



INFRASTRUCTURE PLANNING REPORT

NORTH AMERICA - GREATER NEW YORK



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Iron Mountain Data Centers (IMDC) has compiled this Infrastructure Planner to give you a balanced overview of key colocation markets - their strengths and weaknesses, and the latest issues and opportunities.

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NORTH AMERICAN INFRASTRUCTURE

2020 to 2030

NORTH AMERICA colocation
forecast CAGR

10.9%

NORTH AMERICA
Colocation **MARKET VALUE**

50B

40%

of total colo spend in **2022 = \$20 BN**

North America is the highest revenue contributor to the \$50 BN+ global data center colocation market, accounting for around 40% of demand. The North American market is forecast to exceed the current global value of \$50 BN by 2030, with a CAGR of 10.9%.

The U.S. is the main driver of North American growth. The bulk of data center infrastructure is located in seven key hotspot markets - Northern Virginia; Dallas; Silicon Valley; Chicago; Phoenix; New York Tri-State; and Atlanta. Secondary markets with growth potential include Austin, Houston, Seattle, Denver, Minneapolis and Hillsboro.

KEY DRIVERS

Digital transformation, the growing adoption of multi-cloud, and network upgrades to support 5G are critical drivers of this growth, as well as the rapid expansion of hyper-scalers. User requirements are growing in both size and number and prices are rising as a result (2022: +5.9%).

On the wholesale/hyperscale side, major deals of 60 MW and above are becoming common. This is affecting the retail colocation market. As demand accelerates, space availability is becoming tighter and pre-leasing is becoming more widespread in primary markets to avoid potential capacity bottlenecks down the line. As a result, vacancy rates in the primary markets dropped to a record low of 3.8% in 2022.

MARKET	INVENTORY	Y-O-Y CHANGE	AVAILABLE MW / VACANCY RATE	Y-O-Y CHANGE	H1 2022 NET ABSORPTION	Y-O-Y CHANGE
NORTHERN VIRGINIA	1,908.1 MW	▲ 404.3 MW	35.6 MW / 1.9%	▼ -703 bps	269.3 MW	▲ 198.7 MW
DALLAS / FT. WORTH	375.8 MW	▲ 8.5 MW	25.8 MW / 6.9%	▼ -1160 bps	25.9 MW	▲ 22.2 MW
SILICON VALLEY	369.6 MW	▲ 66.5 MW	4.8 MW / 1.3%	▼ -30 bps	56.2 MW	▲ 43.2 MW
CHICAGO	306.0 MW	▲ 2.5 MW	43.0 MW / 7.5%	▼ -710 bps	9.7 MW	▼ -3.7 MW
PHOENIX	624.5 MW	▲ 56.9 MW	255 MW / 7.8%	▼ -139 bps	46.3 MW	▲ 26.3 MW
NEW YORK TRI-STATE	177.5 MW	▲ 16.9 MW	15.9 MW / 9.0%	▼ -310 bps	16.0 MW	▲ 10.0 MW
ATLANTA	249.5 MW	▲ 71.7 MW	9.1 MW / 3.6%	▼ -930 bps	30 MW	▲ 15.0 MW

Source: CBRE Research. CBRE Data Center Solutions H1 2022

THE GREATER NEW YORK MARKET

Greater New York is one of the world's biggest business hubs. It is a global center for finance, healthcare, media and technology with a Gross Metropolitan Product of \$2.1 trillion (2022) that makes it the largest metropolitan economy in the world. If it was a country, it would have the eighth largest economy in the world.

As such it is unsurprising that Greater New York is also one of North America's primary data center markets, with over 1800 MW of data center capacity spread across a diverse set of facilities. As demand continues to rise, data center providers are building out rapidly, with construction activity hitting a 10-year high of 67 MW in H1 2022.

KEY SECTORS

According to JLL Research, financial services alone have a pipeline of requirements that will quickly exceed current built capacity. The volume requirement from the financial services sector is hardly surprising, considering that it accounts for almost 40% of the city's economic output.

