

Nigeria Internet Exchange Ltd.

Mandatory Multi-Lateral Peering Agreement

[Version 1.0, dated 24th July 2006]

This agreement is dated [] day of [] 200[]

Between:

(1)

Party A,

_____, [company name]

incorporated in _____, [city, country]

with company registration number _____, [registration number]

and duly represented in this matter by _____, [name of responsible person]

_____, [function]

hereinafter called the "Member";

And

(2)

Party B,

The Nigeria Internet Exchange Ltd.

incorporated in Nigeria,

with company number _____,

and duly represented in this matter by _____, [name of responsible person]

_____, [function];

have agreed under the laws of the Federal Republic of Nigeria as follows:

1. Interpretation

The following provisions shall have effect for the interpretation of this Agreement, unless the context otherwise requires. The following words and expressions shall have the following meanings:

- 1.1 "Autonomous System" means a connected group of one or more IP prefixes run by one or more network operators which has a single and clearly defined routing policy;
- 1.2 "Border Gateway Protocol-4" or "BGP-4" means the industry standard as at the date of this Agreement or as subsequently modified from time to time for an inter-Autonomous System routing protocol, including support for both route aggregation and classless inter domain routing ("CIDR");

- 1.3 "NIX" or "NIXP" or "Interconnection Point" means the Nigeria Internet Exchange or the Nigeria Internet Exchange Point or any of its locations;
- 1.4 "NIX CEO" means the Chief Executive Officer of the NIX;
- 1.5 "Network" means a communications network running transmission control protocol/internet protocol ("TCP/IP") and other IP;
- 1.6 "Peering Session" means an instance of the BGP-4 protocol running between a router of each Party at an Interconnection Point in order to pass on real time signaling information between each Party by advertisement and withdrawal of routes;
- 1.7 "Routed Networks" means those Networks identified by network prefix and mask pairs advertised in a Peering Session by the relevant Party which relate to the Networks of that Party, its customers, and those of any third parties with whom the Party has an agreement to advertise such Networks;
- 1.8 "Traffic" means IP Datagrams moving through any Network;
- 1.9 "Transit Traffic" means the movement of Traffic from one Party through the Network of the other Party before delivery of such Traffic to a Third Party Network;
- 1.10 "Third Party Network" means any Network which is not a part of either Party's Routed Networks;
- 1.11 "Route Server" The one or more NIX BGP Route Server peers, these machines collect and redistribute all Member routes;
- 1.12 "Member" means a NIX member who has gone through the joining procedure to become a member and who is the Party A to this MMLP Agreement;
- 1.13 "Internet Routing Registry": A union of world-wide routing policy databases, containing globally unique information about, among other things, assigned AS Numbers, assigned IP Address space and routing policies. In Europe, the regional database is contained in the AfriNIC DB operated by the AfriNIC;
- 1.14 "Regional Internet Registry (RIR)" Organisations providing allocation and registration services for a specific region, under the authority of IANA. In Africa, this is provided by the AfriNIC.

2. Member Obligations

- 2.1 The Member is obliged to advertise all its (participating) routes to the NIX route servers, effectively advertising to all other members.
- 2.2 The member shall provide, at its own expense a connection from its network to the NIXP
- 2.3 The member is obliged to accept all routes advertised by the NIX route servers, effectively all routes from all other members except where conditions in 2.11 are met.
- 2.4 The member agrees that the interconnection is for the exchange of traffic between their routed networks and the NIX. The member will not use or cause the interconnection to be used for transit traffic except if a separate agreement has been made permitting such.

- 2.5 The member is obligated to assign a technical contact person in charge of all technical peering matters.
- 2.6 The member is obligated to assign an administrative contact person in charge of all organisational and administrative related matters.
- 2.7 The member shall not tamper with, nor examine for content all or any traffic passing across the NIXP under this MMLP Agreement.
- 2.8 Subject to Clauses 2.9 and 2.10, the member is not permitted to restrict the use of its network based on the content of the traffic being exchanged, except as required under relevant laws, regulations or policies.
- 2.9 The member may at its discretion prevent routing of traffic to or from Third Party Networks.
- 2.10 The member may at its discretion divert certain routes away from its network due to reasonable security or legal concerns.
- 2.11 The member may filter traffic originating from or destined for any member's network in accordance with the member's policies, however this policy must be clearly specified in the Internet Routing Registry.

