

JPNAP Wish List to Switch vendors



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Outline



1. about JPNAP
2. Our wish list
3. Next Gen Switches
4. Enhanced functions
5. Other requirements

1. about JPNAP



- 10GigE service
 - Since Jan. 2003
 - Increasing High-Speed Interface demand
 - 10GigE ports : about 20 ports
 - Some major ISPs have started to use multiple 10GigE ports

- Redundancy protocol used
 - RSTP(ring protection)
 - Reduce an impact on topology change

1. about JPNAP



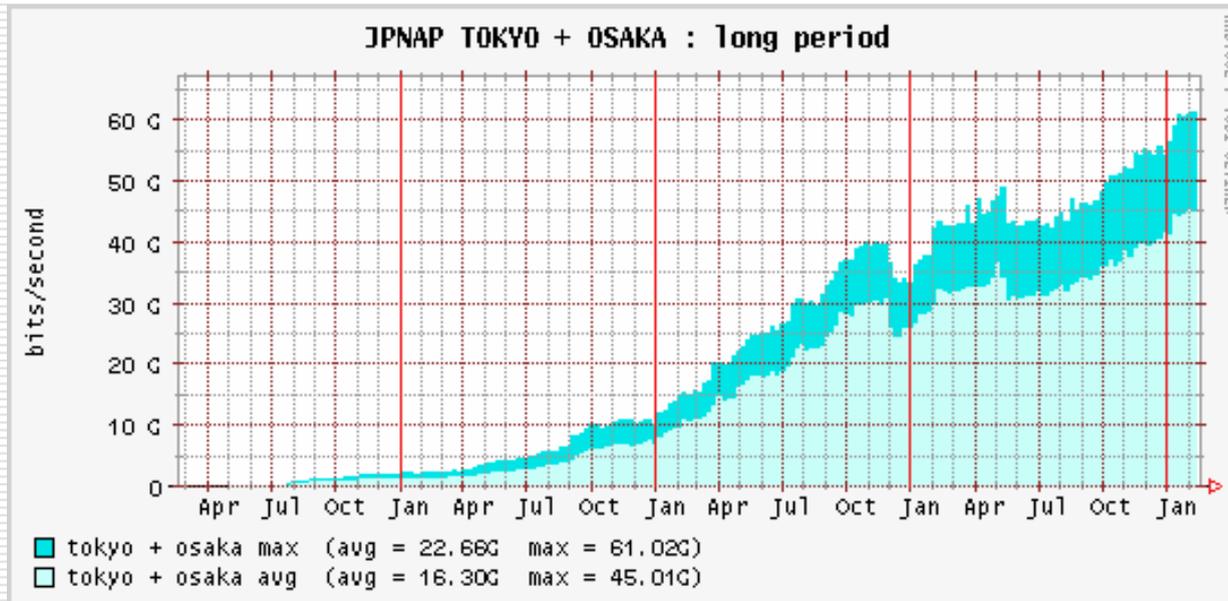
- L2 Network topology
 - Trunked port
 - 10G link aggregation
 - Maximum 10GE x 4

1. about JPNAP



□ Traffic trend

- Constantly doubling per year base
- Over 60Gbps (as of 2005.2)



2. Our wish list

- Next Gen Switches
- Enhancement functions
 - For High-reliability IX
 - For High-availability IX
- Other requirements

3. Next Gen Switches



□ Requirements

- High-speed, High-density switch
 - 128 * 10GE ports per chassis
 - 40GE? 100GE? Interfaces
 - Cannot wait the Standardization of 100GE interfaces
- Trunked ports between switches
 - over 16 * 10GE
- Capability to Support sFlow

4. Enhancement functions



For High-reliability IX

Security function

To limit the number of learning MAC addresses per port

- To guard from customer port looping
- without impacting switch performance

Multicast packet filtering

For High-availability IX

Hardware function

Hitless failover

- Layer-2 protocols
- Forwarding database

5. Other requirements



- Testing the interoperability with other vendors' machines
- Presenting R&D road map of Next Gen switches

Thank you

Enjoy your stay in Kyoto!!