

Status of IPv6 in Japan

WIDE

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WIDE Project

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- **KAME**
 - IPv6 stack for *-BSD Unix
- **TAHI**
 - Interop test suite
- **Yamaha RT50i/RT52i**
 - ISDN router, beta supports IPv6
 - RIPng
- **Hitachi GR2000**
 - High performance router
 - Now able to fill FastEthernet
 - RIPng + BGP4+
 - No OSPF at the moment

IPv6 addresses in JP

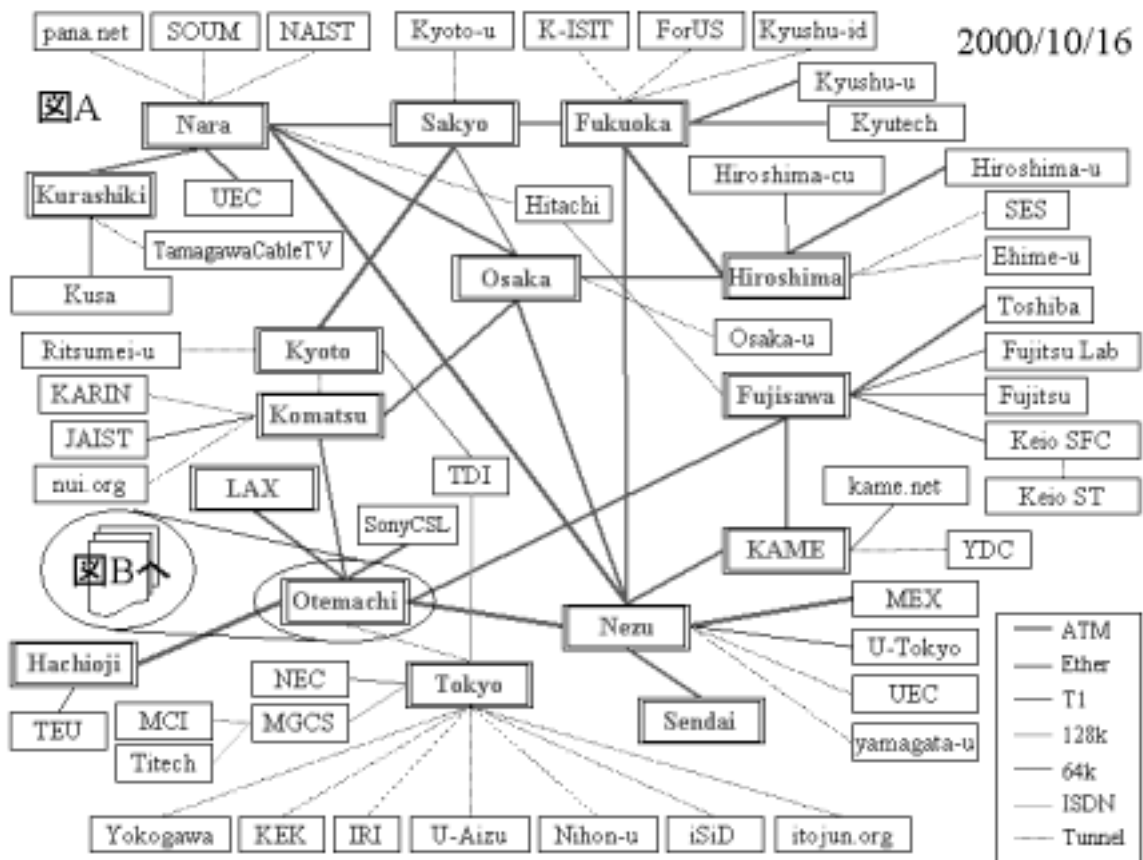
Oct 17, 2000
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Foil 3

