

# DATA CENTER

## KIO Mexico 1 (MEX1)

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 MEX1 started operations in 2002, this Data Centers have TIER III characteristics.

KIO MEX1 is located at Carretera México-Toluca 5287, Cuajimalpa, La Rosita, Lomas de Vista Hermosa, México City, CDMX, CP 05000.

Coordinates 19° 21'51.23"N 99° 16'37.45"W

## CHARACTERISTICS

### Design

Four computer rooms with an area of 650 m<sup>2</sup> each, with a reinforced false floor with earthquake-proof pedestals and a category-4 structure. The Data Center was designed based on the Uptime Institute Standard, specifically as a TIER III design.

### Electrical capacity

It has eight UPS of 400 kVA, that are redundant and have sufficient capacity to provide uninterrupted and filtered power to the installed equipment. They also have an advanced battery monitoring system.

### Redundancy

N+1 in the electrical equipment, with four 1,5 MW emergency power generators. They have diesel storage tanks, providing 7-day autonomy. The cooling equipment has an N+2 configuration, 8 CRAC's for redundancy.

### Power supply / Service drop

Two medium-voltage (23 kV) power supply connections / service drops.

### Energy efficiency

Average PUE of 1.7.

### Monitoring

It has a Building Monitoring System (BMS), which monitors the efficiency and proper functioning of the entire electromechanical infrastructure of the Data Center.

### Carrier neutral

Open invitation to all Carriers.

The current Carriers are:

- ATC
- Axtel / Alestra
- Bestel
- C3ntro
- Cogent
- EdgeUno
- Flō Networks
- Izzi
- Maxcom
- MCM (Megacable)
- Metrocarrier
- Metronet
- Metrored
- Telmex
- TotalPlay

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, in compliance with the standards of the National Fire Protection Association (NFPA), as well as a Very Early Smoke Detection Apparatus (VESDA) and a double interlock preaction SECO 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           | Block                    |
| Wheelchair access                        | Yes                      |
| Dedicated Data Center building           | Yes                      |
| Distance to a police station             | 4.4 km (2.73 miles)      |
| Distance to a fire station               | 4.8 km (2.98 miles)      |
| Data Hall No1 technical floor area       | 650 m2 (6,992 ft2)       |
| Data Hall No2 technical floor area       | 650 m2 (6,992 ft2)       |
| Data Hall No3 technical floor area       | 650 m2 (6,992 ft2)       |
| Data Hall No4 technical floor area       | 650 m2 (6,992 ft2)       |
| Raised floor - Concentrated load         | 454 kg (1,000 lb)        |
| Raised floor - Uniform load              | 2,216 kg/m2 (454 lb/ft2) |
| Raised floor - Impact load               | 79 kg (175 lb)           |
| Raised floor - Last load                 | 1,769 kg (3,900 lb)      |
| Separate room for UPS                    | Yes                      |
| UPS room with redundant air conditioning | Yes                      |
| Maximum cabinet capacity                 | 1,100 approx.            |
| Space availability with perimeter cage   | Yes                      |
| Height above sea level (meters)          | 2,264 m (7,427.82 ft)    |
| Distance to the ocean (kilometers)       | 280 km (173.98 miles)    |

## POWER CHARACTERISTICS

|                             |                           |
|-----------------------------|---------------------------|
| Redundancy                  | N+1                       |
| Availability                | ICREA Level IV            |
| Design capacity in m2       | 0.807 kW / IT             |
| UPS capacity                | 400 kVA                   |
| Constant battery monitoring | Yes                       |
| Transformer capacity        | 1,500 kVA                 |
| Number of power connections | 2                         |
| UPS autonomy time           | 11 minutes                |
| Diesel autonomy time        | 7 days                    |
| Total diesel tank capacity  | 60,000 liters (15,850 gl) |
| Number of generators        | 4                         |
| Total generator capacity    | 1,500 kW                  |

## ELECTROMECHANICAL CHARACTERISTICS (COOLING)

|                                     |     |
|-------------------------------------|-----|
| Number of total units               | 32  |
| Number of redundant units           | 8   |
| Tons of cooling for the Data Center | 960 |

