



## **IN THIS STUDY**

This IDC study represents the vendor assessment of the AP next-generation telecom operator's datacenters and hosted cloud services market using the IDC MarketScape model. This telecom SPs vendor assessment uses a sophisticated scoring and ranking method based on both qualitative and quantitative criteria. Key vendors in this market are being assessed on their current capabilities and longer-term strategies that will impact their ability to service the medium to large enterprises, MNCs, and the government clients that have regional datacenters and hosted cloud services requirements.

The evaluation of the vendors is based on a comprehensive framework and a set of parameters that assess vendors' position to one another, and those factors that are expected to be most conducive for success in a given market in both short term and the long term.

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## **Methodology**

IDC MarketScape criteria selection, weightings, and vendor scores represent well-researched IDC judgment about the market and specific vendors. IDC analysts tailor the range of standard characteristics by which vendors are measured through structured discussions, surveys, and interviews with market leaders, participants, and end-user communities. Market weightings are based on user interviews, buyer surveys, and the input of a review board of IDC experts in each market. The individual vendor scores and, ultimately, vendor positions on the IDC MarketScape are based on detailed surveys and interviews with the vendors, publicly available information, and end-user experiences in an effort to provide an accurate and consistent assessment of each vendor's characteristics, behavior, and capabilities.

## **SITUATION OVERVIEW**

Declining margins and revenue in traditional connectivity and telecommunications services have driven telcos to look for new sources of revenue to grow their businesses, offering managed services beyond pure managed networks services. Telcos have been offering datacenter-related services that were traditionally used to be offered by IT providers such as managed datacenter services, managed hosting, network integration, datacenter virtualization, and datacenter consolidation and assessment services. Leveraging their networks and datacenter assets, telcos are also moving into the cloud space, delivering cloud computing services (infrastructure as a service [IaaS], platform as a service [PaaS], or software as a Service [SaaS]) hosted within their datacenters. Some telcos in the region have also built up IT or systems integration expertise internally or through partnership to deliver hybrid cloud and end-to-end cloud capabilities, including cloud readiness assessment, cloud orchestration, or brokerage services. In this converged IT and telecom marketplace, the lines drawn between an IT and telecom providers are becoming less distinctive, especially in the area of providing datacenters and cloud services. For many telcos, hosted cloud services (i.e., cloud services that are offered out of the provider's managed datacenters) are regarded as part of their datacenter suite of services as cloud services leverage on their datacenter facilities and networks.

In this IDC MarketScape, IDC defines datacenter or hosted infrastructure services (HIS) based on the definitions commonly used in the IT world. This includes the following services:

- ☒ **"Traditional" HIS.** Traditional HIS includes the following services identified as subsegments in *IDC's Worldwide Services Taxonomy, 2012* (IDC #233468, March 2012): legacy shared Web hosting or virtual private server, dedicated hosting, and complex managed hosting. Traditional HIS typically share attributes commonly associated with cloud hosting infrastructure (i.e., the ability to rent rather than buy IT infrastructure, standardized packaged solutions) but not others (e.g., self-service, pay-per-use pricing, elastic scaling).
- ☒ **Co-location.** This subsegment covers commercial/retail co-location services where the SP offers co-location services and related datacenter management systems. Co-location services are defined as a customer's use of a third party's (in this case, telcos) datacenter facilities (i.e., physical floor/cage/rack space, network capacity, and HVAC/power infrastructure) in which the customer operates its own servers/storage systems, network equipment, and other types of infrastructure.
- ☒ **Cloud HIS.** This term describes a particular model of hosted service delivery as specified in *IDC's Worldwide IT Cloud Services Taxonomy, 2012* (IDC #233396, March 2012). Cloud HIS combine the use of multi-tenant (shared) resources, radically simplified packaging, self-service provisioning, highly elastic and granular scaling, flexible pricing (often pay-per-use/pay-as-you go), and widely leverage of Internet standard technologies — to make offerings dramatically easier, cheaper, and better to consume. The "cloud" segmentation of the HIS market covers services offered by third-party providers such as hosted private or dedicated cloud and managed public cloud. The "cloud" portion of HIS does not include on-premise private clouds, unmanaged public cloud or virtual private cloud (vPC).
- ☒ **Other datacenter related services.** It also includes services above and beyond basic hosting functionality such as equipment rental and maintenance, as well as integrated managed services for functions such as storage, backup or recovery, security, and broader management functions such as monitoring and help desk that may be included as part of the datacenter services or HIS offering.

