B-Barcelona consulting

Design / Innovation / Sustainability / Functionality

Contents

Overview

B-Barcelona is a **multidisciplinary** office with many years of international experience; created with the objective of building a **team** where everybody complements each other in order to solve all kind of challenges in the **Data Centre**, Critical Facilities, Renewables and Energy Efficiency fields.

We have offices in **Barcelona** and **Singapore.**

History

BGC arquitectura i enginyeria

The M&E engineer Lluis Gironella founded BGC together with Josep Maria Clavera, a company specialised in IT, Data Centres and Critical infrastructures.

Singapore trade mission

Lluis and Carles meet in Singapore in a Trade mission organised by the Catalan Government focussed on Sustainability and Energy Efficiency.

Data Centres

After the success of a few IT projects either in Asia and Europe. They decided to specialise their work in Critical Facilities on the fields of architecture, planning and M&E.

2002

2012

2000

2011

2017

B01 arquitectes

Carles Cortadas joins the architecture office lead by Roser Amadó and Lluís and Ramón Domènech; in 2005 he becomes partner.

B Barcelona Consulting

They decided to join forces and create a multidisciplinary office in Singapore to develop business in Southeast Asia.
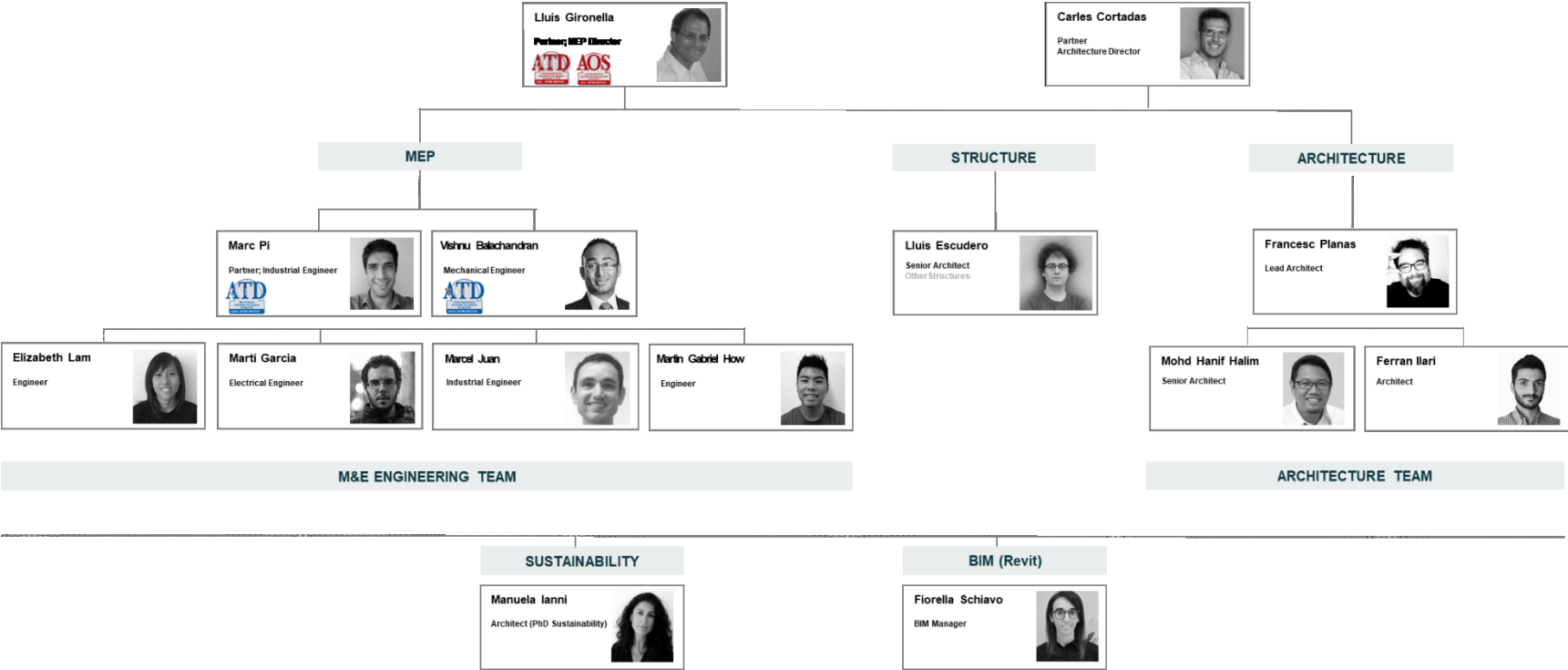
Team

People

People are our best asset. We believe in working together and challenge each other in order to achieve our goals. No one can stop a **united** team.