A phenomenal 68 Fortune 500 companies are headquartered in and around New York. Tied to growing demand from transforming sectors, the appetite of hyperscale cloud providers for facilities in the region is at an all-time high. Steady demand plus the recent increase in larger deals for space-hungry cloud providers has reduced space availability in existing facilities.

GEOGRAPHY

Most customers research the entire region before selecting either central Manhattan or outlying regions such as New Jersey. Each state offers distinct characteristics in terms of inventory, power costs and incentives. For TCO reasons, there is considerably more colocation space available in outlying areas.

In Manhattan the majority of providers are in retrofitted high-rise towers. Colocating in Manhattan comes with a much higher price tag for both real estate and power, but it is also very connectivity-rich, and for many service providers and blue chips the central location is seen as a necessity. For many others, however, New Jersey is regarded as the preferred option, with easy access, excellent connectivity, more available space and lower TCO. Most data center development in New Jersey is in either the I-95 Corridor in Northern New Jersey (Weehawken, Jersey City, Carlstadt, Secaucus, Clifton, and Newark) or to the southwest in Central New Jersey on Route I-287. New data center concentrations are also emerging, for instance around Orangeburg in Rockland County, about 25 miles north of Manhattan.



ISSUES & OPPORTUNITIES

DISASTER RISK

The region is a low risk for natural disasters such as hurricanes and earthquakes. Although Superstorm Sandy did cause widespread flooding and wind damage in 2012, the storm followed a highly unusual path; normally the prevailing winds push storms out to the east and north east.

REDUNDANCY CONSIDERATIONS

NYC has one of the most robust telecom marketplaces in the world. However, the metro could be seen as a regional single point of failure. Most of New England's traffic traverses New York, so an outage here could severely damage New England connectivity. An additional deployment to the north would circumvent this.

INCENTIVES & TAX

Unlike many leading data center markets, most of the region does not offer formal tax incentives for data centers. However, data center providers and builders often agree deals direct with NYC officials on sales and use taxes. The taxation environment is fluid and worth watching. In 2020, there was a proposed tax on high-volume electronic trading in New Jersey, but following Nasdaq's response - which was to relocate its production servers in Dallas for four days - the proposal was quietly sidelined.

