

JPNAP update

28 Feb. 2007

Internet Multifeed Co.
<http://www.jpnep.net/english/>

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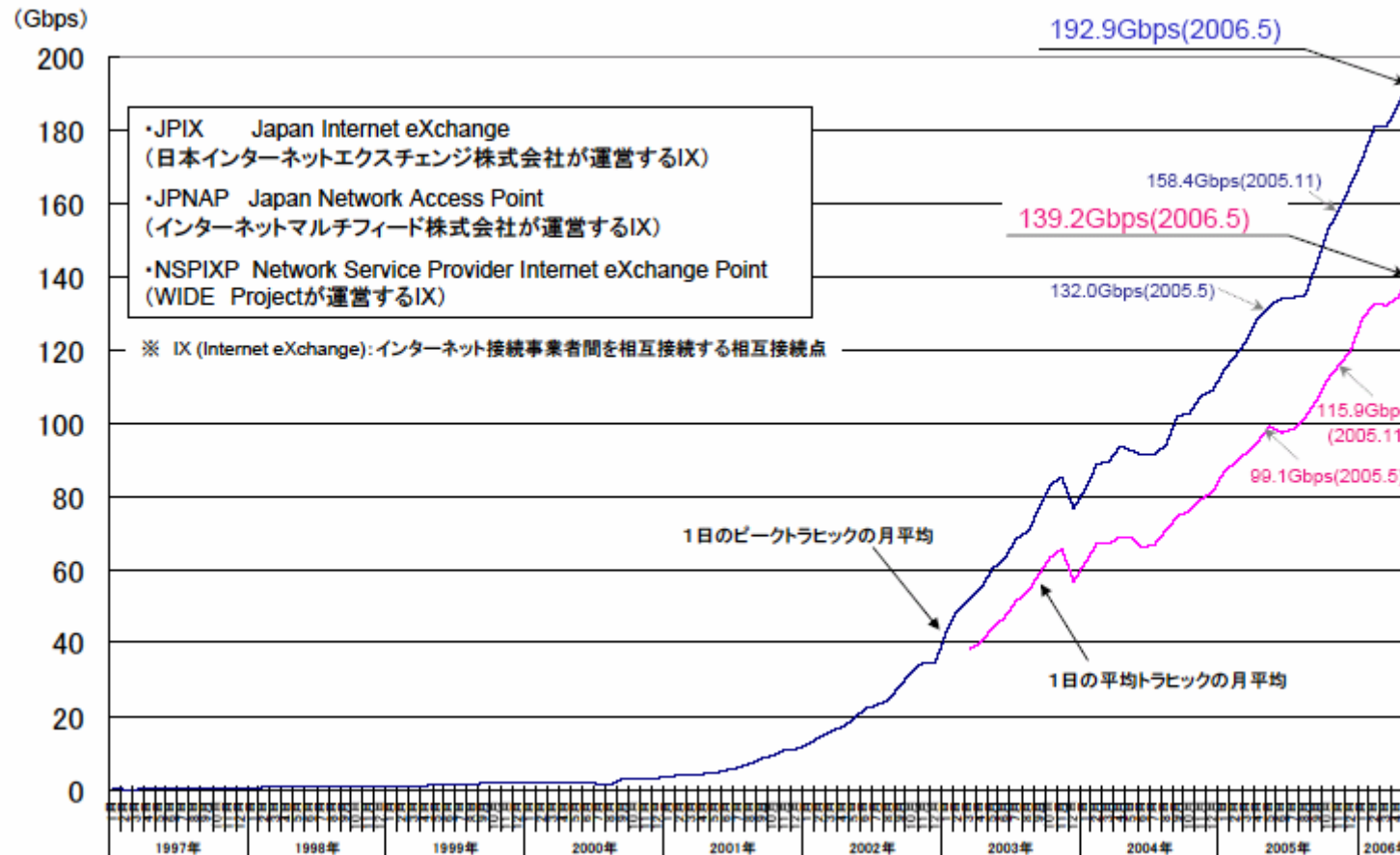
Toshinori Ishii

