# DIX-IE

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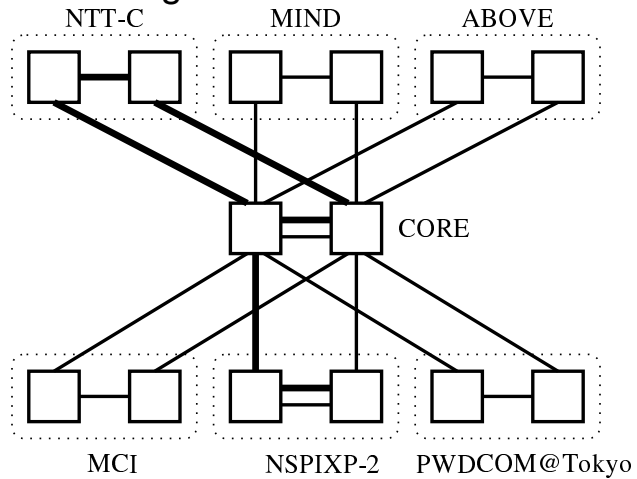
**WIDE**

**WIDE Project**
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## DIX-IE

☆ **NSPIXP-2 renamed to "DIX-IE"**
 ・ Distributed IX in EDO
☆ **Layer-2 extention of NSPIXP-2**
 ・ Project planning started in Aug 2000
 ・ Initial equipment installed in Mar 2001
 ・ Takes years to obtain stability
  ─ 802.3ad and 802.1w
☆ **Launched in May 2003 (finally!)**
 ・ Some ISPs peers since early 2003
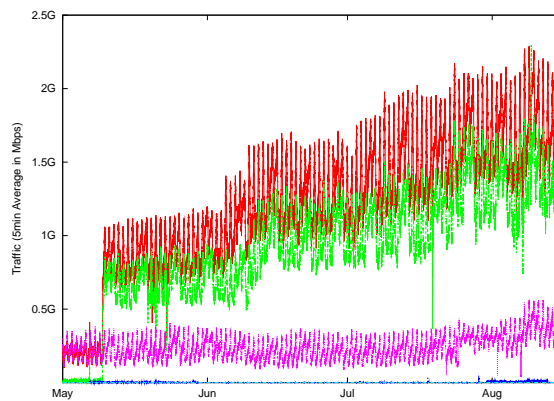  ─ as ISP sacrifices

# DIX-IE

☆ **NSPIXP-2 + 5 remote branches**
- ・ Links: 2GbE, 4GbE, or 10GE
- ・ Redundant Configuration

NTT-C     MIND     ABOVE

CORE

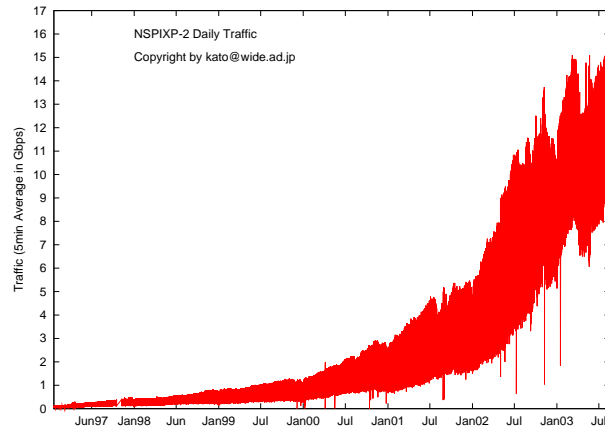MCI     NSPIXP-2     PWDCOM@Tokyo

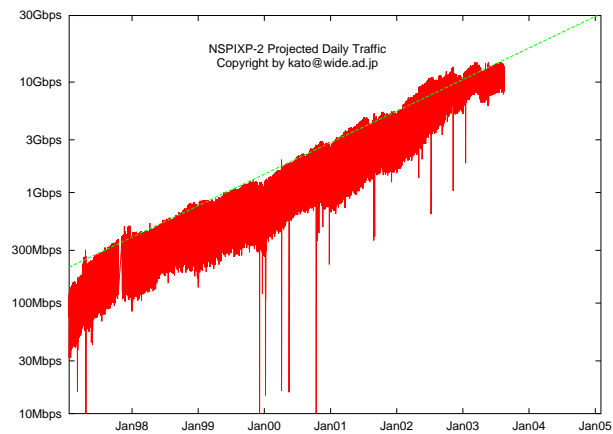# Inbound Traffic from Each Site

☆ **Measured at the primary core switch**

# Total Inbound Traffic



# Total Inbound Traffic

# Remote Access via MPLS

☆ **We don't like to extend IX at L2**
 ・ L2 is fragile
☆ **MPLS frame looks like another L3 Proto**
☆ **So remote access via MPLS is planned**
 ・ Joint effort with Japan Telecom
 ・ Investigating a way to avoid LDP Hello's
  ‒ Multicast packets are not welcome

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# MPLS

☆ **Another way to get access to DIX-IE**
 ・ via MPLS
 ・ Label is informed via BGP
 ・ Then BGP session to remote ISP is possible
 ・ Now testing in lab
 ・ Test operation start in next months

MPLS Cloud

BGP to tell a label

**MPLS Provider**

(CE)                                             (CE)

ISP–A     **IX Fabric**     (PE)      (PE)     ISP–B

IP DGRAM w/ a Label    BGP to exchange routes