Western Europe Data Center Colocation Market - Industry Outlook & Forecast 2024-2029

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Report description:

The Western Europe data center colocation market is expected to grow at a CAGR of 6.99% from 2023 to 2029.

KEY HIGHLIGHTS

- The key drivers of the Western Europe Data Center Colocation Market are cloud computing and AI, as private and public sectors majorly adopt AI and cloud computing for their workloads. Around 71% of the UK public sector departments have transitioned from conventional data centers to cloud infrastructure, reflecting a significant shift in operational strategies.
- As GenAI is booming and may lead to huge power consumption to meet the needs, colocation AI data centers plan to develop a strong computing infrastructure at both the network periphery and the central data center. Equinix, Vantage Data Centers, Data4, and Virtus Data Centres are among the key colocation operators in Western Europe that are deliberately pivoting to build data centers specifically for AI workloads. This move tackles electrical grid issues and the high power demand inherent with AI workloads by retrofitting existing facilities to meet AI demands. For instance, Data4 plans to retrofit its current campuses, with a 180MW site in Frankfurt and two in Paris (120MW and 250MW), as optimally suited for AI demands.
- In Western Europe's data center colocation market, major emerging markets for colocation data centers include Frankfurt, London, Amsterdam, Paris, and Dublin (FLAPD). London experienced a significant increase in data center proposals in 2023. Investments like Reef Group's 600MW campus in the London Borough of Havering, Vantage's 48MW campus, and Global Switch's 3.1MW data center reflect this growth.
- Power and land limits provide a significant problem in Europe's expanding data center ecosystem. Major hubs such as FLAPD have reached their highest capacity, leading to electricity grid and land constraints. Dublin, for example, is facing a de facto moratorium owing to grid restrictions, causing data center developments to halt. Furthermore, adjacent land prices in FLAPD regions are rising; property values in Slough alone have increased by more than 40% since 2019, while certain sections of London will not have electrical capacity for construction until 2035.

KEY TRENDS

Surge of 5G Connectivity and IoT in Edge Data Center Investments

- In Western Europe, the adoption of 5G technology surged, achieving over 81% population coverage by the end of 2023. This rapid deployment drives innovation in edge devices, facilitates remote work, and supports integrating advanced technologies. UK and Germany lead in 5G adoption, while others such as Ireland, Netherlands, Portugal, Belgium, Luxemburg, and Spain are still in the trial phase and may soon join the 5G adoption.
- Telecom operators will invest around $30 billion in Open RAN technology by 2030. Notably, Vodafone leads the charge for Open RAN in Europe, successfully deploying the technology in the UK and aiming for a similar rollout in Italy soon.
- The surge in 5G adoption and the increasing need for connectivity in diverse areas and urban centers draw significant investments from edge data center providers. This surge is also projected to support the growth of the Western Europe data center colocation market. Also, edge data center players like EdgeConneX, Penta Infra, Portus Data Centers, Proximity Data Centres, I Squared Capital's nLighten, and AtlasEdge are actively expanding their footprint across key FLAPD regions, fueling the growth of edge infrastructure.
- The proactive adoption of IoT technology in Europe solidified its status as a global frontrunner in the industry by ongoing strategic funding. Europe is poised to uphold its position as the third largest IoT market, following China and North America. Notably, within Western Europe, investments in IoT are projected to surge within the manufacturing, utilities, and professional services sectors.
- In 2024, European IoT entities planned to invest approximately $260 billion in IoT solutions despite a recent slowdown attributed to geopolitical and macroeconomic factors.

Increase in Sustainable Initiatives

- The European Commission actively seeks ways to enhance energy efficiency and promote sustainability within cloud computing and data centers. Its focus lies in improving energy efficiency, promoting the reuse of waste energy like heat, and increasing the utilization of renewable energy sources to achieve carbon neutrality by 2030.
- In 2024, The German Energy Efficiency Bill was passed to reduce emissions by implementing energy efficiency standards across industries, including data centers.
- Governments have long-established sustainability goals in Western European nations like the UK, Germany, Switzerland, Italy, France, Ireland, and the Netherlands. However, concerns have arisen in these countries about potential deviation from these targets due to significant data center investments and energy consumption. These countries actively collaborate to enhance their electrical infrastructure, aligning with policy shifts to promote renewable energy adoption and accommodate the expanding data center sector.