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Aggregated traffic of three Major IXPs in JAPAN



cf. Press release of the ministry Internal Affairs and Communications on 31 Jul 2006

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Major IXPs in JAPAN

	dix-ie*	JPIX	JPNAP	BBIX
When did the services start?	Oct. 1996	Nov. 1997	May 2001	Aug 2003
Commercial?	academic	commercial	commercial	commercial
Where are service are providing.	Tokyo, Osaka	Tokyo(Nagoya**), Osaka	Tokyo, Osaka	Tokyo, Osaka, Fukuoka, Nagoya, Sendai and more
Peak traffic	20Gbps (Tokyo), 7Gbps(Osaka)	70Gbps(Tokyo)	110Gbps(Tokyo), 30Gbps(Osaka)	N.A.
# of customers	N.A.	115(Tokyo,Nagoya), 9(Osaka)	53 (Tokyo), 18(Osaka)	N.A.
IPv6 support	Yes	Yes	Yes	No
10G interface support	Yes	Yes	Yes	Yes

* : dix-ie is formerly known as NSPIXP

(as of Feb. 2007)

** : JPIX Nagoya is connected with JPIX Tokyo. Other IXEs is NOT connected with each other.

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JPNAP features

- Broadband
 - Has many operational experience of 10GE (over 40 x 10GEports) and LAG.
 - The first IXP supports 10GE for customer service.
- High Reliability
 - Provides backup (redundant) ports for all customers (include FE users).
 - Provides an *optical switch* for the customers (GbE / 10GbE users).
- Value Added Services
 - *PeerWatcher®* : the traffic information between peers using sFlow since May 2005, the first IXP in Japan.
 - *IPv4/IPv6 Dual Stack Service*
 - *PI/CUG Service* : Closed vlan service “PI/CUG service”
 - the first IXP in Japan.

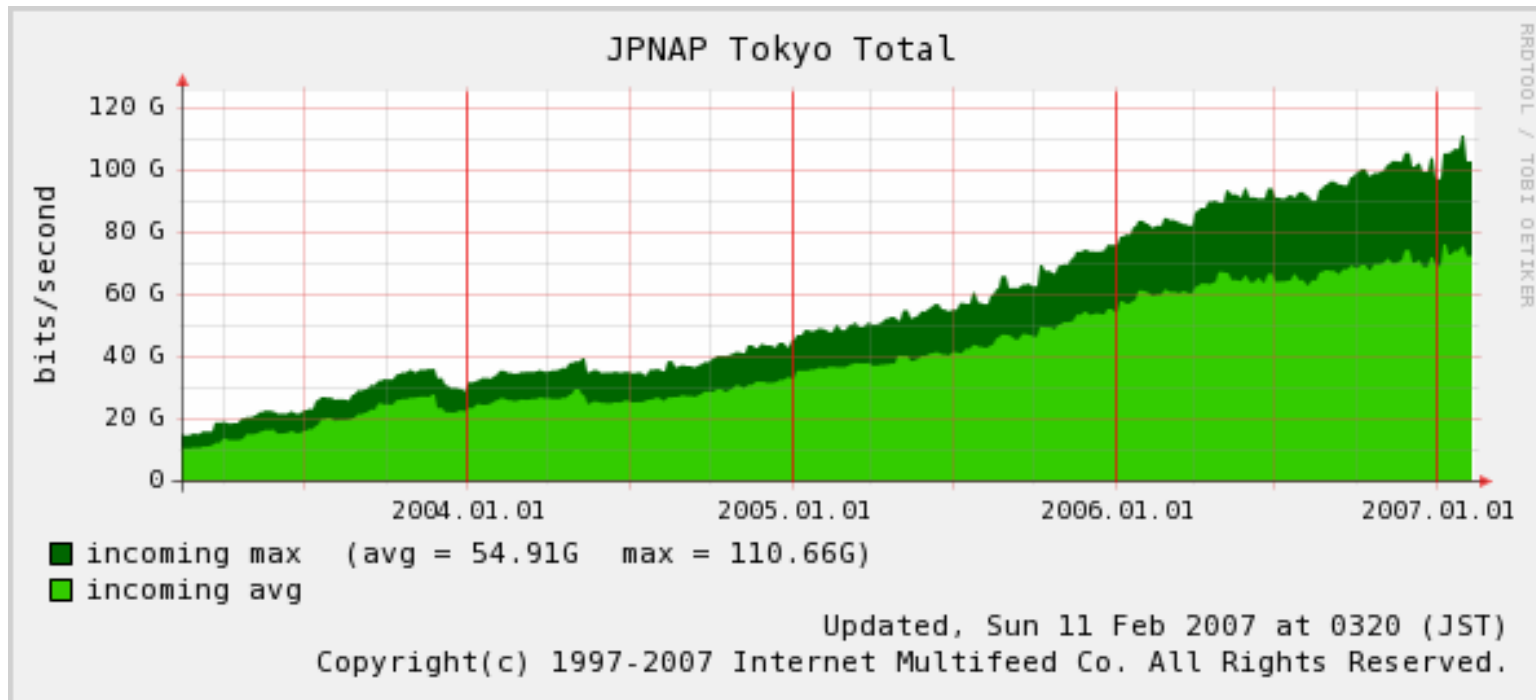
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JPNAP Traffic Statistics



