

# CO-LOCATION COMERCIAL POLICY

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## REVIEWS

Data	Versão	Descrição	Área responsável
11/08/2016	0.1	Initial version of the document	DO-DRD-SMD
16/02/2017	1.0	Commercial Policy Review	DO-DRD-SMD
19/06/2017	1.1	Inclusion of adhesion term item	DO-DRD-SMD
05/07/2017	1.2	Board Review	DO-DRD
25/10/2018	2.0	New Commercial Policy	VPC
16/11/2018	2.1	Partnership item added in the Commercial Policy	VPC
13/12/2018	2.2	Average Latency information added in Commercial Policy	VPC
29/11/2019	3.0	New Services: Space Rental for GPS Antenna, Equipment rental for Connectivity Test and Equipment Transportation	VPC

## **B3'S DATA CENTER**

B3 is a world-class financial market infrastructure company and one of the largest in market value. We are the structure that allows, the technology that connects and the founding that develops the market.

Our data center was built in 2017 with the purpose of being the data center of the main financial centers of the world, bringing safety and credibility to the Brazilian market. Located in Santana do Parnaíba, it offers high level facilities to B3 clients. In addition, it provides very low latency connection to the PUMA platform and to the receipt of Market Data.

With Tier 3 certification, provided by the Uptime Institute, it also holds the Leed Sustainability certificate. It has total redundancy and security infrastructure 24 hours a day, seven days a week, with operational and technical centers qualified for on-site support.

## CO-LOCATION SERVICES

B3's co-location is a service that provides physical space and racks for the storage of customer computing equipment in B3's data center, an important technology center for liquidity in the Brazilian capital market. This service permits customers to host their technology infrastructure and they are able to use it to access B3's electronic platforms as well as the technology platforms of other customers by doing a cross-connection.

Hosting customer equipment and systems in the B3 data center through the hiring of co-location services allows customers to experience the lowest latency of network infrastructure for electronic trading on B3. This is possible because the network used in the co-location service is physically installed in the same infrastructure of the technological components of the PUMA Trading System trading platform, responsible for the routing of orders from the customers to the trading centers (match engines).

This document aims to describe the rules regarding the B3 co-location service, guiding current and future clients in contracting various services related to the B3 data center.

## 3 ACCESS PROFILES

For the purpose of Co-location Services provision, we have the following profiles:

### 3.1 TRADING PARTICIPANTS (PNP/PN)

B3's Full Trading Participants (PNPs) and Trading Participants (PNs) are institutions authorized to trade on the markets operated by B3, as defined in the BM&FBOVESPA Access Manual and B3's other normative documents.

#### RECOMMENDED PRODUCTS

- Trading Rack
- Web Rack
- Storage rack
- Cross Connections
- Upgrade VPN
- Smart Hands

### 3.2 TECHNOLOGICAL SOLUTION PROVIDERS

Technological Solution Providers are non-participants institutions that provide various kinds of service to other players. The main roles of this profile currently include the following (without limitation):

#### 3.2.1 Market Data Distributors

Solution provider specialized in providing B3's Market Data or other exchanges as well as any other content of interest to players located in the B3 data center. Such providers will be able to host their equipment and systems in the B3 datacenter in order to capture the real-time quote signal directly from the PUMA trading platform or even receive quotations and content from other exchanges via circuits that reach their respective racks and redistribute them directly to other contracting customers of co-location through cross-connections.

#### RECOMMENDED PRODUCTS

- Trading Rack
- Web Rack
- Storage rack
- Cross Connections
- Upgrade VPN
- Smart Hands



## 3.2.2 Order Routing Providers

They are service providers who specialize in providing Order Management and Execution Systems (EMS and OMS) and other types of systems for order routing and trading. Such providers can provide co-location contracting customers access to their systems through cross connections.

### RECOMMENDED PRODUCTS

- Trading Rack
- Web Rack
- Storage rack
- Cross Connections
- Upgrade VPN
- Smart Hands

## 3.2.3 Co-location Managed Service Providers

These are institutions that manage IT infrastructure hosting services for other companies. The technological infrastructure may be electronic trading, post-trading or related to customer administrative systems.

### RECOMMENDED PRODUCTS

- Trading Rack for Managed Service Provider
- Cross Connections Managed Services Provider
- Cross Connections GPS/PTP
- Cross Connection rack – Telecom Room
- Energy for Managed Services Provider

## 3.2.4 Connectivity Service Providers

These are institutions that provide, from their own networks, means of communication with B3 to distribute Market Data B3 in native format, without any previous manipulation. It is a way for participants in their respective communication networks from each of these providers to have access to Market Data B3's native Feed A without the need to build individual circuits dedicated to broadcasting platforms.

### RECOMMENDED PRODUCTS

- Telecom Room Rack
- Cross Connection rack
- Smart Hands

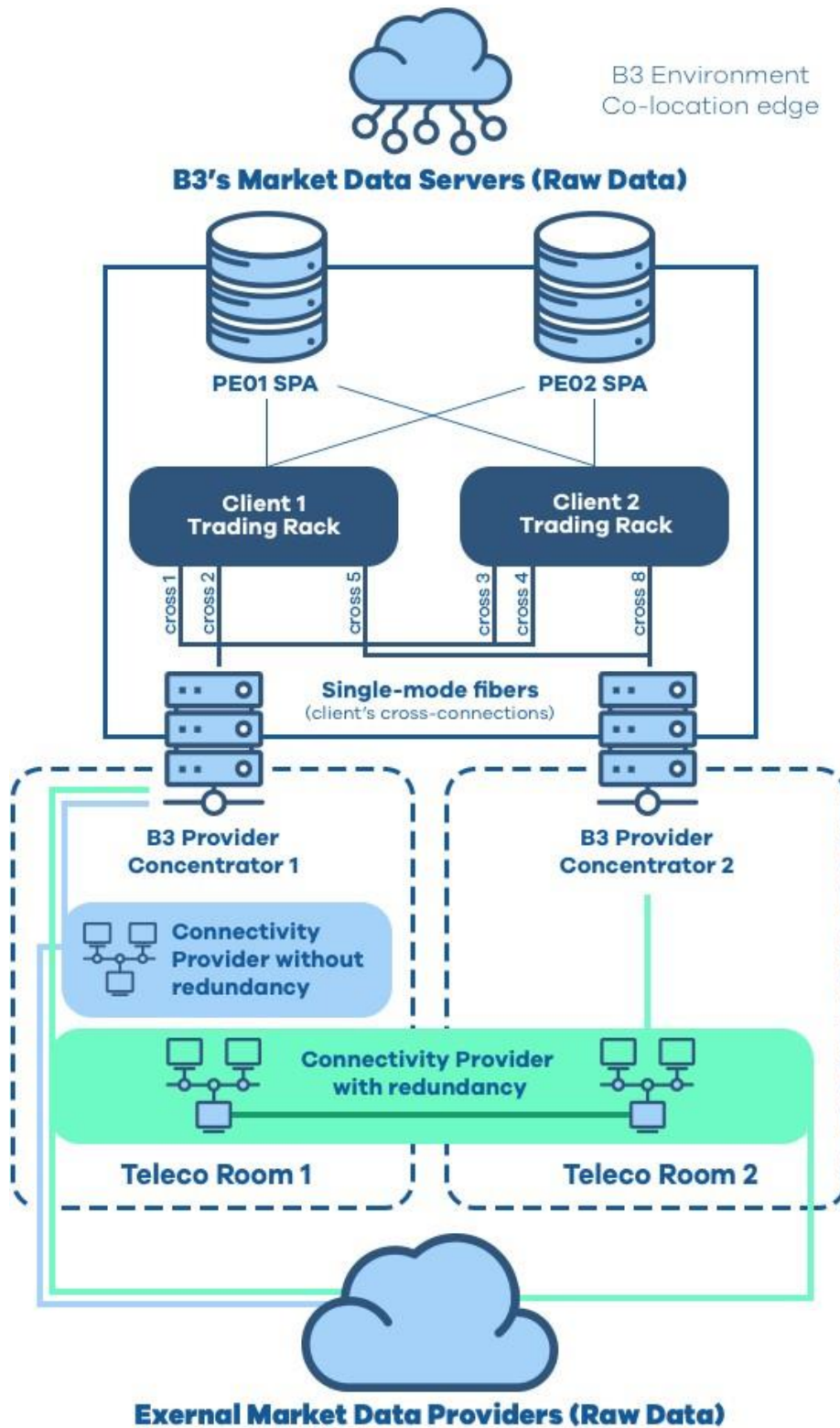
Connectivity service providers, or just “connectivity providers”, may only install communications network equipment (switches, routers, etc.) within their racks, which will be made available in the data center telecommunications rooms. Such

