Uganda Internet eXchange Point
Plot 33, Clement Hill Road, Kampala, Uganda
https://www.uixp.co.ug

The Executive Director
National Information Technology Authority - Uganda (NITA-U)
Plot 7A, Rotary Avenue (Former Lugogo Bypass)
Kampala, Uganda

December 11, 2025

RE: Formal Submission on the Proposed National IP Peering Exchange (NIPX) and Mandatory Domestic Peering

Dear Dr. Mugasa,

The Uganda Internet Exchange Point (UIXP) acknowledges the recent announcement by the National Information Technology Authority - Uganda (NITA-U) regarding the establishment of a government-run Internet Exchange Point (IXP), referred to as the National IP Peering Exchange (NIPX), together with the proposed requirement for “Mandatory Domestic Peering.”

As a neutral non-profit that has played a central role in the development of Uganda’s Internet ecosystem since 2001, we commend the government for its continued commitment to strengthening the country’s digital ecosystem and for its long-standing collaboration with industry stakeholders including the UIXP. It is in this same spirit of partnership, transparency, and shared national interest that we submit this formal representation for your consideration.

We stand ready to engage constructively with NITA-U and the Ministry of ICT & National Guidance on this issue and any other matter where we can be of assistance.

Sincerely,

Kyle Spencer
Executive Director,
Uganda Internet Exchange Point (UIXP)

Background and Context

Over the past three decades, Uganda has built one of the most competitive and resilient Internet ecosystems in the region through a combination of liberal regulation, private-sector investment, and collaborative community initiatives. As a result, wholesale Internet bandwidth prices have fallen by more than 99% over the last 15 years, from approximately USD 5,000 per Mbps to below USD 1 per Mbps today.

As part of this success, the UIXP, established in 2001 as a neutral non-profit interconnection service, managed to attract numerous local, regional, and international networks including Google, Akamai, Meta, and Netflix. Our voluntary, market driven approach significantly reduced the cost of Internet bandwidth, improved its performance and reliability, and laid the foundation for strategic infrastructure investments like the Raxio carrier-neutral data centre.

Today the UIXP has over 30 connected networks, operates from multiple locations with excess capacity, is financially sustainable, and is widely regarded as a regional model for neutral Internet exchange. Several government networks are connected to the UIXP and actively support its sustainability. Over the years we have partnered with the government on important initiatives and have worked together to resolve various security and technical matters.

Importantly, the IXP market in Uganda remains fully open to competition and we anticipate that new private-sector IXPs will emerge naturally as demand continues to grow, following the pattern observed in more mature markets such as Kenya, Nigeria, South Africa, and Europe. By allowing competition to develop organically based on genuine demand, Uganda can ensure that it maintains a healthy, efficient, and resilient interconnection ecosystem.

The Proposed NIPX and Mandatory Domestic Peering

In October 2025, NITA-U announced the creation of the National IP Peering Exchange (NIPX) together with a policy position that networks would be “encouraged and, where applicable, required to exchange domestic traffic at the NIPX.” While the stated objectives of improved performance, reduced international dependency, and strengthened digital sovereignty are laudable, we note with concern that:

- No prior industry consultation appears to have been conducted; and
- The referenced National Peering Policy is not publicly available.

This announcement also represents a major structural intervention in Uganda’s Internet interconnection market with potentially far-reaching implications for competition, investment, and infrastructure development.

The Stated Policy Objectives Are Already Being Achieved

From a technical and commercial perspective, the objectives cited for the NIPX are already substantially realised in Uganda:

- **Digital Sovereignty:** All networks operating in Uganda already interconnect via the UIXP and various Private Network Interconnects (PNIs). Consequently, domestic Internet traffic is already localised, and local hosting is already commercially viable.

