INTERNATIONAL DATA CENTERS COLLOCATION SERVICES

Sector Case Study

Valuation & Research Specialists (VRS)

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Sector Case Study

The Sector: General Information

Since the onset of the technological revolution of the 1990s, the world is becoming increasingly ICT-dependent. Over the last 12 years, world internet usage penetration has grown by 566.4%, while internet penetration now amounts to 34.3% of the world's population, according to ITU data. Developed markets have reached a relatively mature stage as to their level of their internet penetration, however there is still significant room for further growth, given the rising demand for bandwidth-intensive data transmission services such as high-definition video and audio streaming, VoIP, teleconferencing, cloud computing and online gaming. On the other hand, emerging and developing markets are on the process of achieving high penetrations, while at the same time building their ICT infrastructure through capital investments in newly-established facilities.

Data centers play a key role at consolidating IT growth in both developed and developing markets. Data centers were traditionally held by large telecommunication and technology companies that exploited the efficiencies of their existing IT and data networking infrastructure and bundled together data center collocation or interconnection services. Parallel to the provision of data center services from large tech companies, since the late 1990's there is a significant IT outsourcing trend that favors the scope and expansion of data center collocation services together with the segmentation of these services to specialized companies providing data storage, collocation and interconnection, as well as outsourced IT infrastructure, networking and cloud services.

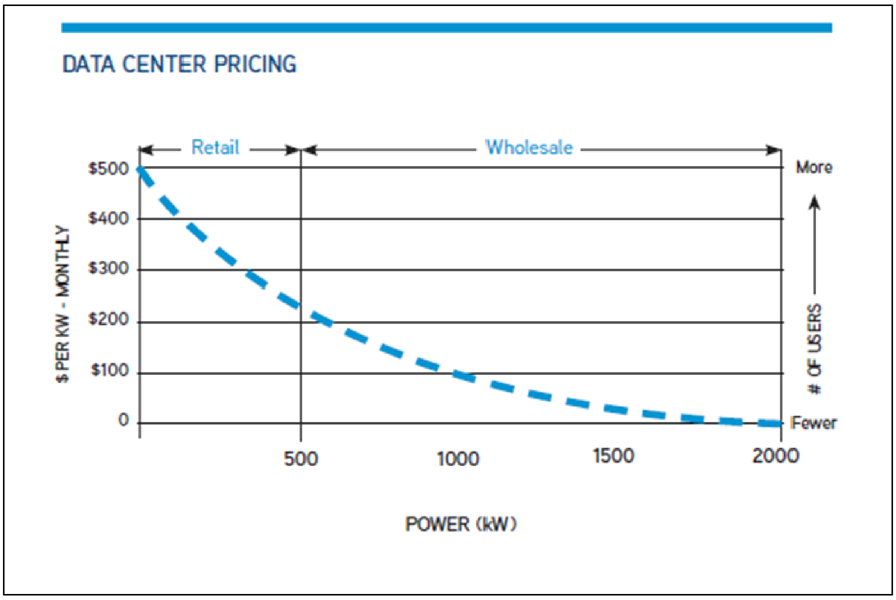
Data Center Market Structure

Data center services is a collective term for the supporting components necessary for the proper operation of a repository for storage, management and dissemination of data organized around a body of knowledge or pertaining to an enterprise. As such, data center services can involve hardware, software, processes and personnel. [1] The data center market is comprised of firms that offer hardware installation and maintenance, backup power systems, data backup and archiving, internet access, load balancing, disaster recovery, application and other technical services.

In the wholesale data center model, the use of the data center is split between end users and/or data center service providers who lease the space to other end users. In the retail data center model, a single provider uses the facilities to provide data center services to end-users. The provider supplies also racks and servers and additional services such as data management, security, disaster recovery and technical support.