providers are not part of the set of operators authorized to provide access to the B3 Communication Network (RCB). Further details can be found at <http://www.b3.com.br/>, Solutions, UMDF, B3 Technology Infrastructure Access Manual.

The network topology that connectivity service providers must follow is described in the following scheme.

Connectivity service providers will have to provide services to their end customers, who must sign the contracts pertaining to the services consumed, ie Market Data B3 services, for example, must be contracted directly with B3. In addition, the connectivity provider must necessarily provide B3 with access to systems that enable it to verify all clients that connect to it through the provider's infrastructure.

The Connectivity Services provider must follow the following topology:



## **3.3 Dedicated Link Provider**

Dedicated Link providers refer to companies administering Participant's access to the B3 Co-location environment and must be duly authorized by the National Telecommunications Agency (ANATEL). The equipment of these providers is hosted at the B3 Telecommunications Room with access allowed only after trading hours.

## **3.4 RCB Link Provider**

RCB Link providers refer to Access Mode administrators duly authorized by the National Telecommunications Agency (ANATEL) and have the minimum technical requirements required by B3 to provide Participant access to B3 Infrastructure. The equipment of these providers is hosted in the B3 Telecommunications Room with access allowed only after trading hours.

## **3.5 Customers**

This is the term given by B3 to a final investor registered in its systems and which, authorized by a PNP or PN, directly accesses the markets managed by B3.

## **3.6 End Users**

They are considered to be customers of the contractor, solution provider and / or principal who access the contractor's equipment installed at B3's co-location.

## **3.7 Partners**

B3 Partners are institutions that may provide Data Center operation and maintenance services and may or may not include the marketing of the products

and services described in this policy and the provision of other proprietary services. B3 will adequately inform the market in the event of partnerships.

## 4 SERVICES AVAILABLE

The co-location contractor may have access to the services described below according to their profile.

The standard hosting unit offered is a 42 Us rack, divided according to the contracted service, ½ rack trading in two 21 Us modules each, or four 10 Us modules each, with independent access. B3 may, at its sole discretion and subject to availability, offer full racks, with only 1 access, depending on customer hiring. The hosting unit is provided with the following features and characteristics:

- Module Dimension:

	½ Rack Unit	¼ Rack Unit
<b>Height</b>	1000 mm	500 mm
<b>Width</b>	600 mm	600 mm
<b>Depth</b>	1200 mm	1200 mm
<b>Support Width</b>	482,6 mm (19")	482,6 mm (19")
<b>Support Heights</b>	21 Us: 933,45 mm (36,75")	10 Us: 254 mm (10")

- Dualized electrical circuit; Maximum electrical power of 3.0 kW (1/2 rack with 21 Us) and 1.5 kW (1/4 rack with 10 Us), with equivalent heat dissipation. Additional power supply per module will not be possible. In order to maintain the health and safety of its data center, B3 will continuously monitor the power consumed per rack and notify the contractor if the total possible power consumption rules per rack are not complied with;
- Customer may choose to install manageable rulers within the rented rack. However, prior to installation, technical approval of the product is

required, the descriptions and specifications of which must be provided to B3 engineering personnel;

- An electrical outlet designed and identified for maintenance needs, regardless of the power supply of the servers, in NBR 5410 standard with 12 outlets per ½ rack;
- Front and rear locking system;
- The row will consist of a sequence of two continuous racks, a cooling space rack and so on. B3 may, at its sole discretion and upon request, open the side of immediately adjacent racks contracted entirely by the same institution.
- It is important for customer equipment to be installed inside racks to have redundant power sources to avoid unexpected equipment outages.

It is observed that B3 may analyze differentiated hiring requests.

### 3.8 Trading Rack

This type of rack has privileged access to the trading network and Market Data.

<b>Unit</b>	½ rack with 21 Us
<b>Trading and Market Data Access</b>	Through LAN-Colocation, 2 network points (primary and secondary), 10G multimode fiber;
<b>Post Trading Access</b>	Hiring must be done separately (*)
<b>Access for administration</b>	2 points (primary and secondary), covers 1G
<b>Way of Access for the Rack Administration</b>	Dedicated link or 256 Kbps VPN included in this service
<b>Smart Hands</b>	10 hours smart hands included
<b>Internet Access</b>	No
<b>Energy</b>	3.0 kW maximum electrical power
<b>Camera monitoring</b>	Yes
<b>Market Data Content</b>	Signing of the Market Data license agreement is required pursuant to its respective commercial policy.

(\*) The values for separate contracts are described in the price list later in this document. Further details can be found at <http://www.b3.com.br/>, Solutions, U MDF, B3 Technology Infrastructure Access Manual.

**IMPORTANT:**



Access to the LAN Colocation trading platform implies latency of 22µs for services that use TCP protocol (OE Gateways, U MDF Conflated Gateways and TCP Recovery) and 11µs for U MDF market data platform (UDP protocol). These values, measured in the laboratory and under controlled conditions, may change depending on the resource consumption conditions of the network.

### 3.9 Web Rack

This type of rack is located in the DMZ (demilitarized zone), i.e. the network serving them goes through a firewall to access the B3 internal network (RCB) or to access the negotiation racks (LAN co-location).

<b>Unit</b>	1/4 rack with 10 Us
<b>Trading and Market Data Access</b>	Through LAN-Colocation, 2 network points (primary and secondary), 1G multimode fiber
<b>Access for administration</b>	By hiring specific cross connection
<b>Way of Access for the Rack Administration</b>	Hiring must be done separately (*)
<b>Smart Hands</b>	10 hours smart hands included
<b>Internet Access</b>	yes, through circuits hired by the contractor himself.
<b>Energy</b>	1.5 kW maximum electrical power
<b>Camera monitoring</b>	Included
<b>Market Data Content</b>	Signing of the Market Data license agreement is required pursuant to its respective commercial policy.

