



# Infrastructure

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The **datacenter** is a key point in an internet services provider. It is where all the servers are located.

It is essential to have strict security, the best internet access and trusty electrical sources to avoid problems with server and network systems power.

Key points of gritonet technical infrastructure are:

## Network

All gritonet network core is built around Juniper and Cisco gear and gigabit Ethernet. Grito.net is connected to the internet through Cogent and Interoute using BGP4 and has its own AS allowing complete management of routes and IP addressing. At the same time, all the core network is redundant, with a minimal convergence time thanks to the use of advanced internal routing protocols (OSPF).



Currently, gritonet guarantees a network availability of 99.9% (although current availability is much higher. Logically, with the installed infrastructure, the objective availability is 100%, but there can always be some uncontrollable factor in place. At gritonet we strongly believe that anyone promising 100% uptime is probably lying; unfortunately there are things that NO company in the world can control and affect availability.)

## Location

gritonet has its servers and network equipment in the best datacenter of Barcelona. To be more precise, those are located in the Telvent building at Zona Franca, on 30-32 Acer Street, Barcelona. It is a carrier neutral facility with fiber access to most of Spanish and European connectivity providers.

## Electrical System

- Power available to customer equipment: 400 - 2.000 W/m<sup>2</sup>.
- Power capacity: 1.6 - 2.5 MW.
- Back-UP Emergency generator (N+1 Redundancy).
- UPS (N+1 Redundancy).
- Every customer has a zone with 3 different electrical sources: Normal, UPS1 & UPS2.
- No single point of failure.



### *HVAC. Heating, Ventilating and Air Conditioning*

- The HVAC system is based on chilled water.
- The facilities environment is controlled at a constant temperature of 22°C +/- 5°C with a relative humidity between 30% and 70%.
- The pump and refrigerators are located on the roof (N+1 redundancy).
- Redundant room conditioning units(N+1).
- Water leak detection.



### *Fire Protection*

- Focusable fire detection system.
- Cross detection on ceiling and technical floor for the hole building.
- Extinction system using FE-13 gas on equipment rooms.
- Centralized gas systems.



### *Security*

- Complete control system: CCTV (closed circuit TV), presence and intrusion detection, access control.
- Access through proximity Cards.
- CCTV with images stored digitally (internal and external).
- Doors with access control on rooms with contact alarm.
- Security guards 24 x 7.



### *Building Management System (BMS)*

- A BMS monitoring system with energy, temperature, humidity, fire, security and intrusion alarms.
- BMS show the facilities status in every moment.
- Data provided by the BMS are stored.

There is a Network Operation Center (NOC) To monitor the facilities in real time.