Industry Research Monitor

Data Centers

Key Developments

• Demands on the ever-growing complexity of data center assets continue to evolve as mobile broadband expands, big data analytics becomes more prominent, social media attempts to replace basic email as the holy grail for marketers and cloud services become more entrenched in both consumer and corporate America.

• While specific markets may see softness intermittently, overall trends continue to favor outsourced data center expansion as increasing technology complexity and capital expenditure constraints weigh on companies.

• The top U.S. markets continue to demonstrate high capacity utilization by third-party multi-tenant data center operators as increased demand from new services continue unabated.

• Global demand growth continues to outpace global supply growth.

• Both internal and external data centers are expected to see the bulk of their expansion in the larger data centers.

U.S. Data Center Square Footage to Continue Rising

Data center demand is expected to continue to increase in the coming years, driving higher data center capacity needs, while concurrently shifting internal data center capacity to external, third-party, service provider operated data centers. Total U.S. data center capacity is anticipated to increase at a 3.6% CAGR between 2012 and 2016. However, third-party service provider square footage is anticipated to increase at a 15.1% CAGR during the same period.
Trends Continue to Favor Multi-Tenant (Service Provider) Expansion

While specific markets may see softness intermittently, overall trends continue to favor outsourced data center expansion as increasing technology complexity and capital expenditure constraints weigh on companies. Top U.S. markets continue to demonstrate high capacity utilization by third-party data center operators. Global demand growth continues to outpace global supply growth in the top markets.

- Multi-tenant capacity utilization in the top 10 US markets is forecasted to continue to rise through 2014, according to The 451 Group, as demand growth continues to outpace the growth in supply. GECA believes this dynamic should lend itself to price stability in these markets over the next several years. We would note that projections are based on announced pipeline activity, while in all likelihood, there will be additional pipeline activity that has not yet been publicly announced by providers.

- Total U.S. hosting infrastructure services revenue is expected to grow at a 7% CAGR from 2012 through 2017, with revenue growth from colocation and complex managed hosting leading the way.

- Globally, data center demand is expected to continue to outstrip global supply through at least 2014, although we would caution that the data center industry is market dependent and product dependent. Therefore, any specific market may be over or under supplied during a given period and retail colocation demand is not a substitute for wholesale colocation.

- North American multi tenant data center revenues are forecasted to rise at an 18.6% CAGR between 2012 and 2014, according to The 451 Group, reaching revenues well over $12 billion.
Multi-Tenant Service Provider Data Centers to Take Center Stage

The total number of internal data centers is forecasted to contract through 2016, while outsourced service provider data centers are anticipated to see expansion of both number of data centers as well as square footage.

- The total number of internal data centers is expected to shrink through 2016, although high-end data centers are the only sub-segment expected to see expansion in numbers. High-end data centers are defined as a primary server location for an organization that comprises a room, often in excess of 20,000 square feet with advanced cooling systems, redundant power and protected by multiple levels of security. The room tends to support between 500 to over 1,000 servers installed.

- With demand expected to continue rising, both internal and external service provider data center are forecast to increase square footage in the U.S. While internal data centers currently comprise more total square footage, they are anticipated to increase at a 2% CAGR versus external, third party data centers that are anticipated to increase square footage at a 15.1% CAGR between 2012 and 2016.
Data Centers Will Continue to Evolve with Growth Accruing to High-End Data Centers

Despite shrinking in total number, internal data centers are expected to evolve as smaller data centers give way to larger, more cost effective larger high end data centers. Third-party service provider data centers are anticipated to see a similar shift between 2009 and 2016.

- While both internal and external data centers operators commit capital to build larger data centers the average square footage of the larger data centers are also expected to continue increasing. At the same time, smaller data center square footage is expected to decline, on average, through 2016.
Factors Influencing Data Center Demand Growth

Multiple factors continue to influence rising demand for data center space. Digital information is becoming ubiquitous, connected devices proliferate with ever-faster transmission speeds and analytics of existing data, both structured and unstructured becomes more pronounced.

- US high speed subscriber penetration continues to climb, expected to increase at a 3% CAGR through 2017, according to SNL. This data does not capture enterprise consumption as well as faster data transmission within the HSD subscriber set.

- The total number of devices worldwide that are connected to the internet is forecasted to increase at a 15% CAGR during the current decade, driving the need for increased computing power. At the same time, the number of connected devices per person will increase from less than 2 in 2010 to nearly 7 by 2020.

- North American mobile data traffic is exploding, expected to increase at a 56.5% CAGR between 2012 and 2017. Driving the exponential growth are increased data transmission rates, increased use of thin client devices and a more mobile workforce.
Spending Growth in Cloud & Big Data Sets a Foundation for Data Center Demand

• Capital spend on server, storage and cloud infrastructure for purposes of supporting Big Data efforts on a global basis are anticipated to increase at a 37.6% CAGR between 2012 and 2016 and with it, comes increased demand for housing the incremental equipment at a data center. Corporations are increasingly digitizing and analyzing all forms of structured as well as unstructured data for purposes of competing both locally and globally.

• US public cloud service revenue is forecasted to increase 16.2% between 2012 and 2017, with growth of software as a service and infrastructure as a service trailing platform as a service. Cloud services are expected to continue to grow as technology complexity evolves with an increasing array of both applications and devices being utilized by an increasingly mobile workforce.

• US public cloud service revenue is anticipated to increase at a slower pace than worldwide adoption as the early innovation and adoption that began domestically begins to witness increased traction on a global basis.
GE Capital

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Sources
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13. IDC, WW & Regional Public IT Cloud Services 2013–17 Forecast #242464 Aug 2013
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GE Capital, Americas
Strategic Marketing,
Industry Research Contact
Ben Abramovitz, CFA
Telecommunications & Media
Ben.Abramovitz@ge.com
646-428-7129

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