(\*) The values for separate contracts are described in the price list later in this document. Further details can be found at <http://www.b3.com.br/>, Solutions, U MDF, B3 Technology Infrastructure Access Manual.

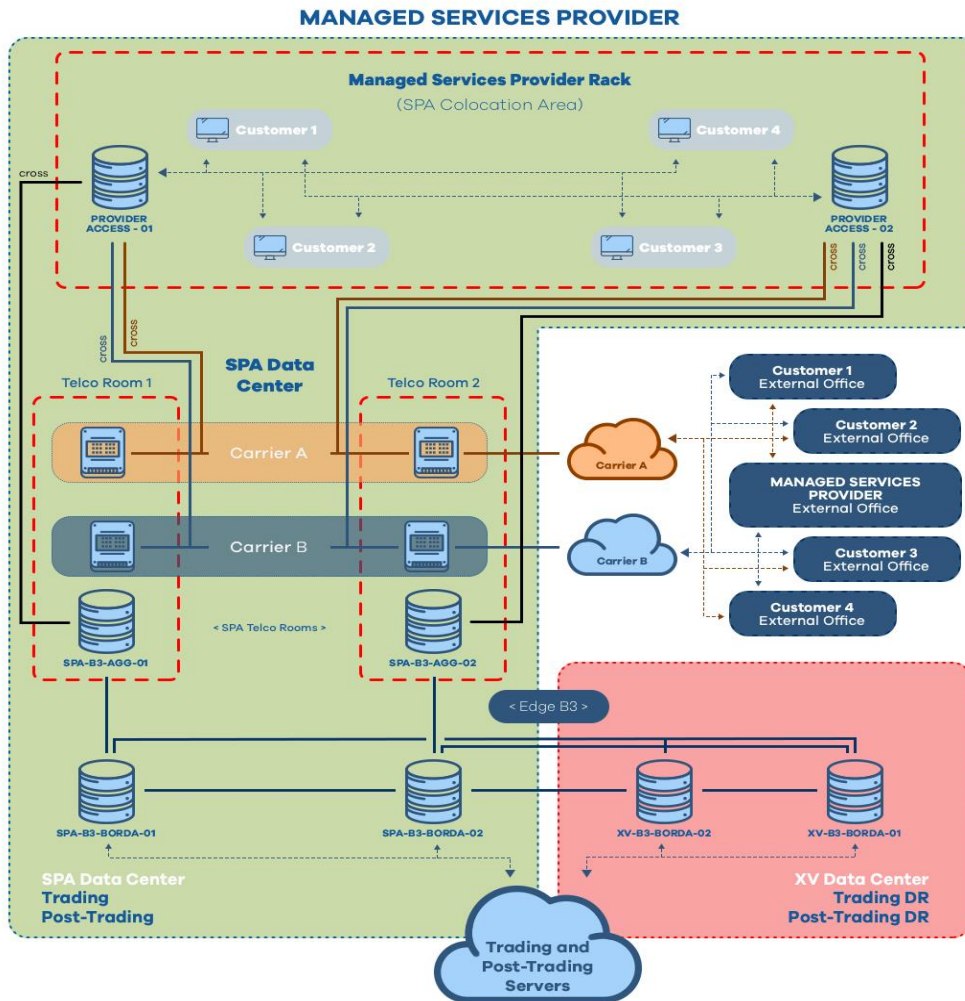
## 3.10 Trading Rack for Co-location Managed Services Providers

Managed Service Provider Rack, those who wish to change the default infrastructure of the hosting unit offered must apply for B3 approval. Please note that the administration links must be requested by the Managed Services Provider and the contracting and delivery of links by the provider's customers is prohibited at B3.

Unit	½ rack with 21 Us
<b>Trading and Market Data Access</b>	Through the RCB border, i.e. access to the PUMA Trading System through the co-location LAN (LAN co-location) will not be allowed. The contracting of each cross connection with the RCB border must be done separately (*), through the CSNet system. B3 reserves the right to limit the number of RCB border cross-connections per provider. The RCB SPA border feed is Market Data Feed A only. To receive feed B, you need to hire a dedicated line with a RCB provider (WAN) from SPA to XV de Novembro DC.
<b>Access for administration</b>	Hiring must be done separately (*)
<b>Way of Access for the Rack Administration</b>	Hiring must be done separately (*)
<b>Smart Hands</b>	10 hours smart hands included
<b>Internet Access</b>	No
<b>Energy</b>	Hiring must be done separately (*)
<b>Camera monitoring</b>	Included
<b>Market Data Content</b>	Signing of the Market Data license agreement is required for the final users to its respective commercial policy.

(\*) The values for separate contracts are described in the price list later in this document. Further details can be found at <http://www.b3.com.br/>, Solutions, UMDf, B3 Technology Infrastructure Access Manual.





## IMPORTANT:



Access to the trading network through an RCB edge cross connection implies an additional latency of about 30 $\mu$ s for services using the TCP protocol (OE gateways, UMDF Conflated and TCP Recovery gateways) and 15 $\mu$ s for the platform. Market Data Protocol (UDP). These values, measured in the laboratory and under controlled conditions, may change depending on the resource consumption conditions of the network.

### 3.11 Web Rack for Co-location Managed Services Providers

Managed Service Provider Rack, those who wish to change the default infrastructure of the hosting unit offered must apply for B3 approval. Please note that the administration links must be requested by the Managed Services

Provider and the contracting and delivery of links by the provider's customers is prohibited at B3.

Unit	¼ rack with 10 Us
<b>Trading and Market Data Access</b>	Through the RCB border, i.e. access to the PUMA Trading System through the co-location LAN (LAN co-location) will not be allowed. The contracting of each cross connection with the RCB border must be done separately (*), through the CSNet system. B3 reserves the right to limit the number of RCB border cross-connections per provider. The RCB SPA border feed is Market Data Feed A only. To receive feed B, you need to hire a dedicated line with a RCB provider (WAN) from SPA to XV de Novembro DC.
Post Trading Access	Hiring must be done separately (*)
<b>Access for administration</b>	Hiring must be done separately (*)
<b>Way of Access for the Rack Administration</b>	Hiring must be done separately (*)
<b>Smart Hands</b>	10 hours smart hands included
<b>Internet Access</b>	No
<b>Energy</b>	Hiring must be done separately (*)
<b>Camera monitoring</b>	Included
<b>Market Data Content</b>	Signing of the Market Data license agreement is required for the final users to its respective commercial policy.

(\*) Amounts and part contracts are described in the price list later in this document. Further details can be found at <http://www.b3.com.br/>, Solutions, U MDF, B3 Technology Infrastructure Access Manual.

## 3.12 Storage Rack

Essa unidade é oferecida para os clientes que desejam apenas armazenar equipamentos sem a necessidade de constituição de infraestrutura de rede ou de energia.

Unit	½ rack with 21 Us
<b>Trading and Market Data Access</b>	Not Applicable

<b>Access for administration</b>	Not Applicable
<b>Way of Access for the Rack Administration</b>	Not Applicable
<b>Smart Hands</b>	10 hours smart hands included
<b>Internet Access</b>	Not Applicable
<b>Energy</b>	Not Applicable
<b>Camera monitoring</b>	Not Applicable
<b>Market Data Content</b>	Not Applicable

(\*) The values for separate contracts are described in the price list later in this document. Further details can be found at <http://www.b3.com.br/>, Solutions, U MDF, B3 Technology Infrastructure Access Manual.

