

# Telco Cloud Services (Asia): Competitive Landscape Assessment



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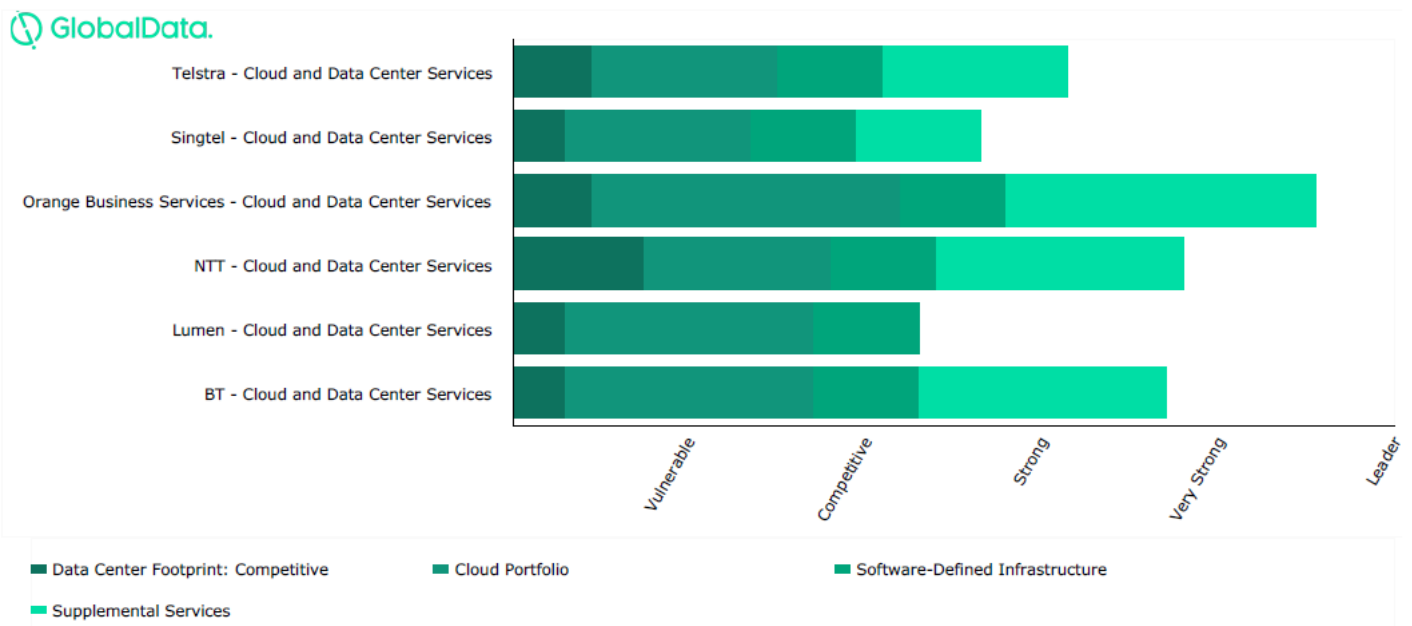
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## COMPETITIVE LANDSCAPE ASSESSMENT - TELCO CLOUD SERVICES (ASIA)

### REPORT SUMMARY:

Providers are strengthening their migration service capabilities while expanding edge solutions to address the rapid growth of cloud demand in the region.

