

**Interconnection and Related Competition Issues
Statement No. 8 (Revised)
“Point of Interconnection”**

Statement of the Telecommunications Authority

18 March 2002

Issue

Further to the Telecommunications Authority (TA)’s Statement No. 6 (Revised) issued on 18 March 2002 on “Interconnection Configurations and Basic Underlying Principles”, this Statement focuses on the TA’s considerations on issues specifically relating to the points of interconnection (POI) between fixed telecommunications networks.

Location of POI

2. The TA’s Statement No. 6 (Revised) has highlighted two typical interconnection configurations envisaged in the Hong Kong environment. In the case of a Type I interconnection configuration (Figure 1), interconnection should be made available at such locations and in such manner as considered reasonably necessary by the party requesting interconnection. The party being requested shall facilitate the requested interconnection provided that the matter may be brought to the TA for determination under section 36A of the Telecommunications Ordinance if a dispute arises.

3. In other words, interconnection shall be facilitated at any point in a network where interconnection is technically feasible upon request by a fixed network operator for interconnection. The POI is a notional point in the middle of the link connecting the two networks.

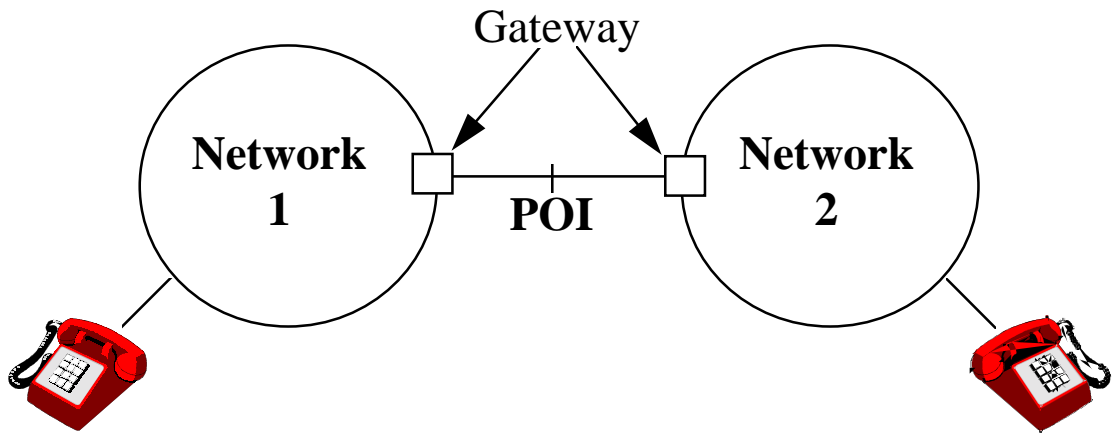


Figure 1. Interconnection between Network Gateways

4. In the Type II configuration (i.e. interconnection at local loop level) the POI can be any one of the points A, B or C along the local loop connected to the customer who has requested for the interconnection (Figure 2). Since the customer will become a direct access customer of the requesting network, the requesting network should be fully responsible for setting up the circuit to interconnect to points A, B or C as requested.

