

New configuration of APII JP-KR circuit for more than 1Gbps traffic

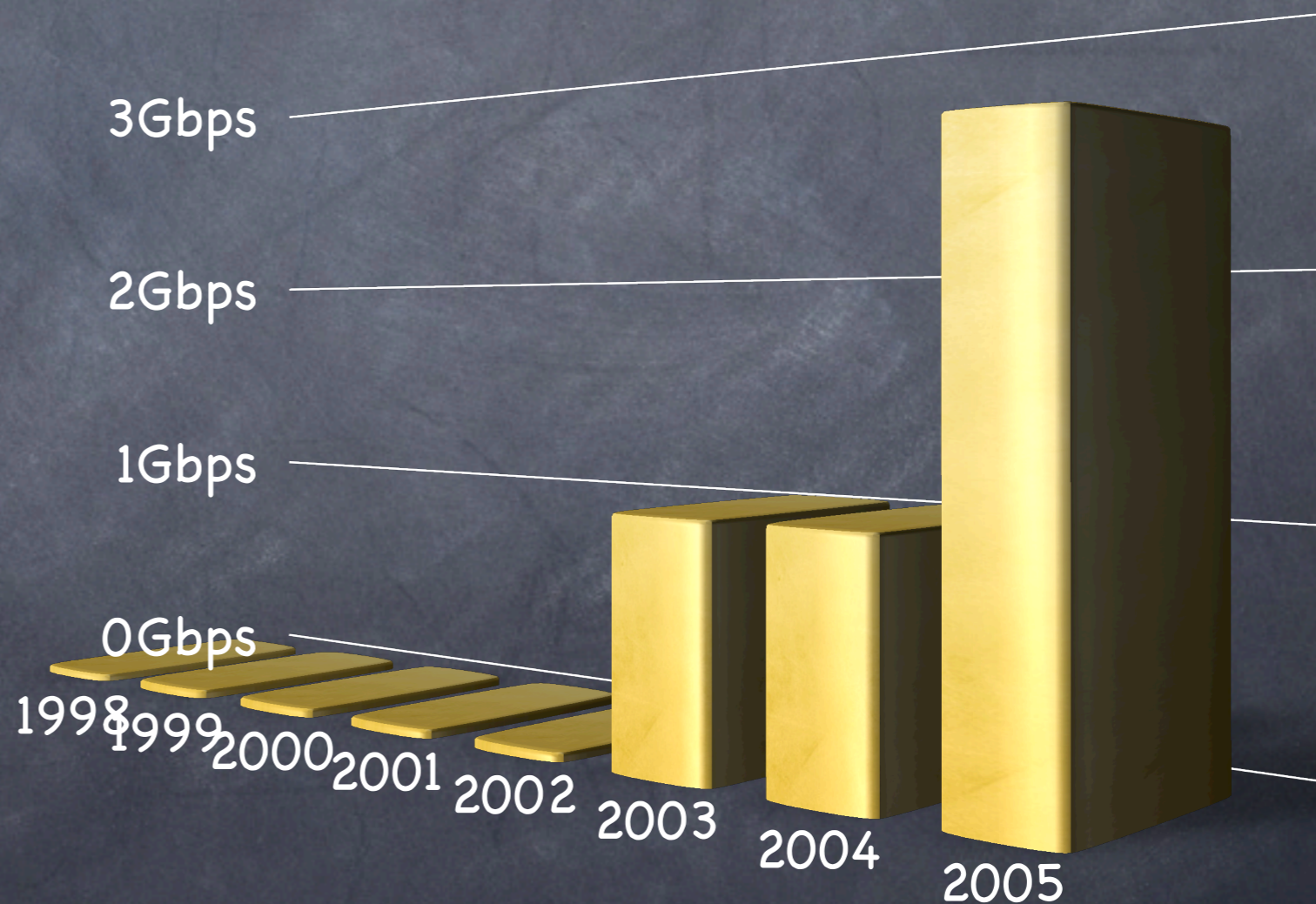
Yasuichi Kitamura (kita@jp.apan.net)

APII JP-KR project

- The project started on 1997.
- It's based on the Record of Discussion (RoD) between Japan and Korea.
- The active project name is "APII IPv6 R&D testbed project" which was authorised at APEC-TEL34.