Offices

We have an office in **Barcelona** downtown and another one in **Singapore** business district to develop projects in SE Asia.

Markets

We can provide services in **Europe, South America** and **South East Asia**; but we are open to **B**e **Global** (We work closely with local partners in each country).

B-Global

Lluís Gironella
Partner; MEP Director
ATD AOS

Carles Cortadas
Partner
Architecture Director

MEP

STRUCTURE

ARCHITECTURE

Marc Pi
Partner; Industrial Engineer
ATD

Vishnu Balachandran
Mechanical Engineer
ATD

Lluís Escudero
Senior Architect
Other Structures

Francesc Planas
Lead Architect

Elizabeth Lam
Engineer

Marti Garcia
Electrical Engineer

Marcel Juan
Industrial Engineer

Martin Gabriel How
Engineer

Mohd Hanif Halim
Senior Architect

Ferran Ilari
Architect

M&E ENGINEERING TEAM

ARCHITECTURE TEAM

SUSTAINABILITY

BIM (Revit)

Manuela Ianni
Architect (PhD Sustainability)

Fiorella Schiavo
BIM Manager

Lluis Gironella

Founding Partner, Director / *Barcelona & Singapore*

MASTER DEGREE in INDUSTRIAL ENGINEERING by ETSEIB / Barcelona, Spain
MASTER in BUSINESS and ADMINISTRATION by ESADE / Barcelona, Spain
ACCREDITED TIER DESIGNER & ACCREDITED OPERATION SPECIALIST by UPTIME INSTITUTE / UK

Carles Cortadas

Founding Partner, Director / *Barcelona & Singapore*

MASTER DEGREE in ARCHITECTURE by ETSAB / Barcelona, Spain
MASTER DEGREE in AUTOMOTIVE & TRANSPORTATION DESIGN by SPD / Milano, Italy

Marc Pi

Partner, Engineering Director / Singapore

MASTER DEGREE in INDUSTRIAL ENGINEERING by ETSEIB / Barcelona, Spain
ACCREDITED TIER DESIGNER by UPTIME INSTITUTE / Spain

Vishnu Balachandran

Engineering Associate Director / Singapore

MASTER DEGREE in MECHANICAL ENGINEERING by Monash University / Clayton, Australia
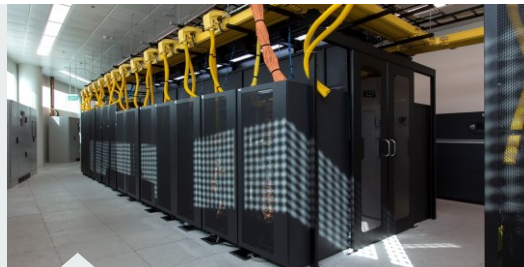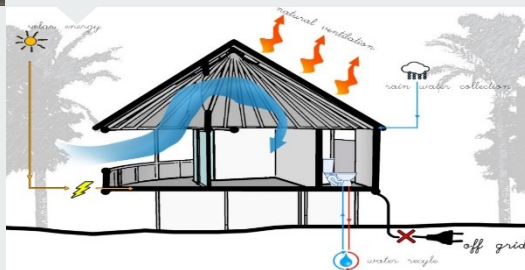ACCREDITED TIER DESIGNER by UPTIME INSTITUTE / Singapore

To Be different

Sustainability & Technology

We always exchange information among our multidisciplinary team in order to bring innovation in design, materials & facilities.

Design

We try to reflect Barcelona's soul, culture and design in all our projects, incorporating the essence of the new countries.

Data Centres

More than 20 years of experience in IT infrastructures, Critical facilities, urban and off-grid antenna deployments.

