

Minimum Technical Requirements: Communications

For the operation of the different applications that the Exchange offers, communication links that allow the remote operation are required. There are different connectivity options either for international and national users. The general features of these communication options are described below.

The communication lease connections will be made through Telmex over the filling of **Exhibit I**, which should be delivered to MSE Technology Department.

There are two main data center, both located in Mexico City, the address and technical contacts are the following:

Mexico City (Reforma) site

Address: Paseo de la Reforma #255, Centro Cómputo, 06500 Cuauhtemoc, Mexico City.

Mexico.

Contact: Francisco Javier Thome Ortega

T: 55-53429477

Email: <u>ithome@grupobmv.com.mx</u> Contact: Victor Rodriguez Jimenez

T: 55-53429420

Email: vrodriguez@grupobmv.com.mx Contact: Roberto Garay Lezama

T: 55.53429408

E-mail: rgaray@grupobmv.com.mx

Mexico City (Kio) site

Address: Paseo de la Reforma #5287 05000 Cuajimalpa, Mexico City.

Mexico.

Contact: Francisco Javier Thome Ortega

T: 55-53429477

E-mail: <u>jthome@grupobmv.com.mx</u> Contact: Victor Rodriguez Jimenez

T: 55-53429420

Email: vrodriguez@grupobmv.com.mx

Contact: Roberto Garay Lezama

T: 55.53429408

E-mail: rgaray@grupobmv.com.mx





MEXICAN USERS

- Communication links to the Exchange (Reforma and KIO)
 - Acquiring 2 LAN to LAN links
 - Minimum bandwidth to any site 2Mb/second, leased with Telmex

Telmex Manager for BMV
Luis Enrique Angeles Anguiano
T. +52 (55) 5328 8623
Mobile +52 1 (55) 5435 3484
LANGELES@telmexomsasi.com

Telmex Executive for BMV
Alejandra Morales Toledo
T. +52 (55) 5223 4867
Mobile +52 1 (55) 2109 8400
AMTOLEDO@telmex.com

- These links must be requested using the format of Exhibit I
- The user must satisfy space conditioning and electrical requirements that TELMEX need for the proper installation.
- There should be a network border perfectly established between BMV and the remote site network.
- The BMV will provide an IP address and at the border there should be a translation of the remote site Host-level internal IP address.
- Communication equipment (Router)
 - Recommended router: CISCO ISR 4331
 - Router with 2 Ethernet ports 10/100/1000
 - EIGRP support
 - MSE Technology Department will be responsible for the Router management.
 - An extended port option with TELMEX can be hired, which the rent includes the communication link and router.
 - A router for each link is required in order to guarantee SLAs and high availability of the links.





ISR4331-AX	Cisco ISR 4331 AX Bundle w/ APP SEC lic					
SL-4330-IPB-K9	IP Base License for Cisco ISR 4330 Series					
SL-4330-APP-K9	AppX License for Cisco ISR 4330 Series					
PWR-4330-AC	AC Power Supply for Cisco ISR 4330 Series					
CAB-AC	AC Power Cord (North America) C13 NEMA 5-15P 2.1m					
ISRWAAS-RTU-750	ISRWAAS 750 conns RTU for ISR4300 series					
VWAAS-RTU-1300	VWAAS 1300 conns RTY for UCS-E on single ISR only					
SL-4330-SEC-K9	Security License for Cisco ISR 4330 Series					
MEM-4300-4G	4G DRA, (2G+2G) for Cisco ISR 4330 4350					
NIM-BLANK	Blank faceplate for NIM slot on Cisco ISR 4400					
SM-S-BLANK	Removable faceplate for SM slot on Cisco 290039004400 ISR					
MEM-FLSH-4G	4G Flash Memory for CISCO ISR 4300 (Soldered on					
	motherboard)					
SISR4300UK9-314S	Cisco ISR 4300 Series IOS XE Universal					

INTERNATIONAL USERS

- Communication links to the Exchange (Reforma and KIO)
 - Acquiring 2 LAN to LAN links
 - Minimum bandwidth for each site 2Mb/second, hired with Telmex

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- These links must be requested using the Annex I format
- The user must satisfy space, conditioning and electrical requirements that Telmex need for the proper installation of these connections.
- There should be a network border perfectly established between BMV and remote site network.
- The BMV will provide an IP address and at the border should be a translation of the remote site Host-level internal IP address.





Communication equipment (Router)

- Recommended router: CISCO ISR 4331
- Router with 2 Ethernet ports 10/100/1000
- Ability to use ports E1 G.703
- Once it has two FastEthernet interfaces to 100Mbps, it is prepared to join the FastEthernet technology for WAN links.

Cisco ISR 4331 AX Bundle w/ APP SEC lic					
IP Base License for Cisco ISR 4330 Series					
AppX License for Cisco ISR 4330 Series					
AC Power Supply for Cisco ISR 4330 Series					
AC Power Cord (North America) C13 NEMA 5-15P 2.1m					
ISRWAAS 750 conns RTU for ISR4300 series					
VWAAS 1300 conns RTY for UCS-E on single ISR only					
Security License for Cisco ISR 4330 Series					
4G DRA, (2G+2G) for Cisco ISR 4330 4350					
Blank faceplate for NIM slot on Cisco ISR 4400					
Removable faceplate for SM slot on Cisco 290039004400					
ISR					
4G Flash Memory for CISCO ISR 4300 (Soldered on					
motherboard)					
Cisco ISR 4300 Series IOS XE Universal					

- MSE Technology Department will be responsible for the Router management.
- An extended port option with TELMEX can be leased, in which it is included the communication link and router.
- A router is required for each link in order to ensure SLAs and high availability of the links.
- Communication links to the Exchange (via BT-Radianz)
 - BT-Radianz is an international IP network, which connects a large number of financial institutions, where you can get the bandwidth that suit your needs.
 - BT-Radianz Executive, Ernesto Matamoros, T: +52 (55) 5283 1869 e-mail: ernesto.matamoros@bt.com





Exhibit I

	DATE:			
	CONNECTION TYPE OPTIC FIBER			
	ATTENDED BY TELMEX:.			
	PHONE:			
	E_MAIL:			
FAX:	COMMITMENT TERMINATION DATE:			
	FAX:			

CURRENT INFRASTRUCTURE

CONCEPT	Exists		MEANS			CAPACITY	BRAND
	YES	NO	O. F	CUPPER	RADIO		
> TX EQUIPMENT							
➤ CHASSIS SPACE							
> AC POWER							
> DC POWER							
> Q.O. BOARD							
> VENTILATION							
PHYSICAL LAND							
➢ GUTTERS							
DUCTWORK							
> REDUNDANCY							
DIVERSITY							
> CENTRAL ACCESS							

OBSERVATIONS AND RECOMMENDATIONS:

If you need any further information, do not hesitate to contact us: marketdata@grupobmv.com.mx

Sincerely,

Information and Promotion Management

Mexican Stock Exchange, S.A.B. de C.V.