History of APII JP-KR circuit

Year	JP touch down point	KR touch down point	Bandwidth
1998	Tokyo	Seoul	2Mbps
1999	Tokyo	Seoul	8Mbps
2003	Fukuoka	Busan	1Gbps
2005	Fukuoka	Busan	2.5Gbps



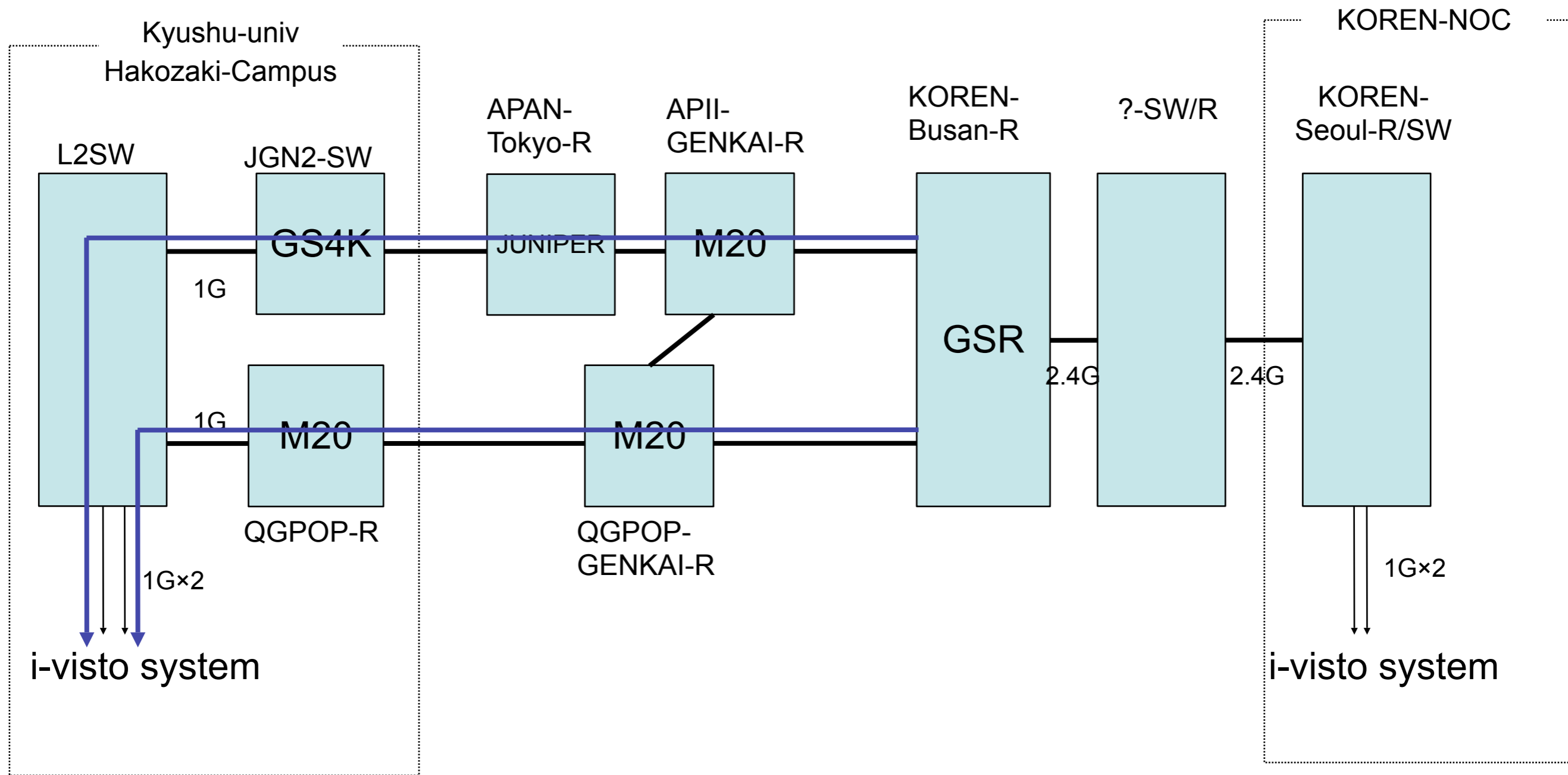
Challenge at Genkai XP in 2005

- 10G link deployment
 - The bandwidth between JGNII AP and Genkai XP became 10Gbps.
 - Just the bwctl could handle 10Gbps and others were at the level of 1Gbps or less than 1Gbps.

