

# DATA CENTER

## KIO Mexico 5

### (MEX 5)

KIO is an international company, founded in 2002, a provider of mission-critical Information Technology services that operates state-of-the-art Data Centers with the highest security, availability and density in Mexico, Colombia and Central America. KIO hosts a robust and wide ecosystem of different industry sectors in the region within its Data Centers ensuring a professional, redundant, scalable and secure environment.

KIO MEX5 joined the KIO portfolio in 2014, with a technological complex with TIER III characteristics and certification.

Location: is located in the Mexico City Metropolitan Area at: Blvd. Benito Juárez 20, corner Av. López Portillo, Colonia San Mateo Cuauhtepc, Tultitlán, State of Mexico 54948.

Coordinates: 19° 37' 41.4" N 99° 8' 55.2" W

## CHARACTERISTICS

### Design

8,000 m<sup>2</sup> of white floor with 6,817 m<sup>2</sup> dedicated to 8 data halls, it has a 1 m high false floor with anti-seismic pedestals.

### Electrical capacity

Thirty-two 600 kVA UPS that are redundant and have sufficient capacity to provide uninterrupted power to all of the installed equipment. They also have an advanced battery monitoring system.

### Redundancy

2N in the distribution from the UPS to the load point, with twelve 2,400 kW generators in an N+1 configuration that have diesel storage tanks providing 7-day autonomy.

### Power supply / Service drop

3 power connection supplies / service drops, two of which are 7.5 MVA delivered through two routes, underground and through the air for critical loads, and a third 2 MVA connection for general services.

### Energy efficiency

KIO Green with renewable energy and indirect and direct 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 1.6.

### Monitoring

It has a Building Monitoring System (BMS) that monitors the efficiency and proper operation of all of the Data Center's electromechanical infrastructure.

### Carrier neutral

Open invitation to all Carriers.

The current Carriers are:

- Arelion
- ATC
- AT&T
- Axtel/Alestra
- Bestel
- C3ntro
- Cirion
- Cogent
- Flō Networks
- Izzi
- MCM (Megacable)
- Metrocarrier
- Telmex
- TotalPlay
- Vivaro
- Zayo

KIO also has a high-speed interconnection network among its Data Centers.

### Fire protection

It has smoke detectors, manual stations and audiovisual alerts in all areas. Has a fire suppression system with a clean agent, as well as a Very Early Smoke Detection Apparatus (VESDA) and a double interlock preaction system.

### NOC

Advanced operations and network monitoring center.

### Qualified personnel

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

### Security

There are 5 two-factor authentication (proximity and facial recognition biometrics) controls, with a 7x24x365 Video Surveillance system with a 90-day storage capacity. The center has received Payment Card Industry Data Security Standard (PCI) certification.

## PHYSICAL CHARACTERISTICS

Type of walls	Reinforced concrete
Wall thickness	20 cm (7.87 inches)
Perimeter wall	Yes
Construction of perimeter wall	Reinforced concrete
Wheelchair access	Yes
Dedicated Data Center building	Yes
Distance to a police station	3 km (1.86 miles)
Distance to a fire station	5 km (3.10 miles)
Data Hall No1 technical floor area	1,073 m <sup>2</sup> (11,549.67 ft <sup>2</sup> )
Data Hall No2 technical floor area	1,073 m <sup>2</sup> (11,549.67 ft <sup>2</sup> )
Data Hall No3 technical floor area	870.51 m <sup>2</sup> (9,370.09 ft <sup>2</sup> )
Data Hall No4 technical floor area	931.65 m <sup>2</sup> (10,028.19714 ft <sup>2</sup> )
Data Hall No5 technical floor area	659.83 m <sup>2</sup> (7,102.35 ft <sup>2</sup> )
Data Hall No6 technical floor area	659.83 m <sup>2</sup> (7,102.35 ft <sup>2</sup> )
Data Hall No7 technical floor area	743.17 m <sup>2</sup> (7,999.41 ft <sup>2</sup> )
Data Hall No8 technical floor area	806.25 m <sup>2</sup> (8,678.40 ft <sup>2</sup> )
MDA A technical floor area	62.51 m <sup>2</sup> (672.85 ft <sup>2</sup> )
MDA B technical floor area	58.06 m <sup>2</sup> (624.95 ft <sup>2</sup> )
MPOE A technical floor area	60 m <sup>2</sup> (646 ft <sup>2</sup> )
MPOE B technical floor area	40 m <sup>2</sup> (430 ft <sup>2</sup> )
Raised floor - Concentrated load	567 kg (1,250 lb)
Raised floor - Uniform load	1,952.97 kg/m <sup>2</sup> (400 lb/ft <sup>2</sup> )
Raised floor - Impact load	68 kg (150 lb)
Raised floor - Last load	2,222 kg (4,900 lb)
Separate room for UPS	Yes
UPS room with redundant air conditioning	Yes
Maximum cabinet capacity	3,478 approx.
Availability of space with perimeter cage	Yes
Height above sea level (meters)	2,235 m (7,332.67 ft)
Distance to the ocean (kilometers)	250 km (155.34 miles)

