

TESPOK -KENOG WORKSHOP -24TH
MAY 2024



TESPOK-TECHNOLOGY SERVICE PROVIDER OF KENYA

About us

Technology Service Providers of Kenya (TESPOK) is a professional, non for profit organization representing the interests of technology service providers in Kenya. Established in 1999.

Mission: The leading association of choice in peering services & steering ICT development.

Vision Statement :Enabler of ICT growth and development

Summary of what we do as TESPOK:

Peering | Policy & Regulation | Research | Training | Networking



KENYA INTERNET EXCHANGE POINT

An internet exchange point to
keep internet traffic in Kenya.



KENYA INTERNET EXCHANGE POINT

What is an Internet Exchange point?

An Internet exchange point (IXP) is a physical location that gives Internet infrastructure companies such as Internet Service Providers (ISPs) and Content Delivery Networks (CDNs) a platform to connect with each other and keep internet traffic local.

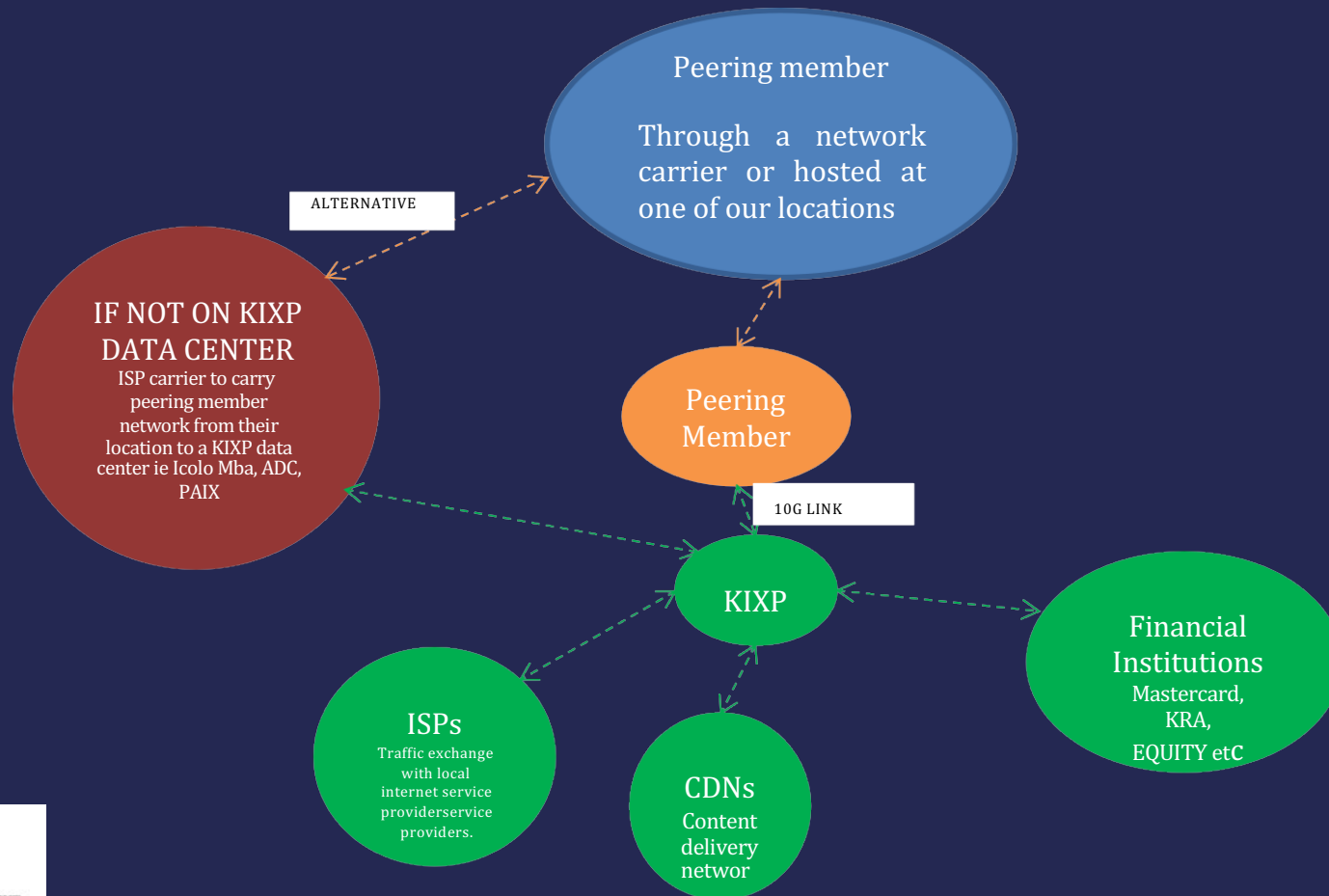


How does peering work?

