unit basis, allowing NTT-Netmagic to compete more vigorously on price. Sharma described several important benefits:

- **Establishing a hybrid environment for SAP HANA cloud services.** "With VMware NSX, we can easily achieve hybridity within our datacenter to mix TDI and appliances with SAP HANA cloud for our customers. This has become a core value proposition of flexibility for our datacenters as well as for multicloud environments."

- **Creating a more cost-effective datacenter footprint.** "With VMware SDDCs, we have increased our efficiency in terms of compute footprint from 7 nodes to 9+ nodes in every cluster. This has enabled us to bring down our spare resource requirement from 14%+ to less than 10%."

- **Generating IT staff efficiencies.** "We are around 25% more operationally efficient because we can leverage our in-house VMware skill sets and our existing learning curve of managing VMware-based practices for the past 12+ years."

Quantitative Benefits
Sharma attributed important business differentiation and efficiencies to having VMware-based SDDCs to run and deliver SAP HANA cloud services for NTT-Netmagic's customers. Among the most relevant benefits are:

- **Significant sales of SAP HANA cloud services.** In less than four years, NTT-Netmagic has built a customer base of more than 200 for its SAP HANA cloud services with over $2 million per year of associated revenue.

- **Faster growth of SAP HANA cloud services.** Because of the high quality and functionality of NTT-Netmagic's SAP HANA cloud services, the growth rate of these services is around 15% higher than that of other similar services. For NTT-Netmagic, this translates to hundreds of thousands of dollars of additional revenue per year from its SAP HANA cloud services.
Lower customer churn rate for SAP HANA cloud services. Thus far, NTT-Netmagic's customer churn rate for SAP HANA cloud services has been less than half (54% lower) of the company's typical churn rate for other services.

Cost-effective infrastructure. NTT-Netmagic has built out its two VMware-based SDDCs at a 25% lower cost than it otherwise would have.

Methodology
IDC conducted several interviews with Girish Sharma to understand the impact on NTT-Netmagic of having software-defined datacenter infrastructure based on VMware technologies and solutions to provide SAP HANA cloud services to its customers.

About the Analyst

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Matthew Marden is a Research Director in the IDC Business Value Strategy team. He is responsible for carrying out custom business value research engagements and consulting projects for clients in a number of technology areas with a focus on determining the return on investment (ROI) of their use of enterprise technologies. Matthew's research often analyzes how organizations are leveraging investment in digital technology solutions and initiatives to create value through efficiencies and business enablement.