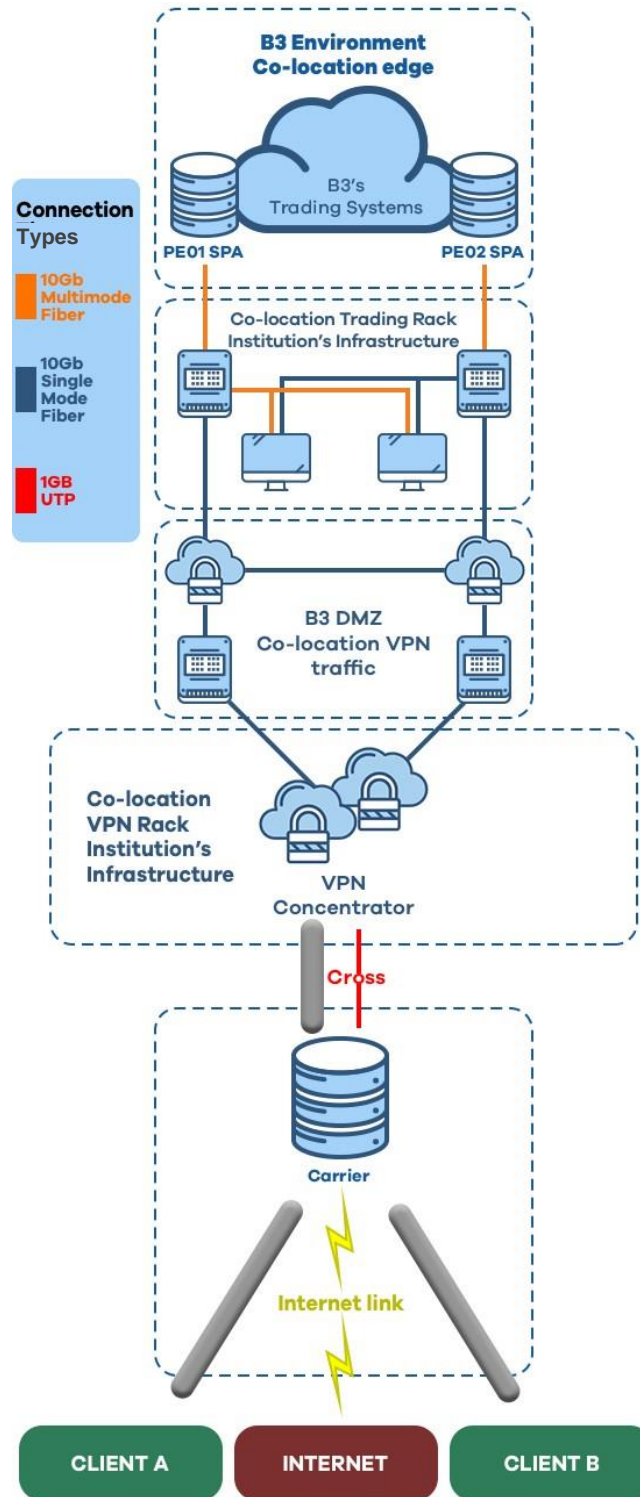
### 3.13 VPN Hub Rack

This type of rack is an option for Trading Rack service contracting customers to host their network equipment (router, firewall, switch), under no circumstances is it possible to host servers. The VPN Concentrator Rack service can be purchased by participants who need a unique environment and easy administration of third-party VPNs.

<b>Unit</b>	¼ rack with 10 Us
<b>Trading and Market Data Access</b>	Not Applicable
<b>Access for administration</b>	Not Applicable
<b>Way of Access for the Rack Administration</b>	Not Applicable
<b>Smart Hands</b>	10 hours smart hands included
<b>Internet Access</b>	Not Applicable
<b>Energy</b>	1.5 kW maximum electrical power
<b>Camera monitoring</b>	Not Applicable
<b>Market Data Content</b>	Not Applicable

(\*) The values for separate contracts are described in the price list later in this document. Further details can be found at <http://www.b3.com.br/>, Solutions, U MDF, B3 Technology Infrastructure Access Manual.

Below is the VPN Concentrator Rack topology:



## 3.14 GPS Rack

The GPS rack selling unit is a 10 US rack with no internet access and no access to the B3 (PUMA) or RCB trading core. GPS, PTP and NTP signal distribution equipment for racks may be hosted within the Colocation upon request by the CSNet specific system.

Unit	¼ rack with 10 Us
<b>Access to trading</b>	Not Applicable
<b>Post Trade Access</b>	Not Applicable
<b>Market Data Access</b>	If you are a Connectivity Provider, contracting for Market Data Switch access must be done separately (*).
<b>Access for administration, monitoring</b>	Not Applicable
<b>Smart Hands</b>	Hiring must be done separately (*)
<b>Internet Access</b>	Not Applicable
<b>Energy</b>	1.5 kW maximum electrical power
<b>Camera monitoring</b>	No
<b>Market Data Content</b>	If you are a Connectivity Provider, you must sign the Market Data license agreement in accordance with its respective business policy.

(\*) The values for separate contracts are described in the price table, later in this document. Further details can be found at <http://www.b3.com.br/>, Solutions, UMDf, B3 Technology Infrastructure Access Manual.

## 3.15 Telecom Room (Meet me Room)

B3 offers this type of rack in both rooms in the Santana do Parnaíba data center so telecommunications companies can host their equipment. Due to the isonomy policy followed by B3 and looking forward to receiving as many stakeholders as possible, B3 reserves itself the right to limit the space contracted by telecommunications operators.

Unit	¼ rack with 10 Us
<b>Access to trading</b>	Not Applicable
<b>Post Trade Access</b>	Not Applicable
<b>Market Data Access</b>	If you are a Connectivity Provider, contracting for Market Data Switch access must be done separately (*).
<b>Access for administration, monitoring</b>	Not Applicable
<b>Smart Hands</b>	Not Applicable
<b>Internet Access</b>	Not Applicable

<b>Energy</b>	1.5 kW maximum electrical power
<b>Camera monitoring</b>	No
<b>Market Data Content</b>	If you are a Connectivity Provider, you must sign the Market Data license agreement in accordance with its respective business policy.

(\*) The values for separate contracts are described in the price list later in this document. Further details can be found at <http://www.b3.com.br/Solutions,UMDF,B3TechnologyInfrastructureAccessManual>.

## 5 SPECIALIZED SERVICES

B3 offers specialized services so that the customer has the option to order services faster and more safely.

### 5.1 SPACE RENTAL FOR GPS ANTENNA

B3 will allow Brokers, Customers, and Service Providers to install GPS antennas on the roof of the data center for signal reception and distribution of clock synchronization services.

During the contracting of this service, the contractor shall conduct a technical survey at the B3 Data Center in order to collect information that allows him to perform the antenna installation and the cable routing to his hosting units in the co-location area.