IMAGE 1	**DATA CENTER PRICING**

Source: Colliers International



As can be observed on the above graph referring to data from the US, as the size of the data center power requirement increases, pricing goes down and as the number of users increases, existing space becomes more valuable and the charged price goes up. For wholesale data centers, power is generally provided in increments greater than 500 kW, whereas for retail data centers, agreements involve increments of less than 500 kW of power. [2]

In general, there are three types of services that are provided by data sector firms to retail and wholesale clients: interconnection, collocation and managed

[1] http://searchdatacenter.techtarget.com.
[2] Data Center Market Report, Q2 2012, Colliers International.

IT infrastructure. This report will focus on firms specializing on data center collocation services.

Revenue / Cost Model

Data center collocation business is based on a recurring revenue model, since customers are generally billed on a recurring and fixed basis each month for the duration of their contract, which in most data collocation providers is normally three years in length.

In particular, recurring revenue in Equinix, Telecity and Interxion, three major data collocation companies in the international market, makes up over 90% of their total revenues. The majority of non-recurring revenue is mainly comprised of installation services depending on the customer's professional services that are provided by the firm.

As for the cost composition of data collocation carriers, the largest portion of Selling, General and Administrative Expenses and Cost of Sales is comprised of depreciation expense, utility costs, rental expenses, employees' salaries and benefits, supplies, equipment and security services.

Hence, data center collocation cost base is relatively stable and fixed if power costs, which are directly linked to customer usage demanded, are excluded.

Key Trends of the Data Center Collocation Market

Some key trends that directly influence the future development of data collocation firms are the following: 2.33 billion users on the Internet as of January 2012, with mobile technology growth surpassing PCs as the preferred mode of corporate and personal life, 500 million new smart phones are bought per year, according to 451 Research. In addition, 15 million gigabytes of new data are created each day.

According to technology research firm Gartner, it is predicted that data will grow 800% in the next five years.

Retail clients of data center companies are increasingly seeking to outsource their IT operations for such diverse reasons as cost-cutting, lack of space and facilities, reliable and stable IT environment or security considerations for critical applications and processes.

Given that data center collocation capital costs are enormous, barriers to entry are high for this industry. According to Colliers International, the average age of data centers is nine-years-old. Moreover, data centers older than seven years are considered obsolete and have to be replaced by new ones. [3]

[3] Data Center Market Report, Q2 2012, Colliers International.

Data Center Collocation Supply

Supply is growing significantly in the retail collocation market. According to Nemertes Research, which conducted primary and secondary market research techniques to determine the current collocation market size, the US colo market stands at approximately $18.5 billion growing to $31.2 billion in 2015.

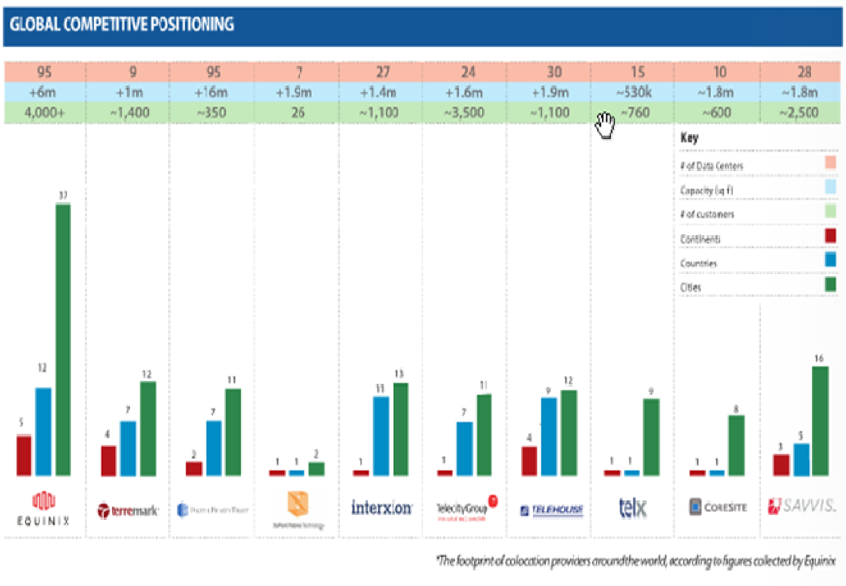
In the US, the collocation market is comprised of 16 providers that account for an estimated 60% of the total market, with the remaining being served by hundreds and thousands of small providers.
Estimated total collocation space in use in the United States in 2011 was 67.7 million square feet, projected to expand to 144 million square feet by 2015 based on growth projections by providers, according to the above research.