- **Performance & Cost:** Because local traffic is already exchanged within Uganda, the introduction of a second IXP cannot materially improve national Internet performance unless it can attract content and interconnection beyond what the existing ecosystem can achieve. However, international experience shows that government-run IXPs rarely outperform established, industry-driven exchanges. Moreover, the cost of peering is a minor component of overall Internet service delivery costs, so a new government-run IXP could not meaningfully reduce retail Internet prices even if it offered its service for free.

- **Security:** With most domestic traffic already localised, Uganda's reliance on foreign transit networks and cable systems for internal communications is already minimised, significantly reducing the risk of external eavesdropping and traffic manipulation.

  When it comes to state security, the government already has dedicated network infrastructure, encrypts its inter-network traffic, and has a wide range of tools to enforce its monitoring and censorship authority including regulatory compliance systems hosted inside Uganda's various access networks — a far more direct and effective point of control amid Uganda's increasingly complex web of interconnections (see “Complexity and Compliance Challenges” below).

Commercial, Technical, and Strategic Considerations

There are additional commercial and strategic considerations that merit careful attention. The following sections outline some of the financial, market, and operational implications of introducing a mandatory government-run IXP in Uganda:

- **Market Configuration:** International experience consistently shows that the most resilient, innovative, and cost-effective interconnection environments emerge in markets where multiple neutral IXPs compete on the basis of service quality, location, and operator trust — not state mandate. Europe’s dense fabric of independent IXPs, alongside leading African examples in South Africa, Kenya, and Nigeria, demonstrates how demand-driven competition strengthens performance, attracts global content providers, and accelerates data centre investment.

In this context, the UIXP has deliberately worked for more than two decades to preserve an open market for IXP entry and competition in Uganda. However, global best practice shows that competition can only deliver positive outcomes when they arise from genuine market demand rather than a top-down policy intervention that compels participation irrespective of commercial or technical realities.

- **Public Cost & Revenue Potential:** A government-run IXP is more likely to become a recurring public expenditure than a revenue-generating national asset.

  Globally, most IXPs are non-profit community or industry initiatives because network interconnection is not inherently a commercial profit centre. The UIXP operated for over fifteen years on volunteer effort and donor support, and today generates only sufficient revenue to cover its operating costs and ensure its long-term sustainability.

  Government-run IXPs, especially those with mandatory participation, often underperform due to limited operator buy-in, neutrality concerns, and bureaucratic constraints. They can drive networks away from the market, discourage investment, and, in extreme cases, create monopolies. Therefore, the NIPX would likely struggle to attract participants at the same rate as a private, voluntary, market-driven exchange, making financial sustainability inherently more difficult to achieve.

  If demand for domestic traffic exchange is forcefully fragmented and diluted across multiple IXPs in a market of Uganda's current scale, this would almost certainly impede either facility from achieving the critical mass required for operational and financial success, thereby introducing additional risk of long-term inefficiency and public subsidy. This fragmentation would further reduce Uganda's overall appeal to content providers, regional carriers, and international networks who are attracted to high network density.

  Even if the NIPX captured a dominant or monopolistic share of domestic traffic and charged for its services, it would still be unlikely to generate meaningful surplus revenue due to the small market and inherently limited demand for a government-run service. At best, it might break even after sustained investment, but any financial sustainability would likely require fees comparable to or higher than those of the UIXP.

- **Complexity and Compliance Challenges:** Aside from the UIXP, Uganda's domestic Internet traffic flows through a dense and growing web of interconnections, including hundreds or even thousands of Private Network Interconnects (PNIs) that are critical for network operations and commercial businesses such as Raxio. Given this complexity, it would be virtually impossible for the government to monitor and enforce compliance for any broad domestic traffic exchange requirement. As a result, NIPX would likely carry only a small fraction of local traffic, regardless of any mandate, limiting both its technical relevance and financial viability.

- **Monitoring & Control:** The establishment of a mandatory government IXP would not provide the government with any new regulatory or technical control beyond what already exists through in-network regulatory compliance systems. Experience during the 2021 Internet shutdown, for example, where the UIXP remained online to carry essential background traffic even as public access was cut off, demonstrates that IXPs are largely irrelevant to the government's ability to restrict or shape access.