Digital Economy

Governments and organizations are launching measures to improve digital transactions, ICT skilled workforce, and smart payment systems to strengthen the digital economy. The Digital Europe Programme (DIGITAL), a new EU financing effort, aims to facilitate the integration of digital technologies among enterprises, individuals, and public authorities. The digital decade plan of the EU specifies digital transformation objectives, intending to have at least 80% of individuals with basic digital skills by 2030.

- The European Commission's commitment to the Digital Europe Programme, with over $900 million allocated for 2023-2024, signals a strategic push toward bolstering digital infrastructure, including advancements in AI, cloud computing, and data utilization.
- In January 2024, the Top Employers Institute acknowledged TCS for its dedication to empowering its EU workforce. TCS focuses on upskilling 20 million ICT specialists in Europe by 2030 and spearheads extensive training programs aligned with the European Digital Decade Policy Programme and the EU Pact for Skills.

SEGMENTATION INSIGHTS

- In the Western Europe data center colocation market, advanced cooling technologies like liquid immersion and improved air conditioning are being adopted, as illustrated by Nautilus Data Technologies' EcoCore modular center in Portugal.
- Eaton, Caterpillar, Cummins, Legrand, Aksa Power Generation, ABB, Rolls Royce, and Schneider Electric are some of the major electrical infrastructure providers in Western Europe to deploy essential electrical infrastructure, ensuring uninterrupted power supply with advanced UPS systems and generators, maintaining robust N+1 redundancy. For instance, Digital Realty partnered with Schneider Electric to enhance sustainability efforts at the PAR6 facility in Paris, France, focusing on LV and MV electrical gear, switchgear, and three-phase UPS by Schneider Electric.
- In Western Europe's data center colocation market, facilities prioritize free cooling over liquid-based cooling methods due to the oceanic climate, allowing waste heat to dissipate naturally and drawing in cooler external air. As of 2023, cooling systems comprised over 65% of total mechanical infrastructure spending in data centers. For instance, the PAR9 facility of Digital Realty in France features high-density racks utilizing free cooling, and the Barcelona campus of Edged Energy employs waterless cooling technology.
- In the FLAPD region, there is a notable expansion in Tier III and IV-certified colocation data centers, aligning with the Uptime Institute standards. These facilities, tailored to BFSI, telecom, education, and government sectors, offer customizable solutions in retail or wholesale colocation, rack levels, and latency speed. This underscores a dedicated pursuit of reliability and operational excellence in colocation data center infrastructure.

The report includes the investment in the following areas:

Segmentation by Colocation Services
- Retail Colocation
- Wholesale Colocation

Segmentation by Infrastructure
- Electrical Infrastructure
- Mechanical Infrastructure
- General Construction

Segmentation by Electrical Infrastructure
- UPS Systems
- Generators
- Transfer Switches & Switchgear
- PDUs
- Other Electrical Infrastructure

Segmentation by Mechanical Infrastructure
- Cooling Systems
- Racks
- Other Mechanical Infrastructure

Segmentation by Cooling Systems
- CRAC & CRAH Units
- Chiller Units
- Cooling Towers, Condensers & Dry Coolers
- Economizers & Evaporative Coolers
- Other Cooling Units

Segmentation by Cooling Techniques
- Air-based Cooling
- Liquid-based Cooling

Segmentation by General Construction

- Core & Shell Development
- Installation & Commissioning Services
- Engineering & Building Design
- Fire Detection & Suppression
- Physical Security
- DCIM/BMS Solutions

Segmentation by Tier Standards

- Tier I & II
- Tier III
- Tier IV

GEOGRAPHICAL ANALYSIS

- In the Western Europe data center colocation market, colocation data center concentration is notably high in key metropolitan areas such as London, Frankfurt, Paris, and Amsterdam. These cities are often called the FLAPD market, highlighting their significance in hosting data centers. London, particularly West London, stands out as a prominent hub, followed closely by Frankfurt in Germany, Paris in France, and Amsterdam in the Netherlands.
- The FLAPD regions are currently facing constraints due to the ongoing investments in data centers that concern local governments regarding electricity consumption and land scarcity. Consequently, some regions, like Ireland, have imposed moratoriums on further data center development. Meanwhile, others resort to tactics like hiking grid and land prices, pushing data center operators to explore alternative locations in remote areas and invest in greenfield and brownfield projects on the outskirts.