Equinix, a data collocation firm, highlighted its position alongside other large collocation providers as of 2011. In the below graph, the global players of the data collocation market are covered without including smaller regional offerings.

In the cases of Terremark and Savvis, the combined total footprint of facilities and investment following the acquisitions by Verizon and Century Link is not included.

IMAGE 2	GLOBAL COMPETITIVE POSITIONING

Source: Market Surveys, Sector Companies.



Equinix (EQIX) is the largest retail data center collocation firm in the world operating 95 data centers with a capacity of more than 6m. sq. feet covering more than 4,000 cities. The company offers collocation, traffic exchange and outsourced IT infrastructure solutions to enterprises, content companies, systems integrators and over 600 network service providers worldwide. Equinix is poised to become a REIT in 2014, mainly in order to reduce its effective tax rate.

Interxion (IXN) and Telecity are the other two major publicly-traded firms engaging in the collocation market segment. Terremark was acquired by Verizon in April 2011 for $1.4 bn.

IMAGE 3	**DATA CENTERS INVESTMENTS** (in US $)

Source: Market Surveys, Sector Companies.

DATA CENTER INVESTMENTS (US$m)

Provider	EQUINIX	telx	CORESITE	interxion	TelecityGroup			SAVVIS.	terremark	Totals
2007	417	7	140	65	25	266	150	349	55	1,474
2008	447	14	54	124	122	514	334	246	119	1,974
2009	370	12	28	134	155	364	123	133	82	1,401
2010	579	65	56	146	97	361	293	203	157	1,957
2011e	650	n/a	125	157	175	563	390	230	130	2,420
2007-2010 Total	2,463	98	403	626	574	2,068	1,290	1,161	543	9,226
Inorganic	Acquired S&D for $700m					Acquired 365 main for $725m		Acquired by CenturyLink ($2.5bn), Acq. fusepoint for $126m	Acquired by Verizon for $1.4bn	

Total data center investments from the above major players amounted to $2.42 bn. in 2011, an increase of 64% as compared to 2007. Given that total data center investment across the globe has increased 22-22.5% [4], the estimated 2012 investment by the above companies shall stand at approximately $2.95 bn.

[4] http://www.cbronline.com/news/data-centre-investment-reach-105bn-in-2012-report-081012.

TABLE 1 **LISTED DATA CENTER COMPANIES' VALUATION HIGHLIGHTS**

Company Name	Net Space (thous. sq.ft)	Capacity reached (MW)	Physical Occupancy	Price	Mkt Cap (mn)	P/E trailing	P/Sales	P/Book
Equinix Inc (in $)	6500		82.0%	21[illegible]	10,400 €	87	6	5
Telecity Group (in GBP)	255.35	86	80.0%	8.52	1716	33	7	5
Interxion Holdings (in $)			81.3%	23	1566	31	4	6

