JPIX "Updates"

Japan Internet Exchange Co., Ltd.

jpix

President & CEO
Hiroshi Kobayashi

March, 2002

Major IXs in Japan

- Internet Exchange(IX) started by WIDE in Japan

  NSPIXP: Non commercial base and academic IX service has been operated by WIDE group.
  - NSPIXP1   1994.4.1998
  - NSPIXP2   1996.10.   (Tokyo/Otemachi)
  - NSPIXP3   1997.3. (Osaka)

- Commercial base JPIX service has been operated by Japan Internet Exchange Co., Ltd. from Nov, 1997.

- Commercial base JPNAP service has been operated by Internet Multifeed Co., Ltd. from Feb, 2001.

Establishment of JPIX *in July 1997*

◆ **Necessity of commercial IX**
- Joint venture invested by main ISPs in Japan

◆ **To provide reliable interconnection Environment**
- 24H / 365days monitoring and operation
- Collocation service

◆ **To provide value added services**
- Statistics for customer traffic
- Route Server/Route Registry
- NTP Server

◆ **Contribution to Internet Community**

Outline of JPIX (1)

◈ Date of Establishment: 10 July, 1997

◈ Headquarters: 19F, KDDI Otemachi Building, 1-8-1
Otemachi, Chiyoda-ku, Tokyo, Japan

◈ Capital: 298,000,000 Yen

◈ Shareholders:

KDDI	AsahiNet
JENS	OMP
Sony Communication Net.	TTNet
Tokyo Internet	Japan Telecom
NEC	MIND
Fujitsu	AboveNet .....
IRI	RIIS
Japan Cisco	

Outline of JPIX (2)

- ◈ CEO :　　　Hiroshi Kobayashi (KDDI)
- ◈ Board of Director :

　　　Mizuho Takai　　(JENS)
　　　Masao Kikuchi　　(Sony)
　　　Toru Takahashi　(Tokyo Internet)
　　　Mitsuo Takahashi (NEC)
　　　Nobuo Sakata　　(Fujitsu)
　　　Masayoshi Akimoto　　(Japan Cisco)
　　　Dai Nishino　　(IRI)
　　　Toru Fushimi　　Director of Sales

- ◈ Technology Advisor:

　　　Professor Jun Murai, Keio University

Services by JPIX

◆ IX ports
  - Gigabit Ethernet port (1Gbps)
  - Fast Ethernet port (100Mbps)
  - FDDI port (100Mbps)
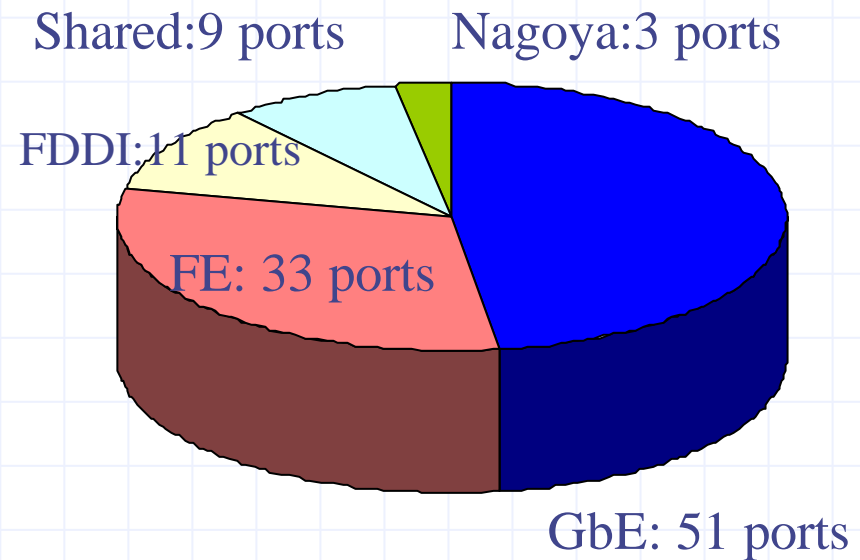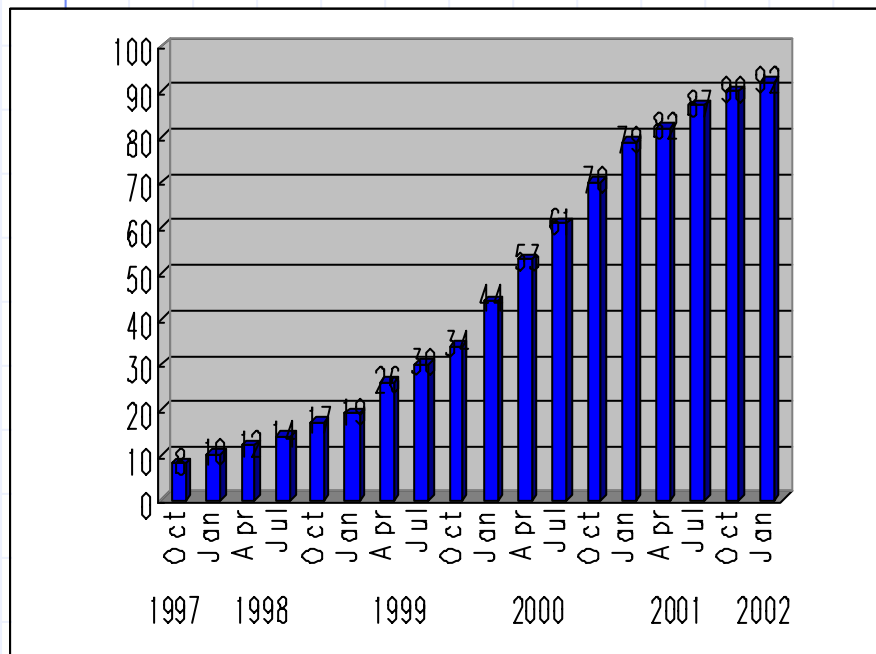 - Shared Port (20Mbps)

◆ Remote access
  ATM, FE, GbE, Dark Fiber

◆ Collocation Service
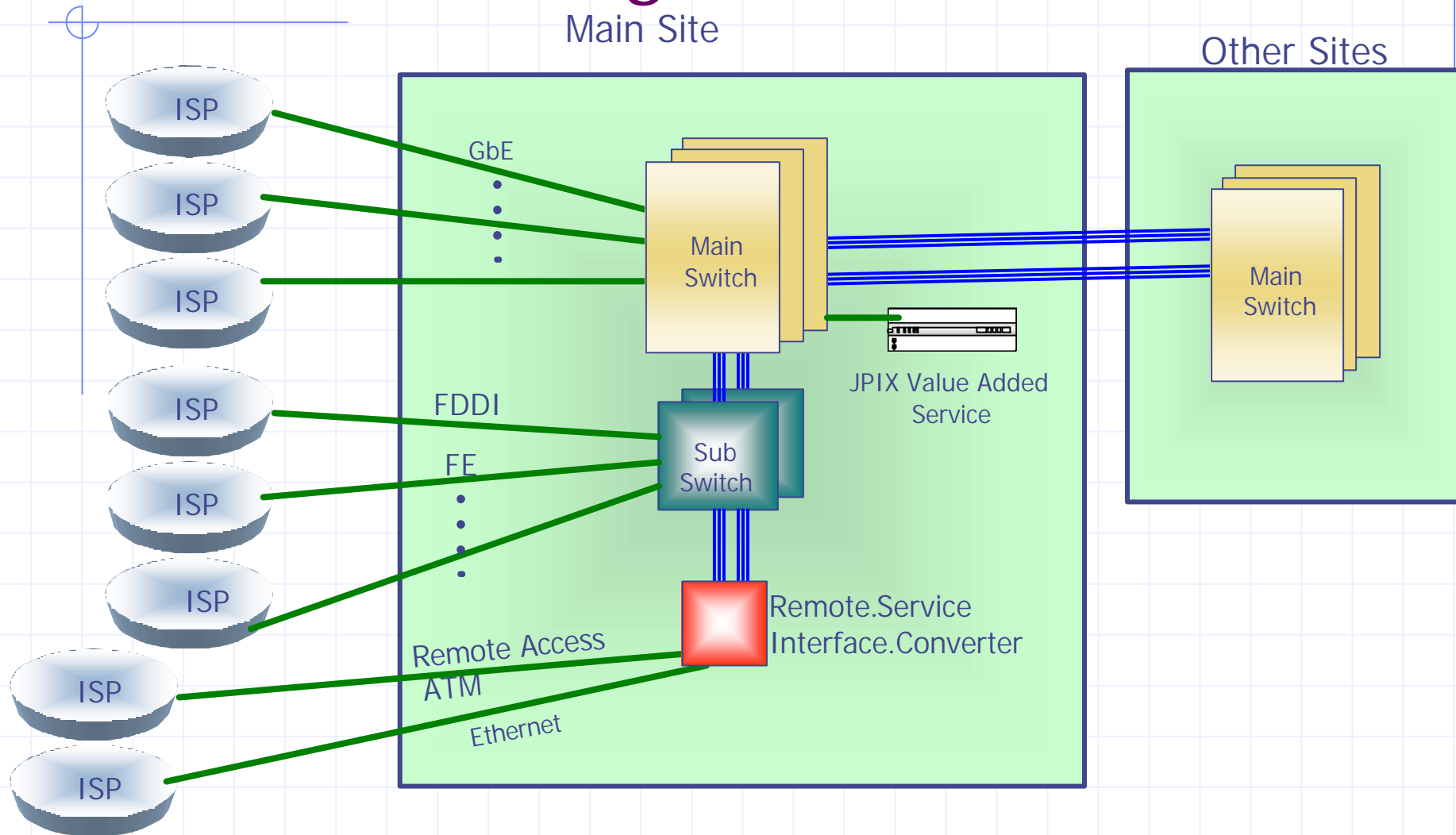 To provide a full rack for customer ISPs routers