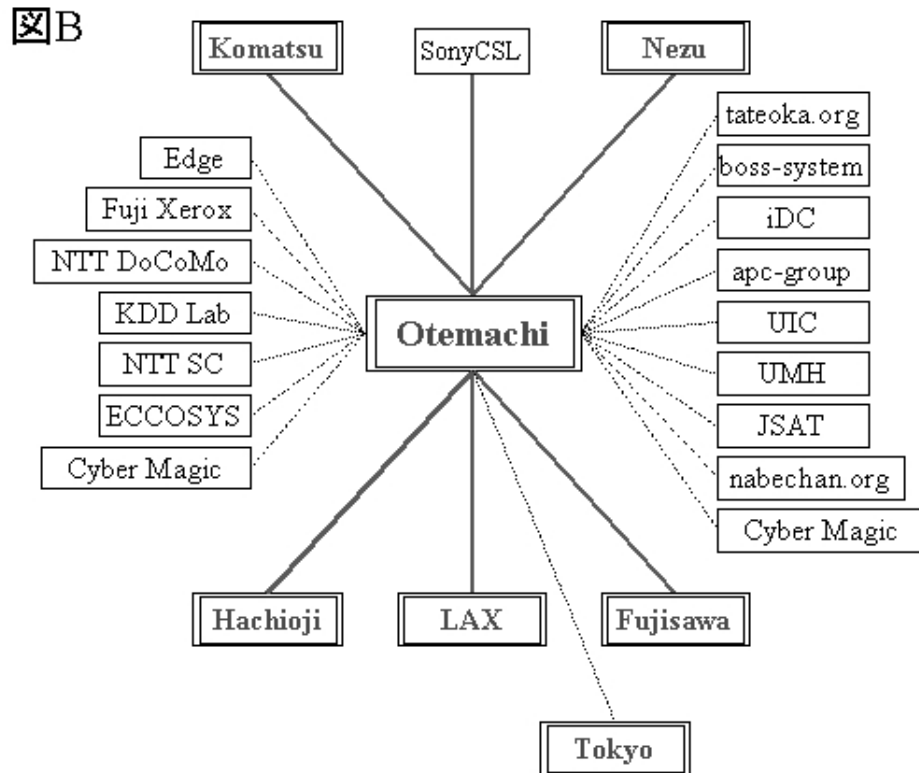
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- 4 pTLA holders
 - /24: WIDE/NTT-ECL
 - /28: IIJ/DTI
- 9 sTLA holders
 - WIDE/NTT/JENS/IIJ/IMnet
 - InfoWeb/Biglobe/DION/ODN
- Operational status
 - WIDE: native service for non-profit
 - IIJ: native service since Sept
 - Others: in-preparation
 - All of them are on NSPIXP-6

- **Nation-wide IPv6 testbed**
 - **Operational since June 1996**
 - **Mostly FreeBSD PCs w/ KAME**
 - **Most of the links are "native"**
 - Long-Haul GbE w/ WDM
 - L2 POS-Ethernet Switch
 - ATM PVC
 - **IPv6 only routers**
 - In conjunction with IPv4 only routers
 - **One of most active IPv6 clouds**

WIDE 6bone





- **Rich domestic connectivity**
 - **Through NSPIXP-6**
- **Rich international connectivity**
 - **Peers with 6tap since July 1999**
 - Through APAN, native IPv6 over ATM
 - **AP Region through APAN**
 - SG, KR, and MY
 - **AP Region through AI3**
 - Being deployed
 - TH, ID, MY, PH, SG, (CN), (VN), (LK)
 - **3Mbps ATM link to LAIIX**
 - An IPv6 IX in Los Angeles

- **An experimental exchange in Tokyo**
 - **Operational since Aug 1999**
 - **Same room as NSPIXP-2**
 - ISP's convenience
 - **Single FastEthernet switch**
 - Not providing commercial quality service
 - **Remote Access through ATM**
 - w/ ATM-Ethernet Bridges

- **Current participants**
 - **Academic**
 - WIDE, IMnet, APAN-JP
 - **ISPs**
 - IIJ, AT&T JENS, ODN
 - NTT-C, DTI, BIGLOBE
 - TTNNet, AVOBENET, KDDI
 - Global Crossing, INFOWEB
 - Global Center
 - **Experimental**
 - IRI, Intec (Toyama), M6
 - **Requirements**
 - ASN
 - NLA1 or above (sTLA/pTLA)

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- **Experiments**
 - **L2 exptionion to INET2000 Yokohama**
 - VLAN on GbE over WDM
 - "native" extention
 - For IPv6 demonstrations
 - VIC/VAT over IPv6 to Palo Alto
 - **L2 exptionion to Osaka**
 - VLAN on GbE across L2 POS
 - "native" extention
 - Global IPv6 Summit in Osaka
 - Dec 17-18, 2000

Applications

- **Daily life**
 - ftp.iij.net, ftp.kame.net
- **Web**
 - Through local translator: wwwoffle
 - w3m: char based browser
- **New apps**
 - **DV over IPv6**
 - 30Mbps stream
 - Requires "New Path"
 - Used for "distance education" trials
 - www.sfc.wide.ad.jp/~keiko/inet2000/

- **IPv6 tutorial in APAN Beijin**
 - www.soi.wide.ad.jp/class/20000000/slides/04/
- **6bone-jp**
 - 6bone-jp.v6.wide.ad.jp
- **KAME**
 - www.kame.net
- **TAHI**
 - www.tahi.org
- **Distance Education**
 - www.soi.wide.ad.jp
- **Global IPv6 Summit**
 - www.jp.ipv6forum.com