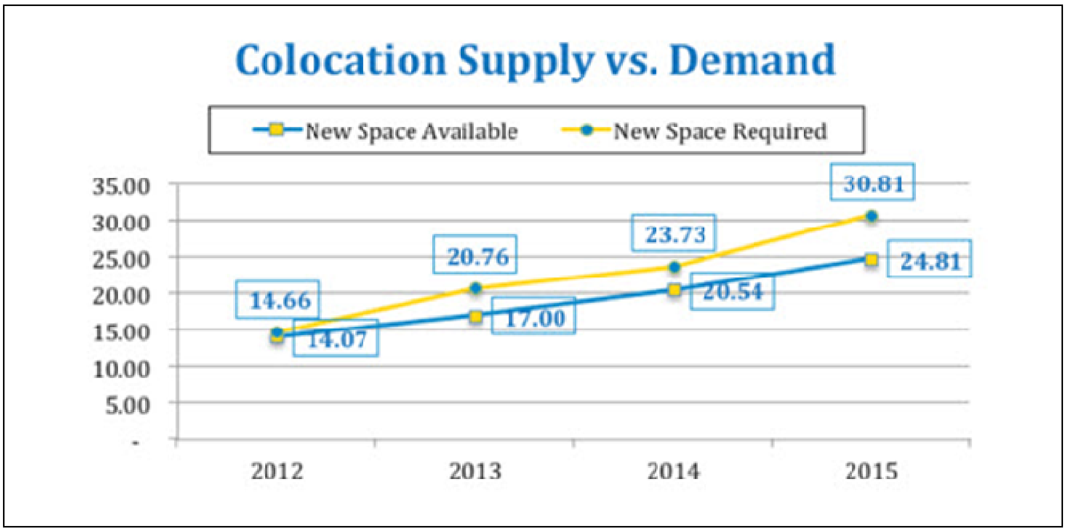
Data Collocation Demand

Demand is currently growing faster than supply internationally and it is expected that this trend will continue in the near future.

According to Nemertes Research, collocation demand will outstrip supply for the next three years, given that new space required shall outstrip new space available by fairly wide margins as can be seen in the graph below.

IMAGE 4 **COLOCATION SUPPLY VS DEMAND**

Source: Nemertes Research.



Major customers of data collocation firms include network providers (ISPs), content providers (Facebook, eBay, Google, Yahoo!), enterprises and financial companies / intermediaries.

Challenges and Risks

1 The threat of over-supply is not as obvious as it was back in the late 1990s; however there are concerns that a future growth of supply relative to demand may negatively affect margins.

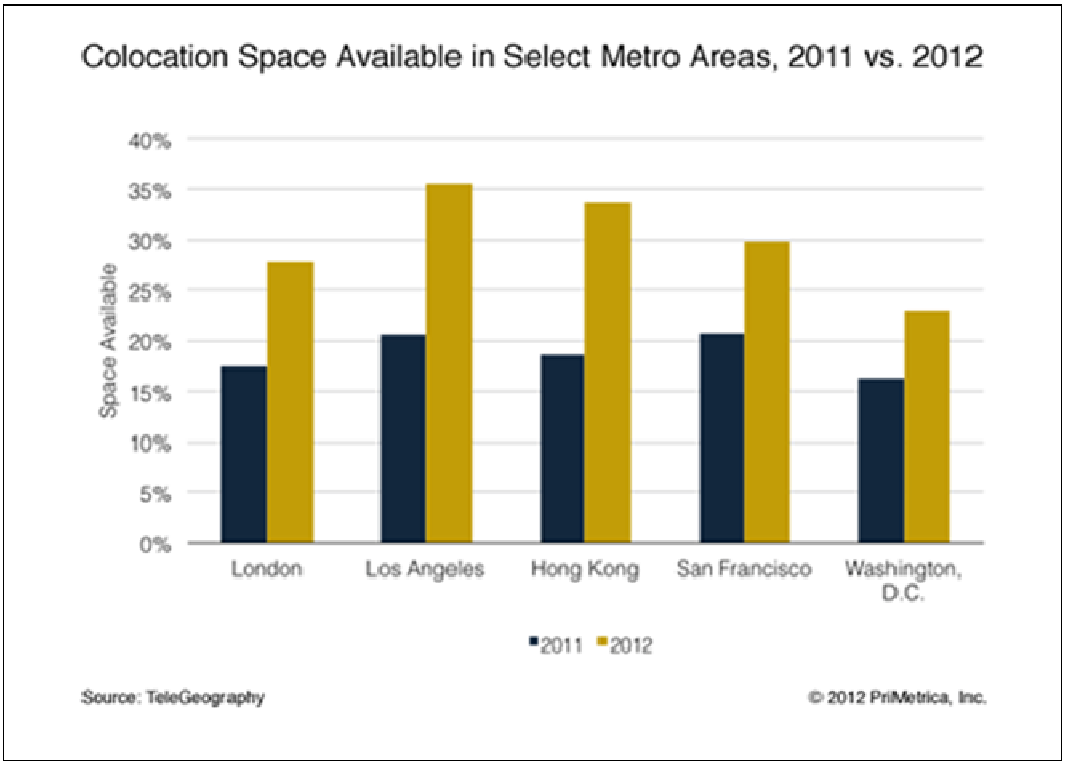
According to TeleGeography Colocation Database, collocation site availability increased in a number of metro areas between September 2011 and September 2012. As can be seen in the graph below, vacancy levels in Hong Kong and Los Angeles increased sharply, from 19% to 34% and 21% to 36% respectively. Although vacancy rates in London increased from 17% to 28% last year, over 70% of operators surveyed by TeleGeography said that they will continue to add collocation capacity in London in anticipation of steady demand growth.

