



# CONQUER THE COMPLEXITY CHALLENGES OF YOUR GLOBAL CLOUD JOURNEY

Enterprises' cloud journeys are only growing more complex. They want to extend beyond in-house private clouds at various corporate data center sites to integrated ICT and globally accessible cloud infrastructures. As they connect existing private networks to cloud platforms, however, they find themselves confronting many challenges.

These include struggles in managing and maintaining workloads across multiple providers and environments; difficulties in migrating complicated applications; and painful experiences in supporting current systems and application deployments, even as businesses try to develop new cloud-based functions and capabilities.

The opportunity to reduce that complexity – and realize the benefits of scaling business quickly that the cloud brings – lies with creating a seamless and globally connected virtual data center in the cloud. When companies can rely on service providers to smooth the migration path to this destination through comprehensive cloud lifecycle services and support, they will be positioned to perform with the agility and flexibility that's critical to success in today's highly dynamic business environments.

## » CONFRONTING COMPLEXITY CONCERNS

Companies need to grow their core businesses rather than spend cycles on the intricacies of expansive infrastructure management. Here are some of the requirements to ease cloud transformation, which enables that shift from operations to strategy.

To start, enterprises need access to the combination of a global IP network with global data center coverage in

a virtualized private data center IaaS model. This provides the means to flexibly extend on-premise or co-lo data centers to the cloud for dynamic and cost-optimized compute capacity. The model is especially powerful if it accounts for seamless and secure service linkages across sites, and efficient network traffic management between worldwide locations.

Consider as a key component of a complete virtual private cloud solution the backing of a highly reliable, premium-quality network service that features Software-Defined Networking (SDN) and Network Functions Virtualization (NFV). The former provides the means to shift network control from routers and switches to centralized software, while the latter moves network services from specialized equipment to applications running on industry-standard servers.

Also important in a solution that seeks to minimize complexity is expert support for moving mission-critical applications and data to a cloud platform.

"Careful planning, technical expertise and a well-defined migration methodology are required to minimize and mitigate the risks of these moves," says Steven Neo, Executive Vice President, Enterprise Product Division, NTT Singapore. At the same time, businesses benefit from the insight of experts who can help determine which applications and infrastructures are not suitable for cloud, while also providing the tools to ensure that the organization will enjoy streamlined access to managing the global IT estate in all its permutations from one place.

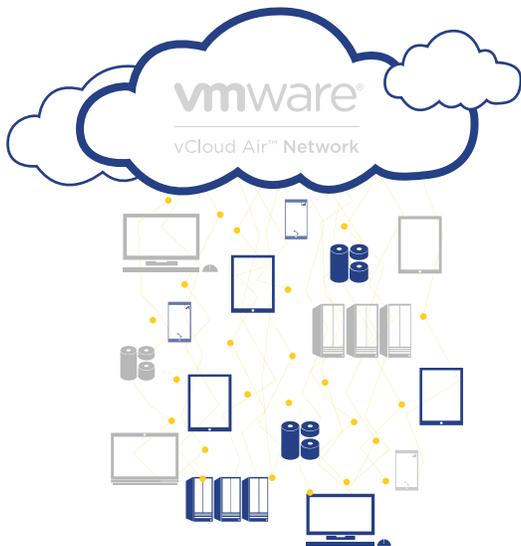


## » A CLOUD PLATFORM THAT GETS COMPLEXITY UNDER CONTROL

NTT Com is prepared to help enterprises in their quest to grow their global cloud connections without generating unwanted complexity. Its Enterprise Cloud virtualized infrastructure as a service, available in close to 15 secure data centers (by the end of 2015) across Europe, the U.S., Asia and Australia, is well positioned to help companies that want to increasingly leverage cloud services in support of global expansion.

The Enterprise Cloud is supported by the company's Arcstar Universal One MPLS network service, making it possible for enterprise customers to flexibly integrate their converged global networks in a full-meshed network environment characterized by agility, high performance and ease of use. "One intuitive global customer portal enables services across worldwide networks to be comprehensively managed," says Paul Lew, Executive Vice President, Business Division, NTT Singapore.

NTT Com enables customers to realize success in their drive for cloud simplicity in many other respects, as well. The Enterprise Cloud is a globally consistent VMware cloud-powered architecture that uses VMware's vCloud director platform to seamlessly provide cloud computing resources to customers. It also leverages VMware's NSX capabilities to equally seamlessly provide secure connections between customer sites to the Enterprise Cloud, as well as between cloud platforms.



Indeed, NTT Com was early to see the value of embedding SDN technology into the Enterprise Cloud for dynamically deploying virtualized networks and directly managing settings for cloud-based VPNs, servers, storage and network segments in virtual servers. With SDN in place for network automation and virtualization, "customers gain advantages such as being able to smoothly connect their on-premises systems to the cloud in the same network segment and quickly adjust their resources and configurations as needed," says Kiyoshi Matsumoto, Director, Enterprise Product, NTT Singapore.

Enterprise Cloud services, for example, can invoke SDN capabilities in the network to do things like change traffic flows based on customer-configured policies enabled via the solution's point-and-click portal. It takes only a couple of minutes to implement policies through a real-time provisioning model that allows businesses to spin up and down services on a project basis.

Attention also must be given to Enterprise Cloud's use of VMware's NSX network virtualization platform that helps streamline workloads post-cloud migration, by making it possible to connect customer data centers to the cloud service without changing the IP addresses already used in the on-premise environment. Using VMware network virtualization as a network overlay built from software, there is no requirement to undertake complicated, manual network provisioning – and incur the operational and capital expenses, as well as the risks, that go hand in hand with that.

NTT Com rounds out its approach to easing customers' complexity concerns by functioning as a complete end-to-end ICT solution partner. Its consultants can create an effective roadmap to transition and interconnect your applications and infrastructure into the Enterprise Cloud. Its designers can document current and future architecture and assess and address application dependencies and security requirements, from encryption to storage segregation, and account for any mandatory legal obligations, with the goal of creating a resilient, scalable, agile, and efficient Enterprise Cloud implementation. Its migration team can manage the movement of all existing servers and applications for maximum effectiveness and efficiency.

"Critically, we can provide ongoing management to continually drive optimal performance to meet agreed-upon SLAs," says Scott Xiao, Cloud Specialist. Administration, monitoring, reporting and reviews, as well as change management and service requests, also can be part of an Enterprise Cloud engagement, Scott Xiao explains.

As a leading global telecommunications carrier, NTT Com brings strong credentials to its Enterprise Cloud as a potent single source for securing and optimizing global IT needs, from network to infrastructure to security to backups between data centers around the world. Businesses in search of an innovative, seamless and self-manageable cloud solution should consider adding NTT Com's Enterprise Cloud to their list of options to explore.

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