After the survey, the contractor shall prepare and submit the installation project for validation of B3, in DWG format. With the project approved, the contractor must request via CSNet or email ([pumalink@b3.com.br](mailto:pumalink@b3.com.br)), the GPS Antenna Co-location Service. Date information, technical contacts responsible for antenna installation, cabling, and installation of equipment in the co-location environment shall be provided by the contractor to the Smart Hands team. Service billing will start only after the antenna installation is complete.

The equipment, cables and PPE must be supplied by the contractors to the responsible technicians of B3. B3 will not provide computational or safety equipment during the performance of technicians sent by contractors.

GPS signal receiving equipment used for service distribution within the co-location area shall be hosted on the GPS Antenna Co-location Service contractor's own rack. B3 also sells the GPS Rack, which is a specific unit for hosting GPS signal receiving equipment for contractors who may not have a contracted hosting unit.

If the signal provider terminates the contract with B3, it shall notify its respective contractors and B3 at least 3 months in advance.

## **5.2 EQUIPMENT RENTAL FOR CONNECTIVITY TEST**

This service consists of leasing B3 switches to the customer for a period of one week so that the customer can test the dedicated link delivered by the telecommunications carrier to the contracted rack to be activated and tested.

The customer requesting this service must have a rack contracted with B3 in one of the profiles described in this Commercial Policy. The provided B3 equipment will allow network layer connectivity testing by using, for example, ping, traceroute / tracert, telnet commands to the clients' destination ports.

After hiring this service will be sent to the customer technical manual describing the equipment and static IP for testing. Should the customer require testing involving BGP protocol, B3 reserves the right to review the availability of equipment to perform these tests. The price applied will be reviewed as required and may differ from the price of the Connectivity Testing services described in the rate card.

This service must be performed by the customer and, after availability of equipment in the customer's rack, there will be no support and monitoring by B3. The B3 Smart Hands team will perform the installation and uninstallation of the equipment in the customer's rack and the customer will have seven calendar days to perform the delivered link connectivity tests. Additional time may be hired if required. The equipment will be turned off after customer confirmation, if B3 has no customer response, the equipment will be automatically turned off.

This service will follow the prices described in the rate card of this document. Like other Smart Hands Premium services, Connectivity Testing services do NOT make up the 10 hours Smart Hands.

## 5.3 EQUIPMENT TRANSPORTATION

Transportation is a logistics solution offered to Co-Location Services customers through a B3 partner. The partner will meet the demand according to options to be contracted by customers, and may vary according to:

- Equipment Number;
- Equipment volume;
- Distance;
- Equipment insurance (mandatory);
- Escort (optional)

The shuttle service will be provided only in cities corresponding to São Paulo, Rio de Janeiro and Espirito Santo state. No service will be provided involving customs or customs clearance. The customer who hires this service must present the transportation invoice of the equipment to be transported. Equipment that does not have the necessary documentation will not be transported under any circumstances.

The transportation values will be analyzed according to demand and considering the variables mentioned in this item.

## 6 LOCAL TECHNICAL SUPPORT (SMART HANDS)

Customers are provided with local technical support (smart hands) to operationalize their equipment access to B3 platforms. Support activities will be carried out by qualified B3 technical personnel at the request of the contractor (or persons authorized by him, prior and duly indicated).



Co-location B3 Service customers are automatically granted a 10-hour monthly allowance for Smart Hands services, regardless of the number of hosting units contracted. After using these 10 hours, the customer will be charged accordingly to the price list for additional hours.

Find below what services are considered *Smart Hands*:

- Rack Electrical Activation: B3 offers rack electrical activation service for Participants, Committees, Managed Service Provider Solution Providers, and Connectivity Providers;
- Equipment installation: B3 provides specialized technicians for equipment installation within the co-location environment during business hours;
- Cabling: B3 offers cabling service on co-location racks such as:
  - Interconnection of equipment internal to the rack;
  - Rack to data center interconnect (customer activation);
  - Cable routing (copper and fiber).
- Uninstall and move equipment;
- Equipment inventory;
- Support in the assembly of equipment in the staging area;
- Reception of customer equipment;
- Rack Visual check;
- Equipment reset;
- Customer orientation about equipment; and
- Release of physical access to the co-location and staging area;
- Energization of the Trading Rack and Web Rack of Participants and Traders.

The items described above will be cost related charged accordingly to smart hands services and will be measured per hour / man used after monthly franchise consumption.

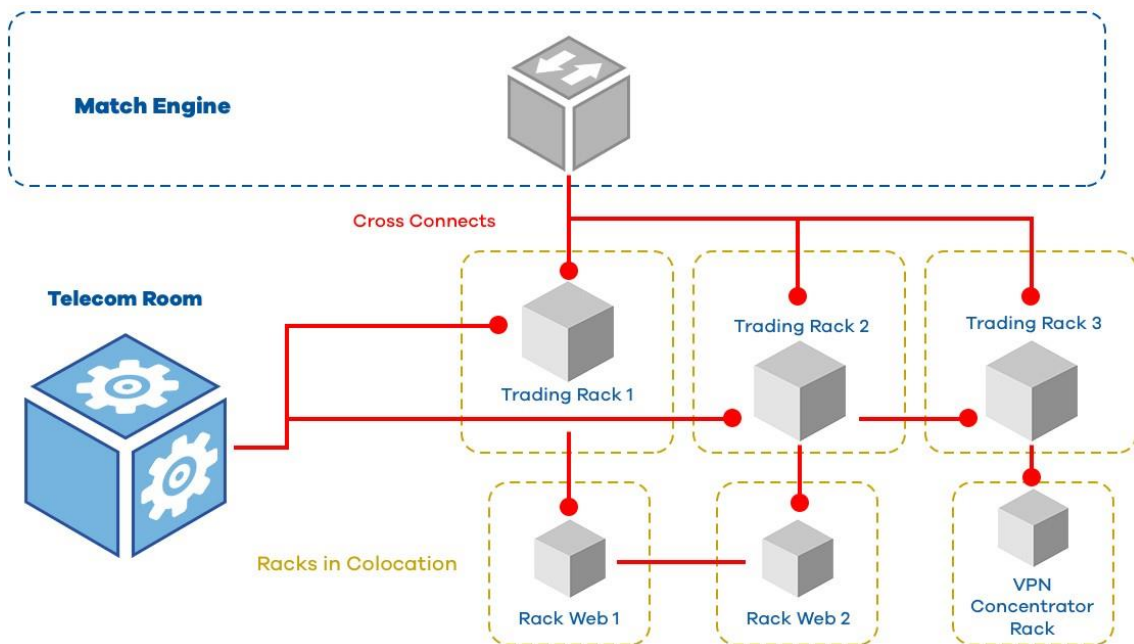
The smart-hand team is available for customer service eight business hours, five days a week, with four-hour periods to handle requests and bypass or incident resolution.

The request for technical support of smart hands must be made by the participant via CSNet specific system or request by email ([colocation@b3.com.br](mailto:colocation@b3.com.br)) or by telephone +55 (11) 2565-4444. B3 will issue the appropriate confirmation.

Requests for additional services and technical resources not listed above will be reviewed on a case-by-case basis by B3, which reserves the right to fulfill or not the request, depending on technical and commercial feasibility.

## 7 CROSS CONNECTIONS

This solution aims to connect racks and networks to make order routing, market data distribution and DropCopy operational, as well as the exchange of information between racks of different customers within the co-location, subject to the authorization of the respective contractors.