When more than 1Gbps traffic happened...

- The router in Busan had to have the link aggregation function.
 - But it didn't work well with the regular traffic.
- At the following example, because of the distance between Fukuoka and Tokyo caused "reordering".

Network Diagram – Phase2 : Network Test

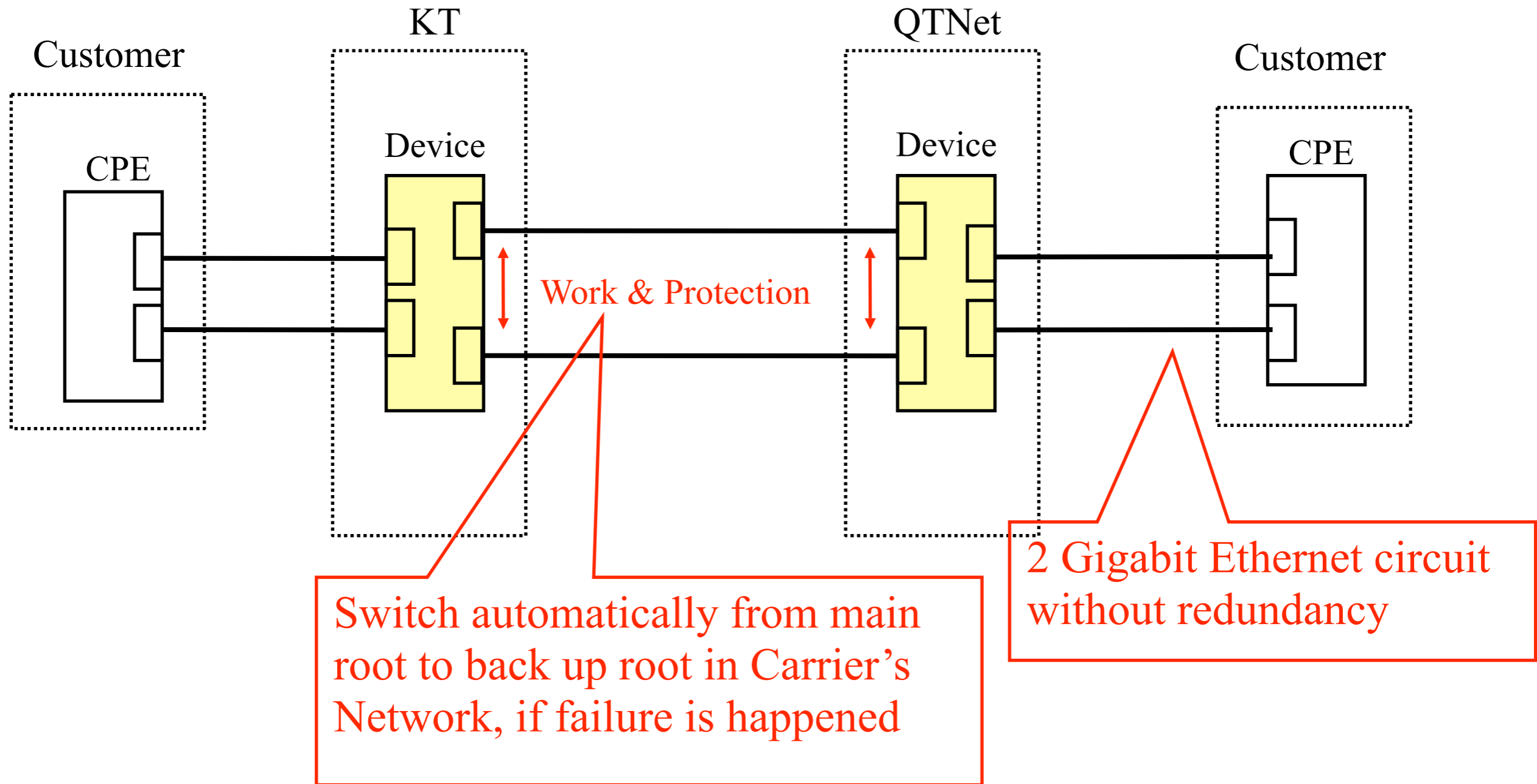




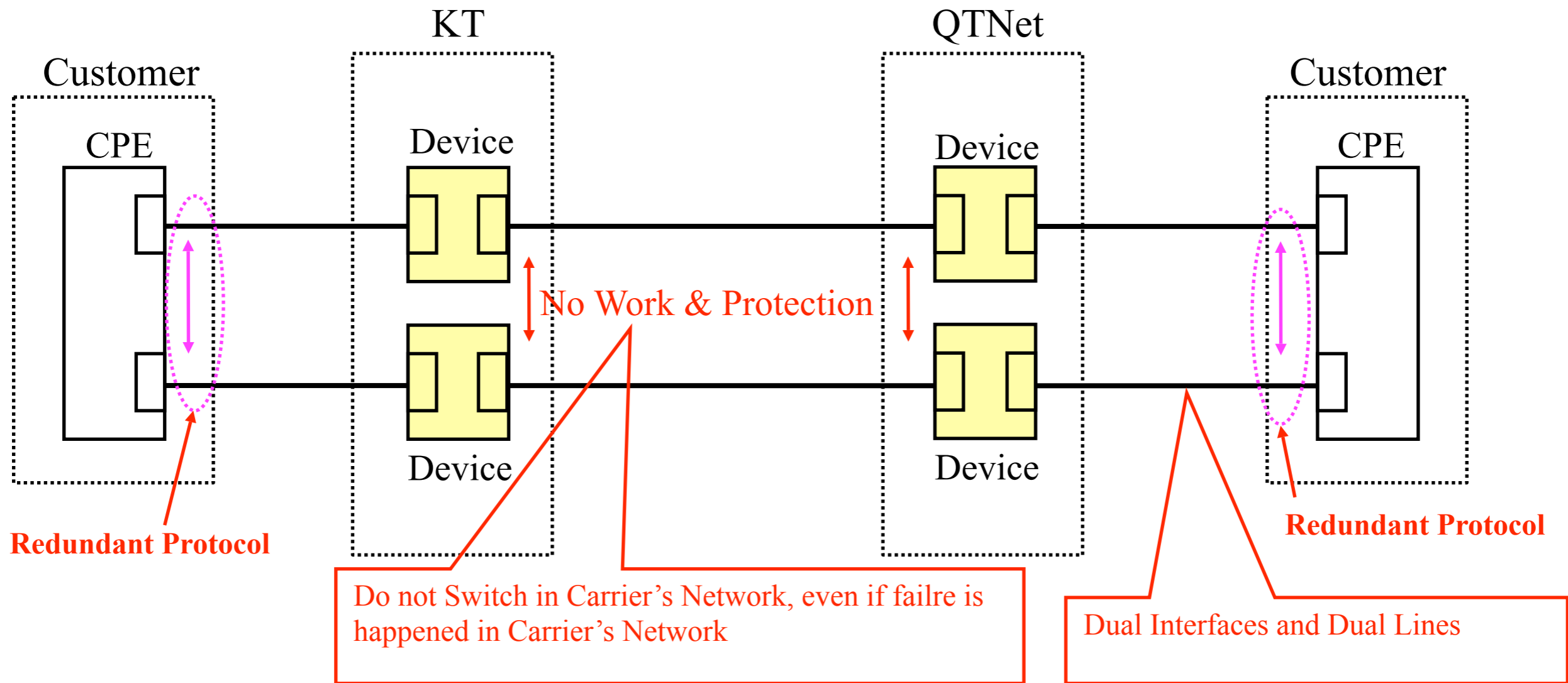
New Configuration

- 1Gbps+ traffic should be put into one pipe.
- Wire rate performance should be kept.
- The easiest way of keeping the redundancy should be chosen.

