

# SPAIN MANAGED SERVICES SAN STORAGE POLICY

8 November 2019

This Spain Managed Services – SAN Storage Policy (“Policy”) supplements and sets forth additional terms and conditions governing the provision of SAN Storage, as specified in the applicable Order. This Policy shall form part of the terms and conditions of the Order and the Master Country Agreement or other similar agreement between the Parties (“Agreement”).

## 1. Service Description

### 1.1 Definitions

Capitalized words used in this Policy will have the meaning ascribed to them herein, but if not defined in this Policy, shall have the meaning ascribed to them in the Agreement.

“**FC**” means fiber channel.

“**HBA**” means Host Bus Adaptor.

“**RAID**” means redundant array of independent disks, which is a data storage system that uses multiple drives (hard disk drives or solid state drives), among which data is distributed or replicated.

“**SAN**” means storage area network.

“**SAN Fees**” means the Fees payable for the applicable calendar month for the affected SAN Service.

“**SAN Platform**” means Equinix’s private network attached shared storage platform utilising RAID technology and which are located in IBX Centers in Spain.

“**SAN Service**” means the Storage Area Network Storage Service as further described in this Policy.

### 1.2 Set Up

In setting up the SAN Service, Equinix will consult with the Customer to ascertain storage configuration information.

A connection to the SAN Service can be provided in two ways: (i) Equinix will connect the SAN Platform to Customer’s Equipment via dedicated FC ports on the SAN Platform; or (ii) Customer will connect each piece of Customer’s Equipment that will consume storage via dedicated FC ports on the SAN Platform.

In option (i) Customer will ensure that within Customer’s Equipment it provides two (2) switches, each with two (2) FC ports per storage array in the SAN Platform to which Customer connects. Customer

will ensure that each FC port will have at least 8Gbps speed and a LC-LC format connector. Where agreed in an Order, Equinix will provide a connection from Customer’s Equipment to the SAN Platform. Customer will configure its SAN to allow visibility between the SAN Platform and Customer’s Equipment.

In option (ii) Customer will provide two (2) FC ports in each piece of Customer’s Equipment, that will separately connect to two (2) different shared switches to which Equinix provides the Customer with access in order to connect such Customer’s Equipment with each storage array in the SAN Platform. Customer will ensure that each FC port will have at least 8Gbps speed and a LC-LC format connector. Where agreed in an Order, Equinix will provide a connection from Customer’s Equipment to the SAN Platform. Equinix will configure the SAN Platform to allow visibility between the SAN Platform and Customer’s Equipment.

In both options (i) and (ii) above, Equinix will assign storage on the SAN Platform to Customer with necessary access privileges to the SAN Platform.

In both options (i) and (ii) above, Customer will (A) provide FC information of Customer’s Equipment that will access the SAN Platform; (B) provide detailed permissions needed of Customer’s Equipment that will access the SAN Platform; (C) provide detailed information on the size of storage volumes needed within the total storage capacity stated on the Order; (D) perform necessary changes to comply with storage array best practices provided by the applicable storage array manufacturer, and (E) configure the multipathing software in the operating system of the Customer’s Equipment connected to the SAN Platform in accordance with the manufacturer’s recommendations.

Prior to the connection of new equipment or provision of the SAN Service, the Parties must analyse the compatibility of the Customer’s Equipment and HBAs connected to the SAN Platform. If elements need to be updated in the Customer’s Equipment, such as the drivers or firmware of the HBAs, Customer will be responsible for updating these elements. Updates may also be necessary when the SAN Platform is updated, and it is necessary to align the compatibility matrix of elements of the Customer’s Equipment with

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the SAN Platform. All updates of HBA firmware drivers will be the Customer's responsibility.

Equinix will confirm when the setup of SAN Storage pursuant to this section is complete, and the Service commences.

## 1.3 SAN Services

SAN Services will provide access to different disk types on the SAN Platform as indicated in the applicable Order:

FEATURE	DISK TYPE
Extreme Performance	This type of storage disk enables Customer to achieve the highest performance demanded by SAN environments with multiple concurrent access requests or with a high read and write demand and low latency response.
Capacity	This type of storage disk is designed to store historical data with low access levels or applications where response time is not a priority.