On **hosted cloud services**, besides the cloud HIS identified earlier (i.e., hosted private or dedicated cloud and managed cloud services), IDC also includes the unmanaged public cloud or vPC/public cloud services, hosted within the SP's datacenters facilities in this IDC MarketScape.

For a telco, co-location and traditional hosting services are legacy services that most telcos are already offering. However, hosted cloud services (dedicated or shared cloud services hosted within the provider's datacenters) are emerging services that telcos are advancing into. Some of the telcos in the region are relatively advance in this space with end-to-end cloud integration capabilities, but others are just starting to enter the cloud computing space.

### ***IDC MarketScape Vendor Inclusion Criteria***

This study includes 12 regional and global telecom SPs that have datacenter and hosted cloud service offering for the enterprises in the AP region. IDC defines the enterprise segment to include the mid- and large-sized enterprises, the MNCs, and the government clients that have regional or international ICT requirements. The criteria for inclusion in this study include:

- The vendors should have international network services such as international IP VPN and international Ethernet services in the region serving the enterprise segment.
- They must operate datacenter facilities in the region, offer datacenter services (minimally co-location and hosting services) and hosted cloud services (either managed or virtual private/public cloud solutions) targeting the enterprise market.

Vendors are evaluated based on their current capabilities and next 3–5 years strategies they set for the enterprise segment in this region. Capabilities or strategies in the consumer, small and medium-sized enterprises (SMEs) or wholesale segments are not included in this vendor evaluation.

In this IDC MarketScape, we have intentionally excluded all IT providers such as IBM, Fujitsu, HP, Accentures, and others that might meet the aforementioned inclusion criteria. The capabilities and strengths of telcos and pure IT providers are vastly different, and the inclusion of pure IT providers into this vendor assessment study might skew the assessment toward specific group of providers. Hence, this study will only evaluate the regional and global telcos that are offering datacenter services (including hosted cloud services) in AP.

The 12 telecom SPs that are included in this study are:

- AT&T
- BT Global Services
- NTT Communications
- Orange Business Services
- Pacnet
- Reliance Globalcom
- SingTel
- T-Systems
- Tata Communications
- Telstra & Telstra Global
- Verizon
- Vodafone Global Enterprise

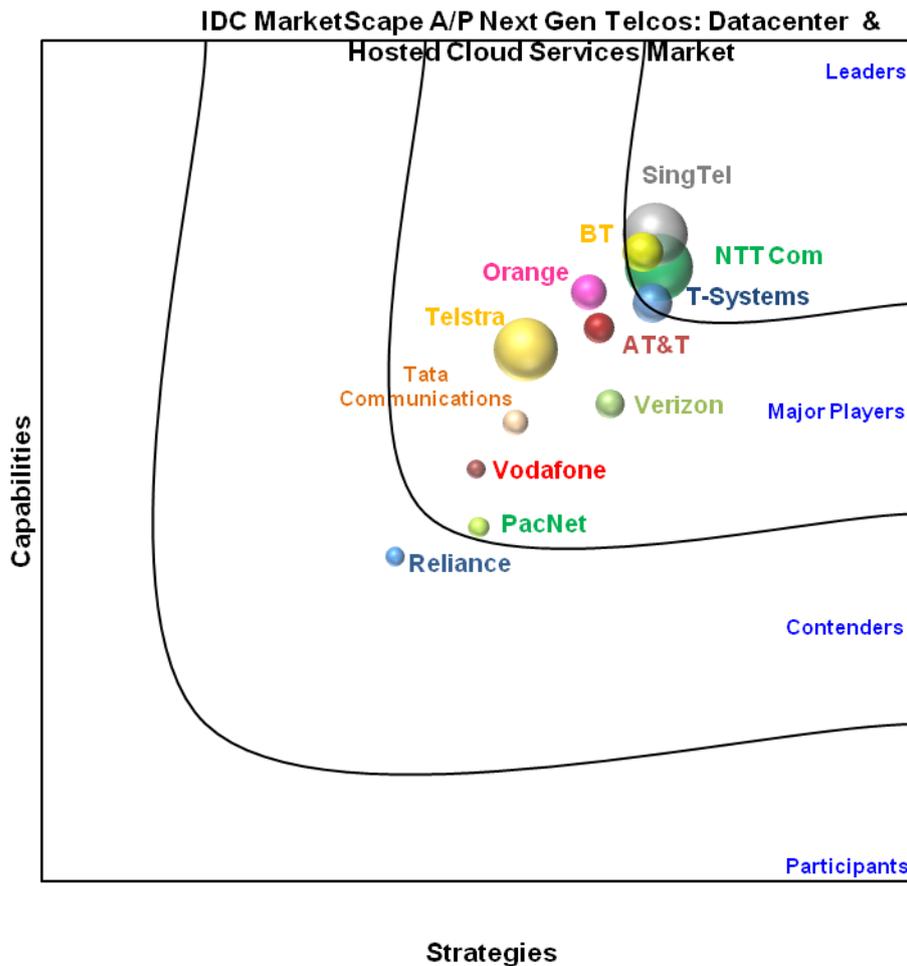
## FUTURE OUTLOOK

### IDC MarketScape Asia/Pacific Next-Generation Telcos — Datacenter and Hosted Cloud Services Market Vendor Assessment

Figure 1 shows each vendor's position in the vendor assessment chart. Its relative market share is indicated by the size of the bubble. This market share is derived from revenue on datacenter and hosted cloud services from both midsize to large enterprises and government segments within AP. The size of the bubbles has been scaled down so as to better reflect the positioning of each vendor in the chart.

**FIGURE 1**

Asia/Pacific Next-Generation Telcos — Datacenter and Hosted  
Cloud Services Vendor Assessment



Source: IDC, 2013

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## Vendor Summary Analysis

### ***NTT Communications***

In this IDC MarketScape, NTT Communications (NTT Com) is a Leader in the datacenter and hosted cloud services market. The provider has set a global cloud vision (GCV) for the enterprise segment, which it will increase its revenue and profits through providing total ICT outsourcing to enterprise customers, leveraging its strength in network, datacenter footprints, and taking advantage of customer's transition to cloud-based ICT services. The provider has managed to garner a number of successes in total ICT outsourcing deals that NTT Com provided a one-stop managed ICT and global WAN platform for the clients, as well as assisted customers to migrate their IT to NTT Com's datacenters and/or cloud-based platform.

The provider has created a global brand for its datacenter services called "Nexcenter." Nexcenter will provide the next-generation datacenter services leveraging the capabilities of low latency connection to major datacenters in AP via the Asian Submarine-Cable Express (ASE), the ultra-low latency cable system; tier 3 and 4 datacenters that are now optimized for business continuity process (BCP) use; and advanced green technology in datacenters. It has also obtained a number of certifications including the business continuity certification, which assures enterprises of high level of datacenter service capabilities including co-location, cloud, and managed hosting.

The provider has been offering UCaaS since 2011 and has done a number of feature enhancements this year, including UCaaS on mobile devices, a Web directory that unifies directory for both office and mobile users, and enabling integration of presence and instant messaging (IM). The IM and presence federation is expected to be available in 2014. Other than UCaaS, NTT Com already launched the IaaS (Enterprise Cloud and Cloudn), and has also recently launched the Biz Desktop Pro Enterprise, a virtual desktop infrastructure (VDI) service, globally.

### **Strengths**

- ☒ **Lead in network innovation for datacenter and cloud service delivery using SDN.** The provider is actively implementing network virtualization technology such as OpenFlow into its core networks. NTT Com is the first provider globally to leverage SDN within its datacenters to deliver seamless datacenter infrastructures and cloud services. It has already implemented the SDN technology for networks between and within datacenters, which enables on-demand configuration for switches and appliances and allowing customers to control network bandwidth between datacenters whenever needed. NTT Com is using the technology to enable cloud migration service and offer the Enterprise Cloud service, its global IaaS, the first global SDN-enabled cloud service. Not only does NTT Com now able to provide truly agile cloud services to enterprises through leveraging SDN but it also enables the provider to offer more cost-efficient services, which means any cost savings can be passed back to its customers. By leveraging SDN, NTT Com can enable customers to migrate services into its cloud platform without the hassle of changing the IP addresses of existing on-premise systems and to automatically connect between cloud and WAN services through the customer portal (the automation capability is expected to be launched in 2Q14). The provider is also planning to extend the network virtualization technology to the WAN and LAN networks, allowing enterprises to

manage the Enterprise Cloud, as well as the networks between the Enterprise Cloud and their on-premise locations via a self-service customer portal.

☒ **Large datacenter footprints enable NTT Com to deliver global seamless datacenter services.** Combining its acquisitions, including Netmagic and Frontline Systems Australia (which is now renamed as NTT Com ICT Solutions (Australia) Pty Ltd), the provider has 152 datacenters (owned or leased) with a total of server floor space of at least 231,000 sq m globally. Within AP, NTT Com has 122 datacenters (29 datacenters outside of Japan and 93 in Japan), which it leverages to deliver its "Nexcenter" services. It is continuing to expand its datacenter capacities in the region as its existing capacities rapidly run out. New tier 3/3+ datacenters are being planned in Malaysia, Thailand, Hong Kong, Shanghai (China), India, and Indonesia, which will be available for service within the next 12–24 months. Combining the utilization of advanced network virtualization technology in the datacenters and core networks, the provider will be able to greatly simplify the cloud migration process and deliver a completely self-serve cloud computing service. Recently, the provider has also acquired a 74% stake in Digital Port Asia, a datacenter SP in Thailand, expanding its datacenter footprints in the country. It is expected to open the largest datacenter in Thailand next year located within the Amata Industrial Park, which will serve the Japanese and global MNCs in the country.

☒ **Strong cloud capabilities and strategies leveraging advanced network technology.** Other than unified communications as a service (UCaaS), the provider offers two standardized IaaS targeting the enterprises segment (i.e., the Enterprise Cloud [previously known as Global Virtualization Service]) and Cloud<sup>n</sup>. The Enterprise Cloud, a virtual hosted private compute and storage cloud, is the first cloud in the world that is implemented with virtualized network technology, SDN. Both network and compute resources are also completely self managed via a customer portal. The Enterprise Cloud is currently offered across 10 locations in 8 countries globally and will be expanding to 12 locations in 10 countries by end of 2014. In AP, the service is currently offered from datacenters in Singapore, Japan, Hong Kong, Malaysia, Thailand, and Australia. NTT Com offers hybrid cloud solution, interconnecting the Enterprise Cloud, co-location and customer's on-premise locations using the virtualized networks and is able to facilitate cloud migration using the same IP addresses as customer's on-premise systems, facilitated by the utilization of the network virtualization technology. NTT Com has a dedicated team of more than 70 system consultants to support cloud migration service (including data, infrastructures, and general applications) to its Enterprise Cloud. Working with partners, the provider is also able to assist enterprises to migrate their customized applications to the cloud. For its public cloud IaaS, Cloud<sup>n</sup>, NTT Com offers features such as auto-scaling of virtual machines according to user-defined parameters, allowing enterprises to select geographically redundant datacenter sites and provide free data transfer. With rich APIs, enterprises can easily migrate their applications (including Amazon Web Services applications) to Cloud<sup>n</sup>, which would enable the provider to offer a cloud brokerage service.

## Challenges

- ☒ **Limited number of ISV partners and GTM partnership for the enterprise segment.** The provider has partnership with Salesforce since 2008 to offer "Salesforce over VPN" service mainly targeting the corporations based in Japan and their overseas affiliates. It is also a SAP-certified provider of hosting and cloud services in Japan. Besides this, the provider has limited partnerships with global application providers such as with Oracle to deliver cloud-based enterprise applications and lacks GTM partnership with these providers. Partnering with global or local professional services or systems integration partners to enter local markets will also be necessary to capture datacenter services contracts from non-Japanese enterprises, as well. Its hosted cloud solutions to enterprises are largely through direct sales and there is limited sell-through or resale partnership with solution providers. The provider stated that it has started the White Labeled Cloud Services for partners in December 2012 for its Enterprise Cloud service, but no details were disclosed at this point.
  
- ☒ **Lacks thought-leadership and differentiation in hosted cloud services.** NTT Com's hosted cloud services are largely horizontal, standardized solutions. Unless it prefers to continue to compete in the highly commoditized layer of horizontal cloud, it should seriously consider offering some form of differentiated cloud services such as vertical or community cloud solutions, which cater to specific industry needs with embedded industry-specific governance policies to differentiate itself from other cloud providers in the market. It can consider partnering with software or technology providers to offer the higher value, differentiated cloud solutions leveraging its Enterprise Cloud infrastructure, and this can also demonstrate thought-leadership in the cloud space.

## ESSENTIAL GUIDANCE

In this IDC MarketScape vendor assessment study, IDC only limits the vendors to telecom SPs in the AP region. Readers or IT buyers should note that there are other players in the datacenter and hosted cloud services space, as well. These include traditional IT providers like IBM, HP, Accenture, and others and, if taken in totality, the positioning of the vendors might be vastly different.

The following outlines some guidance for IT buyers that are considering telcos as their datacenters and hosted cloud partners, as well as advice for the telcos operating in this space.