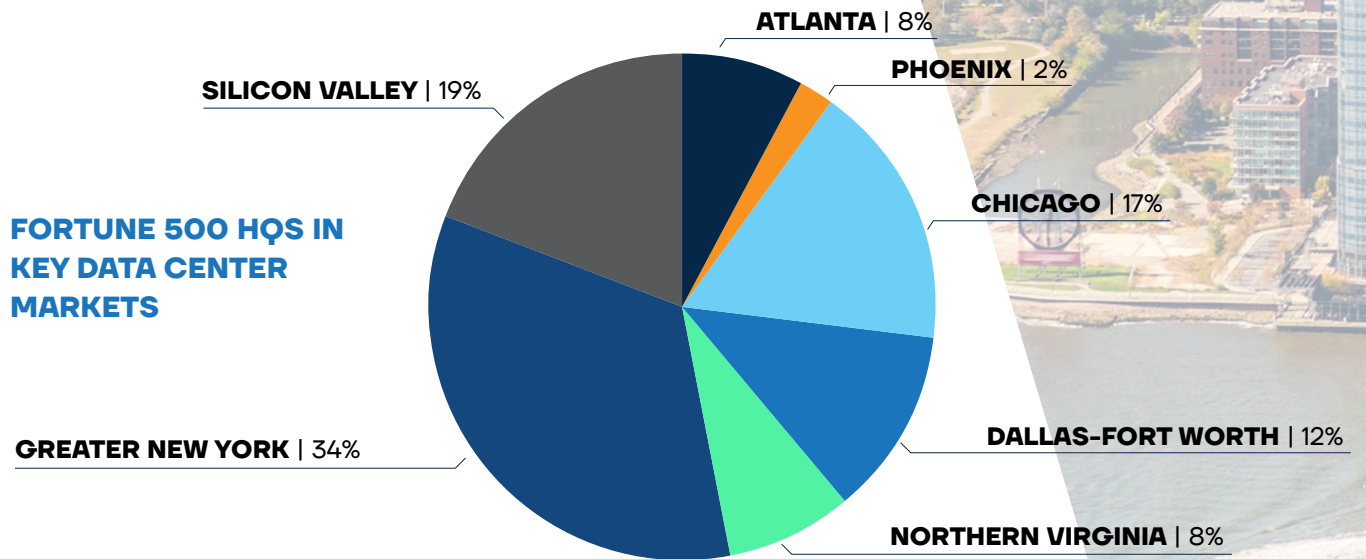
DIGITAL HQ

Greater New York is HQ to a huge number of Fortune 500 companies compared to other leading data center markets. This combines with its well-developed data center infrastructure to make it an extremely popular destination for high-value hybrid cloud deployments.

MANAGED SERVICES

This growth in hybrid cloud demand combined with the attraction of a New York PoP for leading firms has driven demand for managed services, creating significant opportunities for bare metal, DR and cybersecurity service providers.

FORTUNE 500 HQS IN KEY DATA CENTER MARKETS



Total Fortune 500 HQs covered = 201. Source: Fortune

POWER & INTERCONNECTIONS

Transmission lines and substations in NYC and Manhattan provide a solid and reliable power infrastructure, run by Consolidated Edison Company of New York (ConEd). However, rates are very high. Due to the density of power requirements in the city, power often needs to be imported or boosted, and a great deal of maintenance is also needed to support the aging infrastructure. New Jersey supplies are more reliable and rates are lower, but they are still above the national average.

CONNECTIVITY

New York City contains more telecom hotels than any other city in the Americas. These include the enormous 111 8th Ave, 60 Hudson (Hudson Interchange), 32 Avenue of the Americas in Manhattan, and 165 Halsey in Newark.

Dozens of fiber carriers provide metro and long haul fiber connectivity in New York City. The city and neighboring states are an intercontinental junction for undersea cables connecting the Eastern United States, South America and Europe. In New Jersey, a cable landing station in Wall Township has recently become a destination for subsea data traffic from Europe and South America, and offers a more affordable route into the Northeast than sites in Manhattan.

LATENCY

Network density in the region, along with easily available capital is enabling the development and roll-out of new IoT-based sensors and services. Greater New York's is very densely populated giving ultra-low-latency access to its 20 million residents as well as low-latency (<45 ms) reach to the whole eastern seaboard.



IRON MOUNTAIN DATA CENTERS IN GREATER NEW YORK

Iron Mountain Data Centers (IMDC) operates one of Greater New York's leading colocation facilities - IMDC NJE-1 in Middlesex County, Edison, New Jersey. The facility is just half an hour southwest of New York City.



NJE-1

Is an 830,000 ft²/26 MW facility on a 43-acre campus. This Tier III-certified facility provides the highest levels of redundancy, security, efficiency, and connectivity, with the highest international compliance standards, and design PUE as low as 1.2.

The data center houses a dynamic ecosystem of over 180 customers. It provides customers with full office and conference facilities and also offers high-density environments for healthcare or research workloads.

Connectivity options include over 20 carriers, the DE-CIX and IX-Reach Internet exchanges and Megaport and PacketFabric cloud on-ramps.

As well as using 100% renewable power, IMDC NJE-1 has a 7.2 MW solar energy array on the roof, the largest rooftop solar deployment in the US data center industry. The solar panels generate more than 9 million kilowatt hours per year, or approximately 15 percent of the data center's current energy load.



ABOUT IRON MOUNTAIN DATA CENTERS

Iron Mountain Data Centers operates a global colocation platform that enables customers to build tailored, sustainable, carrier and cloud-neutral data solutions. As a proud part of Iron Mountain Inc., a world leader in the secure management of data and assets trusted by 95% of the Fortune 1000, we are uniquely positioned to protect, connect and activate high-value customer data. We lead the data center industry in highly regulated compliance, environmental sustainability, physical security and business continuity. We collaborate with our 1,300+ customers in order to build and support their long-term digital transformations across our global footprint, which spans three continents.

[IRONMOUNTAIN.COM/DATA-CENTERS](https://www.ironmountain.com/data-centers)

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