### PRODUCT CLASS SCORECARD



## PRODUCT OVERVIEW

|                                  |  |
|----------------------------------|--|
| <b>Product Class</b>             | Telco Cloud Services (Asia)  |
| <b>Market Definition</b>         | This report covers the cloud services offered by major global and/or regional carriers in the Asia-Pacific region. This assessment includes service portfolios, capabilities, delivery, and partner ecosystems.  |
| <b>Rated Competitors</b>         | <ul style="list-style-type: none"> <li>• BT- Cloud and Data Center Services</li> <li>• Lumen- Cloud and Data Center Services</li> <li>• NTT- Cloud and Data Center Services</li> <li>• Orange Business Services- Cloud and Data Center Services</li> <li>• Singtel- Cloud and Data Center Services</li> <li>• Telstra- Cloud and Data Center Services</li> <li>• BT</li> <li>• Lumen (formerly CenturyLink)</li> <li>• NTT</li> <li>• Orange Business Services</li> <li>• Singtel</li> <li>• Telstra</li> </ul>  |
| <b>Additional Competitors</b>    | <ul style="list-style-type: none"> <li>• T-Systems</li> <li>• PCCW</li> <li>• Tata Communications</li> <li>• Vodafone Business</li> </ul>  |
| <b>Changes Since Last Update</b> | <ul style="list-style-type: none"> <li>• <b>November 2022:</b> Lumen announced the launch of edge services for APAC. Lumen's Edge Bare Metal services will provide access to the company's distributed edge network of high-capacity bare-metal cloud servers.</li> <li>• <b>September 2022:</b> NTT signed an agreement to acquire Apisero, a global MuleSoft consulting firm. The acquisition will help NTT Data become a leading digital innovation partner in the market and provide clients with end-to-end cloud and data and engineering capabilities.</li> <li>• <b>August 2022:</b> Orange collaborated with Equinix to use its 'bare metal-as-a-service' Equinix Metal technology. It will boost Orange's cloud model and allow it to offer its customers with on-demand telco cloud PoPs. Amsterdam (the Netherlands), Madrid (Spain), and Seattle (Washington, US) will be the three PoPs connected by the end of the year. This will allow Orange to deploy 5G, SD-WAN, CDN, roaming, and voice services.</li> <li>• <b>July 2022:</b> NTT, along with NTT Data Taiwan, announced its collaboration with Panasonic to help the organization adopt Salesforce Customer 360 cloud platform.</li> <li>• <b>July 2022:</b> Telstra and Microsoft extended their partnership to boost connectivity in APAC and speed up the telco's cloud migration timeframe. Telstra will be able to speed up migration of its internal IT workloads to the public cloud.</li> <li>• <b>June 2022:</b> BT announced the launch of Connected Cloud Edge, a next-generation cloud connectivity solution designed to accelerate customers' digital transformation. It will extend the company's global network into strategic carrier-neutral facilities (CNFs), giving customers access to a wide range of third-party cloud-based applications and services without having to provision individual connections to each of them. It builds on BT's partnership with Equinix, which hosts major cloud and SaaS providers around the world.</li> </ul> |

## MARKET ASSESSMENT

The cloud computing market in Asia-Pacific is expected to grow to \$179 billion in 2022, up from \$156 billion in 2021 (source: GlobalData Global IT Market Analyzer, viewed in November 2022). Most Asian enterprises, especially in emerging markets, have advanced their cloud journey. The migration was accelerated by enterprises' need for hybrid working during the pandemic as well as for agile operations to face economic uncertainties and rapid changes in customer demand. As enterprises plan their data migration to cloud, they are looking for efficient multi-cloud solutions and professional service support. This is driven by the increase in complexity in managing workloads across multiple environments from different providers. This trend is also pushing cloud providers to shift their focus from providing cloud as hosting infrastructure services to offering cloud as a platform through containers and microservices. Besides, cloud providers are also expanding their cloud capabilities through integration with other technology domains such as network and security. Regional and global carriers have been offering comprehensive cloud services to MNCs and large enterprises. Their offerings range from cloud infrastructure (i.e., public, private, and hybrid) and management platforms to integrated services such as networking, data center, and cybersecurity. As competition increases, carriers are leveraging their assets to offer integrated solutions (e.g., cloud, network, and cybersecurity) to gain a competitive advantage, especially against non-telco providers. Carriers are also strengthening their professional service capabilities, especially in integration and service management (e.g., cost optimization, orchestration, and multi-cloud) to address the market demand.