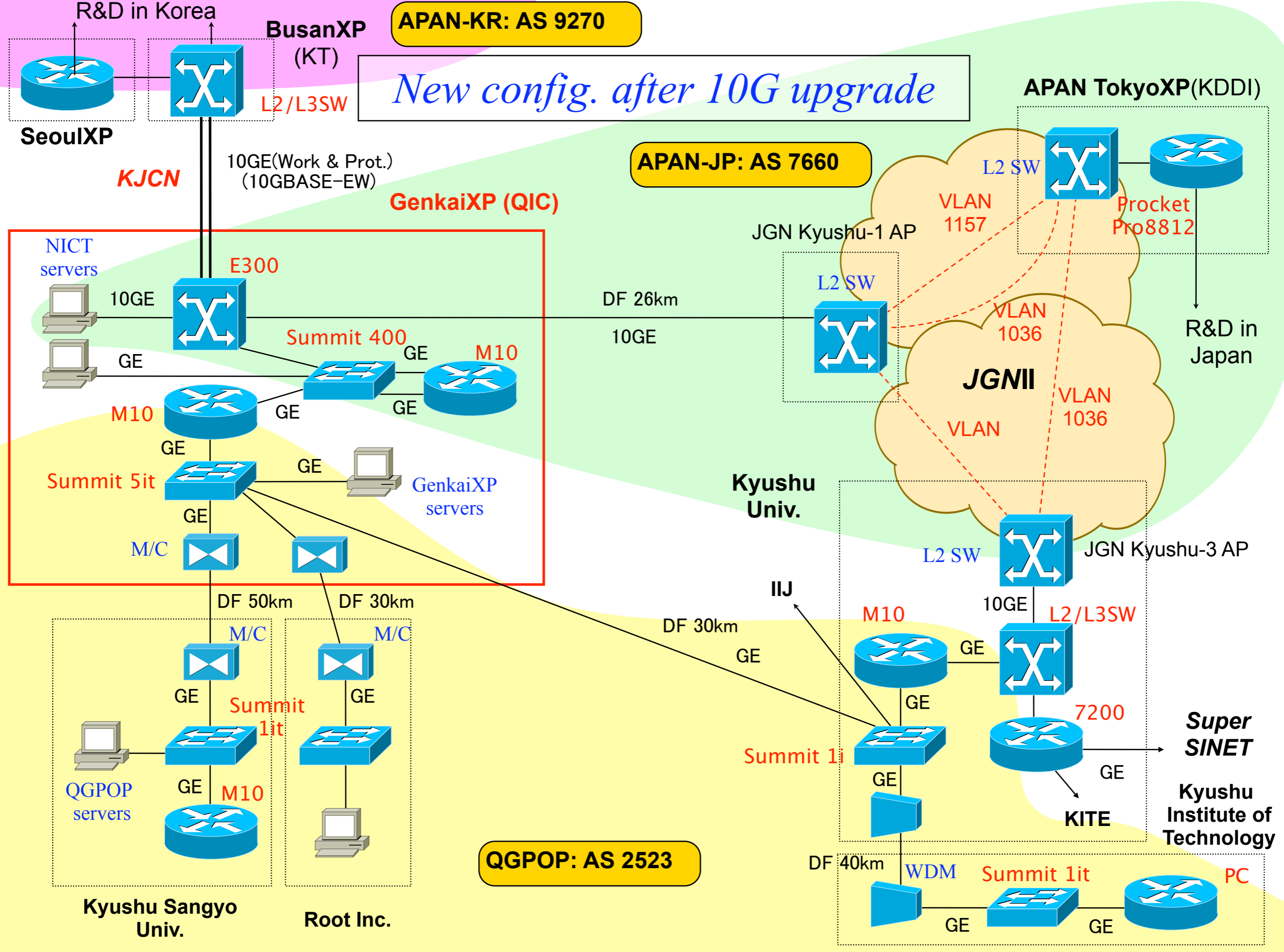
4-1 Work & Protection Policy in Case of the Existing 1Gbps Lines



4-2 Work & Protection Policy in This Case(for New 10Gbps Line)



Redundant Protocol is being activated between Customer's CPEs. Even though outage is happened on one root in Carrier's Network, traffic will be survived by Redundant Protocol.



Current status

- 10Gbps services started already.
- 10Gbps services were used for carrying CERNET traffic between KR and JP after Taiwan earthquake.
- The routing of QGPOP was misconfigured by Korean side after the 10Gbps was set for CERNET traffic.
- With the coming version of FTOS, M10 at Genkai