SAN Services also have the following included and optional features:

FEATURE	DESCRIPTION	INCLUDED / OPTIONAL
Data replication in another IBX Center	This feature provides Customer with asynchronous replication, or for Extreme Performance only either synchronous or Active-Active replication, of the Customer's data on a SAN Platform with a separate instance of the SAN Platform in a separate IBX Center. To access such data in the event of a SAN Platform failure, Customer would work with Equinix to reconfigure Customer's Equipment settings to access the separate SAN Platform.	Optional

## 2. Customer Responsibilities

The provision of SAN Services is dependent on the following Customer responsibilities set out below and in the remainder of this Policy and if the Customer fails to perform or fulfil the Customer responsibilities, Equinix will not be obliged to provide SAN Services and may charge additional non-recurring Fees that are caused by or arise from such failure to perform or fulfil the Customer responsibilities:

- A. Customer must provide all necessary information to enable Equinix to set up any required connections between Customer's Equipment and the SAN Platform.
- B. Customer must: (i) ensure Customer's Equipment remains functional and compatible with the original settings agreed during set up, and (ii) maintain and not amend Customer's Equipment settings or configuration, except with Equinix's prior consultation.

## 3. Charging Methodology

Where a defined term in this Charging Methodology is not defined in this Policy, its meaning shall be as described in the Support Services Policy.

The Unit of Measure (UoM) used to calculate the different Fees payable by Customer, is the volume of terabytes that is presented by the SAN Platform to Customer's Equipment, as measured by the SAN Platform (Presented TB).

For these purposes, Overage Charges and Pay As You Go Charges shall be calculated using the peak volume of the UoM Presented TB during the Service Period.

## 4. Service Level Agreement

The purpose of this Service Level Agreement ("SLA") is to define the measurable performance levels for SAN Services and specify remedies available to Customer if Equinix fails to achieve these levels. The service credits listed below are the sole and exclusive remedy for any failure to meet the service level thresholds stated herein.

**SAN Services at 99.5+% availability.** This is met by achieving less than two hundred and nineteen (219) minutes of Unavailability of the SAN Platform over a calendar month period ("**SAN Platform SLA Threshold**"). For the purposes of this paragraph and subject to the last paragraph of this section, the SAN Platform is considered "**Unavailable**" when a failure in the SAN Platform means that it is unable to receive from or present data to the connection connecting it to Customer's Equipment. The period of Unavailability is measured from Customer's notification to Equinix of the incident to the time the Unavailability has been remedied as confirmed by Equinix. Subject to the last paragraph of this section, if Unavailability exceeds the SAN Platform SLA Threshold, Customer will be entitled to a credit equal to 1/30th of the SAN Fees. Further, Customer will be entitled to an additional credit equal to 1/30th of the SAN Fees for every full hour of Unavailability beyond the SAN Platform SLA Threshold.

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**General.** In any calendar month, the maximum credit to which Customer will be entitled will not exceed the SAN Fees payable for the affected SAN Service in such calendar month. Customer must request a credit within thirty (30) days of the date of its occurrence by contacting the Equinix Service Desk, so Equinix may investigate and isolate the cause of the failure. All periods of Unavailability must be verified by Equinix. Approved credits will be applied by Equinix to the invoice for the month following the month in which the credit was approved. Notwithstanding anything to the contrary, the SLAs will not apply and Equinix will have no liability if the Unavailability: (a) is caused by circumstances beyond Equinix's reasonable control; (b) is caused by Customer's act or omission; (c) is caused by Customer's Equipment, software or connectivity on or between Customer's Equipment and the SAN Platform not provided by Equinix; or (d) that occurs during a scheduled maintenance window. Equinix will use reasonable efforts to notify Customer

at least fourteen (14) days prior to any regularly scheduled maintenance and as soon as practicable before any emergency maintenance. Equinix will use commercially reasonable efforts to minimize disruption to Customer's Services when performing scheduled maintenance.

## 5. Miscellaneous

Equinix's customer support for the Services described in this Policy are outlined in the Managed Services – Support Services Policy for Spain – Managed Services available at [www.equinix.com/resources/product-documents/](http://www.equinix.com/resources/product-documents/). This Policy and the Order, together with the Agreement, represents the complete agreement and understanding of the Parties with respect to the subject matter herein and in the Order, and supersedes any other agreement or understanding, written or oral.