Find below the connections allowed:

- PNP and PN;
- PNP or PN and solution provider;
- Customer and solution provider;
- Solution providers;
- GPS and contractor's rack;
- Any contractor and its respective RCB border; and
- Any contractor and the dedicated link provider.

Any other requests for cross connections should be submitted to B3 for approval

Cross connections between Managed Service Provider racks and trading and web racks are not allowed.

Cross connections from telecom room links to the negotiating rack will be limited to two links per ½ rack trading (except for connectivity providers and managed service providers). If the requested number exceeds two links, additional amounts will be charged complying with the conditions set out in the price list.

Requests for cross-connections must necessarily be made through a specific system (CSNet) by the participant who will be responsible for paying the service invoice.

## **8 REMOTE ACCESS TO EQUIPMENT INSTALLED IN CO-LOCATION AREA**

The equipment installed in the hosting unit can be accessed remotely. The following connectivity options for remote access are allowed:

- Dedicated Link;
- Internet (only for units installed in the DMZ, ie in the web and VPN concentrator racks);

- VPN:
  - B3 makes LAN-to-LAN VPN available for use with this connectivity option. B3 may set VPN (per client) limit for bandwidth usage and security will be established via IPSEC encrypted tunnel, through client IP address and shared security key. It is noteworthy that it will be possible to expand the capacity of the VPN through specific contracting of the service.

Note that:

- Connectivity options may have different levels of availability and response time;
- B3 does not guarantee availability or response time of any connectivity options;
- It is up to the participant to contract the remote access form with the telecommunication company (accredited by B3), from its facilities to those of B3;
- Technical information for connection establishment and security release shall be provided by B3 and the participant when the choice of connection option is VPN internet;
- The contracted band corresponds to a fraction of the internet bandwidth of B3 links. Even with this bandwidth reserve, there is no guarantee that the end-to-end connection will support the bandwidth contracted on B3's internet links, as there is reliance on client-side circuits;
- It is the responsibility of the participant and the operator to monitor the connection; and
- All connections will be subject to B3 monitoring.

## 9 OPERATORS CREDITED TO PROVIDE DEDICATED LINK

The list of operators accredited by B3 for hiring dedicated link is described in the table below:

Carriers co-location - SPA	Account Manager	Phone	E-mail
Algar Telecom	Eduardo dos Santos Medici	(+55 11) 3512-1285	medici@algartelecom.com.br
Ascenty	Vinicius Minetto	(+55 11) 3508-8910 - Ramal: 1306 (+55 11) 95267-4676	vinicius.minetto@ascenty.com
CenturyLink	Flavia Bastos	(+55 11) 94222-7360 (+55 11) 3957-2968	flavia.bastos@centurylink.com
CMA Telecom	Ricardo Bussolan Juan	(+55 11) 3053-2658	ricardobj@cma.com.br
Durand (Tavtel)	Eduardo Parajo / Flávio Abreu	(+55 11) 2134-3500	comercial@durand.com.br
Embratel / Primesys	Luciana Paranhos Macedo Coelho	(+55 11) 2121-3513	luciana@embratel.com.br COMLBMF@embratel.com.br
GTT	Jeferson Gama	(+55 11) 4130-3003 ext. 1061	Jeferson.Gama@gtt.net
Megatelecom	Cesar Ribeiro	(+55 11) 2110-1000 Ramal 5037	cesar.ribeiro@megatelecom.com.br
Mundivox	Daniel Prado	(+ 55 11) 96319-2331 (+ 55 21) 99496-8369	dprado@mundivox.com
SAMM	Wagner Aparecido de Almeida	(+55 11) 3194-9403	wagner.almeida@grupoccr.com.br
Seaborn	Jason Burrett	T: +1 (978) 471-3154 M: +44 (0)7702 117855/ +1 (978) 816 6332	jason.burrett@seabornnetworks.com
Vivo (Telefonica)	João Nunes	(+ 55 11) 99503-3184	joao.dsantos@telefonica.com

**Note:** Except for the administration VPN access provided by B3, both the dedicated link access and the internet access must be contracted, installed, maintained, and supported by the institution with the carriers.

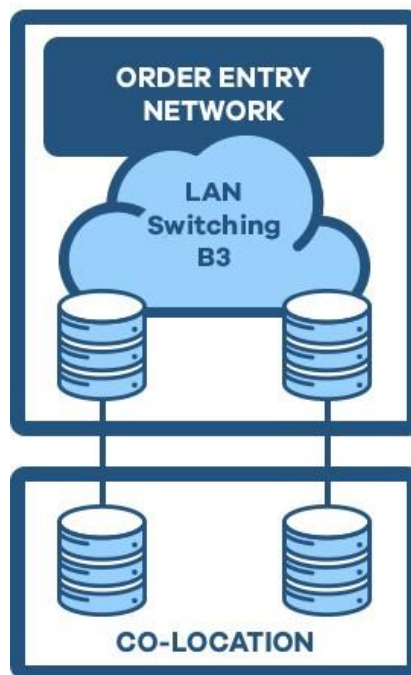
## 10 INFORMATION AND TECHNICAL REQUIREMENTS

This chapter describes the technical and infrastructure characteristics related to co-location. The provision of additional technical features and resources required by the participant and not covered in this item will be reviewed on a case by case basis by B3.

## 10.1 TECHNICAL CARACTERISTICS

Co-location provides to the institution physical space and racks for installation of its equipment (servers, network, security, monitoring, etc.) within the technical limits and pre-established facilities.

It has a single form of access, in which two LC / LC multimode fiber optic cables with 10 Gbps are provided. Each cable is connected to a separate piece of equipment within B3's data center infrastructure, thereby providing high availability over physical media and network equipment within the pre-established technical limits and facilities.



It is important to note that the hiring part is responsible for contracting, installing, maintaining and supporting the installed equipment.

## 10.2 INFRASTRUTURE

### 10.2.1 Eletric Power

The co-location area is supported by dual nobreaks and generator set system and has uninterrupted supply of electricity with a voltage of 208 V.

### 10.2.2 Cooling

The co-location area has a humidity control system and a dual cooling system with uninterrupted supply of air conditioning.

### 10.2.3 Fire Prevention

The co-location space has a very early smoke detection system (Vesda) and an Inergen gas fire extinguishing system.

## 10.3 WIRING EQUIDISTANCE

In order to maintain the standard and quality of services provided to B3's customers, all cables intended for the administration of applications, trading or reception of dedicated links within the co-location area have the same size. That is, equidistant cables have been made available to co-locate the cabling environment of the co-location. The cabling between the trading rack and the core trading is 10 Gb multimode fiber optics. Except for the Managed Service Provider, the cabling for the access to the RCB border is 1 Gb.

## 10.4 EQUIPMENT

Set of hardware and software installed in the hosting unit owned by the contractor or one of its customers.

The equipment supplied by the participant must be installed in quantities compatible with the technical specifications of the hosting unit, allowing the use of equipment in the standard, only observing, in applicable cases, the following minimum hardware requirements:

- Switch layer 3 for connecting servers installed in the hosting unit to the B3 infrastructure, with high availability configuration; and
- Servers with basic software and applications.
- Only standard 19" rackmount equipment is allowed.

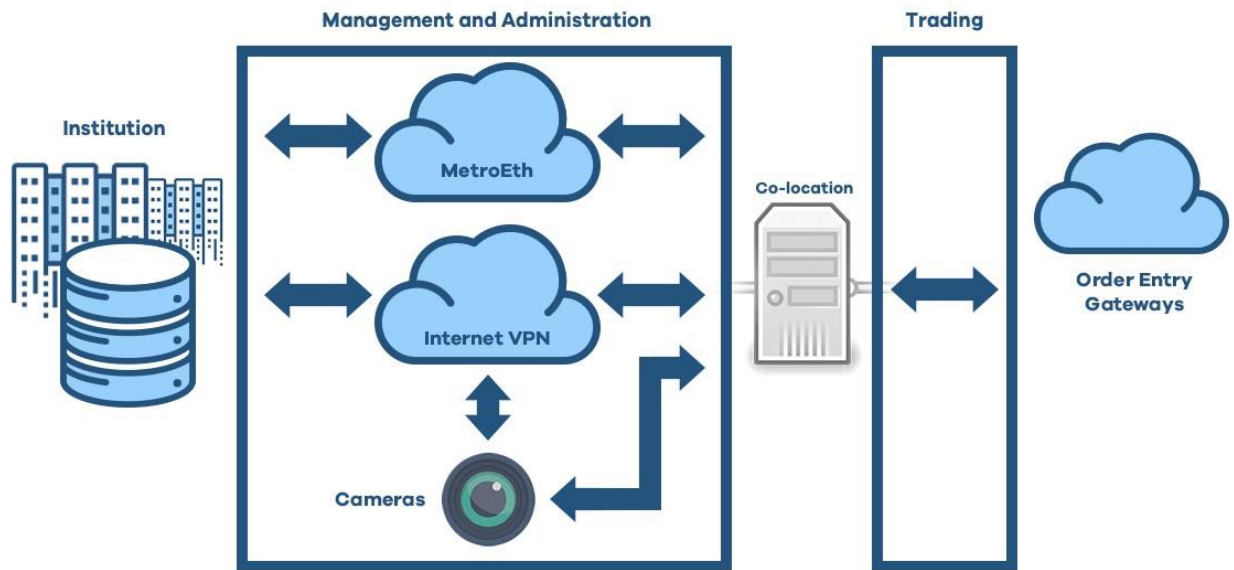
## 10.5 SECURITY

- Physical access controlled by biometric system and permanently accompanied by B3 technicians.
- Video system monitoring by continuous recording and retention of recordings for a period of seven days.
- A security camera is provided for each rack unit.
- Equipment identification system that guarantees participant privacy/anonymity.
- Staging and co-location areas isolated from each other and regarding to other B3's facilities.

## 10.6 Equipment

All the infrastructure (platforms) provided by B3 of its network assets (connection limits) is monitored in real time through a security management platform, infrastructure availability management platform and application management platform.





Infrastructure management and monitoring are responsibility of the contracting party of co-location service and may be carried out through remote administration accesses.

For managed service providers, the management and monitoring of the rack per camera should be requested separately via CSNet.

Any irregular behavior detected by B3's security management platforms or service teams can result in the temporary suspension of access to B3's technology infrastructure until the incident is mitigated at the institution.

## 10.7 CLIENT TECHNICAL REQUISITES

Participants must meet the following conditions in order to contract for co-location:

- Layer 3 accesses (router providing logical isolation);
- Dualized connections providing high availability);
- Optimized routing for fast convergence;
- High performance with bandwidth of at least 1 Gbps

## 10.8 STAGING AND CO-LOCATION AREA

The co-location area corresponds to the physical space of the B3 data hall itself, where the racks for the co-location service are located.

The staging area is located in the outer area of the co-location space and is intended for the arrangement and repair of equipment prior to lodging in the contracted racks.

Visits to the co-location area will be accompanied by B3 technicians throughout the duration of the visitor's stay in the area.

To access the staging and co-location areas, the contractor must schedule the visit in advance by e-mail [colocation@b3.com.br](mailto:colocation@b3.com.br) and obtain confirmation by B3.

- Technical visits for incident resolution: at any time (24 hours, seven days a week), except in infrastructure maintenance periods reserved by B3.
- Visits for physical movement of equipment: must be requested via email by the client and confirmed by B3. It will be mandatory to describe the date and time to move the equipment. In the case of technical activities carried out by third parties contracted by the client of the co-location service, the email with the request must contain authorization for carrying out the transaction as well as the identification of the technicians who will perform the service.

Infrastructure maintenance by B3 in the Santana de Parnaíba co-location environment will be previously informed to all customers.

It is important for the co-location customer to keep their registration information, such as email and telephone, up to date so that B3 can send infrastructure maintenance announcements.

## 11 HOW TO CONTRACT CO-LOCATION

### 11.1 Co-location Adhesion Term

It governs the rights and duties relating to the hosting of co-location hosting. The contract can be found at <http://www.b3.com.br/>. Solutions en / solutions /, Hosting and Co-cation hosting-colocation /, Data Centerdata-center /, or B3 Front and Middle Product Superintendence can be requested at [salesdatacenter@bvmf.com.br](mailto:salesdatacenter@bvmf.com.br) or by phone (+55 11) 2565-5996.

### 11.2 Order Routing Agreement

It governs the rights and duties regarding order routing services by solution provider, which will have order management or operations execution systems connected directly to B3 platforms and must be signed whenever such service is provided. The contract must be requested from the B3 Front and Middle Product Superintendence at [salesdatacenter@b3.com.br](mailto:salesdatacenter@b3.com.br) or by telephone (+55 11) 2565-5996.

### 11.3 Market Data Agreement

It must be signed in accordance with the current Market Data Commercial Policy, which can be found at <http://www.b3.com.br/>, under Market Data and Indexes.

### 11.4 Managed Services Provider Agreement

Includes rights and duties regarding the service of Managed Services providers that will be provided by the provider to B3's end customer.

### 11.5 Connectivity and Link Provider Agreement

Determines the rights and duties that operators and providers must follow to maintain their equipment and provide their services within the meet center of the Santana do Parnaíba data center. The contract must be requested from the B3 Front and Middle Product Superintendence at [salesdatacenter@b3.com.br](mailto:salesdatacenter@b3.com.br) or by telephone (+55 11) 2565-5996.

## 11.6 Documentation Required

Scanned delivery of documentation demonstrating the powers granted by the company to the legal representatives and / or attorneys signing each of the agreements mentioned herein. Furthermore, services listed in the table must follow the proceeds listed below:

Service	Authorized Institutions as Brokers	Other Institutions
<ul style="list-style-type: none"> <li>• Cross Connections</li> <li>• Equipment Rental for Connectivity Tests</li> </ul>	CSNET	Request the form to pumalink@b3.com.br or contact (+55 11) 2565-5080.
<ul style="list-style-type: none"> <li>• Equipment Transport</li> <li>• GPS Antenna</li> </ul>	Request the form to colocation@b3.com.br or contact (+55 11) 2565-5140.	Request the form to <a href="mailto:colocation@b3.com.br">colocation@b3.com.br</a> or contact (+55 11) 2565-5140
<ul style="list-style-type: none"> <li>• Racks: Trading, Web, MSP, GP, Storage, Telecom Room, VPN Concentrator</li> <li>• Energy</li> <li>• Camera Monitoring</li> </ul>	CSNET	Send an email to salesdatacenter@b3.com.br or contact (+55 11) 2565-5669.

