CLOUD INFRASTRUCTURE SERVICES: MARKET PRIMER
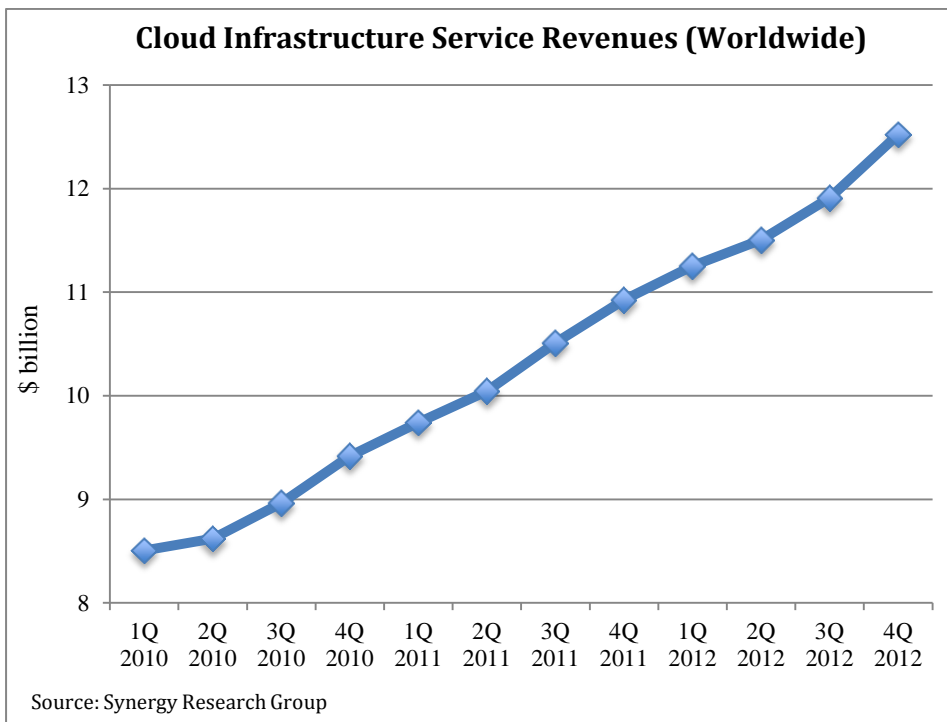
Cloud Infrastructure Service Revenues (Worldwide)

Source: Synergy Research Group

- Worldwide revenues from cloud infrastructure services reached $12.5 billion in Q4 2012 – giving a full-year total of $47.2 billion

- The total market grew 15% from 2011

- By far the highest growth is being seen in IaaS and PaaS – though these segments account for only 15% of the current market

- North America accounts for 51% of the worldwide market

- Amazon is the clear market leader – though it has only 5% share of the total market

- In a highly fragmented market, no other operator has more than 3% share
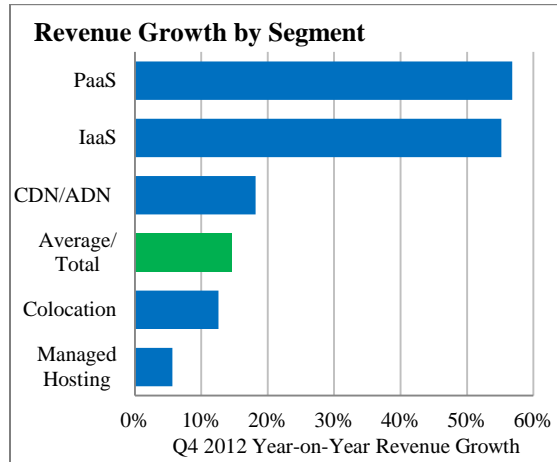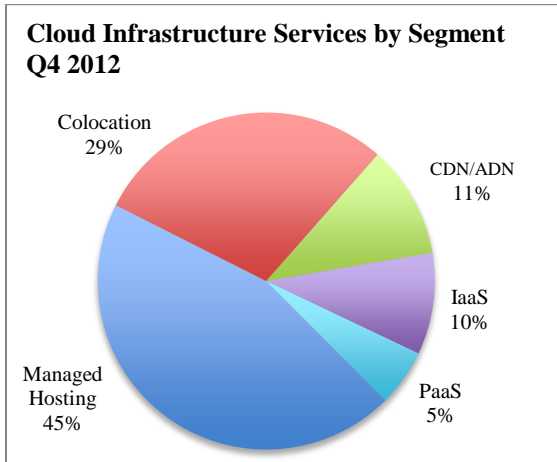
- Worldwide revenues will exceed $75 billion in 2017

