DIX-IE and NSPIXP-3

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Japanese Traffic Growth

☆ **MIC estimated the Internet traffic volume in Japan**
- several major ISPs contributed to this project
- summation of traffic data from mrtg log files
  - broadband customers
  - IX, private peering, international

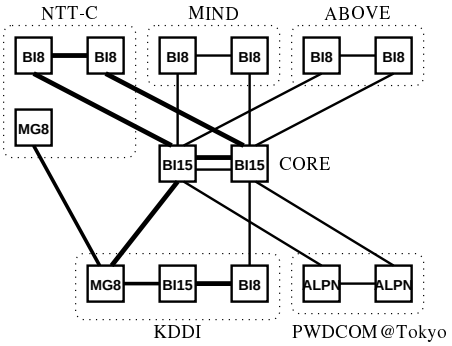
http://www.soumu.go.jp/joho_tsusin/eng/Releases/\NewsLetter/Vol15/Vol21/index.html

☆ **Traffic volume**
- Currently estimated at 324Gbps
  - Some intra-ISP traffic wasn't taken into account
  - Traffic between non-participating ISP also wasn't
- 1/3 of entire traffic depends on a major IXes
  - JPNAP, JPIX, DIX-IE, and their counterparts in Osaka
- 1/4--1/5 are international traffic
- rest (about 1/2) are domestic

Update of DIX-IE

☆ **DIX-IE (former NSPIXP-2, renamed in 2003)**

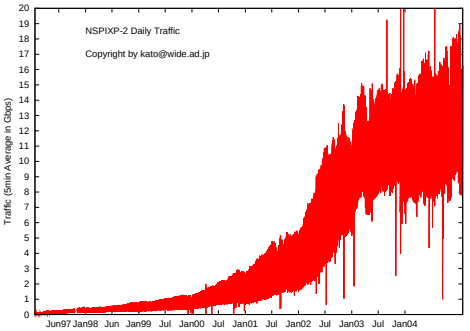
- Distributed IX in central Tokyo locations
  - KDDI (main switches), NTT-Communications, Above,
  - PoweredCom (@Tokyo), MIND
- Multiple GbE or 10GE interconnects



Statistics of DIX-IE

☆ **Statistics**

- # of ISPs : 85
- # of 10GE access : 5



DIX-IE

☆ **The switches in KDDI is being upgraded to MG8**
- Operational in Oct 2004
- Most of the ISPs have moved in a day
- FE customers still remain on BI15000

☆ **Traffic doesn't grow a lot at DIX-IE**
- Still important for backup of other IXes
  - Japanese traffic increases double in every year
  - Estimated total traffic is >300Gbps by MIC

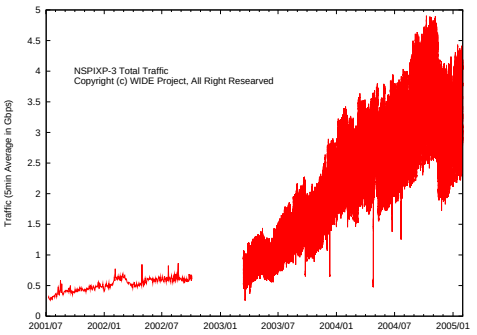
☆ **Access from a commercial MPLS network**
- Satoru Matsushima will give a talk soon

NSPIXP-3

☆ **The oldest IX in Osaka**

☆ **Distributed IX from its scratch in 1997**
- Two locations initially
  - OMP and IDC (now Japan Telecom IDC)
  - Redundant GbE access via Dark Fiber
- In 1999 NTT West location added
- Now a 10GE connects NTT West and IDC
- 23 ISPs, mostly GbE

NSPIXP-3


NSPIXP-3 Total Traffic
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Traffic (5min Average in Gbps)
0
0.5
1
1.5
2
2.5
3
3.5
4
4.5
5
2001/07
2002/01
2002/07
2003/01
2003/07
2004/01
2004/07
2005/01