A similar trend is apparent in Los Angeles, where collocation vacancy rates increased 15 percentage points in 2012. According to TeleGeography, providers in Los Angeles plan to expand available capacity at nearly 80 percent of the sites surveyed.

However, growing vacancy rates are not always an accurate indicator of rising supply, since most collocation carriers start expanding their facilities long before their existing ones are filled. According to an analyst of TeleGeography, collocation sites built in the past two years are filling at a faster rate than comparable sites were last year.

IMAGE 5	COLOCATION SPACE AVAILABLE IN SELECT METRO AREAS, 2011 VS 2012

Source: Telegeography, Primetrica Inc.



2 Given that climate change risks cause a shift towards subsidized and expensive alternative energy sources, increasing future electricity costs may negatively affect net income and consequently equity and cash flows from operations of data collocation companies.

3 A rise in lease costs especially in major cities where space is relatively limited may hinder growth in operating earnings.

4 Persistent power outages, although relatively rare, in conjunction with insufficient investments in reliable backup facilities, may pose risks as regards the reputations of collocation centers. According to the Benchmarking Report on the Quality of Electricity Supply conducted by the Council of European Energy Regulators, Greece had 134 minutes of “unplanned interruptions excluding exceptional events” in 2009, putting it 6th from the bottom in a list of 19 countries. Relative to the best service (Germany), Greece had ten times more minutes interrupted. In the US, outages are on average equally uncommon as in Germany. All in all, investments in generators and additional backup batteries may affect negatively free cash flows of data collocation centers.

5 Limits on data center collocation power and floor space may contribute to more costs regarding the creation and management of sophisticated cooling and disaster recovery systems.

Collocation Centers in Greece

As of 2013, there are 9 collocation data centers in 4 areas of Greece. Four of them (Lamda Hellix Athens 1, MedNautilus Athens, Aegean Colocation and MedNautilus Koropi Data Center) are located in Athens.

Three of them are located in Thessaloniki, namely Lancom, Interworks Primary Data Center and Synapsecom Telecoms, whereas the remaining are located in Volos and Chania, Friktoria Data Center Services and MedNautilus Chania Data Center respectively.

MedNautilus provides primarily installation and management of submarine cable systems services, together with data center collocation, IP services and cloud solutions. MedNautilus Greece share capital amounts to 111.6 thousand euros and is a wholly-owned subsidiary of Telecom Italia. Data collocation services are also offered by telecom providers OTE and Forthnet.

Future Outlook

Our outlook on this industry is positive, although valuations since 2009 are high relatively to the telecom and technology industry. Annual EPS of Equinix is expected at 21.21% for the next 5 years, whereas Interxion's equivalent EPS growth is forecasted at 20.53%.

Moreover, increasing internet penetration in emerging markets shall benefit significantly current players. Given that most emerging markets of Asia and Africa are still agricultural and manufacturing-based economies, the transition towards a more mature state of economy based on services shall provide opportunities for the development of the sector for the next decades.