## 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

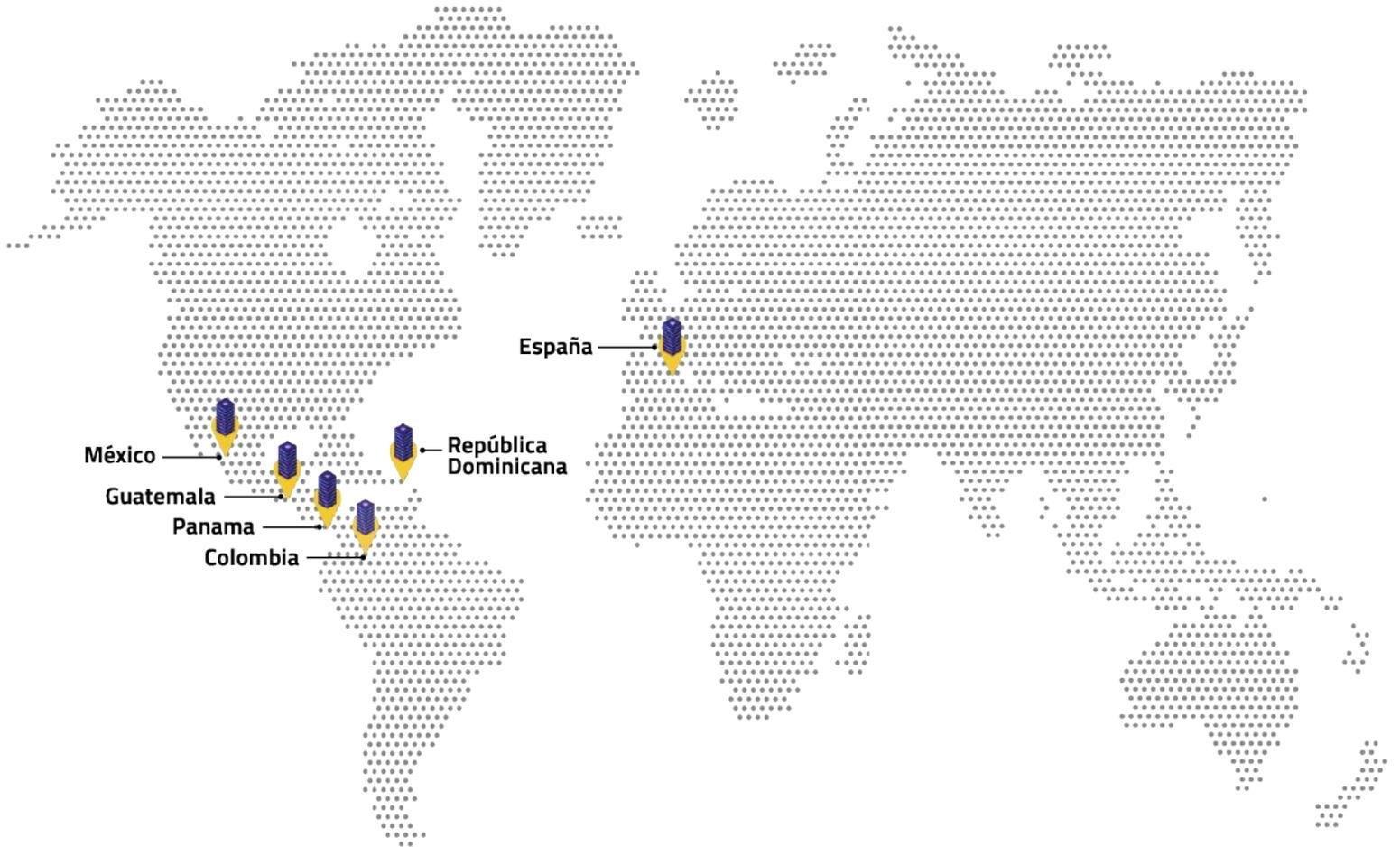
|                    |                           |
|--------------------|---------------------------|
| Copper wiring      | Category 6A or higher     |
| Fiber wiring       | Single mode and multimode |
| Wire covering      | Plenum and/or LSOH        |
| Space for Carriers | Yes                   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

## CERTIFICATIONS

|                           |                     |
|---------------------------|---------------------|
| ICREA Level IV            | ISO/IEC20000-1:2018 |
| ICREA Level VI            | ISO/IEC27001:2013   |
| CEEDA SILVER              | ISO/IEC 9001:2015   |
| PCI DSS                   | ISO/IEC 22301:2012  |
| SSAE18 (SOC 1)            | ISO/IEC 37001:2016  |
| Uptime Institute Tier III | ISO/IEC 14001:2015  |



International Computer Room Experts Association



Global, secure and efficient  
Data Centers for your business