Likely Impact of a Mandatory Government IXP

Based on both local and international experience, we respectfully submit that a government IXP with mandatory connection requirements could result in several unintended consequences:

- **Premature market fragmentation:** Forcefully shifting or splitting Uganda's limited demand for network interconnection across multiple IXPs could unnecessarily dilute network effects which, in turn, could slow the growth of Uganda's data center ecosystem and hinder the country's development as a regional Internet hub.

- **Higher service delivery costs:** Similarly, forcing ISPs to connect to a redundant government IXP without sufficient market demand could artificially increase network complexity and inflate service delivery costs.

- **Barriers to market entry:** Mandatory peering requirements can discourage networks from entering Uganda. Global experience shows that operators are often unwilling to join markets where they must interconnect with competitors or customers against their will.

- **Reduced investor confidence:** Sudden uncoordinated policy shifts, especially government forays into private markets, introduce uncertainty in a sector that depends heavily on stability and predictability.

- **Slower economic growth and job creation:** Premature market fragmentation, increased operational costs, new market barriers, and reduced investor confidence could slow market development, job creation, and broader economic growth.

- **Inefficient use of public funds:** Building redundant infrastructure when private solutions already exist diverts resources away from more pressing national priorities.

Recommended Alternative Policy Actions

Uganda's Internet ecosystem is fundamentally healthy and well-configured. To improve it further without introducing unnecessary system risk, we respectfully recommend that Government prioritise the following:

1. **Deploy Private Network Interconnects (PNIs)** between government and private networks for critical traffic flows. This would provide the government with more direct control over its inter-network traffic without fundamentally restructuring the market.

2. **Reduce Internet taxation** which now constitutes over 50% of end-user access costs in order to stimulate demand for Internet access and investment.

3. **Promote a stable and predictable investment climate** by avoiding abrupt or uncoordinated interventions, and by refraining from state forays into markets that are effectively served by private operators and market-driven competition.

4. **Renew collaboration with the UIXP and other industry stakeholders** to identify effective ways to further develop Uganda's Internet ecosystem and strengthen its regional position.

5. **Promote carrier-neutral data centres such as Raxio** by hosting key government platforms (e.g. NIRA) within them to help attract more colocation and interconnection to existing Ugandan facilities.

6. **Authorise LEO satellite systems** with in-country ground stations and traffic-localisation requirements, while restricting service to non-metro areas, to prevent market distortions.

7. **Undertake open, structured public consultations** before major policy shifts that affect national Internet infrastructure and that fundamentally alter the structure of the market.

8. **Promote broader economic development** which ultimately underpins sustainable growth in the Internet sector.

If these steps are taken, we believe that Uganda's market will continue to develop organically and will soon reach the scale where multiple neutral IXPs can coexist as part of a healthy, regionally competitive, secure, and sustainable Internet ecosystem.

Conclusion

Uganda's Internet industry has matured rapidly through market-driven investment, open competition, and close collaboration between the government, private operators, and the technical community. While a second IXP will become viable and beneficial in the future as demand grows, the imposition of a mandatory government-run exchange at this stage would provide no clear technical, commercial, or public benefit and risks undermining the very progress Uganda has worked so hard to achieve.

We respectfully recommend that the government reassess its plans for NIPX, engage in broad stakeholder consultation, and adopt evidence-based, demand-driven policy interventions that preserve investor confidence and regional competitiveness.

We would welcome the opportunity to meet with NITA-U and the Ministry of ICT & National Guidance to discuss these considerations in more detail and to explore constructive ways to support Uganda's ongoing Internet ecosystem development.

CC: The Permanent Secretary
Ministry of ICT & National Guidance
Plot 10/12 Parliamentary Avenue
P.O. Box 7817
Kampala, Uganda