3. NIX MMLPA Rules

- 3.1 All route exchanges shall be performed using the current version of BGP (at the time of writing version 4) or any replacement as recommended by the Internet Engineering Task Force (IETF).
- 3.2 The member agrees to use a publicly registered AS Number for their exchange communications.
- 3.3 The member agrees that route prefixes (blocks of IP Address Space) advertised to the NIX under this MMLPA shall have a maximum prefix length of 26 bits.
- 3.4 The member agrees that only routes for IP Address Space that was allocated and registered by an appropriate RIR will be announced to the NIX under this MMLPA.
- 3.5 The member agrees to never establish a route of last resort or announce a "default route" to the NIX route servers, via the NIX route servers or to another NIX MMLPA member network without full agreement between all parties. The act of using a "default route" without permission can result in immediate termination of this MMLP Agreement and would be regarded as "Non-Compliance" in accordance with Clause 6 of this MoU.
- 3.6 All publicly stated routing policies shall conform to the Route Policy Specification Language (RFC 2622, 2650).
- 3.7 The Member agrees to use the Internet Routing Registry to reflect their routing policy.
- 3.8 Except for data required for traffic analysis and traffic control being examined in order for the member or NIX to operate their respective networks, neither party shall monitor or capture the content of any data or other traffic of the other party, which passes through the Interconnection Points. Neither party shall modify the network infrastructure or Interconnection Points in any way to examine any data of the other member(s), except in accordance with an appropriate court order or other similar

action of a governmental agency. Each Party shall keep all data it monitors or captures hereunder confidential and shall use such data solely for the purposes of operating its network and projecting future capacity needs.

- 3.9 During the term of this Agreement, each Party shall ensure that any collation, retrieval and use of any personal data of any of its customers pursuant to this Agreement shall not breach any relevant laws or regulations including any data protection laws.
- 3.10 The member shall maintain a consistent routing announcement. The member will present the same Autonomous System number at all Interconnection Point(s). The member shall announce the same routes at peering sessions with NIX route servers at each Interconnection point it connects to. The member shall ensure that the BGP-4 attributes of each route it announces in the peering session with the NIX route servers is identical to those of that route in all peering sessions with the NIX route servers, with the exception of the 'next-hop' attribute, and the 'MED' or 'Metric' Attribute.
- 3.11 The member will practice route flap dampening measures consistent with widely accepted Internet standards or acceptable use standards. The member agrees not to generate unnecessary route flap.
- 3.12 The member agrees not to advertise unnecessarily specific routes in its peering sessions.
- 3.13 The member agrees not to advertise routes with a next-hop other than that of one of its own routers.
- 3.14 The member agrees, on all interfaces connected to the NIX, to disable: proxy ARP, ICMP redirects, directed broadcasts, IEEE802 Spanning Tree, interior routing protocol broadcasts, and all other MAC layer broadcasts except ARP.
- 3.15 The member's use of the NIX must at all times conform to the relevant standards as laid out in STD0001 and associated Internet STD documents.

4. Member Rights

- 4.1 Subscription to the NIX MLPA is mandatory.
- 4.2 The member has the right to withdraw its membership of NIX in accordance with the section 4.6 of the NIX MoU. For avoidance of doubt, such withdrawal of NIX membership will automatically terminate this MMLP Agreement.
- 4.3 Where a breach of this MMLP Agreement or a serious breach of technical or ethical conduct occurs, such would be regarded as "Non-Compliance" in accordance with Clause 6 of the NIX MoU.
- 4.4 The member is entitled to select routing paths among those presented by the NIX route servers.
- 4.5 The member may in addition to being party to this MMLPA, establish a private interconnection with another member under a Bi-Lateral Peering Agreement (BLPA).
- 4.6 The member may engage in transit agreements, as provider or consumer, only through private interconnection and not through the NIX switching platform. For avoidance of doubt, no transit traffic should be passed through the NIX switching platform. All transit agreements between members must be subject to a written permission from the NIX CEO.

5. Agreement Exclusions

- 5.1 The member is not obliged to provide transit to other members.
- 5.2 The member is not obligated to advertise routes obtained from its Bi-Lateral Peering Agreements to the NIX.
- 5.3 Monetary settlements to between members for any transit traffic are not required by this Agreement.
- 5.4 The member is not obliged to provide transit of packets from the NIX to other network points.
- 5.5 Hosting of router hardware, connections to the NIX and use of the NIX service, and the costs thereof are not covered by this agreement.

6. Emergency and Routine Maintenance

- 6.1 The member will exercise commercially reasonable efforts to achieve a mean time to perform network maintenance for not more than 6 hours a month. The parties will cooperate with each other in each party's efforts under this Paragraph.
- 6.2 The member will give the NIX a minimum of three (3) days prior written notice of any scheduled maintenance that is expected to result in thirty (30) minutes or more of end-to-end connectivity loss along the party's network or at the NIX.
- 6.3 The member agrees to maintain a fully staffed Network Operations Center ("NOC") that operates on a 24 hours/day and 7-days/week schedules, as per the contact details in the NIX Application Form. The member agrees to provide the NIX with any updates to these details.
- 6.4 For avoidance of doubt, written notice shall include noticed delivered by electronic mail.

7. Force Majeure

- 7.1 Neither Party shall be liable for any loss, damage, failure to perform or delay in performing all or any obligations under this agreement if such loss, damage, failure or delay is due to fire, flood, earthquake, strike (of its own or other employees), labour trouble or other industrial disturbance, war (declared or undeclared), embargo, blockage, legal prohibition, riot, insurrection or any other event beyond the reasonable control of such defaulting Party, preventing or delaying the performance of such obligation, provided that such obligation shall be performed immediately upon the termination of such cause, preventing or delaying such performance.

8. Agreement

I hereby accept the conditions in this MLP Agreement, signed:

On behalf of the Member:

On behalf of NIX: