

Data Center

KIO Bogota 1 (BOG1)

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 BOG1 started operations in 2023, it is one of the most advanced data centers in the region with TIER III characteristics with an N+1 distributed redundant topology

KIO BOG1 Data Center has a power capacity for IT and telecom equipment of 5.6 MW with expansion capabilities on the adjacent land BOG2 to duplicate its capacity to 11.2 MW

Location: It is located in the Zona Franca of Bogota, Colombia, 8 miles away from the downtown area of the city and 3 miles from the El Dorado International Airport of Bogotá

Coordinates: 4° 40'28.8"N 74° 09'18.2"W

Carrier neutral

All Telecom Carriers welcomed. The Carriers currently engaged in the Free Zone are:

- Azteca Telecomunicaciones
- Cirion
- Claro
- eTb
- Globenet
- Gold Data
- IFX Networks
- Internexa
- Liberty Networks
- Media Commerce
- Sencinet
- Telefónica
- Tigo
- Ufinet
- WOM

CHARACTERISTICS

Design

4 story building with 4,977 m2 of construction, 1,160 m2 of space available in Data Halls in a 1st stage of the building and expansion capacity to double this space in a 2nd stage

Anti-seismic construction.

Electrical capacity

3 independent redundant 2.0 MVA BUS inputs, with sufficient capacity to provide uninterrupted power to all installed equipment. It has an advanced battery monitoring system.

Redundancy

UPS 3 branches in parallel distributed, 3 additional UPS dedicated to the mechanical infrastructure.
CRAH N+1, 3 generators of 1,650kW, distributed parallel DCC, granting a diesel autonomy of 40.5 hours.

Power supply / Service drop

In medium voltage of 10 MVA (34.5 kV).

Energy efficiency

High efficiency, redundant power system achieves a PUE of 1.4 at full load, with two different power supplies for each module, and has an indirect free cooling system, taking advantage of the environmental conditions of the city of Bogotá.

Designed and built for the deployment of technologies that require low latencies for operations, with line available to connect 14 fiber networks

Monitoring

Real-time monitoring (BMS Honeywell) Closed-circuit high-definition video surveillance that allows facial recognition (TYCO).

Fire protection

- Ultraviolet camera system for early detection of fires in the generator area.
- Particle increase detection system (VESDA) for early warning signals in critical areas.
- Automatic fire extinguishing system in all areas of the data center.
- All critical areas have 2-hour fire resistance walls, and the generator area has fire curtains.

NOC

There is an area prepared with Monitors to follow the Control and Monitoring of the BMS and CCTV Platform.

Qualified personnel

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

Security

3 security rings, biometric access system, authentication to the white zone and to the corridor of technical rooms, HID iClass proximity card reader for access to technical rooms. Monitored by closed circuit television (CCTV) Surveillance staff 24/7.

PHYSICAL CHARACTERISTICS

Type of walls	Reinforced concrete
Wall thickness	13.9 a 15 cm (5.4 to 5.9 in)
Perimeter wall	Yes
Construction of perimeter wall	Reinforced concrete beam
Wheelchair access	Yes
Dedicated Data Center building	Yes
Distance to a police station	1,500 m (4,921 ft)
Distance to a fire station	350 m (1,148,29 ft)
Data Hall 1 technical floor area	195 sqm (2099 ft ²)
Data Hall 2 technical floor area	191 sqm (2056 ft ²)
Data Hall 3 technical floor area	195 sqm (2099 ft ²)
Data Hall 4 technical floor area	191 sqm (2056 ft ²)
Data Hall 5 technical floor area	195 sqm (2099 ft ²)
Data Hall 6 technical floor area	191 sqm (2056 ft ²)
MDA technical floor area	22 and 18 sqm (72 and 59 ft ²)
Raised floor - Concentrated load	5,570 N/sqm 3,350 kgf/sqm
Raised floor - Uniform load	33,000 N/sqm - 3,350 kgf/sqm
Raised floor - Impact load	780 N - 79.5 kgf
Raised floor - Last load	16,680 N - 1,700 kgf
Separate room for UPS	Yes
UPS room with redundant air conditioning	Yes
Maximum cabinet capacity	76 racks per room (of 4 kW c/u) - 456 total racks
Space availability with perimeter cage	Yes
Height above sea level (meters)	2,670 m (8,759.84 ft)
Distance to the ocean (kilometers)	1,300 km

POWER CHARACTERISTICS

Redundancy	N+1 distributed parallel
Availability	TIER III
Design capacity in sqm	1.55 kW / m ²
UPS capacity	(6) 500 kVA IT (3) 600 kVA HVAC
Constant battery monitoring	Yes
Transformer capacity	(3) 2,000 kVA
Number of power connections	1
UPS autonomy time	12 minutes
Diesel autonomy time	41.3 hrs.
Total diesel tank capacity	(1.500 gal) 3 tanks daily + + (10.000 gal) mian tank = 14.500 gal.
Number of generators	3
Total generator capacity	1,650 kW Prime DCC

ELECTROMECHANICAL CHARACTERISTICS (COOLING)

Number of total units	24
Number of redundant units	6
Tons of cooling for the Data Center	1,872

SECURITY

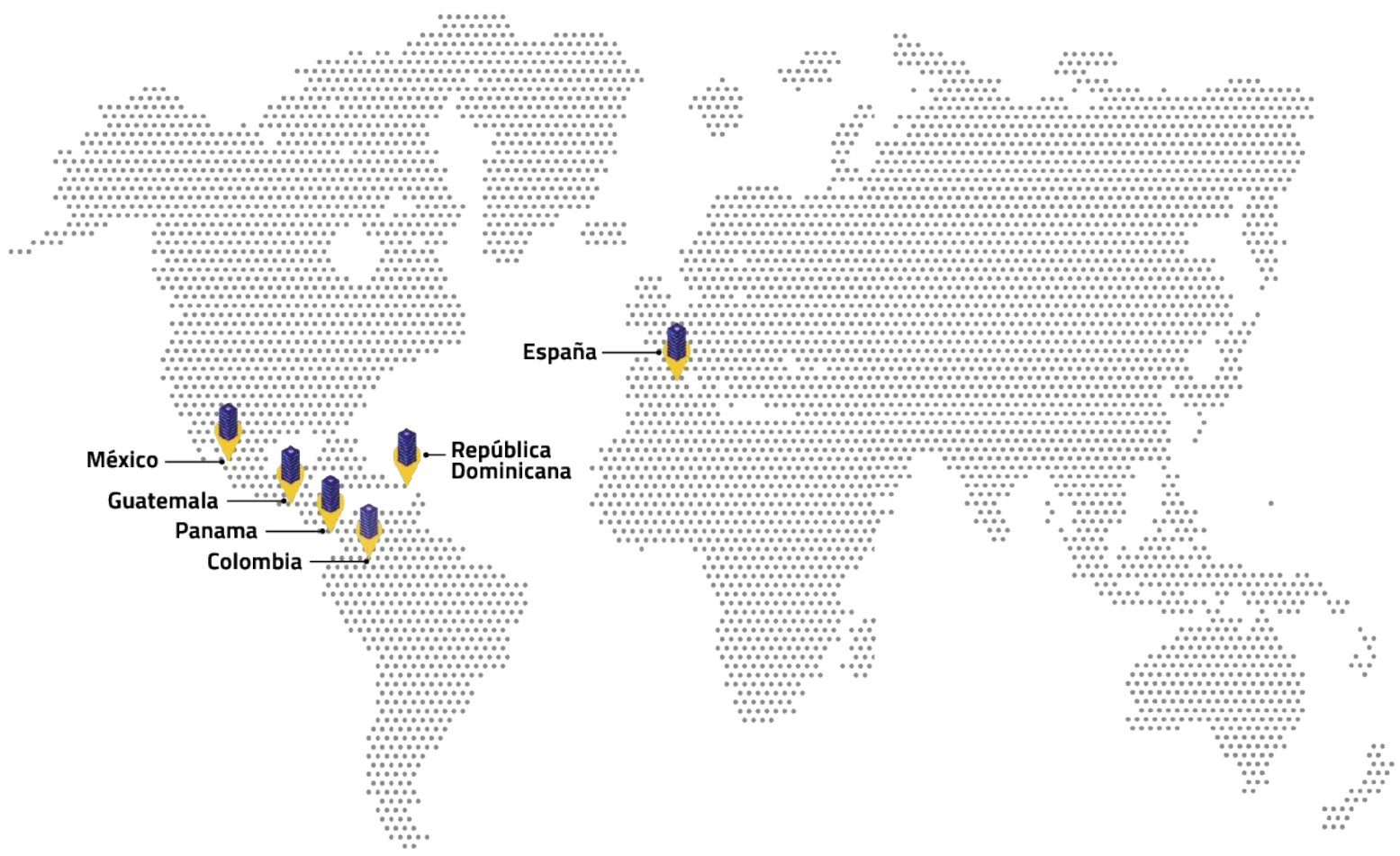
Access control	Sin esclusas, lector biométrico
Authentication factors	Three (Biometric fingerprint + PIN + proximity card)
Visitor log	Yes
7x24 Security personnel	Yes
Security cameras	Yes
Minimum DVR recording time	6 months, 180 days
Fire detection	VESDA + photoelectric point detector
Automatic fire extinguishing	Yes, NOVEC 1230 Clean Agent

COMMUNICATIONS

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

CERTIFICATIONS

Uptime Institute Tier III Design and Construction	Yes
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Global, secure and efficient
Data Centers for your business