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NATIONAL INTERNET EXCHANGE OF
AFGHANISTAN

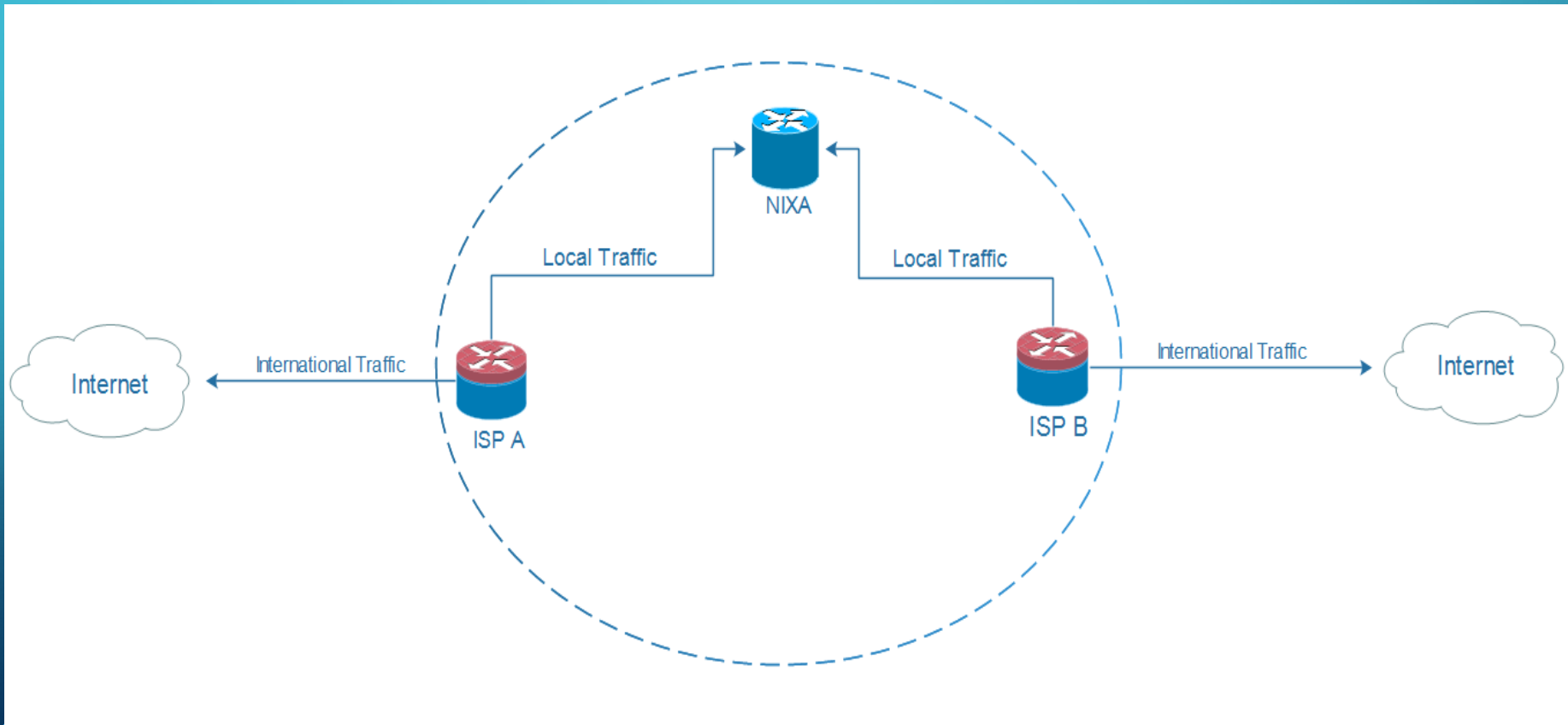
NATIONAL INTERNET EXCHANGE OF AFGHANISTAN (NIXA)

- Nation Internet Exchange of Afghanistan (NIXA) is implemented in National Datacenter Center of Afghanistan, where multiple Internet Service Providers come together, connect and exchange their Internet Traffic with each other.
- Nation Internet exchange of Afghanistan (NIXA) invented in 2018 for 3 factor (secure data, fast Internet speed and low cost).

WHAT IS AN IXP

- ❖ Internet Exchange Point is simply a common facility (usually in a Datacenter) where multiple **Internet Service Providers come together, connect and exchange their traffic** with each other.
- ❖ **Local Traffic remains local** by eliminating use of long distance (often expensive international bandwidth) for routing traffic
- ❖ Peering is about ISP's exchanging routing information and traffic, It allows them to directly hand off traffic between each other's customers, **without having to pay a third party to carry that traffic across the Internet for them.**
- ❖ One connection to **IXP enables ISP to connect to multiple ISPs.**
- ❖ **Internet exchange points are not Internet service providers.** While they allow network operators to exchange traffic with other network operators.