◆ In-house cabling

JPIX Customers *(as of Feb. 2002)*

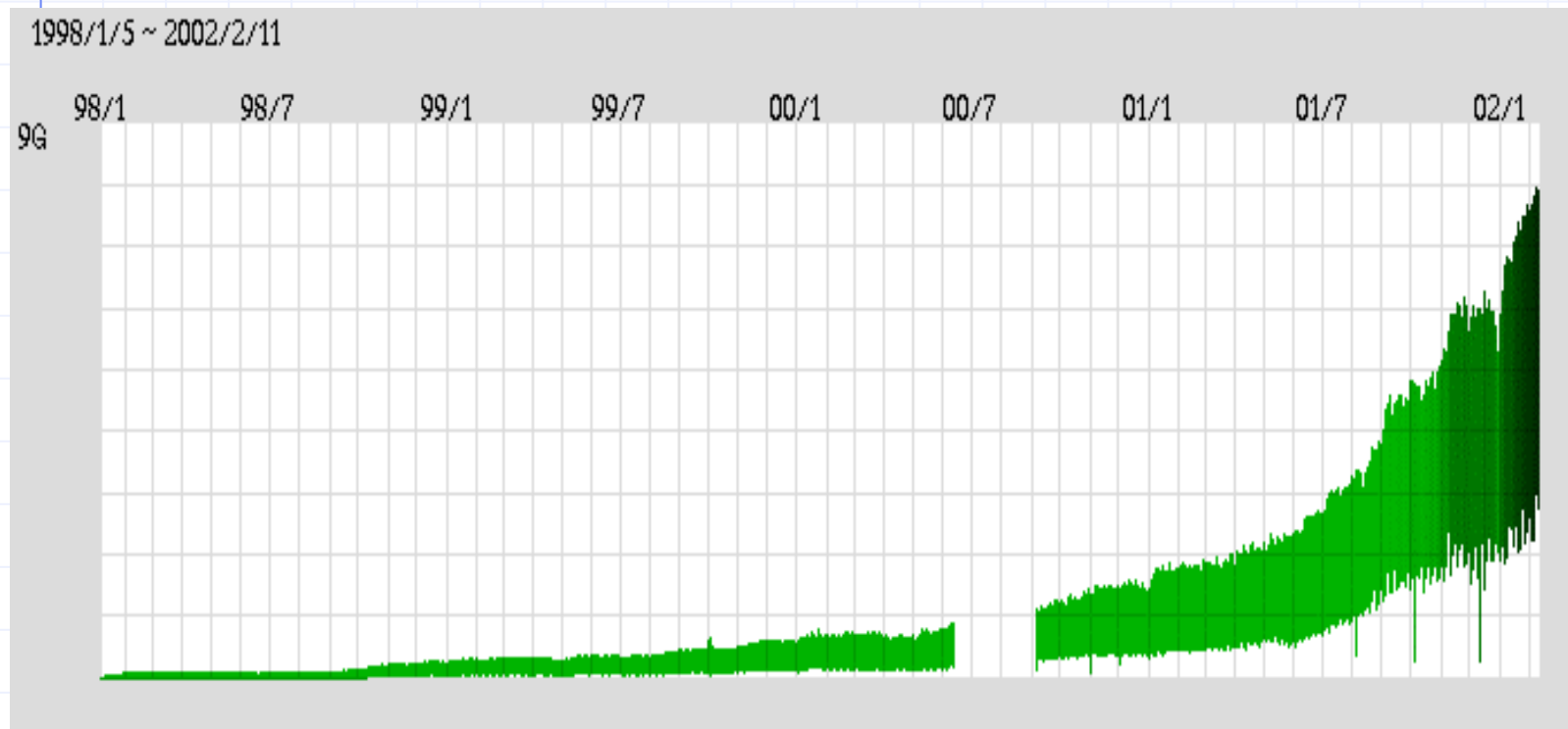◆ No. of customer ISPs : 92

◆ No. of ports connected : 107

Shared:9 ports   Nagoya:3 ports

FDDI:11 ports

FE: 33 ports

GbE: 51 ports

Network Configuration

Main Site

Other Sites

ISP

ISP — GbE

ISP

Main Switch

Main Switch

JPIX Value Added Service

ISP — FDDI

ISP — FE

Sub Switch

ISP

Remote.Service Interface.Converter

ISP — Remote Access ATM

ISP — Ethernet

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Traffic Volume

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IX backplane Max/Min Traffic