- Western Europe
    - UK
    - Germany
    - France
    - Netherlands
    - Ireland
    - Switzerland
    - Italy
    - Spain
    - Belgium
    - Portugal
    - Other Western European Countries

VENDOR LANDSCAPE

- In the Western Europe data center colocation market, major colocation data center investments in 2023 and 2024 have been made by Digital Realty, Equinix, NTT Global Data Centers, Colt DCS, Vantage Data Centers, Virtus Data Centers, and EdgeConnex. In addition, other notable investors include China Mobile, Iron Mountain, CyrusOne, Global Switch, Etix Everywhere, Green, Kao Data, Data4, Servecentric, Serverfarm, AtlasEdge, Keppel Data Centres, Pulsant, EXA Infrastructure, Ark Data Centers, Green Mountain, LDeX Group, Hivelocity, NorthC, Maincubes, and First Colo.
- In 2023 and 2024, the Western Europe data center colocation market saw the emergence of new entrants such as CloudHQ, Digital Reef, EdgeCore Digital Infrastructure, Stratus DC Management, AQ Compute, Merlin Properties, and Form8tion Data Centers (backed by Thor Equities).

Prominent Colocation Investors

- Aire Networks
- Aixit GmbH
- AQ Compute
- Ark Data Centres
- Aruba
- AtlasEdge
- Blue
- Castle IT
- China Mobile
- CKW
- Cogent Communications
- Colt Data Centre Services (Colt DCS)
- Compass Datacenters
- CyrusOne
- Data Castle
- DATA4
- Datum Datacentres
- Denv-R
- Digital Realty
- Digital Reef
- Echelon Data Centres
- EdgeConneX (EQT Infrastructure)
- Energia Group
- Equinix
- Etix Everywhere
- Euclyde Data Centers
- EuNetworks
- Exa Infrastructure
- Fibra Medios Telecom
- Firstcolo
- Global Switch
- Green
- Green Mountain
- Hivelocity
- Iliad
- Ingenostrum
- Iron Mountain (IO)
- ITENOS
- K2 Data Centres
- Kao Data
- KDDI
- Keppel Data Centres
- KevlinX
- LCL Data Centers
- LDex Group

- Liberty Global
- Maincubes
- Merlin Properties
- myLoc managed IT AG
- Nabiax
- Nautilus Data Technologies
- NDC-GARBE Data Centers Europe
- Nehos
- Nexspace
- NorthC Data Centres
- NTT Global Data Centers
- Orange Business Services
- Panattoni
- Penta Infra
- Portus Data Centers
- Prime Data Centers
- Proximity Data Centres
- Pulsant
- Pure Data Centres
- Redwire Data Centre
- Servecentric
- Serverfarm
- STACK Infrastructure
- Stratus DC Management
- T5 Data Centers
- Telecom Italia Sparkle
- Telehouse
- Titan DC
- Vantage Data Centers
- VIRTUS Data Centres (ST Telemedia Global Data Centres)
- Web World
- Yondr

New Entrants

- CloudHQ
- Form8tion Data Centers (Thor Equities)
- Global Technical Realty
- Goodman
- Mainova WebHouse
- Nation Data Center (NDC)

KEY QUESTIONS ANSWERED:

1. How big is the Western Europe data center colocation market?
2. What is the growth rate of the Western Europe data center colocation market?
3. What is the estimated market size in terms of area in the Western Europe data center colocation market by 2029?

4. What are the key trends in the Western Europe data center colocation market?
5. How many MW of power capacity is expected to reach the Western Europe data center colocation market by 2029?

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