A Custom Technology Adoption Profile Commissioned By NTT Communications March 2014

Leverage A Third-Party Data Center To Deliver Increased Business Value Companies are under increasing pressure to meet customer needs. The convergence of mobility, cloud, social platforms and customer experience is forcing companies to become more agile and responsiveness to business changes.

In February 2014, NTT Communications (NTT Com) commissioned Forrester Consulting to survey enterprises about their data center strategies, specifically the benefits, opportunities and potential challenges of leveraging colocated data center services. The study surveyed 265 IT decision-makers from multinational corporations (MNCs) based in the US and Europe that have a local footprint in the Asia Pacific region.

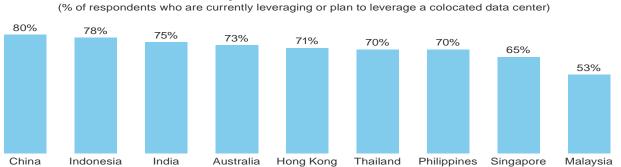
Forrester's study yielded four key findings:

Retail and manufacturing sectors indicate surging demand for colocated data center services in Asia Pacific. Seventy-one percent of respondents confirmed either currently leveraging colocation (using leased thirdparty data centers) or planning to leverage it. Among the three verticals—banking, financial services, and insurance (BFSI), manufacturing, and retail — retail leads the way in colocation adoption. 45% of respondents in retail are already collocated, versus 41% in manufacturing and 12% in BFSI. Further, 41% in retail and manufacturing are planning to colocate vs 33% in BFSI sector.

- Companies are leveraging colocation to transform their technology landscape. Companies that have already colocated identified factors like disaster recovery and business continuity, network environment, and ability to innovate as key drivers. 75% cited improved management and optimized IT resources via colocation and 72% cited increased ability to innovate by colocating.
- > China, India and Indonesia are leading colocation adoption in Asia Pacific. Between 75% and 80% of respondents in China, Indonesia, and India have either already colocated or plan to. In the survey, we found that Malaysia had the lowest adoption rate of colocated data center. Forty-seven percent of the respondents in Malaysia have no current plans to colocate versus the Asia Pacific average of 29%.
- Security issues remain a high business concern: Australia, Indonesia and Singapore are the top 3 countries having security concerns related to data center colocation. 97% responded in Australia citied security and privacy concerns about data center colocation versus 94% in Indonesia and 90% in Singapore. Security concerns for data center colocation differ from sector to sector in different countries. For Australia, China, India, Philippines, Singapore the BFSI sector has the maximum security concern among all the verticals. For Hong Kong and Thailand it is the Manufacturing sector. And for Indonesia & Malaysia respondents it is Retail sector.

FIGURE 1

Most Respondents Have Already Colocated Or Plan To Leverage A Third-Party Data Center



"Indicate which category your organization would fall into on basis of location of your data center infrastructure."

Base: 265 IT budget decision-makers from MNCs headquartered in the US or Europe with local footprint in Asia Pacific region (Australia, China, Hong Kong, India, Indonesia, Malaysia, the Philippines, Singapore, Thailand) with revenue more than US\$1billion and with more than 100 employees Source: A commissioned study conducted by Forrester Consulting on behalf of NTT Com, March 2014



Disaster Recovery And Business Continuity, And Improving Network Infrastructure Are The Primary Drivers Of Colocated Data Centers

In today's age of the customer, businesses compete 24x7 on a global stage and system availability, data sovereignty, local regulations and application performance are more critical than ever. Companies are embracing new ways to engage customers, and advanced back-end system capabilities are a key differentiator.

Global companies are taking steps to colocate their data centers for four key reasons (see Figure 2):

- 1. Disaster recovery and business continuity (DR/BC)
- 2. Network requirements
- Physical security and compliance
- Optimize the cost and effort to manage technology infrastructure

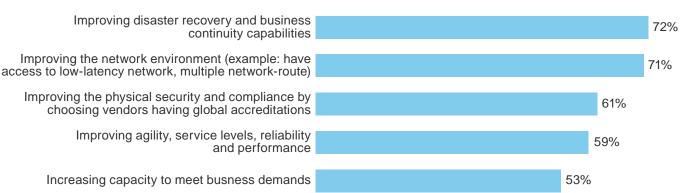
Seventy-two percent of respondents cited "improving DR/BC" as a critical priority to colocate their data centers.

Instead of incremental changes to DR/BC, companies are seeking to transform their approach when migrating to a colocated data center. For example, companies are leveraging virtualization, replication, and flash-based storage to automate failovers to significantly improve the recovery time objective (RTO) without making significant investments in technology infrastructure.

Upgrading the network infrastructure in existing data centers is extremely cumbersome, especially when you have legacy, non-virtualized environments and where applications need to be available 24x7. Seventy-one percent of respondents cited "improving the network environment" as a critical priority for colocation. Survey results indicate that companies with revenues of more than US\$50 billion in particular are colocating to access data centers that are interconnected through high speed and high capacity networks, which allows them to migrate workloads more effectively.

FIGURE 2 Improving Disaster Recovery And Business Continuity Is The Top Priority For Decision-Makers

"How strongly do you rate each of the following capabilities/ drivers of data center colocation services?"