IXP DIAGRAM FOR LOCAL TRAFFIC



ADVANTAGES OF IXP (FINANCIAL)

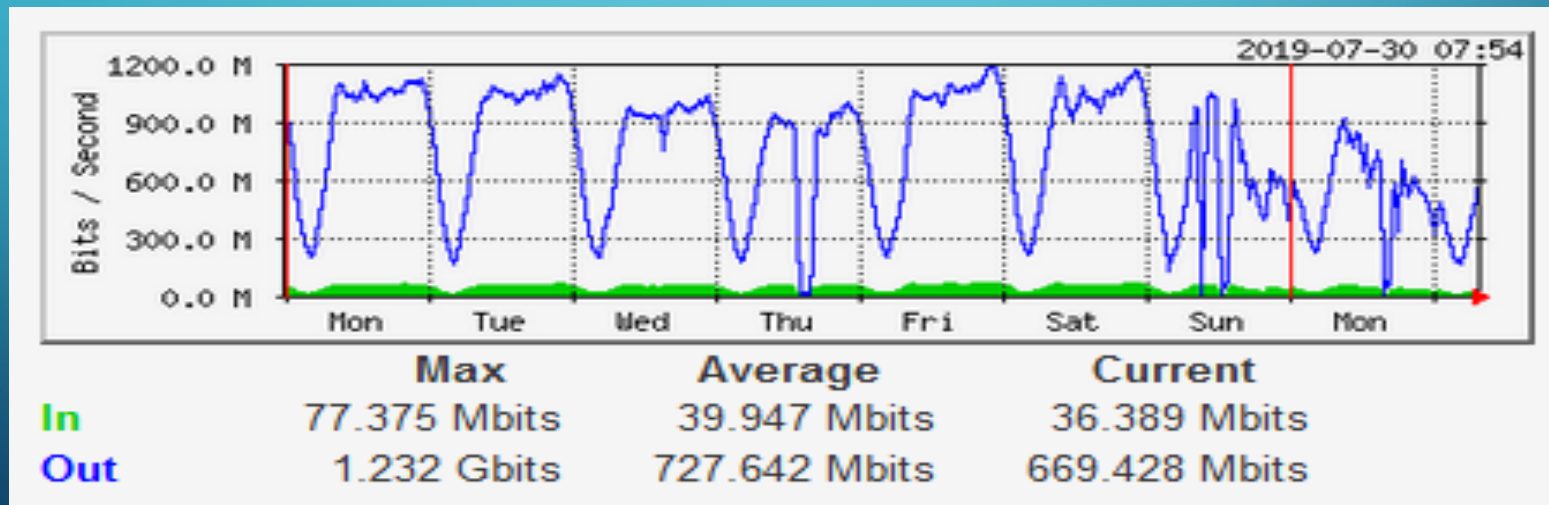
- ❖ **Saves Interconnection costs of ISPs**, saving on International bandwidth substantially
- ❖ **An IXP increases the number of potential providers**, reduce the cost of bandwidth, therefore, it stimulates better local internet services offers and increase local competition.
- ❖ **Attracts foreign content providers** (high-tech and network) which are used to benefit local internet users, ISPs/MNO and local purchase Internet capacity.
- ❖ IXPs help technological start-ups and develop relationships with research organizations.

ADVANTAGES OF IXP (TECHNICAL)

- ❖ **Local Traffic remains local** by eliminating use of long distance (often expensive international bandwidth) for routing traffic.
- ❖ **Reduces latency, which means better quality of service** to the customer (user experience) and empower the Internet access for all interactive applications, video games, teleconferencing.
- ❖ **Accelerates local internet exchanges between users and service providers**
- ❖ **Improves overall bandwidth utilization.**
- ❖ **Improves the routing efficiency, by increasing the number of possible “paths”**

CURRENT STATUS OF (NIXA)

- Among 64 Licensed ISP 17 are already connected with (NIXA).
- FNA cache for Facebook and Instagram contents and exchanging max 1.2Gig traffic with 600mbps traffic of local data.



HOW TO CONNECT

- Internet Service Provider (ISP) need to bring their link to connect NIXA.
- NIXA Infrastructure has the capability to provide 1Gig, 10Gig and 100 Gig interfaces.

FUTURE VISION FOR (NIXA)

- ❖ Connect all Internet service providers (ISPs) including Mobile Network operators (MNOs).
- ❖ Connect CDNs (cache of Google, Netflix, Akamai, etc.) and DNS.
- ❖ Establishing regional IXPs.



THANK YOU