mdc | Where networks connect on the border

# MEX-IX Terms and Conditions

## 1. INTRODUCTION

MDC (MDC Data Centers) wants to make it easy to connect to the largest concentration of Mexican networks in the world
hosted in our carrier-neutral facilities. The MEX-IX is ruled by the following terms and conditions.

### 1.1. GENERAL

Participants must adhere to the MEX-IX Acceptable Use Policy.
Participants must ensure that their usage of the exchange platform is not detrimental to the usage of other MEX-IX participants.
Participants must ensure that their usage is in compliance with applicable Internet standards and Internet exchange standards as published by the IETF.
Participants should not use the MEX-IX for carrying traffic between their own routers.
MDC encourages bilateral peering. Traffic may only be forwarded from one MEX-IX participant to another if permission is given by the recipient.
Multilateral Peering route servers are also available and are free of charge to MEX-IX participants.

## 2. PRODUCT DESCRIPTION

The Border Internet Exchange provides connectivity to its infrastructure using switched, shared Ethernet LANs. Participants connect to this Ethernet LAN using a single mode fiber connection.
Physical interfaces of the same speed on the same physical MEX-IX switch may be aggregated together using IEEE 802.3ad link aggregation control protocol, by prior agreement with the MEX-IX. However, for multiple connections, the MEX-IX and MDC reserve the right to charge fees as needed to ensure fair access to all participants.
The MEX-IX reserves the right to disconnect any port which violates any of the requirements listed without

prior notice.

### 2.1. ROUTING POLICY

Each Participant must have their own Autonomous System number.

Unicast peering between participant's; routers across the MEX-IX will be via BGP (version 4 or subsequent) and peers must set NEXT_HOP_SELF if advertising routes from other participants.

Participants shall not generate unnecessary route flap, or advertise unnecessarily specific routes in peering sessions with participants across the MEX-IX.

Participants may not point static routes, including the default route or otherwise use another participant's resources without permission.

Broadcast traffic may be not delivered to the exchange, except as needed for normal operation and troubleshooting.

Participants may only utilize a single layer-2 MAC address to place a single layer-3 router per port allocated from the switch fabric unless by prior agreement.

Participants must maintain a BGP session with our route collector which is used for troubleshooting and availability measurement and reporting only. There is no need to accept prefixes from the collector.

### 2.2. PHYSICAL

Participants have a duty of confidentiality to the MEX-IX and other MEX-IX participants. In particular, Participants must not install packet sniffers to monitor traffic passing through the MEX-IX.

Participants may not connect equipment to or otherwise provide connectivity to the MEX-IX switch infrastructure on behalf of non-participants.

### 2.3. AUTOMATIC RENEWAL

After the initial term in the service order, the MEX-IX service shall be automatically renewed as a month-to-month term if no disconnection request has been ordered, according to section 4.3 of this document.

## 3. SERVICE DELIVERY AND SUPPORT

The following outlines MDC's roles and responsibilities in the service delivery of the MEX-IX service. While specific roles and responsibilities have also been identified as being owned by the customer, any roles or responsibilities not contained in this document are either not provided with the service or assumed to be the customer's responsibility.

### 3.1. PROVISIONING

MDC will provide the following to be able to deliver the service:

- Physical Port allocation for either 10G or 100G with a LR4 connector type.
- IP Peering assignment IPv4 and IPv6.
- Cross-Connection between customer's equipment and MEX-IX platform.

The customer needs to provide a Public Autonomous System Number or ASN with a valid peeringdb.com registration and must have a Router connected to the MEX-IX Port with the desired capacity in order to set the Border Gateway Protocol or BGP Session to be able to gain access to the IX traffic.

### 3.2. ONBOARDING SERVICE

MDC is committed to providing the best onboarding service to smooth the provisioning and service early adoption to live the benefit from day one. For some companies, leveraging IX traffic can be a new thing, so we are committed to guiding every provisioning activity.

MDC provides the following onboarding services for all initial setups:

- IX Platform and Peering training.
- Installation Plan and Project Management guidance.
- On-site Support for physical connectivity and testing.
- Route Collector BGP session configuration support.
- (Optional) Route Server BGP session configuration support.

### 3.3. SUPPORT

MDC employs skilled on-site technicians in each of its data centers. If the customer requires further support with their MEX-IX service, they can request assistance from technicians by creating an On-site Support ticket within the MDC Portal. MDC will provide all reasonable assistance to the customer while abiding by MDC policies. Support charges may be incurred.

### 3.4. INCIDENT AND PROBLEM MANAGEMENT

MDC does not actively monitor uptime for MEX-IX. Any service interruption should be reported by the customer via request in the MDC Portal. MDC will provide Remote and On-site Support services like Port & BGP status and Physical layer connectivity issues pertaining to the infrastructure associated with the MEX-IX service.

Any BGP misconfiguration on the Customer Equipment side after ending the initial provisioning is out of the scope of the service and may incur additional service charges.

The traffic exchanged in the peering platform goes from one customer to another therefore MDC will not be responsible for it.

### 3.5. SECURITY

MDC will provide security for the aspects of the service over which it has a sole physical and administrative level control. MDC will use commercially-reasonable efforts to provide data center security, protection of cabling within the cable troughs and/or trays within the data center, and administrative controls for access within the facility where the service is provided. Security and access controls will be implemented per MDC standard operating policies.

MDC is a member of the Mutually Agreed Norms for Routing Security or MANRS global initiative supported by the Internet Society to provide critical support to reduce the most common routing threats.

The customer is responsible for any security associated with the session and traffic establishment.