Besides, as 5G is being rolled out across the region, carriers are expanding their capabilities in edge computing through partnerships with hyperscalers and other tech vendors (e.g., AWS Wavelength, Azure Edge Zones, and Google Distributed Cloud). With their network assets, carriers are co-developing various edge applications with enterprises to address the demand for critical applications with strict data security and privacy policy and/or low-latency requirements (e.g., autonomous vehicles and factory automation): for example, Telstra's edge platform through partnerships with Amazon Web Services (AWS) and Ericsson, Singtel's collaboration with Azure and AWS, and Lumen's launch of Lumen Edge Gateway to deliver various applications from multiple vendors on the premises edge. There is also a GSMA-supported initiative by several leading European and APAC telcos (e.g., Orange, Singtel, and Telstra) and NTT-led 5GEC to develop interoperable edge computing platforms across multiple operators. Furthermore, cybersecurity has also become a regular conversation and key requirement for enterprises in their cloud deployment. Carriers are increasingly adding secure access edge security (SASE) capabilities to their cloud offerings to capture the opportunity.

## MARKET DRIVERS

- **Cloud Continuum:** The rapid development of edge computing and the wider availability of the services are driving the need for cloud continuum. With edge, enterprises have a wider option to host their workloads beyond the traditional public and private cloud based on application needs (e.g., latency, data sovereignty, and privacy/security). This is also driving the need for cloud as a platform, underpinned by capabilities such as containers, Kubernetes, and microservices as well as strong professional services.
- **Existing Relationships:** Enterprises already have years of relationships with carriers for connectivity and managed services. These long engagements and continuous initiatives to enhance service management are an advantage for carriers when dealing with enterprises, which are looking for new cloud services.
- **Integrated Offerings:** While cloud services by webscale players may be more price-competitive, the integrated solutions offered by carriers often provide higher values such as better control and management, higher reliability, and security. Network services can also be integrated with other cloud-based solutions such as UC, security, and IoT. Some carriers also offer consultancy services (e.g., around the AWS environment) to overcome complexity in implementation.

- **Edge Computing:** The demand for cloud computing at the edge is growing, driven by ultra-low latency applications such as autonomous vehicles. 5G will be one of the key enablers in edge computing through MEC, network slicing, and private network. The ecosystem is still fragmented, but hyperscalers are already making an early move by extending their partnerships with carriers to offer their cloud services from telcos' infrastructure (e.g., AWS Wavelength/Outposts, Azure Edge Zones/Azure for Operators, Google Anthos/Mobile Edge Cloud).
- **Migration and Integration Services:** Migration and integration services have been a key criteria for enterprises to ensure business continuity when migrating their workload from on-premises to the cloud, but they have become more important in recent years due to the growing complexity of ICT technologies and the lack of in-house experts. Cloud is no longer just a workload or application migration to third-party facilities, but it requires orchestration across multiple vendors, platforms, and hosting locations. Cloud has also increasingly become a core enabler for an overall digital transformation and is often linked to business outcomes. Furthermore, the rapid adoption during the pandemic has led to skill shortage issues for enterprises. Many are looking for managed cloud services from the providers to address the gap and drive efficiency from the deployments.
- **Industry Cloud:** Cloud is largely a horizontal play, but there is a growing demand for industry cloud driven by specific needs across different verticals. For example, government and BFSI are strictly regulated and require local facilities with high industry compliance such as Tier-IV and various security standards, whereas manufacturers often require edge computing hosted within their premises to enable latency-sensitive and/or high-bandwidth applications such as automated guided vehicles.

## BUYING CRITERIA

**Cloud Portfolio:** Enterprises are looking for cloud providers with extensive cloud portfolios- not just the infrastructure and application (e.g., private cloud, IaaS, PaaS, and SaaS), but also the platform to manage multiple clouds and automate workload across private and public environments. Cloud-based IT services such as IoT platforms, UCaaS, security, and marketplace are also crucial for providers to offer horizontal and vertical applications.

**Data Center Services:** Data center footprints are important, especially in private or hybrid cloud deployments. While the global cloud providers have presence mainly in developed markets (e.g., Australia, Japan, Hong Kong (China), and Singapore), the Asian-based carriers differentiate themselves by having wider footprints in the region, including in emerging markets such as the Southeast Asian countries to address the data residency, private cloud, and edge computing requirements. Energy-efficient data centers are also gaining traction as enterprises expand their sustainability initiatives.

