# **DIX-IE**

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# **DIX-IE**

#### ☆ Connections

- 100 ports from 80 ISPs at GbE, FE, or 10GE
- IPv6 ready on the same frabric/same vlan
- A L2 IX doesn't care IP versions
- 13 ISPs are IPv6 (3 out of 13 are in dual stack)

## ☆ NSPIXP-2 renamed to "DIX-IE"

- Distributed IX in EDO
- $\therefore$  Layer-2 extention of NSPIXP-2
  - Project planning started in Aug 2000
  - Initial equipment installed in Mar 2001
  - Took years to get stable : 802.3ad and 802.1w
- ☆ Launched in May 2003 (finally!)
  - Some ISPs peers since early 2003
  - as ISP sacrifices

## **DIX-IE**

#### ☆ NSPIXP-2 + 5 remote branches

- All of them are in downtown Tokyo
- Links are 2-4GbE w/ 802.3ad, or a 10GE
- Redundant Configuration with 802.1w



# **Total Inbound Traffic**



Traffic dropped dramatically in late Nov. 03
 – some P2P users arrested for copyright violation

## **Remote Access via MPLS**

☆ We don't like to extend the IX at L2
• L2 is fragile

#### $\cancel{x}$ Remote access via MPLS label is possible

- Another way to get access to DIX-IE
- Not a simple layer-2 extention
- Joint effort with Japan Telecom
- Investigating a way to avoid LDP Hello's
- Multicast packets are not welcome
- Label is informed via BGP from the Edge
- Then local ISP can peer with remote ISPs
- Test operation started Dec03, now in evaluation