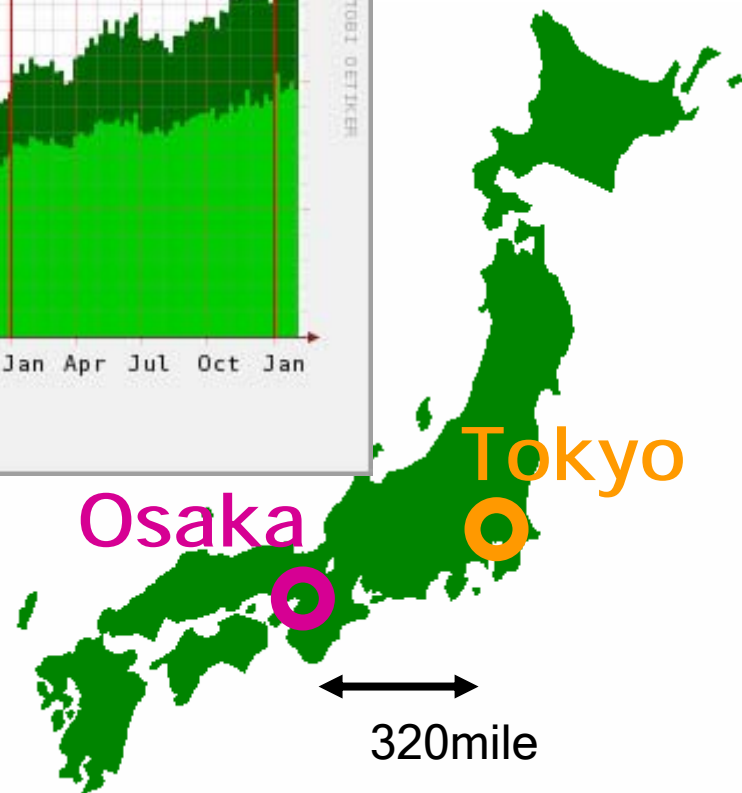
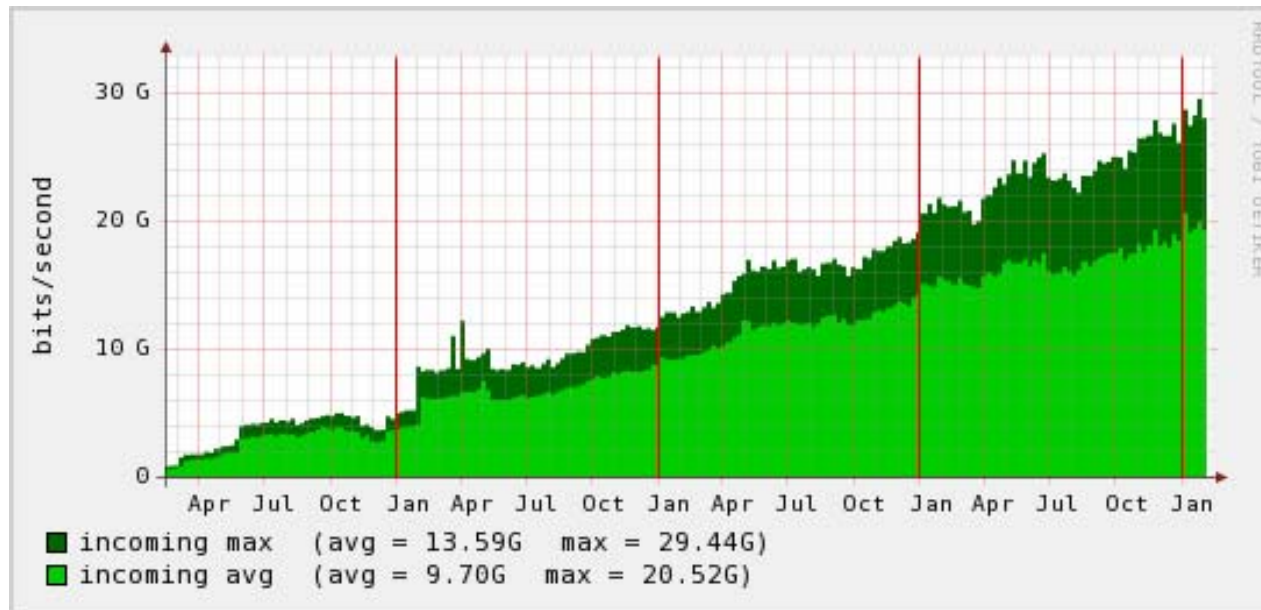
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JPNAP Osaka Traffic Statistics



