

How to develop a profitable data centre: An ecosystem 101 for successful market entry

Data centre development is truly a team effort. From local authorities and regulators to financial institutions and contractors, dozens of organisations come together to realise the vision of a data centre. In this article we break down the segments and vendors to know, to ensure you know who to turn to.

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In this article, we list key domains to consider when developing a data centre facility. Example vendors within each category are illustrative, and the best company for each facility will depend on the exact requirements and specifications, as well as regional variation in market leaders:

Land

The first stage of data centre development involves finding the right site and acquiring the land. There are a number of factors that should be considered, such as power and connectivity access. Specialists in this field will help you navigate this important step and put you on the road to success:

CBRE: Provides comprehensive data centre services, including consulting, advisory, transactions, project management, and integrated operations, assisting clients in developing, building, buying, selling, managing, and modernising data centres or entire portfolios.

https://www.cbre.co.uk/services/property-types/data-centres

JLL: Utilises extensive experience and proprietary data platforms to uncover new opportunities for data centre operators, ensuring that site selections support long-term scalability and efficiency.

https://www.jll.co.uk/en/industries/data-centres

Knight Frank: Advises on all types of data centre transactions globally, acting on behalf of tenants, customers, operators, landowners, and investors seeking market-entry and market expansion opportunities.

https://www.knightfrank.com/data-centres

Cushman & Wakefield: Combines local knowledge with sector-specific insight and contacts, supporting and managing investment decisions made by enterprises, colocation providers, hyperscalers, sector investors, and developers.

https://www.cushmanwakefield.com/en/industries/data-centers

Power access (grid connection & backup)

A reliable power supply is essential for data centre operations, as even minor outages can cause significant disruption to business continuity, hence the prominence of the Uptime Institute accreditations. Access to sufficient grid capacity, backup generators, and energy-efficient power management solutions ensure uninterrupted performance.

UK Power Networks (or local equivalent): Manages electricity distribution across London, the South East, and East of England, providing extensive data through their Open Data Portal, offering visibility of network assets, capacities, and usage.

https://www.ukpowernetworks.co.uk/

National Grid (or local equivalent): Operates the electricity transmission network across Great Britain, offering an Energy Data Hub that provides accessible data on the electricity network, aiding data centre developers in understanding grid capabilities.

https://telecoms.nationalgrid.co.uk/Our-services/Data-centres.aspx

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Schneider Electric: Specialises in energy management and automation, offering solutions and services to build new data centres or upgrade existing ones, including power management, energy efficiency, and the development of resilient and sustainable data centre infrastructures.

https://www.se.com/uk/en/work/solutions/for-business/data-centers-and-networks/

Aggreko: Provides temporary and backup power solutions, ensuring continuous operations during power disruptions, which is crucial for data centres requiring high availability.

https://www.aggreko.com/en/sectors/data-centres

Financing

Securing the right investment accelerates data centre development, strengthens operational resilience, and ensures financial stability, enabling rapid adaptation to technological advancements and long-term market competitiveness.

Digital Bridge: A specialist digital infrastructure investment firm that finances and develops data centres, fibre networks, and cloud-based infrastructure to enhance connectivity and digital capacity.

https://www.digitalbridge.com/

Blackstone Group: A global private equity firm that actively invests in data centre assets, focusing on the acquisition, development, and expansion of hyperscale facilities to meet increasing demand.

https://www.blackstone.com/our-businesses/infrastructure/

KKR: Globally renowned private equity firm – recently investments include $5 billion in Gulf Data Hub in the Middle East

https://www.kkr.com/

Project consultants

With land and power secured, the responsibility then lies with one of many engineering and design consultants, who can steer the project from inception and design through to delivery. Data centre construction and expansion require careful planning and execution, and such businesses ensure projects align with business goals, budget constraints, and sustainability requirements while maintaining operational efficiency.

Arup: Provides expertise in sustainable data centre design, infrastructure planning, and project execution, ensuring that data centre projects are efficient, resilient, and aligned with clients' strategic goals.

https://www.arup.com/markets/data-centres/

Turner & Townsend: Specialises in project management and cost consultancy, ensuring data centre projects are delivered on time and within budget.

https://www.turnerandtownsend.com/sectors/data-centres/

Ramboll: Offers solutions for energy-efficient and sustainable data centre infrastructure, focusing on innovative designs that meet the evolving demands of the industry.

https://www.ramboll.com/en-gb/technology/data-centers-mission-critical-facilities

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Connectivity

Fast, secure, and scalable interconnect is essential for carrier-neutral data centres to attract customers, who seek to resilient connectivity with other data centres (interconnect), enterprise sites (cloud connect), and their customers worldwide. New facilities should ensure appropriate connections to local fibre backbones. While these are mostly run by local incumbents, some global interconnect players do exist:

Lightstorm: Provides advanced interconnect solutions for hyperscale and enterprise data centres, optimising global network performance.

https://www.lightstorm.net/

Console Connect: Offers an on-demand interconnect platform providing direct and secure connectivity between global data centres.

https://www.consoleconnect.com/locations/

Megaport: Enables agile, high-speed cloud and data centre networking with software-defined interconnect solutions.

https://www.megaport.com/megaport-enabled-locations/

PacketFabric: Delivers automated network connectivity, supporting flexible and scalable data centre interconnectivity.

https://packetfabric.com/agile-data-center-interconnect

Cooling

Efficient cooling systems are critical for maintaining optimal operating temperatures within a data centre. As servers generate significant heat, precision cooling solutions help prevent overheating, reduce energy costs, and improve overall system reliability. These should also be engaged during site planning to ensure design of 'grey space' meets operational requirements.

Vertiv: Offers precision cooling technologies tailored for data centres, enhancing operational efficiency and thermal management.

https://www.vertiv.com/en-emea/

Airedale by Modine: Provides advanced cooling solutions, offering innovative and energy-efficient thermal management systems designed to meet the demands of modern data centres.

https://www.airedale.com/solutions/data-center-solutions/

Stulz: Specialises in high-performance cooling solutions, ensuring efficient climate control for mission-critical IT infrastructure, providing reliable and scalable HVAC systems for data centres.

https://www.stulz.com/en-uk/

Carrier: Offers a range of HVAC solutions suitable for data centres, focusing on energy efficiency and reliability to maintain optimal operating conditions.

https://www.carrier.com/commercial/en/uk/vertical-solutions/data-center/

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Industry groups

Industry associations help ensure best practices, regulatory compliance, and the adoption of sustainability initiatives within the data centre sector. These organisations also offer networking and knowledge-sharing opportunities.

Uptime Institute: Offers tier classifications and operational sustainability standards, guiding data centres in achieving high levels of performance and reliability.

https://uptimeinstitute.com/

iMasons: global non-profit who seek to connect individuals and businesses within the data centre industry across the globe

https://imasons.org/

Data Centre Alliance (DCA): Provides guidance on best practices, standards, and compliance for data centre operations.

https://dca-global.org/

Strategy

While nobody can predict the next 5 years of hosting demand, **data centre developers must develop their vision and strategy from the outset**. Alignment from site selection and design through to sales and marketing is crucial to delivering a compelling value proposition. Development of a resilient and agile strategy, backed by scenario planning and voice-of-the-market research, is an excellent first step. If this is your next move, get in contact with us at joe.hurman@stlpartners.com.

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