An Internet exchange point provides a single location for all the hardware necessary to connect multiple networks. Each network that is willing to enter into peering agreements at these locations usually has operational and technical requirements that you must meet before being able to connect to them.

- ✓ Supports both IPv4 and IPv6
- ✓ The service offers interface speeds of 1 Gigabit per second Ethernet (1GE) or 10 Gigabit per second Ethernet (10GE) and 100Gigabit per second Ethernet (100GE)..
- ✓ The peering VLAN is monitored 24×7 by our NOC.
- ✓ Peering between Members' routers across KIXP will be via BGP. Border Gateway Protocol.

KIXP PEERING



Key benefits of an IXP



Cost reduction

The traffic that travels through the IXP isn't usually billed by any of the parties as it operates on multilateral peering. Also cost of bandwidth will reduce due to optimized use of IP Transit to upstream providers.

Reduction in Latency

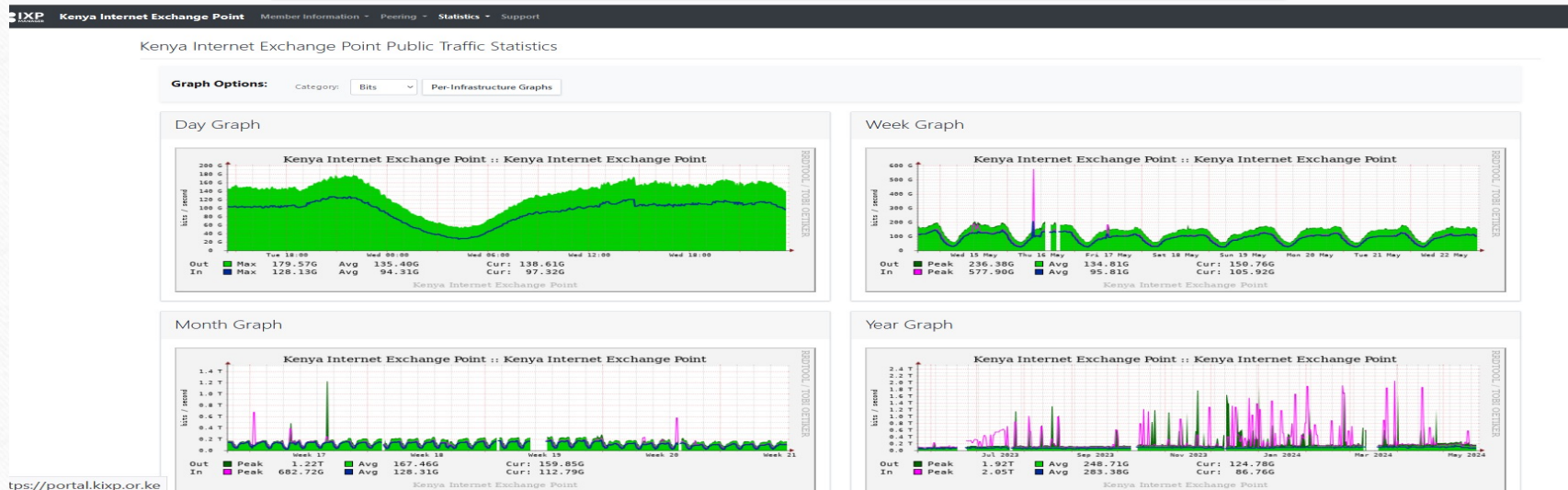
The direct interconnection within borders also prevents data from having to travel from one city to another (or even outside the country or the continent) in order to go from one network to another. Thus, reducing latency.

Strong local connectivity

Kenyan content providers, carriers and businesses benefit by exchanging traffic locally versus transiting traffic to their individual ISP.