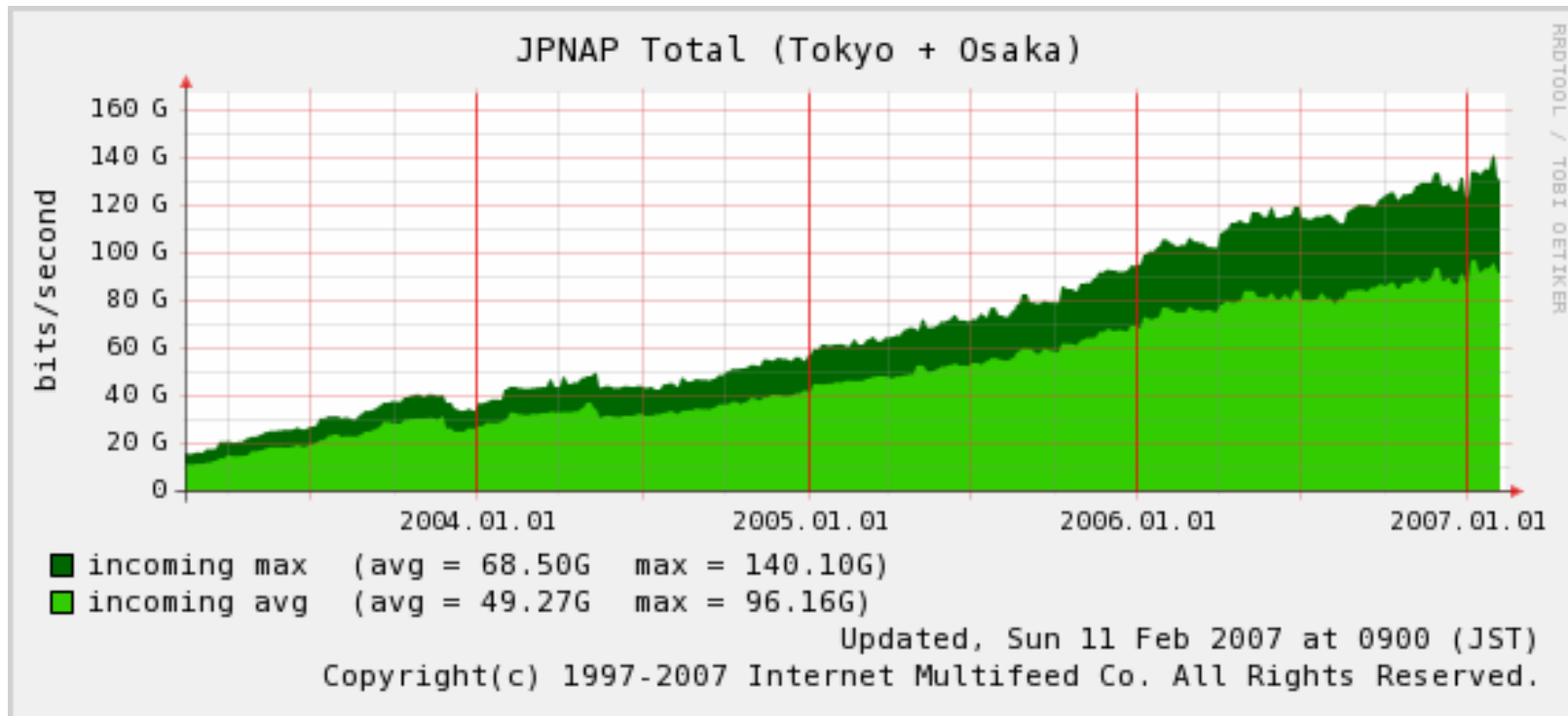
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Aggregate Traffic Statistics