Data Centres

Reliability

Thanks to our experienced and accredited staff we ensure the reliability of our DCs: concurrently maintainable or fault tolerant.

Energy Efficiency

Every location, every client has his own specifications. We always find the most efficient solution for each project.

BIM modelling

To work in 3D, helps us to avoid mistakes and clashes during construction, and allows us to do Fluid and Temperature simulations (CFD).

TIER III DESIGN ®
AIMS Data Centre Sdn Bhd
AIMS@CBJ1, Phase 1
Expires 9 April 2022
UPTIME INSTITUTE CERTIFIED

Data Centre Services

M&E ENGINEERING:

- **Design:** Supercomputers, Greenfield and brownfield DC's. (from Concept Design to Handover. Costings and Schedule.)

- **Testing & Commissioning:** Site and Factory Acceptance Test.

- **Certifications:** Uptime Institute, TIA-942, LEED.

- **Feasibility Studies:** R&D, audits and improvements.

Data Centre Services

ARCHITECTURE:

- **Design:** Architecture, Interior Design, Landscape. (from Concept Design to Handover. Costings and Schedule.)
- **Masterplan:** DC Parks, mixed-used, plot development.
- **Site Selection:** Risk assessment, Infrastructures, Plot description…
- **Sustainability:** Active and Passive design; LEED and WELL design.

PROJECTS:

DC Parks and Master planning

Data Centres (edge, colocation, hyperscale)

Submarine Cable Landing Stations

HPC & Supercomputers

700 acres DATA CENTER PARK / Johor, Malaysia

CABLE LANDING STATION + 1MW DC / Bilbao, Spain

CABLE LANDING STATION + 1MW DC / Sipopo, Guinea Equatorial

100MW HYPERSCALE DATA CENTRE HUB / Malaysia

50MW TIER III DATA CENTRE / Cyberjaya, Malaysia

MARENOSTRUM 5 SUPERCOMPUTER / Barcelona, Spain

20MW TIER III DATA CENTER / Jakarta, Indonesia

16MW CLOUD DATA CENTRE / Bangkok, Thailand

NATIONAL SUPERCOMPUTER CENTRE (NSCC) / Singapore

References

2020: Afr-IX Telecom: Design and project management of a Landing Station, including 4 DC Halls for collocation servers and office1 MW. 2662 m2.

2020: BSC, Marenostrum 5: Design and project management for a European Union Supercomputer 200 PTFlops. 40MW and 80kW/rack (PUE: 1.07).

2019: CMC Telecom: Design and project management for a Collocation TIER III DC. Ho Chi Minh (Vietnam). 5 MW IT. 13.100 m2.

2019: TIME – AIMS: Design and project management for a Collocation TIER III DC. Kuala Lumpur (Malasia). 24 MW IT. 53.700 m2.

2018: KeppelDC. Concept Design and Due Diligence of a 6MW IT Power Greenfield Data Centre in Johor.

2018: BSM. Design and project management for a TIER III DC refurbishment in Barcelona.

2018: Orange. Design and project management for a new Data Centre implementation into an existing building in Barcelona - Hospitalet (Spain). 3MVA / 1.940m2.

2017: NSCC. Feasibility study and concept design for the usage of the residual free cooling of the discharge water of Singapore Liquid Natural Regasification Plant

2017: Orange. Design ang project management for the Genset system renovation and upgrade in Zona Franca MSC data centre in Barcelona (Spain). 3x630kVA.

2017: TIME - AIMS. Design for a data centre upgrade in an existing high-rise building. Kuala Lumpur (Malaysia) . 24MVA / 18,000m2.

2017: In joint collaboration with NUS. Research, Development and Demostration of a highly efficient hybrid cooling system for high ambient temperature data centre Singapore.

2016: TIME - AIMS. Lead design for scalable and Natural Gas powered (trigeneration) data centre. Ciberjaya (Malaysia). 59,500m2

2016: Sacofa. Report on data centre awareness explore Sarawak development as a data centre hub. Sarawak (Malaysia).

2016: CTTI - Xarxa Urbana. District cooling implementation in goverment office and data centre in Barcelona (Spain).

2015: AIMS. Conceptual project for scalable and Natural Gas powered (trigeneration) data centre. Cyberjaya (Malaysia). 50,000m2.