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## Advice for IT Buyers

- ☒ **Does the implementation require deep IT knowledge and integration skills?** Whether selecting a telco or an IT provider to deliver its datacenter and cloud solutions, the IT department should first evaluate the degree of complexity of the implementation, and if the providers have the necessary integration capabilities to effect the implementations. Some implementations may require the SP to have deep network and IT integration capabilities to consolidate and migrate servers or applications from on-premise to a provider's datacenter facilities or into the cloud. If deep IT and business process knowledge are required, an enterprise might want to consider an IT provider instead or a telco that has good professional consultancy and IT skills to deliver the solution.

- ☒ **Have good visibility and knowledge of the capabilities of the provider.** While accessing a provider's cloud and datacenter services offering, enterprises should have a good understanding and knowledge of the provider's capabilities in the datacenter and cloud space, including the ecosystem of partners that they partner to deploy the solution. Enterprises should have good visibility on how data flow is being managed, provisioning and automation processes, self-service capabilities, the location of the virtual datacenters and data storage, security and performance management processes, ownership and management of the cloud and datacenter infrastructures, business continuity and disaster recovery processes. The enterprise should also evaluate the provider's exit clause, evaluate the ease of scaling up and down cloud resources, and ease of migrating data back from a hosted managed environment (cloud or non-cloud) to on-premise, self-managed environment. The selected provider should also have a road map that is aligned with the enterprise's business and IT strategies, in order to support its future datacenter needs and cloud deployment.
  
- ☒ **Can the provider deliver hybrid cloud and cloud orchestration services?** There are certain workloads that enterprises will never place on a provider's cloud infrastructures, due to confidentiality and compliance reasons. Some workloads are suitable for hosted dedicated private cloud deployment, while others are less-sensitive workloads that can be deployed over a multi-tenant (shared) virtual private or public cloud environment such as unified communications and collaboration services. The selected provider should have capabilities in enabling a hybrid cloud deployment, enabling orchestration across different cloud environment, while ensuring the desired level of network and application performance to the enterprise's end users.

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### **Advice for Telcos**

- ☒ **Offer differentiated SLA and vertical cloud services as differentiator.** Currently, most telcos only offer IaaS on standard SLAs, which are now highly commoditized. Certain workloads require higher level of security and more stringent SLAs than others and, if a telco is able to deliver differentiated SLA for its cloud computing services, it will be able to address some of the security and performance concerns on specific workloads for cloud deployment. Offering differentiated SLA for hosted cloud solutions can also capture higher premium for cloud services and deeper managed services engagement with enterprises. SPs should also consider cloud-based vertical solutions leveraging the IaaS platform. Vertical cloud will enable providers to capture higher-value managed services and greater customer stickiness as it requires deep vertical and business process knowledge from providers. However, SPs will also need to balance between scalability and being too customized and not able to scale.
  
- ☒ **Security and business continuity are important.** With growing number of IT and enterprise applications delivered out of remote datacenters and over the cloud, the requirement of an "always-on" secured service and consistent end-user experience have become even more important. SPs must have a comprehensive process in ensuring business continuity and disaster recovery procedure within and between the datacenters. Besides network performance SLA, application performance SLA or SLA based on end-user experience will increasingly be expected by enterprises, especially for critical and time-sensitive enterprise applications.

- ☒ **Application life-cycle management is important for cloud brokerage service.** Eventually, majority of IT will be purchased and deployed over the cloud, and enterprises will want providers to be able to help source and integrate different enterprise applications or IT resources from any sources (in-house or external) into a common delivery platform for both office and mobile users. SPs will need to be able to offer cloud brokerage service and over cloud-based services over mobile devices to facilitate a mobile workforce. Users will also expect their IT to keep up-to-date of newer applications and hence, application modernization and life-cycle management will be important. SPs should also build up a good ecosystem of ISVs that they can leverage to offer a cloud marketplace to enterprises.
  
- ☒ **Build capabilities in cloud to enable seamless migration and deployment of hybrid cloud.** Enterprises will go for a hybrid cloud model where resources will reside in different platforms with combinations of on-premise, co-location, provider's hosted cloud environment, and third-party public cloud environment. SPs that have an open API cloud infrastructures will be better able to deliver a true hybrid cloud, enable seamless orchestration between different platforms and hypervisors, delivering greater business benefits to enterprises

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## LEARN MORE

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### Related Research

- ☒ *IDC MarketScape: Asia/Pacific Next-Generation Telcos — ICT Services 2013–2014 Vendor Analysis* (IDC #AP3053307V, October 2013)

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