APPENDIX 1 - Indicative Data Center Photos

PHOTO 1	View of Data Center in Athens, Greece

PHOTO 2	Disaster Recovery Hosting Services

PHOTO 3 **Business Continuity Services**

PHOTO 4 **Collocation versus In-house Data Center**

PHOTO 5 **Data Center Monitoring**

APPENDIX 2 - Financial Highlights of Selected International Data Center Companies

International Data Center - Collocation Services Companies

Telecity Group PLC	TCY:LN			
In GBP (millions)				
Price per share	£8.52			
No. of shares outstanding (million)	201.43			
Market cap (million)	£1,715.98			
	2013E	**2012E**	**2011**	**2010**
Sales	330.5	283.2	239.8	196.4
COGS	142.1	121.8	105.1	86.6
Gross profit	188.4	161.4	134.7	109.8
Gross margin	57.00%	57.00%	56.17%	55.89%
EBITDA	156.0	128.7	100.9	82.2
Net Income	58.7	52.4	42.6	38.1
CFO	90.0	84.0	84.7	75.6
CAPEX	140.7	127.9	109.9	49.2
FCF	-50.7	-43.9	-25.2	26.4
Cash	33.8	20.4	22.0	24.4
Investment in associates	0.0	0.0	0.0	0.0
Minorities	0.0	0.0	0.0	0.0
Equity	385.0	331.0	298.0	257.5
Bank debt	294.3	258.2	183.5	75.0
Enterprise Value	1976.5	1953.9	1877.4	1766.6

InterXion Holding NV	INXN:US			
In USD (millions)				
Price per share	$23.04			
No. of shares outstanding (million)	67.95			
Market cap (millions)	$1,565.57			
	2013E	**2012E**	**2011**	**2010**
Sales	435.42	370.34	322.81	275.33
COGS	174.17	148.13	134.46	120.44
Gross profit	261.25	222.20	188.34	154.89
Gross margin	60.00%	60.00%	58.35%	56.26%
EBITDA	182.87	153.71	123.73	102.79
Net Income	67.52	50.28	33.79	19.40
CFO	75.00	79.00	64.00	74.00
CAPEX	240.00	219.00	162.00	100.00
FCF	-165.00	-140.00	-98.00	-26.00
Cash	131.75	72.87	188.51	130.96
Investment in associates	0.00	0.00	0.00	0.00
Minorities	0.00	0.00	0.00	0.00
Equity	350.57	283.05	330.56	155.27
Bank debt	483.74	461.60	257.27	257.40
Total liabilities	767.84	732.69	413.72	391.49
Enterprise Value	1917.56	1954.29	1634.33	1692.01

Equinix Inc	EQIX:US			
In USD (millions)				
Price per share	$215.09			
No. of shares outstanding (million)	48.63			
Market cap (millions)	$10,459.58			
	2013E	**2012**	**2011**	**2010**
Sales	2241.0	1895.5	1606.8	1220.3
COGS	1187.7	1004.6	867.6	674.7
Gross profit	1053.3	890.9	739.2	545.7
Gross margin	47.00%	47.00%	46.00%	44.71%
EBITDA	1093.0	885.2	659.8	458.3
Net Income	142.3	120.6	92.6	36.9
CFO	635.4	611.0	588.0	393.0
CAPEX	785.4	748.0	714.0	594.0
FCF	-150.0	-137.0	-126.0	-201.0
Cash	150.5	239.7	278.8	442.8
Investment in associates	0.0	0.0	0.0	0.0
Minorities	78.2	78.2	67.6	0.0
Equity	2326.5	2186.2	1952.2	1880.5
Bank debt	2195.4	2125.2	1458.6	890.4
Total liabilities				
Enterprise Value	12582.7	12423.3	11706.9	10907.1

Source: Company accounts, Reuters, VRS estimates and calculations.

SOURCES

-- Equinix, Telecity and Interxion: Company accounts, annual reports and supplementary information

-- RBC Capital Equity Research

-- Terremark

-- Savvis

-- Primetrica Inc.

-- TeleGeography Colocation Database

-- Nemertes: Research company

-- Gartner :Technology research firm

-- Colliers International

-- Data Center Market Report, Q2 2012, Colliers International

-- Council of European Energy Regulators : Benchmarking Report on the Quality of Electricity Supply

-- http://www.cbronline.com/news/data-centre-investment-reach-105bn-in-2012-report-081012

-- http://searchdatacenter.techtarget.com

-- International market surveys and statements of industry figures in general

NOTES 1

NOTES 2

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