2015: MDEC. Conceptual Masterplan and Highlight report for a 700 acre data centre park (SIDH). Sedenak-Johor (Malaysia). 283.27 Ha.

2015: BSP. Market and Business model consultancy study for the development of the Barcelona Synchrotron Park Data Centre Cluster. Barcelona (Spain). 6.80 Ha.

2015: Orange. Design and project management for the Genset system renovation and upgrade in Botanica MSC data centre in Barcelona (Spain). 2x400kVA.

2015: NSCC/A*CRC. Project Management for the construction of two HPC data centres and office space in Fusionopolis – Connexis (Singapore). 2249.94 m2.

2015: Orange. Design and project management for the construction of a new CPD and R&D laboratories. Zona Franca, Barcelona (Soain). 534.40 m2.

2014: NTT-MSC: Conceptual and specification project for an indirect free-cooling system in a data centre room in Cyberjaya (Malaysia). 112.35 m2.

2014: NSCC. Feasibility and improvement study for upgrade of data centre and office space in Fusionopolis – Connexis (Singapore). 1219.97 m2.

2014: A*CRC. Feasibility and improvement study for upgrade of data centre and office space in Fusionopolis – Connexis (Singapore). 1029.88 m2.

2014: VADS. Energy efficiency assessment to improve a legacy data centre in Brickfields. Kuala Lumpur (Malaysia). 837.81 m2.

2014: Abertis Telecom. Energy efficiency consultancy and project design for the refrigeration system upgrade in a main broadcasting centres in Rocacorba (Spain). 766 m2.

2014: Orange. Direct free-cooling design and facilities upgrade for existing data centre in Pedrosa. Barcelona (Spain). 1620 m2.

2014: Institute of Cartography and Geology of Catalonia. Complete refurbishment and free-cooling system design for an existing data centre. Barcelona (Spain). 175 m2.

2014: Abertis Telecom. Best practices and sizing manual for HVAC facilities in 5.500 broadcasting and data centres throughout Spain.

2014: Orange. Direct free-cooling design and facilities upgrade for existing data centre in Granada (Spain). 1333 m2.

2013: Catalan Tax Agency (ATC). Backup power upgrade for existing data centre and corporate office in Barcelona (Spain). 630 kVA.

2013: Abertis Telecom. Energy efficiency consultancy for the refrigeration system update in 20 broadcasting centres in Spain.

2013: Abertis Telecom. Energy efficiency consultancy and project design for the refrigeration system update in two main broadcasting centres in Alpicat (Spain). 1825 m2.

2013: Abertis Telecom. Energy efficiency consultancy and project design for the refrigeration system update in a main TX centre in Platja Aro (Spain). 84 m2.

2013: Orange. On-grid photovoltaic power plant to direct feed the non-critical facilities from a datacentre in Coslada - Madrid (Spain). 5510 m2.

2013: A*CRC. Feasibility study for a power and cw upgrade of A*CRC data centre facilities in Fusionopolis – Connexis (Singapore). 450 m2.

2013: A*CRC. Feasibility study for a power and cw upgrade of A*CRC data centre facilities in Biopolis - Matrix (Singapore). 2086 m2.

2013: CAT Telecom. Containerized-ISO 20ft data center to be delivered on site. Bangkok (Thailand). 39 m2.

2013: Orange. Adiabatic Cooling system design for existing data centre in Coslada - Madrid (Spain). 1510 m2.

2013: Orange. Direct free-cooling design for existing data centre in Valladolid (Spain). 965 m2.

2013: Orange. Direct free-cooling design for existing data centre in Barcelona (Spain). m2. 890 m2.

2013: Orange. Direct free-cooling design for existing data centre in Vigo (Spain). 1516 m2.

2013: Orange. Direct free-cooling design and facilities upgrade for existing data centre in Alicante (Spain). 1500 m2.

2013: Orange. Direct free-cooling and AHU-DX design for existing data centre in Silvota (Spain). 833 m2.

2013: Orange. Direct free-cooling design for existing data centre in Hospitalet (Spain). 2789 m2.

2012: Orange. Direct free-cooling design for existing data centre in Zaragoza (Spain). 1783m2.