## POWER CHARACTERISTICS

Redundancy	2N
Availability	UI Tier III
Design capacity in m2	1 kW / IT
UPS capacity	(32) 600 kVA
Constant battery monitoring	Yes
Transformer capacity	2,500 kVA
Number of power connections	3
UPS autonomy time	6 minutes
Diesel autonomy time	7 days
Total diesel tank capacity	203,562 liters (53,852 gl)
Number of generators	7
Total generator capacity	2,750 kW

## ELECTROMECHANICAL CHARACTERISTICS (COOLING)

Number of total units	30
Number of redundant units	4
Tons of cooling for the Data Center	2,850

## SECURITY

Access control	Mantrap
Authentication factors	Two (Facial biometrics and proximity card)
Visitor log	Yes
7x24 Security personnel	Yes
Security cameras	Yes
Minimum DVR recording time	90 days
Fire detection	VESDA
Automatic fire extinguishing	Double interlock preaction

**COMMUNICATIONS**

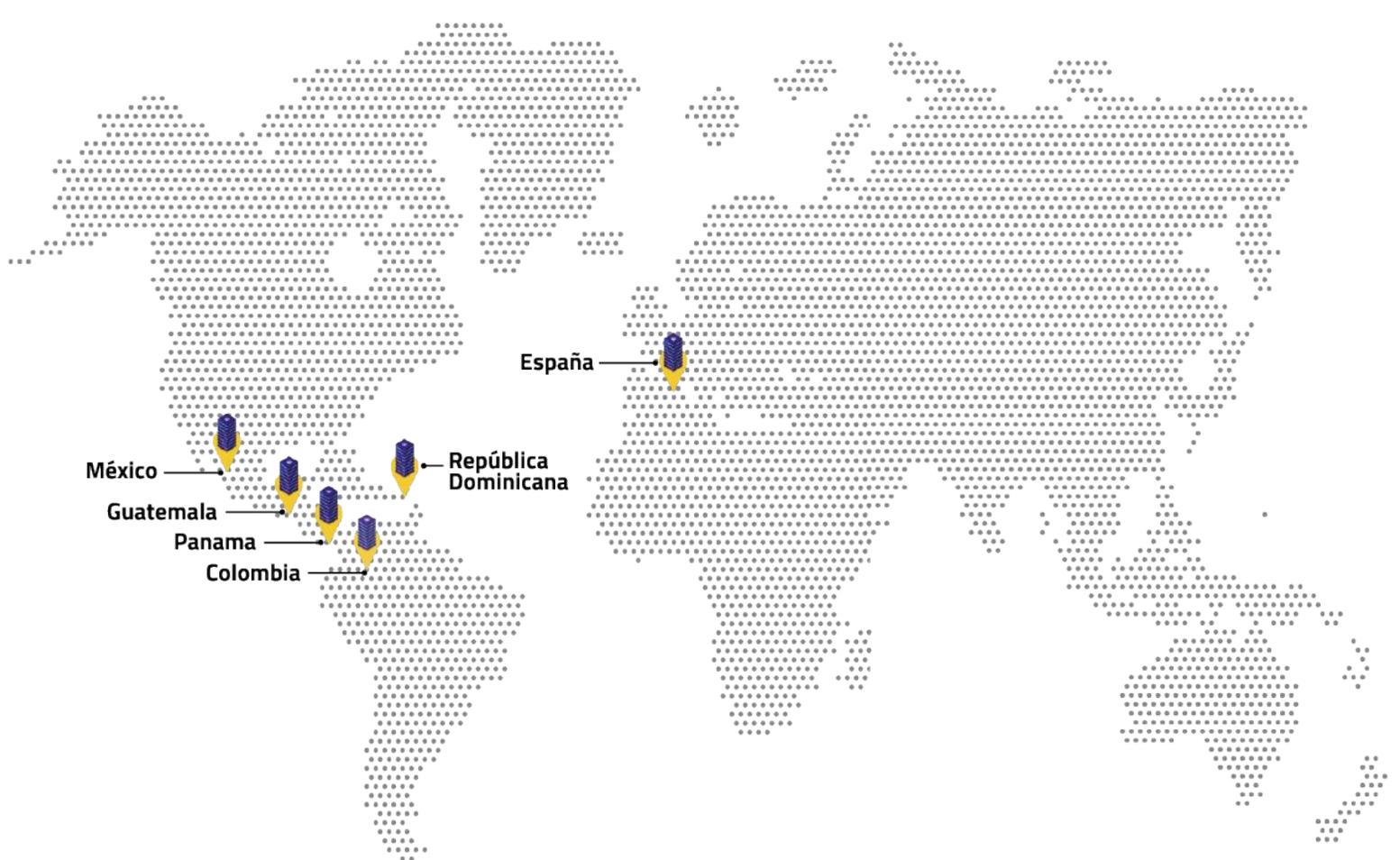
Copper wiring	Category 6A or higher
Fiber wiring	Single mode and multimode
Wire covering	Plenum and/or LSOH
Space for Carriers	Yes
Site Entry	Yes

**CERTIFICATIONS**

ICREA Nivel V (DataHall 3)	ISO/IEC20000-1:2018
ICREA Nivel IV (DataHall 1 and 2)	ISO/IEC27001:2013
ICREA Nivel VI	ISO/IEC 9001:2015
CEEDA GOLD	ISO/IEC 22301:2012
PCI DSS	ISO/IEC 37001:2016
SSAE18 (SOC 1)	Uptime Institute Tier III



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