SUMMARY

In Q4 2012 cloud infrastructure services revenue totaled $12.5 billion, a year-over-year increase of 14.6%. On a sequential quarterly basis, revenue increased 5.1%. Over the past eight quarters year-over-year growth rates have constantly been in the 13% -17% range, while sequential quarter-over-quarter growth rates have stayed in the 2% - 5% range.

Total 2012 cloud infrastructure services revenue totaled $57.2 billion, a 14.5% increase from 2011 and a 33.0% increase from 2010. In 2012 Q4 accounted for 26.5% of total annual revenues.

Cloud infrastructure service revenues are still dominated by the relatively mature managed hosting and colocation segments, which accounted for 45% and 29% of total Q4 2012 revenues respectively. However, their revenue growth rates pale beside IaaS and PaaS which are now growing extremely strongly – each of these two segments saw year-on-year revenue growth in excess of 55%.
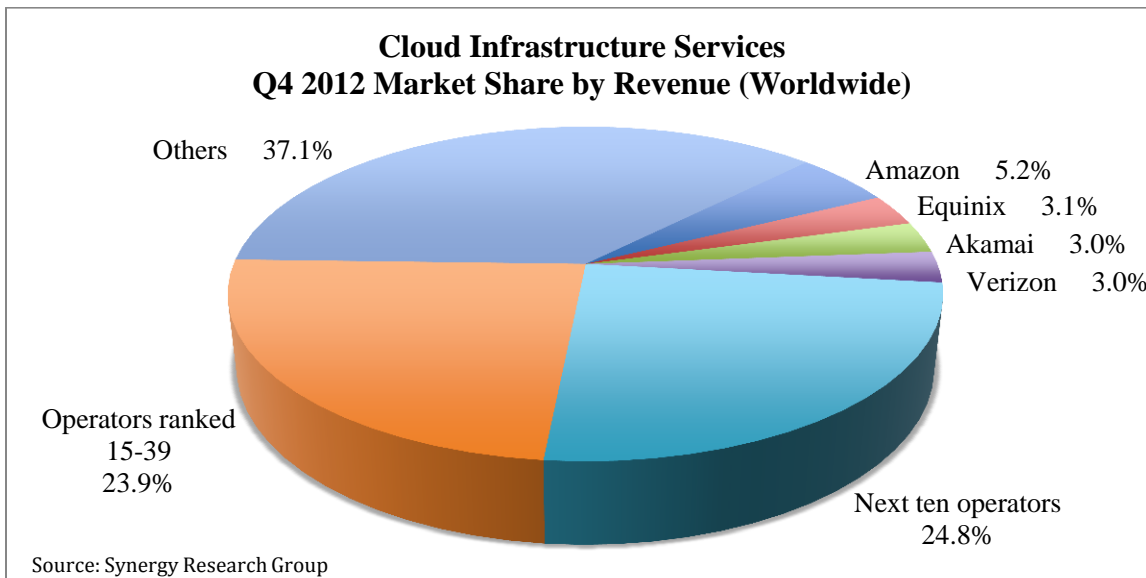
Synergy Research Group's Cloud Infrastructure Services research provides quarterly analysis, operator market share, market size, and forecasts for the following segments - colocation services, managed hosting services, IaaS, PaaS and CDN/ADN services. Data is provided via Synergy's uniquely flexible SIA database which enables rapid analysis and provides a range of graphic data presentation options. This document provides some high-level extracts from the database; more details are available by operator, by segment or by region.