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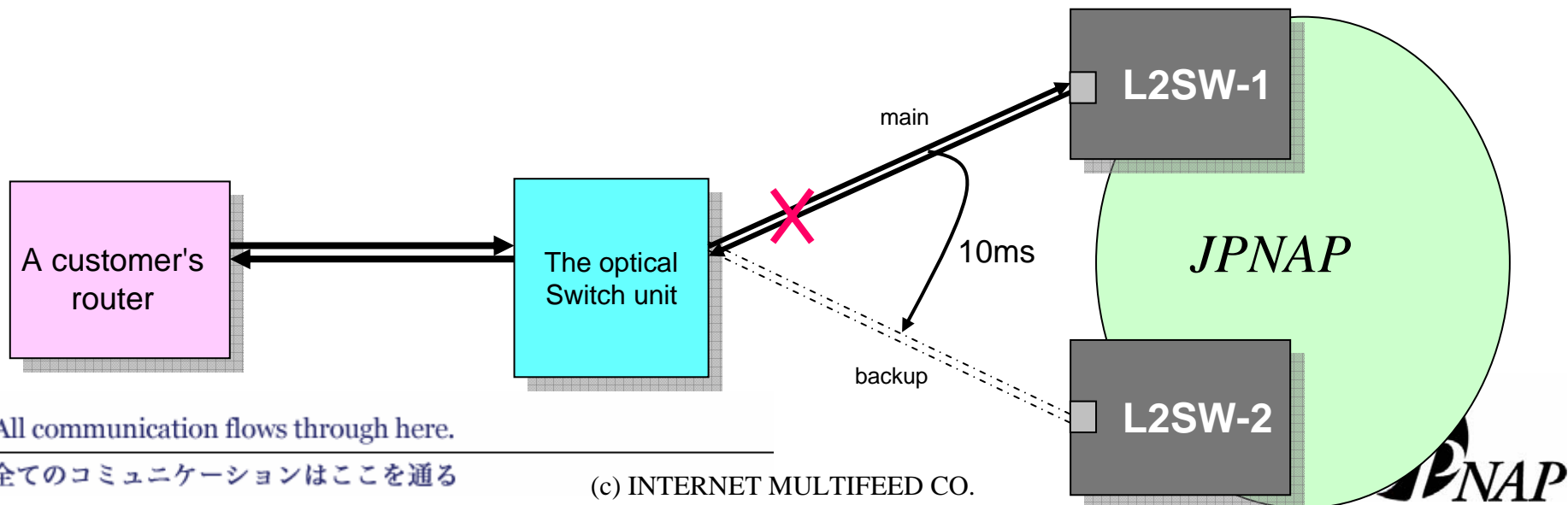
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The optical switch unit offered at JPNAP