2012: Orange. Direct free-cooling design for existing data centre. Julian Camarillo-Madrid (Spain). 500m2.

2012: Orange. TIER III cooling system design and construction supervision. Coslada -Madrid (Spain). 1500m2.

2012: Grupo Godó. Schematic design for a new data centre facility. Barcelona (Spain). 100m2.

2012: Orange. MV/LV substation upgrade for existing data centre. Barcelona (Spain). 1000 kVA.

2012: Orange. MV/LV substation upgrade for existing data centre. L'Hospitalet de Llobregat - Barcelona (Spain).

2012: PAMR, Government of Oman. Data centre tender concept design. Oman. 60m2.

2012: Institute of Cartography of Catalonia. Upgrade of air-cooled chiller system for data centre. Barcelona (Spain). 2 x 300 kW.

2012: CESICAT- CTTI. Update of electrical facility for data centre and corporate building. Barcelona (Spain). 860 kW.

2011: Orange. High efficiency housing data centre (PUE 1.5). Hospitalet de Llobregat (Spain). 330m2.

2011: Catalunya Radio. In house secured data center. Barcelona (Spain). 100m2.

2011: Orange. Data centre upgrade for low density housing services. Jose Agustín Goytisolo- Barcelona (Spain). 72m2.

2011: Global Switch. Turnkey with ARX for data centre upgrade. Madrid (Spain). 1500m2.

2011: La Caixa. Turnkey with ARX for corporate banking data centre. Cerdanyola (Spain). Tier IV. 1000m2.

2011: Institute of Cartography of Catalonia. Data centre 2x250kVA UPS system. Barcelona (Spain).

2011: Orange. Data centre 2x1250 kVA diesel generator system in Pedrosa. Barcelona (Spain).

2011: Orange. Data centre 2x630 kVA diesel generator system in Zona Franca. Barcelona (Spain).

2011: CTTI. Corporate building telecommunication infrastructure. Barcelona (Spain). 2.500m2.

2011: Barcelona City Hall. 100 km Optical fiber network and 150 client connections. @22 Quartier. Barcelona (Spain). EACOM.

2011: Barcelona City Hall. 250 km Optical fiber network and 150 public buildings connected. EACOM. Barcelona (Spain).

2011: Abertis Autopistas. Close toll system upgrade, with 150 units TP2 in AP-2 speedway. EACOM. Catalonia (Spain).

2011: Abertis Autopistas. Camera surveillance systems at the C32, C33, AP7 and AP2 speedways (100 units). EACOM. Catalonia (Spain).

2011: Telefónica. FTTH connection network to 20.000 housing units. EACOM. Barcelona (Spain).

2011: CTTI. Formula 1 Race Circuit optical fiber infrastructure. Barcelona (Spain). 2 km.

2011: Barcelona City Hall. Renewal and centralization of traffic light system (450 crossings). EACOM. Barcelona (Spain).

2011: Catalan Government (CTTI). 250 km Optical fiber network between Cervera and Girona. EACOM. Catalonia (Spain).

2005-2011: Orange. FO switching & housing data centre upgrading. Pedrosa-Barcelona (Spain). 2789m2.

2010: Catalan Institute of Cartography. MV & LV Electrical installation for data center and corporate building. Barcelona (Spain). 1500kVA.

2010: Global switch. Turnkey with ARX for data centre upgrade. Madrid (Spain). 850m2.

2010: IECISA. Turnkey with ARX for ANCERT corporate data centre. Sant Cugat-Barcelona (Spain). 150m2.

2010: Credit Suisse. Turnkey with ARX for facility set up inside an existing Housing data centre. Madrid (Spain). 160m2.

2010: NTT Communications. Turnkey with ARX for facility set up inside an existing Housing Data Centre. Madrid (Spain). 350m2.

2010: Interdominios. Turnkey with ARX for modular data centre. Madrid (Spain). 250m2.

2010: Globalia. Turnkey with ARX for in house corporate data centre. Mallorca (Spain). 175m2.

2010: D-ALIX. Turnkey with ARX for FO node and housing green data centre. Datacenter Leaders Awards 2010. Tenerife (Spain). 1950m2.