For more information about IX security go to https://www.manrs.org/

# 4. BUSINESS OPERATIONS

## 4.1. NEW ORDERS

A MEX-IX Port can be ordered (a) via MDC Portal, or (b) through your Account Executive who will provide the corresponding service order for execution. The customer will be required to specify available ports on their MMR Mirror ODF.

## 4.2. CHANGES TO EXISTING SERVICES

If the customer requires any changes to previously installed MEX-IX services, the customer will need to submit a disconnect order and a new subsequent order to implement the change, and additional charges may apply. All changes are subject to feasibility.

## 4.3. DISCONNECTION REQUEST

Disconnects may be requested (a) in the MDC Portal or (b) through your Account Executive. The disconnect request must have a 30-day prior notice to the end of the initial term for all long-term contracts.

For auto-renewed services, MDC will execute the disconnection at the end of the following billing cycle. That means that the MEX-IX Service will be active and charged as usual for one last period.

## 4.4. DISCONNECTION FEES

During the initial term of the MEX-IX Service, any disconnect request will be considered an early termination and may incur a penalty (“Early Disconnection Fee”) based on the remaining period in its corresponding Service Order. For auto-renewed services, a disconnection fee corresponding to two months of service (“Disconnect Fee”) will be applied unless otherwise stated in the Master Service Agreement (“MSA”).

## 5. SERVICE LEVEL OBJECTIVES

MDC offers Service Level Objectives for MEX-IX. A Service Level Objective ("SLO") is a metric which MDC makes all reasonable efforts to achieve during standard business operations. MDC does not offer remediation for missed Service Level Objectives.

MEX-IX are governed by the following SLOs:

### 5.1. INSTALL

MDC will make all commercially reasonable efforts to complete physical connectivity installation and testing as well as provisioning information within 2 business days of an accepted service order. The remaining activities involved in the service activation are subject to the customer as shown in section 3.1 and 3.2 of this document.

### 5.2. UPTIME

MDC will make all commercially reasonable efforts to ensure that a MEX-IX infrastructure and physical connections are available 100% of the time. The MEX-IX is considered unavailable when the passive physical media used for the connection fails and the endpoints of the connection are not able to maintain communication, or when the involved infrastructure is not performing as expected. The MEX-IX does not employ a protection scheme to re-route traffic in the event of equipment or passive physical media failure.

## 6. CONTRACT TERMS

A MEX-IX order incurs a non-recurring charge to cover the materials and labor associated with installation as well as the monthly recurring charges in connection with the provision of such Service. The Service may be contracted under a long-term as stated on the service order and may be canceled as stated in section 4.3

of this document. Early termination and disconnect fees may apply according to section 4.4 of this document. Talk to your Account Executive for more information.

## 7. LEGAL

Participants must not carry out any illegal activities through the exchange platform. While MDC agrees to aggressively protect the privacy and operational integrity of our users, we are obligated under US law to comply with warrants and subpoenas as presented by qualified law enforcement agencies.

In the event a participant makes any claim against MDC as a result of the MEX-IX, for any reason whatsoever, the claim or claims shall be limited in aggregate to the amount of fees paid by the participant to MDC for the Internet Exchange service.

Please forward any questions or comments to peering@mdcdatacenters.com. MDC may amend this document at any time. If any participating network has a grievance or concern with the conduct of any other participating network, send an email to peering@mdcdatacenters.com for review. Participants agree to comply with these Terms and Conditions and have 30 days to comply with any changes.

## 8. ACCEPTABLE USE POLICY (AUP) - MAC LAYER

### 8.1. ETHERNET FRAMING

The MEX-IX infrastructure is based on the Ethernet II standard. Other Ethernet encapsulations are not permitted.

### 8.2. ETHERNET TYPES

Frames forwarded to MEX-IX ports must have one of the following ethertypes:

- 0x0800 - IPv4
- 0x0806 - ARP
- 0x86dd - IPv6

### 8.3. ONE MAC ADDRESS PER PORT

Frames forwarded to an individual MEX-IX port shall all have the same source MAC address.

### 8.4. NO PROXY ARP

Use of proxy ARP on the router's interface to the Exchange is not allowed.

### 8.5. UNICAST ONLY

Frames forwarded to MEX-IX ports shall not be addressed to a multicast or broadcast MAC destination address except as follows:

- Broadcast ARP packets
- Multicast ICMPv6 Neighbour Discovery packets. This does not include Router Solicitation or Advertisement packets

### 8.6. NO LINK LOCAL-TRAFFIC

Traffic for link-local protocols shall not be forwarded to MEX-IX ports. Link-local protocols include, but are not limited to, the following list:

- IRDP
- ICMP redirects
- IEEE 802 Spanning Tree
- Vendor proprietary protocols. These include, but are not limited to:
    - Discovery protocols: CDP, EDP
    - VLAN/trunking protocols: VTP, DTP
- Interior routing protocol broadcasts (e.g. OSPF, ISIS, IGRP, EIGRP)
- LLDP
- BOOTP/DHCP
- PIM-SM
- PIM-DM
- DVMRP
- ICMPv6 ND-RA
- UDLD
- L2 Keepalives

The following link-local protocols are exceptions and are allowed:

- ARP
- IPv6 ND

## 9. MINIMAL RULES FOR CONNECTION

- Only available for MDC customers
- Participants must comply with the Acceptable Use Policy
- Participants must comply with the Terms and Conditions
- Participants must display their MEX-IX connection on their PeeringDB record
- Run BGP sessions to the collector (required) and other peers (recommended)
- Public AS numbers required