Features

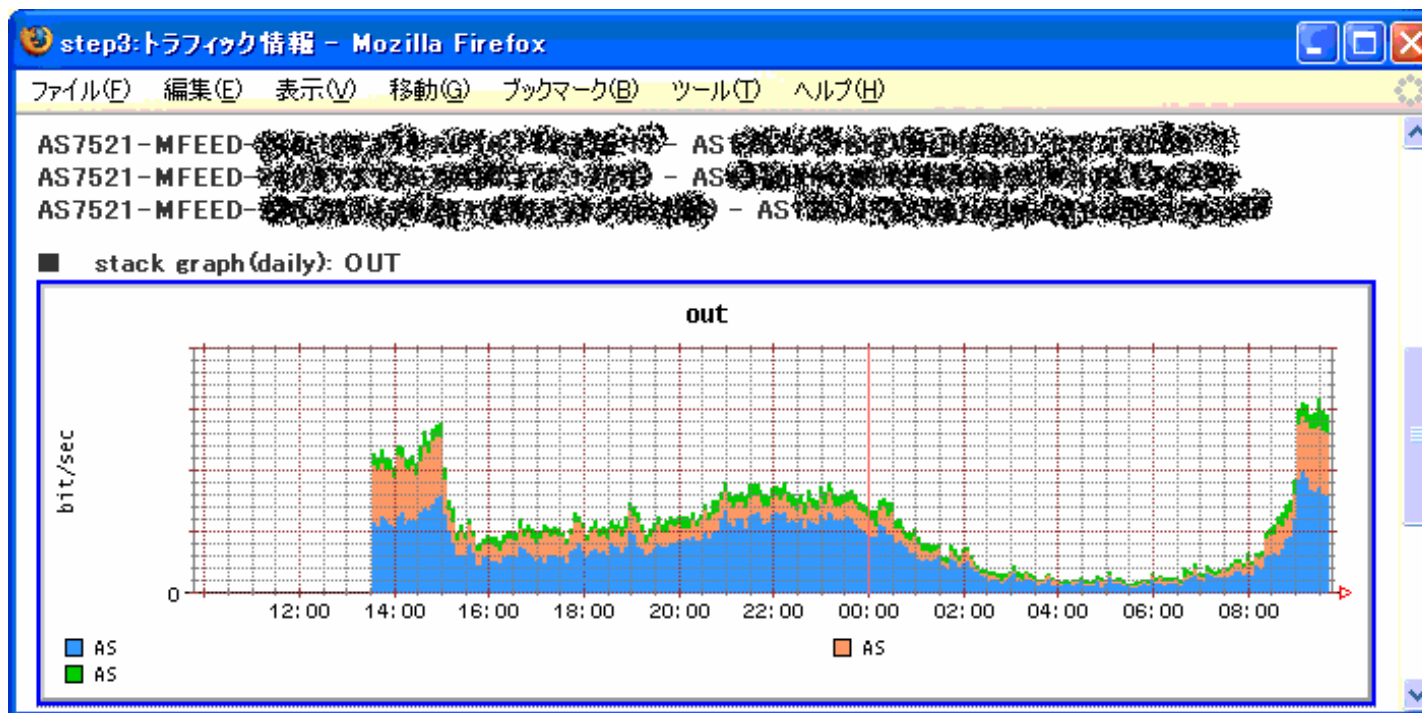
- Switch a main link to a backup link in the case of detecting link-down of the main link
- Also supports WEB UI for switching in order to remote operation.
- It takes approximately 10ms to switch by using electromagnets.
- Keep switching state and no affecting traffic even if the power is off.
- Also has a model supports link aggregation, i.e. switching two or four pairs of links to the other side.