2010: Vodafone. Optical fiber connectivity to 180 BTS nodes. EACOM. Catalonia (Spain).

2010: Abertis Autopistas. 550 units of Radio-Toll station in Abertis speedways. EACOM. Catalonia (Spain).

2010: Catalan Government (CTTI). 25 km Optical fiber network in Vialdecans, Vilanova, Manresa and Montmeló. Spain.

2009: BCN Stock Market. Disaster recovery data center. Barcelona (Spain). 77m2.

2009: BULL. Concept design for the construction and operation of a housing data center in Barcelona (Spain). 300m2.

2009: Orange. Earth and neutral systems audit of a data centre in Garcilaso - Barcelona (Spain).

2009: ALPI. Power systems upgrade for an optic fiber node in Torre Colon - Barcelona (Spain). 50kW.

2009: Orange. Optic fiber switching node data centre. Sant Cugat (Spain). 52m2.

2008: Interxion. Turnkey with ARX for a housing data centre upgrade. Madrid (Spain). 960m2.

2008: ALPI. Optic fiber switching node data centre. Vic (Spain). 28m2.

2008: ALPI. Optic fiber switching node data centre upgrade. Girona (Spain). 125m2.

2008: France Telecom. Optic fiber switching node data centre. Power systems upgrade. Renfe-Tarragona (Spain). 73m2.

2007: Interxion. Turnkey with ARX for a housing data centre upgrade. Madrid (Spain). 1000m2.

2007: Global switch. Turnkey with ARX for data centre upgrade. Madrid (Spain). 1000m2.

2007: Catalan Institute of Cartography. In house corporate data centre upgrade. Barcelona (Spain). 175m2.

2007-2005: Alpi. ULL connection optical fiber network. Catalonia (Spain). 65 km.

2006: ALPI. Data centre 200 kVA diesel generator system in Poblenou. Barcelona (Spain).

2006: ALPI. Optic fiber switching node data centre upgrade in Poblenou. Barcelona (Spain). 431m2.

2006: ALPI. Optic fiber switching node data centre at COMB. Barcelona (Spain). 27m2.

2005: Abertis Autopistas. 550 km Optical fiber network in Speedways C-32, C-33, AP-7 i AP-2. EACOM. Catalonia (Spain).

2005: Abertis Autopistas. Traffic Information panels systems at the C32, C33, AP7 and AP2 speedways (80 units). EACOM. Catalonia (Spain).

2005: Retevisión. Upgrade and complete refurbishment of a mission-critical broadcasting centre. Alfàbia (Spain). 2811 m2.

2005: Retevisión. Upgrade and complete refurbishment of a mission-critical broadcasting centre. Pollença (Spain). 253 m2.

2005: Retevisión. Upgrade and complete refurbishment of a mission-critical broadcasting centre. Sant Salvador (Spain). 150 m2.

2005: Retevisión. Upgrade and complete refurbishment of a mission-critical broadcasting centre. Calvià (Spain). 287 m2.

2004: Retevisión. Upgrade and complete refurbishment of a mission-critical broadcasting centre. Alicante (Spain). 1484 m2.

2004: Retevisión. Upgrade and complete refurbishment of a mission-critical broadcasting centre. Almería (Spain). 964 m2.

2000: Catalana de Telecomunicacions. Optic fiber switching node data centre at Palau Robert. Barcelona (Spain). 150m2.

2000: Catalana de Telecomunicacions. Optic fiber switching node data centre at Palau Robert. Barcelona (Spain). 150m2.

2000: Catalana de Telecomunicacions. Optic fiber switching node data centre at Justice department building. Barcelona (Spain). 50m2.

2000: Catalana de Telecomunicacions. Optic fiber switching node data centre at PTOP. Barcelona (Spain). 100m2.

2000: Catalana de Telecomunicacions. Optic fiber switching node data centre at CIDEM. Barcelona (Spain). 25m2.

B-Global

Key facts

Differentiation
Data Centre Specialists, Multidisciplinary, Creative Design, Innovation, Sustainability, International experience.

Services
Architecture & Master Planning, M&E Engineering.

Sectors
Supercomputers, Landing Stations, greenfield and brownfield Data Centres, DC Parks, Renewable Energy, R&D.

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