## 12 PRICE LIST IN DOLAR

The price list is updated annually on the first business day of January by the IPCA from July to June of the previous year:

Service	Unit	Activation / Change <sup>(1)</sup>	Monthly fee
Trading rack	½ rack	USD 80,93	USD 1.888,39
Trading rack for Managed Services Provider	½ rack	USD 80,93	USD 1.888,39
Web rack	¼ rack	USD 80,93	USD 944,19
GPS rack	¼ rack	USD 80,93	USD 944,19
GPS rack	½ rack	USD 80,93	USD 1.888,39
Storage rack	½ rack	USD 80,93	USD 539,54
Telecom Room Rack	¼ rack	USD 80,93	USD 107,91
Concentrator Rack VPN	¼ rack	USD 80,93	USD 674,42

Smart hands (2)	1 man/hour	USD 77,53	-
VPN 1 Mbps	Per conection	USD 40,46	USD 188,84
VPN 2 Mbps	Per conection	USD 40,46	USD 242,79
Cross connection rack - rack	Per conection	USD 80,89	USD 80,93
Cross connection GPS/PTP – rack	Per conection	USD 40,46	USD 40,46
Cross connection rack – Telecom Room(3)	Per conection	USD 134,88	USD 134,88
Cross connection Managed Services Provider - RCB(4)	Per conection	USD 269,77	USD 539,54
Cross connection rack telecom switch telecom MD (5)	Per conection	USD 269,77	USD 539,54
Cross Connection rack - PUMA Trading System (6)	Per conection	USD 77,53	USD 904,49
Cross connection RCB border (3)	Per conection	USD 269,77	USD 269,77
Rack Web – Rag Neg Access (Different Participants)	Per access	USD 80,89	USD 80,89
Energy for Managed Services Provider	Per 1/2 rack	-	USD 387,64
Camera Monitoring	Per unit	-	USD 67,44
VPN Co-location for Managed Services Provider	Per conection	-	USD 134,88
Equipment Rental for Connectivity Tests	Por unit/per week	-	USD 276,00 for unit and USD 50,00 per additional day
Spaces for GPS Antenna	Per space	USD 775,00	USD 1.375,00
Transport	Per demand	-	To be set when hiring.

(1) One-time payment upon request for activation or change.

(2) Per hour.

(3) Applied to PNP, Committee, Market Data Providers, and Order Routing customers only

(4) Applied to Managed Service Providers

(5) Cross Connection available to Connectivity providers only

(6) Cross Connection available only to customers who have contracted the Trading Rack.

## 13 PRICE LIST IN EURO

Service	Unit	Activation / Change <sup>(1)</sup>	Monthly fee
Trading rack	½ rack	EUR 80,93	EUR 1.888,39
Trading rack for Managed Services Provider	½ rack	EUR 80,93	EUR 1.888,39
Web rack	¼ rack	EUR 80,93	EUR 944,19
GPS rack	¼ rack	EUR 80,93	EUR 944,19
GPS rack	½ rack	EUR 80,93	EUR 1.888,39
Storage rack	½ rack	EUR 80,93	EUR 539,54
Telecom Room Rack	¼ rack	EUR 80,93	EUR 107,91
Concentrator Rack VPN	¼ rack	EUR 80,93	EUR 674,42
Smart hands (2)	1 man/hour	EUR 77,53	-
VPN 1 Mbps	Per conection	EUR 40,46	EUR 188,84
VPN 2 Mbps	Per conection	EUR 40,46	EUR 242,79
Cross connection rack - rack	Per conection	EUR 80,89	EUR 80,93
Cross connection GPS/PTP – rack	Per conection	EUR 40,46	EUR 40,46
Cross connection rack – Telecom Room(3)	Per conection	EUR 134,88	EUR 134,88
Cross connection Managed Services Provider - RCB(4)	Per conection	EUR 269,77	EUR 539,54
Cross connection rack telecom switch telecom MD (5)	Per conection	EUR 269,77	EUR 539,54
Cross Connection rack - PUMA Trading System (6)	Per conection	EUR 77,53	EUR 904,49
Cross connection RCB border (3)	Per conection	EUR 269,77	EUR 269,77
Rack Web – Rag Neg Access (Different Participants)	Per access	EUR 80,89	EUR 80,89
Energy for Managed Services Provider	Per 1/2 rack	-	EUR 387,64
Camera Monitoring	Per unit	-	EUR 67,44
VPN Co-location for Managed Services Provider	Per conection	-	EUR 134,88

<b>Equipment Rental for Connectivity Tests</b>	Por unit/per week	-	EUR 276,00 for unit and EUR 50,00 per additional day
<b>Spaces for GPS Antenna</b>	Per space	EUR 775,00	EUR 1.375,00
<b>Transport</b>	Per demand	-	To be set when hiring.

(1) One-time payment upon request for activation or change.

(2) Per hour.

(3) Applied to PNP, Committee, Market Data Providers, and Order Routing customers only

(4) Applied to Managed Service Providers

(5) Cross Connection available to Connectivity providers only

(6) Cross Connection available only to customers who have contracted the Trading Rack.

## 14 GENERAL QUESTIONS

Considering the particularity and the different possible scenarios in co-location, a few illustrative cases are listed below to help clarify doubts that may occur in specific situations.

- The provision of an internet access link to the equipment installed within the Co-location Trading Area is prohibited.
- Order entry, Market Data, drop copy and monitoring traffic are allowed through the contractor's dedicated link.
- Physical movements of equipment for the Staging Area, from the Staging Area to the Co-location Area, from the Co-location Area to the Staging Area and out of the Staging Area will be performed conjointly by technicians from B3 and the contractor.
- B3 reserves the right to assess the installation by other institutions of other electronic trading platforms of assets and derivative alternatives to the PUMA Trading System in the B3 Data Center.
- At B3's sole discretion and as requested by the customer, upon signature of a specific instrument, B3 may set values for customized service requests, subject to the effort to be expended by its internal area (s) (s) and the market value.

## 15 TECHNICAL REQUIREMENTS FOR LINK PROVIDER AND RCB PROVIDER

- Peer-to-peer links (multipoint should not be used)
- Lan-Lan service without Q-in-Q
- L2 (Preferably) or L3
- Minimum number of MAC addresses of 562 (62 Unicast + 500 Multicast) per access
- The service provider must support full link utilization for multicast traffic.
- Adapt multicast safety filters (Multicast Storm-Control and MAC ACL) on the Metro Ethernet backbone.
- Routing multicast traffic on the service provider in a purely L2 structure
- Supporting simultaneous traffic for all brokerages reflects in carrier network capacity and scaling
- Resilience of backbones and technologies.
- Oversubscription 1: 1
- B3 infrastructure availability (ports on routers, racks, etc.).
- Regions in which the operator has presence (Capillarity) - network and last mile.

## 16 B3 DATA CENTER ADDRESS

R. Ricardo Prudente de Aquino,85

Santana de Parnaíba – SP

CEP:06543-004

Brazil