**Software-Defined Infrastructure:** Carriers are expanding their network coverage and adding new technologies such as SDN and NFV into their network services (e.g., SD-WAN, SD-interconnect, and SD-platform). Some carriers are also expanding their interconnect access through third-party providers such as Equinix Fabric. This enables them to provide integrated cloud and network services and offer higher reliability through their interconnected data centers and greater efficiency with workload orchestration across multiple clouds. This gives an edge to the carriers over other cloud providers in the market, especially in the private/hybrid cloud.

**Supplemental Services:** Cloud is not just a technical solution but a key enabler in enterprise digital transformation that maps to various business outcomes. Professional services are becoming an imperative part of the ICT solution to ensure efficient assessment and planning as well as seamless service migration, system integration, delivery, and ongoing management. Enterprises look to the service provider as the 'trusted advisor' to support in areas such as technology transfer and/or supporting multi-vendor environments. Other add-on services such as AI/analytics, security, compliance/governance, and self-service are also becoming more important for enterprises to gain additional operational efficiency. As the technology matures, the challenge has also shifted from workload migration to achieving the desired business outcomes from the deployment. Application modernization, cost management tools, and support services have become key criteria for enterprises when considering cloud solutions. A wide range of ecosystem partners (e.g., interchange to major cloud and data center providers) is also crucial for service providers to address the diverse demands in the market.

## VENDOR RECOMMENDATIONS

- **Differentiate with Network:** The cloud market is quite saturated with many providers, including webscale players, IT vendors, and system integrators (SIs). Carriers could position their network advantage such as integrated cloud and network services or software-defined capabilities to differentiate in the market. This can be offered through an open/interoperable cloud management platform that supports advanced features such as automation, security, SDN, and cost management. Carriers could also leverage its network infrastructure to offer 5G MEC and differentiate against non-telco players.
- **Professional Services:** Service providers should expand their in-house cloud experts through acquisitions and partnerships (e.g., certification and accreditation programs). They should also highlight their strong professional service capabilities to address enterprises' needs and differentiate against competitors. This includes cloud as a platform and multi-cloud solutions as well as working hand-in-hand with enterprises to address their business challenges and roadmapping.
- **Industry Cloud and Edge Computing:** Carriers should expand their initiatives in co-creating solutions across multiple verticals with enterprises to gain a better understanding of the market needs and strengthen sovereign cloud capabilities. Carriers could also leverage their wide ICT capabilities such as IoT, cloud, and cybersecurity to offer end-to-end vertical MEC solutions. This will drive their brand share and hence enable them to capture the early opportunities. Cloud and edge are increasingly converging, with enterprises offering both at the same time and within the same solution.