IXP TOOLS & RESOURCES

1. IXP MANAGER -<https://portal.kixp.or.ke/login>
2. Peeringdb .com portal
3. BGP Communities



Members at Kenya Internet Exchange Point

Regional Mobile Operators and Internet service Providers

✓ Safaricom	Kenet Xtranet
✓ Airtel	Kemnet Tech
✓ Jamii telecom	Echotel
✓ Telkom Kenya	MTN My ISP
✓ Dimensions Data	Mawingu
✓ Frontier Optical Networks	Poa Internet
✓ Liquid Telecom	Vodacom
✓ Syokinet	Unwired
✓ Wananchi	Communication
✓ Angani	
✓ BSC-Rwanda	
✓ BCS / Sombha / Roke Telkom-Uganda	

Internal Upstream

✓ Hurricane Electric
✓ Workonline Communications
✓ Verizon
✓ BICS (Belgium International carrier services)
✓ China Telecom
✓ WIOCC
✓ Seacom
✓ PCCW Global
✓ Verizon
✓ Bayobab



KENYA INTERNET EXCHANGE POINT

Members at Kenya Internet Exchange Point

Government and Kenyan Content Providers

- ✓ KENIC
- ✓ Kenya Revenue Authority
- ✓ ICT Authority
- ✓ Craft Silicon
- ✓ Family bank
- ✓ Equity Bank
- ✓ Mastercard
- ✓ Jambopay
- ✓ MessageLabs
- ✓ Sportspesa
- ✓ Smart Cloud
- ✓ Smart Applications
- ✓ Angani

Ordinary Members

- ✓ American Towers
- ✓ Multichoice
- ✓ Soliton Telmec

International Content Delivery Networks

- Microsoft ;Zenlayer
- Netactuate , GVA(Canal+)
- Baichan Cloud , Iron tree cloud
- -i-route root servers
- ✓ Google ,Akamai, servercore
- ✓ Meta (Facebook),Amazon
- ✓ Huawei,Verisign
- ✓ Packet Clearing House (PCH)
- ✓ Netflix,



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TESPOK PARTNERS AND AFFILIATES

- ☐ Ministry of ICT , Innovation and Youth Affairs.
- ☐ Communications Authority
- ☐ National Computer and Cybercrimes Coordination Committee (NC4)
- ☐ Kenya Private Sector Alliance (KEPSA)
- ☐ ICT Authority
- ☐ AFRINIC
- ☐ ICANN
- ☐ CISCO
- ☐ Internet Society (ISOC)
- ☐ Reseaux IP Europeans (RIPE) Network Coordination Center
- ☐ Netnod-Sweden
- ☐ Amsterdam Internet Exchange Point
- ☐ African Union (AU)
- ☐ Mozilla



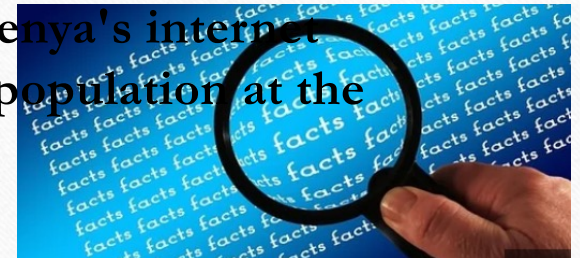
KIXP STATISTICS

- Located at 4 data centers in Kenya.
- Current 120 members connected to the exchange
- 53- IGe Ports / 100-10Ge Ports /1-40GE Port & / 9- 100Ge Ports
- 60% peers have enables IPV6
- 1.994 Tbits Connected capacity across KIXP



Fun Facts.....

- ✓ The largest IXP with over 900 ISPs from 60+ countries.in the world is DE-CIX Frankfurt ; with 34 Exabytes of annual traffic in 2022 .
- ✓ According to the African IXP Association There are currently 54 active IXPs located 36 countries in Africa,.with around 230 IXPs in the world.
- ✓ As of January 2024, Nigeria had more than 103 million internet users - the highest number reported all over Africa; while in **Kenya there were 22.71 million internet users in Kenya in January 2024. Kenya's internet penetration rate stood at 40.8 percent of the total population at the start of 2024**



What do you need to join the exchange point?

An ASN number and prefix.

Duly filled application form
and LPO

KYC Documents e.g Certificate
of Incorporation.



Any questions??

*Thank
you!*