2002.2.11

1998/1/5 ~ 2002/2/11

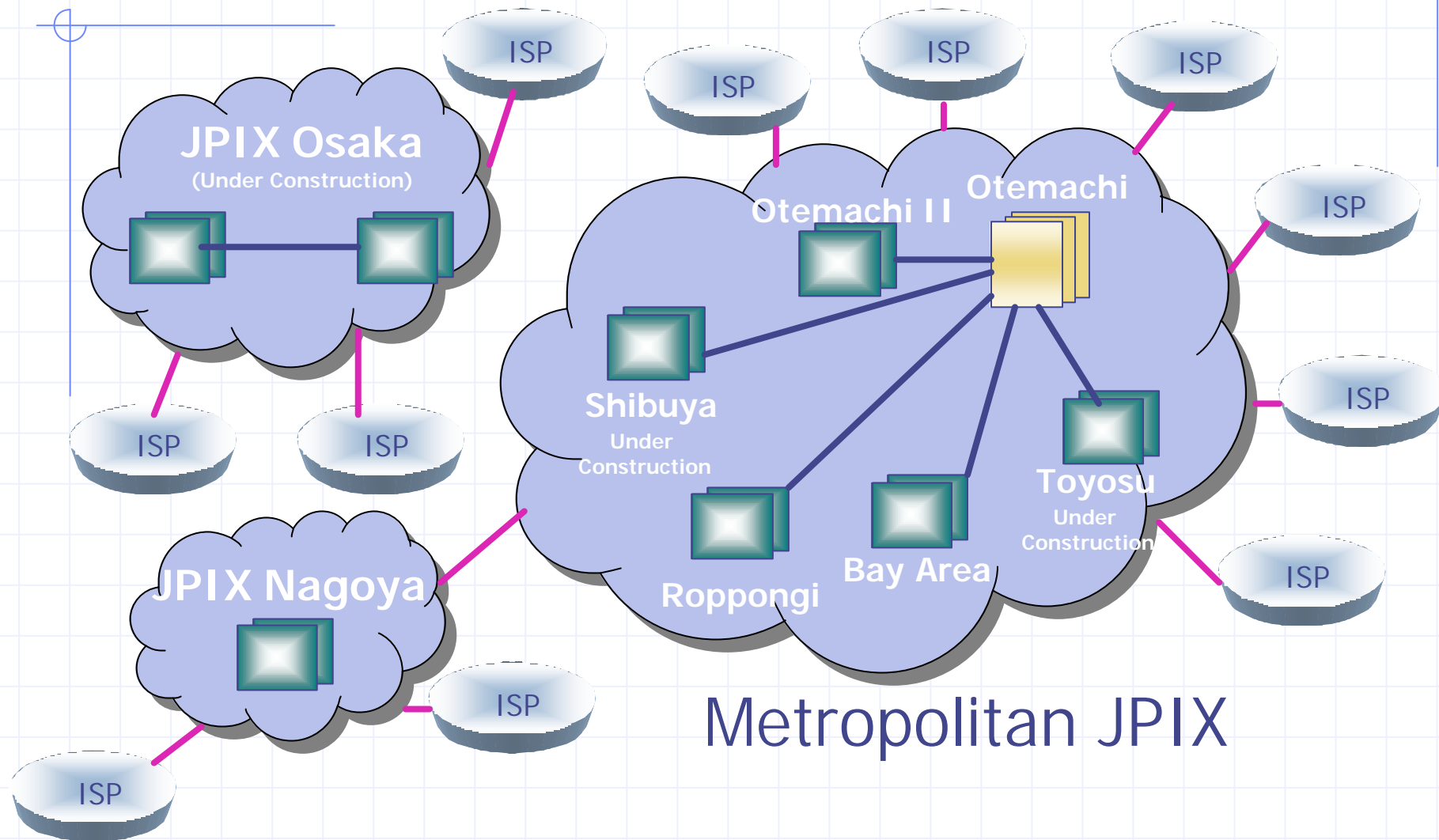| 98/1 | 98/7 | 99/1 | 99/7 | 00/1 | 00/7 | 01/1 | 01/7 | 02/1 |

9G

8G

Expansion of JPIX

◆ **Metropolitan JPIX**

- To install IX switches in metropolitan area as distributed IXs
- JPIX BayArea: from December, 2000
- JPIX Otemachi II: from November, 2001
- JPIX Roppongi: from February, 2002
- JPIX Toyosu: from May, 2002 (planned)
- JPIX Shibuya: from July, 2002 (planned)

◆ **Regional JPIX**

- To install a local IX switch and/or a circuit concentrator connected to Metropolitan JPIX
- JPIX Nagoya: from April, 2001
- JPIX Osaka: from April, 2002 (planned)

Expansion of JPIX

JPIX Osaka (Under Construction)

Otemachi II   Otemachi

Shibuya
Under Construction

Toyosu
Under Construction

Roppongi   Bay Area

JPIX Nagoya

Metropolitan JPIX

ISP

IPv6-IX Experimental Service

◆ PLANS

- Experimental service period: from Jan, 2002 to Jan, 2003
- Commercial service: from Feb, 2003 (subject to change)

◆ Service Conditions

- Port Charge: free
- For JPIX customers only
- Port I/F: First Ethernet
- IPv6 IP address: assigned by APNIC
- SW location: KDDI Otemachi

Challenges

- ◆ To handle very rapidly growing Broadband traffic
  - To introduce 10GbE SW, MPLS-IX, and Optical SW in the near future

- ◆ To decentralize IP traffic from Tokyo for greater resilience
  - To make JPIX Osaka as a National IX, gathering IP traffic from major ISPs

Thank you

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