

# Data Center

## KIO Queretaro 1 (QR01)

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.

It started operations in 2007, and it is one of the most advanced Data Center in the region. It has an ICREA VI level certification for its design and construction.

Location: It is located 200 km from Mexico City at: Cerrada de la Princesa No. 4, Parque Industrial El Marqués, Querétaro, 76246

Coordinates: 20° 33'59.2"N 100° 15'24.8"W

### CHARACTERISTICS

#### Design

Seven computer rooms with a total area of 5,166 sqm , it has a false floor of a height of 0.90 m reinforced, with anti-seismic pedestals.

#### Electrical capacity

20 redundant 750 kVA UPS and they have sufficient capacity to provide uninterrupted power to all of the installed equipment. They also have an advanced battery monitoring system.

#### Redundancy

2N in all the electrical equipment, with twelve 2,000 kW emergency power generators, with a diesel reserve, providing 7-day autonomy.

#### Power supply / Service drop

Two medium-voltage 14 MVA (34.5 kV) power supply connections / service drops.

#### Energy efficiency

KIO Green with renewable energy and 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 1.7.

#### 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
- › Axtel/Alestra -Bestel
- › BT Global -C3ntro
- › Cirion -Cogent
- › EdgeUno -Fibra TV
- › Flō Networks -Gold Data
- › IENTC -Izzi
- › MCM (Megacable) -Metrocarrier
- › PCCW Global -QuattroCom
- › Starlink -Telmex
- › TotalPlay -TV Rey
- › Vivaro -Wantelco
- › 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, 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 five 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 inch)
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 millas)
Distance to a fire station	15 km (9.32 millas)
Data Hall N° 1 technical floor area	1,000 m2 (10,763 ft2)
Data Hall N° 2 technical floor area	1,000 m2 (10,763 ft2)
Data Hall N° 3 technical floor area	1,000 m2 (10,763 ft2)
Data Hall N° 4 technical floor area	1,000 m2 (10,763 ft2)
Data Hall N° 5 technical floor area	1,000 m2 (10,763 ft2)
Data Hall N° 6 technical floor area	64 m2 (688 ft2)
Data Hall N° 7 technical floor area	102 m2 (1097 ft2)
MDA technical floor area	62 m2 (667 ft2)
MPOE technical floor area	53 m2 (570,487 ft2)
MPOE 2 technical floor area	52 m2 (559,723 ft2)
Raised floor - Concentrated load	567 kg (1,250 lb)
Raised floor - Uniform load	1,953 kg/m2
Raised floor - Impact load	79 kg (175 lb)
Raised floor - Last load	1,769 kg (3,900 lb)
Separate room for UPS	Sí
UPS room with redundant air conditioning	Sí
Maximum cabinet capacity	2,347 aprox
Availability of space with perimeter cage	Sí
Height above sea level (meters)	1,820 m (5,971.12 ft)
Distance to the ocean (kilometers)	679 km (421.91 millas)

## POWER CHARACTERISTICS

Redundancy	2N
Availability	ICREA Level V
Design capacity in m2	1.2 kW / IT
UPS capacity	750 kVA
Constant battery monitoring	Yes
Transformer capacity	1,500 kVA
Number of power connections	2
UPS autonomy time	6 minutes
Diesel autonomy time	7 days
Total diesel tank capacity	180,000 liters total (47,550.9695 gal)
Number of generators	12
Total generator capacity	2,000 kW

## ELECTROMECHANICAL CHARACTERISTICS (COOLING)

Number of total units	52
Number of redundant units	10
Tons of cooling for the Data Center	1,800

