



DATA CENTER | ES 1



KIO Networks Group is an international company founded in 2002 that provides critical mission information technology services and outsourcing services through cutting-edge Data Centers with the highest degree of security, availability and density, in Mexico, Central America, the Caribbean and Europe.

KIO Networks offers integrated ICT services and solutions to both the public and private sectors, with the support of more than 40 Data Centers in a safe, scalable and professional environment.

KIO ESP |₁ started up operations in 2014, with a Data Center with TIER IV characteristics.

KIO ESP |₁ is located in the Levante region of Spain, in the Murcia area, on the Espinardo University Campus, in a state-of-the-art architectural space with spacious green areas. The address is: Calle Santiago Navarro, N° 8, C.P: 30.100 Espinardo (Murcia).

CHARACTERISTICS

Design: Computer room with an area of 172m², reinforced floor with earthquake-proof pedestals, in a control environment with a reinforced structure.

Electrical capacity: The center has two 600 kVA UPS, with sufficient capacity to provide stabilized power to all of the equipment installed in the Data Center. The UPS batteries are constantly monitored by the SCADA system.

Redundancy: 2N architecture in the electrical infrastructure, with two 1,200 kW backup generators and a diesel reserve, providing 4-day autonomy. The architecture of the cooling equipment also has high availability (2N).

Power supply / Service Drop: Two 1.4 MW power supplies / service drops coming from two of the electricity operator's high-voltage rings.

Energy efficiency: KIO has indirect Free Cooling, which allows it to save power in the cooling system when the humidity and temperature conditions are ideal, helping it achieve a design PUE of 1.4.

Carrier neutral: Open invitation to all Carriers. The current Carriers are: ONO, Telefónica, Ufinet. The main operators from both the wholesale and the retail market also have a presence with KIO.

Security: There are 5 two-factor authentication (proximity and facial recognition biometrics) controls, with a 7x24x365 Video Surveillance system with a 30-day storage capacity. The center has received Payment Card Industry Data Security Standard (PCI) certification.

Monitoring: It has a Supervisory Control & Data Acquisition (SCADA) system that monitors the efficiency and proper operation of all of the Data Center's electromechanical infrastructure.

Fire protection: Double system for fire detection through both a "standard" detection system and an Aspiration Smoke Detection (ASD) early detection system. Water mist-based fire extinguishing system for all the Center's rooms, certified for IT rooms.

NOC: Advanced operations and network monitoring center.

Qualified personnel: There are trained and qualified operating personnel 7x24x365 days a year.

CHARACTERISTICS



Type of walls	Reinforced concrete
Wall thickness	14 cm (5.51 inches)
Perimeter wall	Perimeter fence
Construction of perimeter wall	Reinforced concrete
Wheelchair access	Yes
Dedicated Data Center building	Yes
Distance to a police station	2.2 km (1.36 miles)
Distance to a fire station	0.9 km (0.55 miles)
Data Hall No1 technical floor area	172 m2 (1,851.39 ft2)
MDA A technical floor area	40 m2 (430.55 ft2)
MDA B technical floor area	38 m2 (409.02 ft2)
Raised floor - Concentrated load	1,000 kg (2,204.62 lb)
Raised floor - Uniform load	1,500 kg (3,306.93 lb)
Raised floor - Impact load	340 kg (749.57 lb)
Raised floor - Last load	2,500 kg (5,511.55 lb)
Separate room for UPS	Yes
UPS room with redundant air conditioning	Yes
Maximum cabinet capacity	78 approx.
Height above sea level (meters)	43 m (141.07 ft)
Distance to the ocean (kilometers)	48 km (29.82 miles)

SECURITY



Access control	Mantrap
Authentication factors	4 (Biometrics, facial, proximity card, fingerprint)
Visitor log	Yes
7x24 Security personnel	Yes
Security cameras	Yes
Minimum DVR recording time	30 days
Fire detection	VESDA
Automatic fire extinguishing	HiFog (Water Mist)

COMMUNICATIONS



Copper wiring	Category 6A or higher
Fiber wiring	Single and multi-mode
Wire covering	Plenum and / or LSOH
Space for Carriers	Yes

POWER CHARACTERISTICS



Redundancy	2N
Availability	UI Tier IV Design
Design capacity in m2	2.12 kW / IT
UPS capacity	600 kVA
Constant battery monitoring	Yes
Transformer capacity	1,600 kVA
Number of power connections	2
UPS autonomy time	7 minutes
Diesel autonomy time	4 days
Total diesel tank capacity	21,000 liters
Number of generators	2
Total generator capacity	1,200 kW

CERTIFICATIONS



ISO/IEC 27001	Uptime Institute
ISO 22301	TIER IV Design and
PCI DSS	Construction



ELECTROMECHANICAL CHARACTERISTICS (COOLING)



Number of total units	20
Number of redundant units	10
Tons of cooling for the Data Center	285