Cloud Infrastructure Services by Segment Q4 2012

Colocation 29%
CDN/ADN 11%
IaaS 10%
PaaS 5%
Managed Hosting 45%

Revenue Growth by Segment

PaaS
IaaS
CDN/ADN
Average/Total
Colocation
Managed Hosting

0%   10%   20%   30%   40%   50%   60%
Q4 2012 Year-on-Year Revenue Growth

Source: Synergy Research Group

MARKET SHARE ANALYSIS

In terms of worldwide revenue, the top four cloud infrastructure services market share leaders in Q4 2012 were Amazon, Equinix, Akamai and Verizon. They were closely followed by Level 3 and a group of traditional telcos – including NTT, France Telecom-Orange, BT, AT&T, Deutsche Telekom and China telecom. Given the fragmented nature of the market with some operators specializing in a single segment and some focused in only one geographic region, there is a long tail of operators with only a minor share of the total cloud infrastructure services market when viewed on a worldwide basis.

Cloud Infrastructure Services
Q4 2012 Market Share by Revenue (Worldwide)

Others   37.1%
Amazon   5.2%
Equinix   3.1%
Akamai   3.0%
Verizon   3.0%
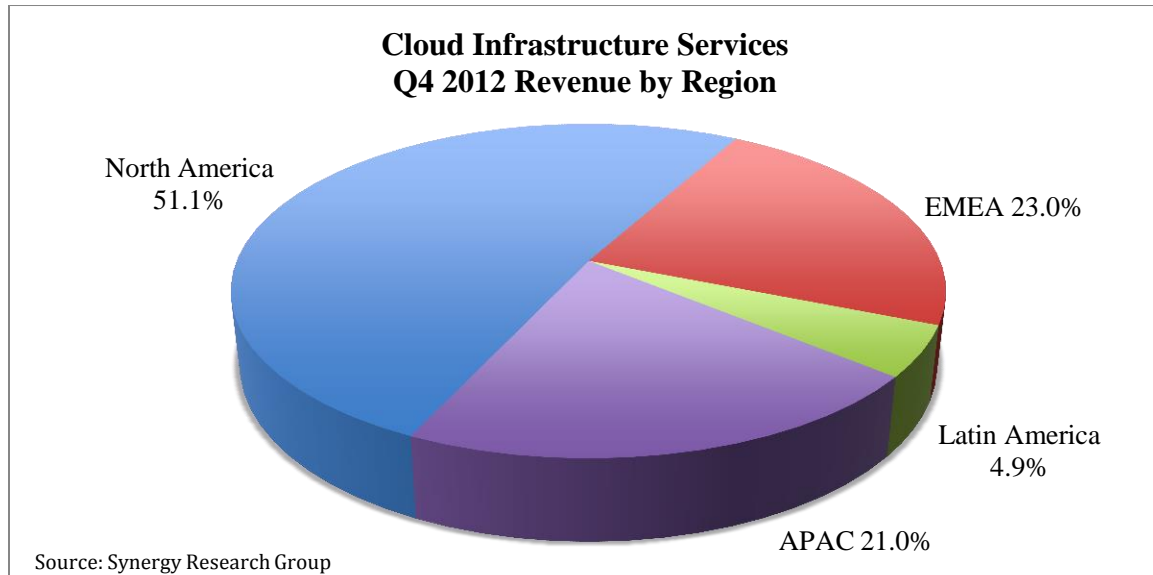Operators ranked 15-39 23.9%
Next ten operators 24.8%

Source: Synergy Research Group

On a regional basis, Amazon is the market leader in North America based on Q4 2012 revenues and NTT leads in the Asia-Pacific region. France Telecom-Orange, British Telecom, and Deutsche Telekom are fighting for the top spot in EMEA.

By segment, the market leaders in Q4 2012 were Amazon (for IaaS), salesforce (PaaS), Rackspace (managed hosting), Equinix (colocation) and Akamai (CDN/ADN).