## 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 system
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**

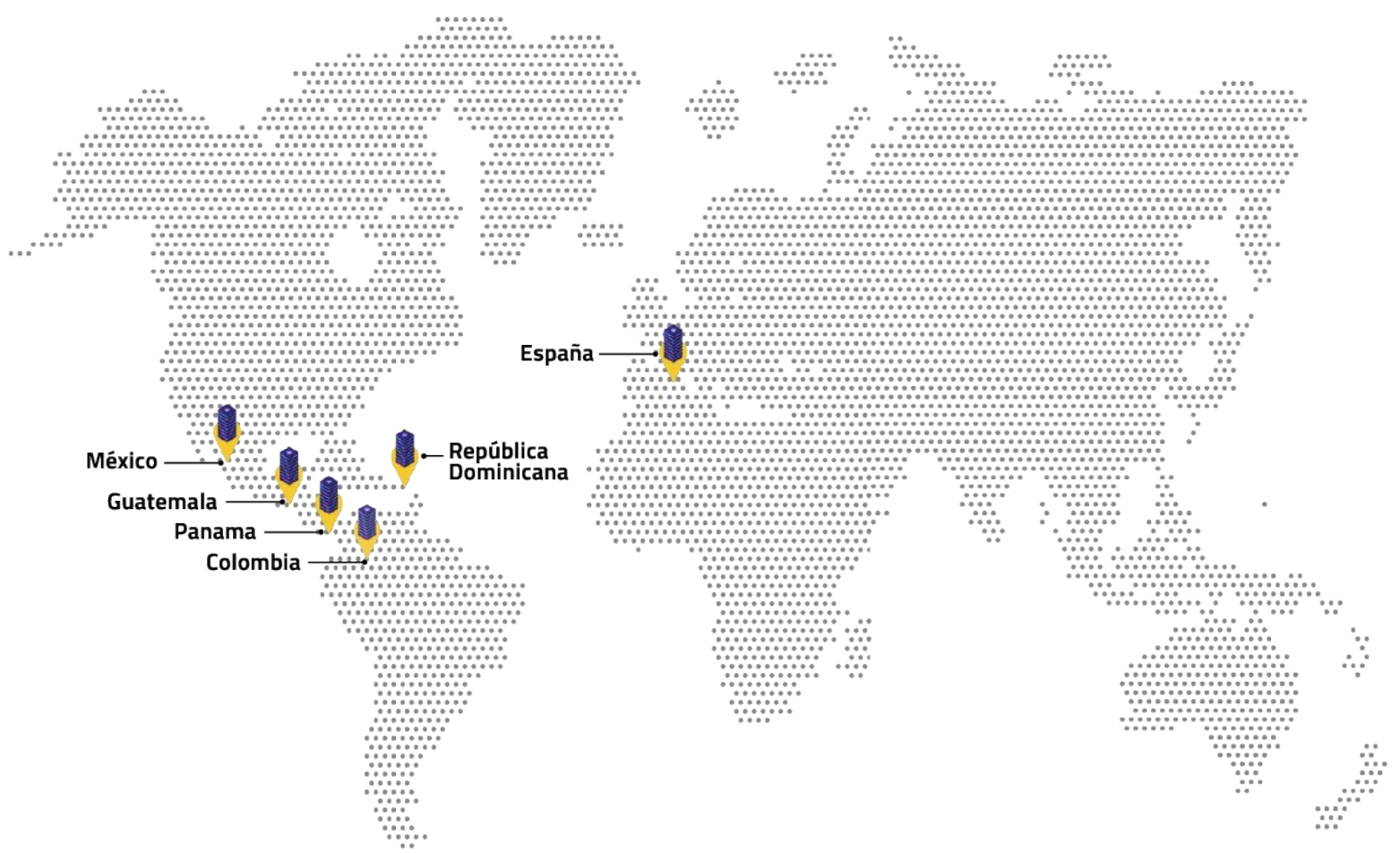
ICREA Level V	ISO/IEC20000-1:2018
ICREA Level VI	ISO/IEC27001:2013
CEEDA GOLD	ISO/IEC 9001:2015
PCI DSS	ISO/IEC 22301:2012
SSAE18 (SOC 1)	ISO/IEC 37001:2016



International Computer Room Experts Association



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Edition 07/09/2023