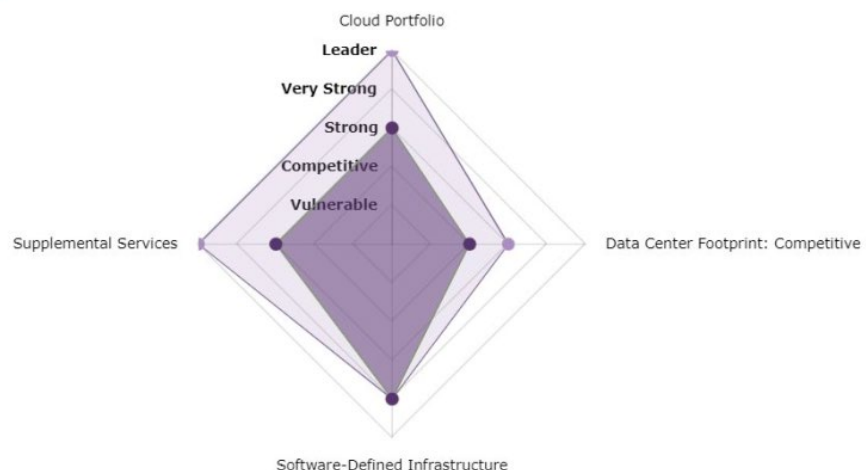
## BUYER RECOMMENDATIONS

- **Professional Services:** As carriers are strengthening their professional service capabilities, enterprises could expect stronger consulting/advisory, migration, deployment, management, and support services to help them with digital transformation as well as expanding beyond Asia-Pacific.
- **Integrated Solutions:** Enterprises should look for integrated solutions such as cloud with network and security services. This can enable wider service visibility across multiple domains and more efficient service management. While integrated solutions are offered by most large providers (e.g., SIs, IT providers, hyperscalers), carriers often have an advantage in offering greater control of network services (e.g., SDN, cloud-aware network).
- **Vertical Capabilities:** Enterprises should consider providers with strong industry practices and wide customer references. While cloud is more of a horizontal solution, there are vertical-specific requirements (e.g., compliance, data protection, and governance) that need to be addressed for enterprises to make the shift.

## RATED COMPETITORS

|                               |   |
|-------------------------------|---|
| <b>Product Name</b>           | Orange Business Services- Cloud and Data Center Services  |
| <b>Current Perspective</b>    | Orange is the leader in the telco cloud market in APAC. It is seeing significant growth in the business with customer references across different verticals and countries. With a focus on multi-cloud, Orange offers a full range of cloud services from managed applications to managed infrastructure. Through a strong ecosystem with global players such as AWS, Azure, Google, VMware, Dell, Nutanix, and Equinix, combined with its Flexible Engine, Orange offers wide service options to address the diverse market demand in the region. The provider is also expanding its Next Gen Hub footprint to enhance its multi-cloud play and integration with other technology domains such as network and security. Services are delivered through its integrated, AI-powered platform that provides an API-based management portal supporting end-to-end monitoring for both network and IT resources. Orange also stands out in professional service. It has 2,400 cloud experts, including those from its acquisitions of Basefarm, Login Consultants, and The unbelievable Machine Company, and it has integrated them into the Orange brand. Furthermore, Orange has a comprehensive professional service through a six-step approach from assessment to managed services. It has enhanced its service capabilities with Cloud Adviser (a unified portal) to offer customers wider multi-cloud control and visibility including cost management tools. Cloud Adviser also integrates cloud with other services such as cybersecurity. Furthermore, Orange offers Cloud Consulting Program to address major deployment challenges faced by APAC enterprises such as cost prediction, business value creation, and risk management. However, while Orange successfully looks to position itself as a 'network-native digital services company,' some enterprises will naturally look to more traditional integrators. There is also a lack of edge computing initiatives compared to competitors. |
| <b>Buying Criteria Rating</b> | <p><b>Cloud Portfolio</b><br/>Leader</p> <p><b>Data Center Footprint: Competitive</b><br/>Strong</p> <p><b>Software-Defined Infrastructure</b><br/>Very Strong</p> <p><b>Supplemental Services</b><br/>Leader</p>   |

|                       |               |
|-----------------------|---------------|
| <b>Product Scores</b> | <b>Leader</b> |
|-----------------------|---------------|



**Strengths**

- Orange has strong professional and managed services capabilities through its heavy investment in the area.
- Its Flexible IT and Flexible Computing provide a range of public, hybrid, and private IaaS/PaaS offers across multiple cloud management environments including AWS, Azure, Google, VMware, and OpenStack.
- It has expanded its focus in hybrid and multi-cloud environments, e.g., in areas including intelligent automation, AIOps, and professional development in support of third-party partner clouds.
- Within the past year, Orange has dramatically increased its partnerships across APAC and globally.
- Orange's Next Gen Hub is available in 20 locations including nine in APAC. It enhances multi-cloud solutions through interconnection to global cloud providers and provides service orchestration across different technology domains (e.g., network and security).
- It offers Visibility-as-a-Service for end-to-end application performance measurement for SD-WAN and cloud migrations.
- Orange offers its customers a wider range of third-party facilities through its partnership with Equinix.

**Limitations**

- The cloud service infrastructure is limited in the region and highly concentrated in Singapore.
- Orange successfully looks to position itself as a 'network-native digital services company,' but some enterprises will naturally look to more traditional integrators.