West Africa Internet Exchange

Acceptable Use Policy

WAF-IX Acceptable Use Policy

This document outlines the acceptable use for ports on the West Africa Internet Exchange (WAF-IX). It is intended to be used in conjunction with any other limitations as defined by the Master Service Agreement and Service Order form **if applicable**.

1. **Private or Bilateral Peering**

1.1 Private peering is the direct interconnection between only two networks, across a Layer 1/Layer 2 medium that offers dedicated capacity not shared by any other parties.
1.2 At WAF-IX, private peering is subject to the technical guidelines stated in this Policy.
1.3 Agreements for private peering are the responsibility of the connecting networks.
1.4 The following port configurations are available for private peering:
a) 1G
b) 10G

2. **Multilateral or Open Peering (MLP)**

2.1 The MLP service facilitates route exchange between multiple participants over one BGP session with the route server.
2.2 Multilateral peering at WAF-IX is subject to the technical guidelines as stated in technical requirements as well as the terms stated below. The following port configurations are available for MLP service.
a) 1G
b) 10G

3. **MLP Obligations**

3.1 Each participant shall advertise prefixes to all other MLP participants via the route-server.

3.2 Each participant shall accept all prefixes advertised by other MLP participants.

3.3 The participant is obligated to exchange traffic among all of its own customers and all customers of all other MLP participants subject to the rules and rights as stated in the SLA.

3.4 If a direct transit contract exists between two MLP participants, such participants are exempted from the obligations for mutual routes and traffic.

3.5 The Internet Exchange point where the MLP service is implemented, shall be treated as a common carrier point.

3.6 All traffic passing across the Exchange as a result of this MLP between MLP Participants shall not be filtered or tampered with.

4. **MLP Rules**

4.1 Exchange of routes will be performed using Border Gateway Protocol (BGP).
4.2 The participants agree to use a registered autonomous system number for its route exchange communications.
4.3 The participants agree that route prefixes (blocks of IP address space) advertised to each other under this agreement will be of maximum prefix length of 24 bits.
4.4 The participants agree that only routes for IP address space allocated and registered by a regional internet registry to the participant or the participant's customers are advertised.
4.4 The participants agree to never "default route" to the MLP service, or via that service or directly to any other MLP participant, without full agreement between both parties. The act

of using a "default route" without permission will result in immediate termination of this agreement.

5.   Initial Technical Requirements

5.1   The participants must comply with the following technical requirements before connecting to WAF-IX:

5.1.1   Connected ports must be Ethernet (Optical/Electrical). Gigabit Ethernet ports can be configured as auto-sensing or manual, as notified by the participant to WAF-IX prior to going live.

5.1.2   The participants should not send tagged frames. Traffic for link-local protocols shall not be forwarded to WAF-IX ports. Link-local protocols include, but are not limited to the following items:

a) ICMP Router Discovery Protocol (IRDP);
b) ICMP redirects;
c) IEEE 802 spanning tree; and
d) Vendor proprietary protocols. These include, but are not limited to:

  i.   Discovery protocols: CDP, EDP;
  ii.   VLAN/trunking protocols: VTP, DTP;
  iii.   BOOTP/DHCP;
  iv.   PIM-SM;
  v.   PIM-DM;
  vi.   DVMRP;
  vii.   ICMPv6 ND-RA; and
  viii.   UDLD, unless agreed otherwise.

5.1.3   One Media Access Control (MAC) address per port frames forwarded to an individual WAF-IX port shall all have the same source MAC address.

5.1.4   The WAF-IX infrastructure is based on the Ethernet II standard. Only ethertypes 0x0800 (IPv4), 0x08dd (IPv6) and 0x0806 (ARP). Other Ethernet encapsulations are not permitted.

5.1.5   All networks connected must disable Proxy ARP on the router interface connected to WAF-IX.

5.1.6   All networks connected must only use BGP to exchange routing information. This explicitly means that other routing protocols such as OSPF, ISIS, EIGRP, and IPv6 router solicitation must not be used.

5.1.7   Static routes shall not be pointed at other exchange participants.

5.1.8   WAF-IX advises against overloading ports as this leads to a degraded service. WAF-IX will contact the participant in question when traffic at the 95th percentile exceeds 65% of the port capacity. When traffic reaches 50% of the port capacity, WAF-IX will inform the participant of suitable options for upgrade (higher port capacity or aggregated links).

5.1.9   Networks using aggregated ports will follow 802.3ad specifications. The aggregated links must be of the same media type and link speed.

5.1.10 Unicast only frames forwarded to WAF-IX ports shall not be addressed to a multicast or broadcast MAC destination address except as follows:

a) Broadcast ARP packets;
b) Multicast ICMPv6 neighbor discovery packets. This does not include router solicitation or advertisement packets.

5.1.11 All connected networks must BGP peer with the Internet Exchange's collector. This session allows WAF-IX to check the health of the Internet Exchange.

5.1.12 No export of peering LAN. IP address space assigned to peering LANs shall not be advertised to other networks without explicit permission of the WAF exchange.

6.   Additional Technical Requirements

6.1   In order to participate in WAF-IX and enjoy access continuously, the participants shall, at all times during the term of this agreement:

6.1.1   have an Autonomous System (AS) assigned by one of the Regional Internet Registries or an alternative agreed by WAF-IX;

6.1.2   use BGP4 for peering;

6.1.3   present to WAF-IX an Autonomous System visible from the WAF-IX Route collector;

6.2   The participants must achieve operational peering within three months of becoming a WAF-IX participant. This is achieved by:

6.2.1   connecting to at least one port on the WAF-IX network, and peer with the WAF-IX route collector;

6.2.2   Peering with at least one existing WAF-IX participant or the WAF-IX route servers.

7.   If a participant does not achieve operational peering within three months of the execution of its agreement with WAF-IX, or subsequently does not maintain operational peering for more than 21(twenty-one) continuous days, then WAF-IX may suspend the participant's participation by a written notice to the participant.