“PeerWatcher” service

Features

- Visualizing peering traffic information on the JPNAP network.
- Offering it for 10GbE and GbE customers without extra charge



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PI/CUG service

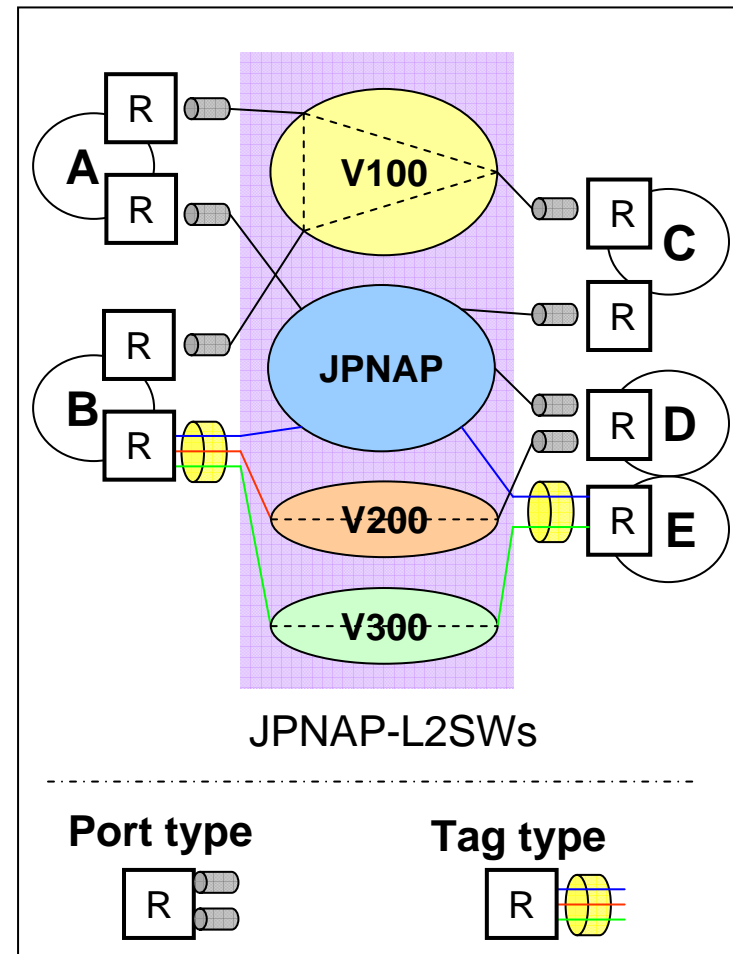
Service type

Port type : Offers an untagged connection to a VLAN that differ from the public JPNAP VLAN and that enable secure, private traffic exchange between designated members.

Tag type : Offers 802.1q tagged connection that is enable use one port for multiple VLANs.

Merits

1. Secure
2. Effective use of customers' ports
3. and more..



Corporate profile

- Established Internet Multifeed Co. on Sep. 1997
- Services
 - “*Multifeed*”: Internet DataCenter service
 - “*Timefeed*”: Japan Standard Time distribution and audit using NTP
 - “*JPNAP*”: Internet Exchange service
- Main share holders
 - ISPs ... Fujitsu, IJ, NEC, NTT Communications etc.,
 - ICPs ... the Asahi Shimbun, the Mainichi newspapers, the Yomiuri Shimbun etc.,
 - and the others ... Cisco, Dai Nippon Printing etc.
- Mission statement
 - Internet Multifeed Co. will archive to research and develop leading-edge technology as well as to provide Internet infrastructure, essential for evolutionary progress of the Internet as a full-scale business and social infrastructure in close coordination and cooperation with other carries and service providers.

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