(Chart show critical drivers % for rating of 8,9 or 10 on 10 point scale)

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Perceived Barriers Versus Actual Experience With Colocated Data Centers

While data indicates a strong demand for colocated data centers, there remain concerns and barriers to adoption. Some concerns are legitimate; others are based on false perceptions (see Figure 3).

Companies with annual revenues of more than US\$21 billion have a higher percentage of respondents who are currently not planning to colocate. These companies differ from companies with revenues of less than US\$21 billion, on two evaluation criteria:

- They want to partner with vendors that can provide global data centers interconnected through a high speed, high capacity network.
- They want to partner with vendors that can help provide a private cloud alternative to public cloud for hosting IT infrastructure.

Companies with revenues of less than US\$21 billion, on the other hand, want to colocate to a data center that supports high demands for power and cooling.

Concerns over a potential loss of agility in colocated data centers, particularly for installing, moving, adding or

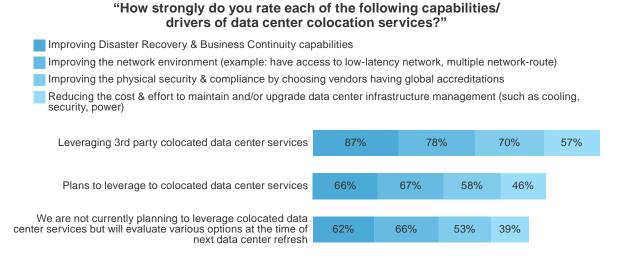
changing physical infrastructure, wiring and installation was cited frequently. However, 81% of respondents leveraging colocation believe it has actually helped them improve agility.

Viability and stability of the colocation vendor were also commonly cited as concerns. But Forrester believes that vendors who have built their own data centers and have a global customer base have essentially already addressed potential concerns over "financial stability of the colocation provider and the long term lease of the colocation facility".

When evaluating colocation services, Technology professionals should focus on the primary business pain points and adopt a right sourcing strategy that enables increased agility and better responsiveness to business demands. Data centers colocation is more suitable for applications that require consistent performance, reliability and security. IT organizations that fail to adapt quickly to business needs will lose relevance, forcing business units to directly source technology to meet their needs. At the same time vendors must continue to educate, particularly about the benefits of improving management and optimization, and increasing agility to innovate (see Figure 4).

FIGURE 3

Priorities Of Companies To Improve Technology Infrastructure Are Higher For Companies That Have Colocated Versus Companies With No Plan



Base: 265 IT budget decision-makers from MNCs headquartered in the US or Europe with local footprint in Asia Pacific region (Australia, China, Hong Kong, India, Indonesia, Malaysia, the Philippines, Singapore, Thailand) with revenue more than US\$1 billion and with more than 100 employees

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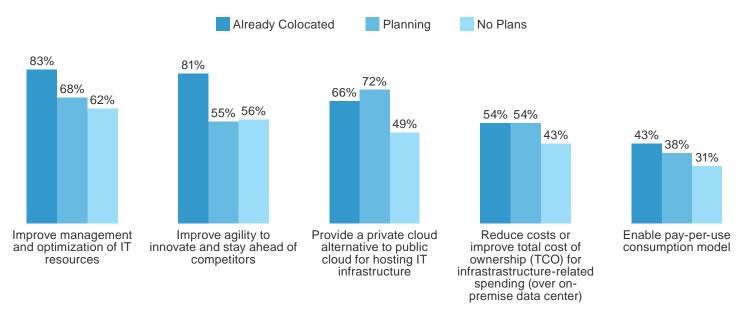


FIGURE 4

Perceived Benefits Versus Actual Experience With A Colocated Data Center

"What benefits do you expect to receive (or have you already received) from leveraging a 3rd party colocated data center?"

(Chart show colocation benefits % for critical rating i.e. 8, 9 or 10 on 10 point scale)



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Conclusion

Companies are being forced to make radical changes in the way IT infrastructure is provisioned and managed. Smaller companies are unable to spend significant time and effort designing and maintaining physical infrastructure for data centers such as cooling and power; they want to leverage vendors that can do it much more efficiently. Larger companies want to leverage global data centers that are interconnected using high speed, high capacity, and low latency networks for their critical enterprise applications. Survey results indicate that the top benefits and drivers for organizations colocating data centers are:

 Improving management and optimization of IT resources. It is important that companies consolidate and optimize their technology infrastructure at the time of colocation. This will help drive innovation and technology adoption to support business growth initiatives and maintain costs.

- 2. Improving physical security and compliance. IT professionals must accurately assess the current risk exposure of existing on-premise data centers. It is likely that current risk exposure in the legacy environment is far greater than a colocated data center.
- 3. Ensuring disaster-resistant facilities with antiseismic structures. When evaluating colocation vendors, ensure that the data center has a low risk of flood, storm surges, tsunami, and is away from hazardous facilities, as well as the vendor has got strong financial stability and long term lease for their data centers.



This Technology Adoption Profile was commissioned by NTT Communications. To create this profile, Forrester leveraged its Forrsights Budgets And Priorities Survey, Q4 2013. Forrester Consulting supplemented this data with custom survey questions asked of 265 MNCs headquartered in the US or Europe with local footprint in the Asia Pacific region. Survey respondents included IT decision-makers and IT managers with insights on data centers in their organizations. The auxiliary custom survey was conducted in March 2014. For more information on Forrester's data panel and Tech Industry Consulting services, visit www.forrester.com.

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