REGIONAL ANALYSIS

In Q4 2012 North America accounted for over half of worldwide revenues. The region accounted for considerably less than half of the mature managed hosting market, but over 60% of the emerging IaaS and PaaS markets. The location of leading operators in the emerging cloud segments is very heavily weighted towards North America and the markets tend to take off first in that region. There is a broader geographic dispersion of service revenues for the more mature managed hosting and colocation markets.

**Cloud Infrastructure Services
Q4 2012 Revenue by Region**

North America 51.1%

EMEA 23.0%

Latin America 4.9%

APAC 21.0%

Source: Synergy Research Group

MARKET TRENDS & FORECAST

Data centers are the next evolutionary leg of computing and communications and bring a new set of economics to mass-scale computing and next-generation service delivery. In essence the data center is the "factory" of the cloud.

While colocation and managed hosting are attractive options for businesses (especially in the SMB sector) due to financial and operational benefits, pure cloud services such as IaaS and PaaS do have slightly higher adoption barriers to overcome - for example, security concerns are holding back the transfer of some mission critical applications. However, helped by the pioneering work of Amazon, the truly disruptive economics of cloud computing are winning out. Concerns are gradually subsiding and cloud services continue to gain more mainstream market traction adoption; there is no doubt that IaaS will become much more of an IT commodity. CDN, meanwhile, can be viewed as a supplementary service which enhances cloud service offerings by improving network performance and quality of service.

Services are offered primarily by four groups of companies:
- Emerging or specialist service providers – e.g. Amazon, Akamai, Rackspace, salesforce.com
- Traditional telcos – e.g. AT&T, NTT, China Telecom, BT, Level 3
- The major IT vendors and IT service providers – e.g. IBM, Microsoft, Google, Fujitsu, CSC
- Colocation providers – e.g. Equinix, SunGard, TelecityGroup, Interxion, CoreSite

There has been lots of M&A activity from traditional providers – e.g. Verizon acquired Terremark, NTT acquired Dimension Data, CenturyLink acquired Savvis, KDDI acquired CDNetworks and TELEHOUSE, and Time Warner acquired NaviSite. The latest big deal is Cogeco acquiring Peer 1. Given the relatively fragmented nature of the market and the importance of cloud services to the major operators, there is no doubt that M&A will continue to be a major feature of the market during the next five years.

The overall cloud infrastructure services market will continue to grow strongly (10% CAGR from 2012-2017) with 2017 revenues exceeding $75 billion. Meanwhile IaaS and PaaS will achieve a 2012-2017 CAGR of well over 25% and collectively will overtake colocation in 2016 in terms of revenue generation. The worldwide market will remain somewhat fragmented with a large number of service providers active in all regions.

CLOUD INFRASTRUCTURE SERVICE DEFINITIONS

Definitions:

IaaS – *computing & storage resources delivered over the Internet. IaaS is a replacement for the physical ownership of data centers hardware and software, enabling organizations to outsource their IT infrastructure - in effect replacing capital investment with operational expense (and providing compelling economic advantages). Examples include Amazon's EC2 services.*

PaaS – *is a service targeted at web software developers who need both an IaaS underlying infrastructure and a programming-language-level environment bundled together. Examples include Google's App Engine and Force.com.*

CDN/ADN – *using a large geographically distributed system of servers deployed in multiple data centers, CDN operators serve content to end-users with high availability and high performance. CDNs serve a large fraction of the Internet content today, including web objects, downloadable objects, applications, live streaming media, on-demand streaming media, and social networks.*

Managed Hosting – *a type of Internet hosting in which the client leases an entire server that is not shared with anyone else. This is more flexible than shared hosting, as organizations have full control over the server(s), including choice of operating system, hardware, etc. In contrast to colocation, the server hardware is owned by the provider who may also provide support for operating systems or applications.*

Colocation – *a service that provides companies a physical space to put their data centers. The colocation provider provides the physical real estate, security, power, and networking connections.*

SYNERGY RESEARCH GROUP

Synergy Research Group, a strategic partner of TeleGeography, provides syndicated market research and custom consulting for strategic decision makers in the IT and Telecom industries. For over a decade, Synergy has been providing unique insights and analytics to marketing, business development, and investment professionals.

For more information contact sales@telegeography.com.