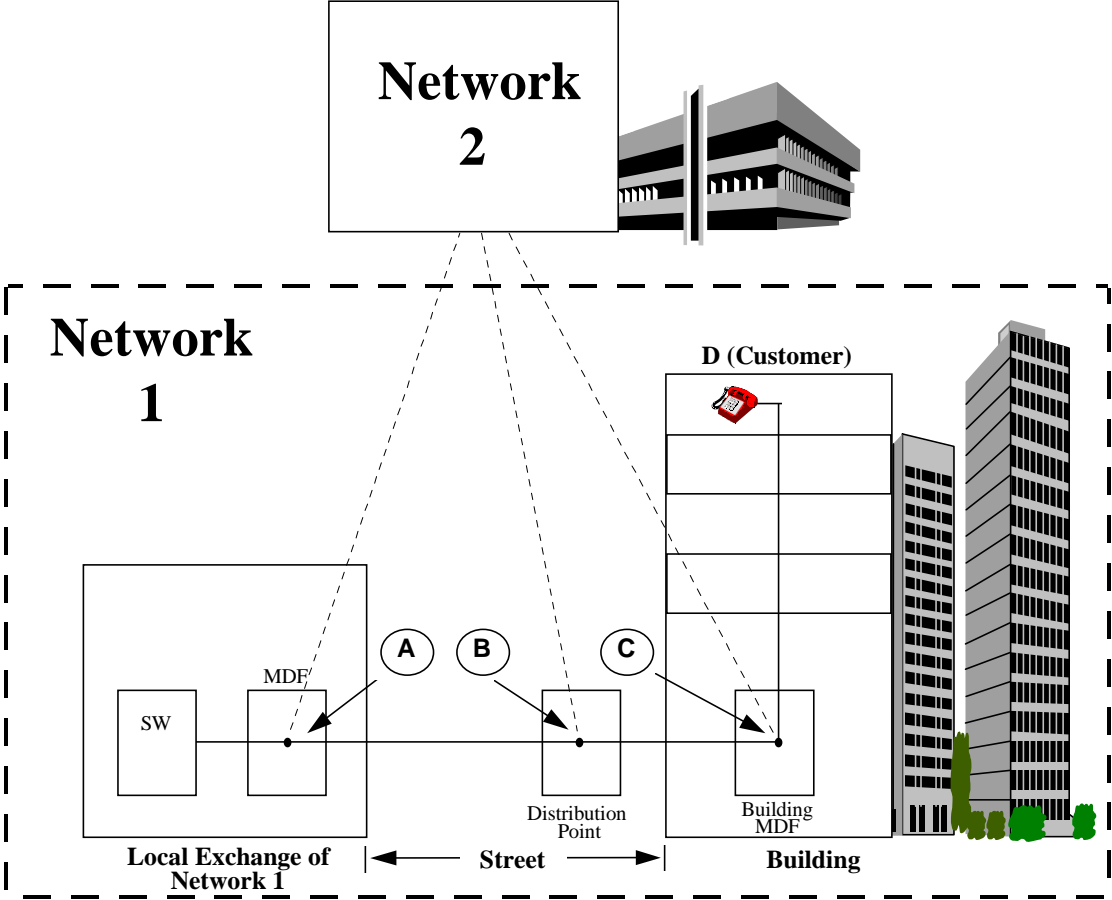


Figure 2. Interconnection at Points in the Local Loop

Capacity

5. Apart from the location of the POI, the availability of sufficient and appropriate capacity at the POI for traffic to flow through is also an important factor in interconnection. Dimensioning a network is usually not an easy task and estimating the amount of traffic flowing through a particular POI is no exception. However, for the interconnecting networks to function efficiently and effectively some traffic forecasting is unavoidable.

6. The question is which party should be responsible for estimating the required capacity at a POI. The TA's Statement No. 6 (Revised) states as a basic underlying principle of interconnection that both fixed network operators in an interconnection arrangement have equal responsibility in ensuring a prompt and efficient interconnection. The charging principles given in the TA's Statement No. 7 (Second Revision) require the two parties to equally share the cost of provision of the POI. Clearly, under-provision of capacity will result in a bottleneck at the POI for cross-network traffic but over-provision will incur unnecessary costs to both networks.

7. The TA considers that the best solution is for the parties to agree a mutually acceptable capacity for a POI. In the absence of agreement among FTNS carriers, the TA has already put in place a model for achieving a fair sharing of the risk in the investment of the network equipment for the provision of interconnection capacity which exceeds the capacity that could be agreed by both parties¹. In particular, the model institutes some form of discipline – a commitment on minimum traffic volume over a definite period - on the operator requesting interconnection capacity so that it would bear the cost consequence of making excessive forecast. The objective is to ensure that the requesting operator could have all the capacity that it needs for its development but at the same time the model provides a safeguard to the providing operator in the event that it is proved that the order of the requesting operator is not justified in terms of demand for service.

¹ See the Determination made by the TA in March 2001/November 2001 in respect of interconnection capacity between PCCW-HKTC and Wharf New T&T Limited.

“Tromboning”

8. In an interconnection between two fixed networks, particularly when competing networks have not been fully rolled out, it is sometimes more convenient and efficient for a network to go through part of the backbone infrastructure of another network to reach a point of interconnection, often known as “tromboning”. An example is given in Figure 3 below:

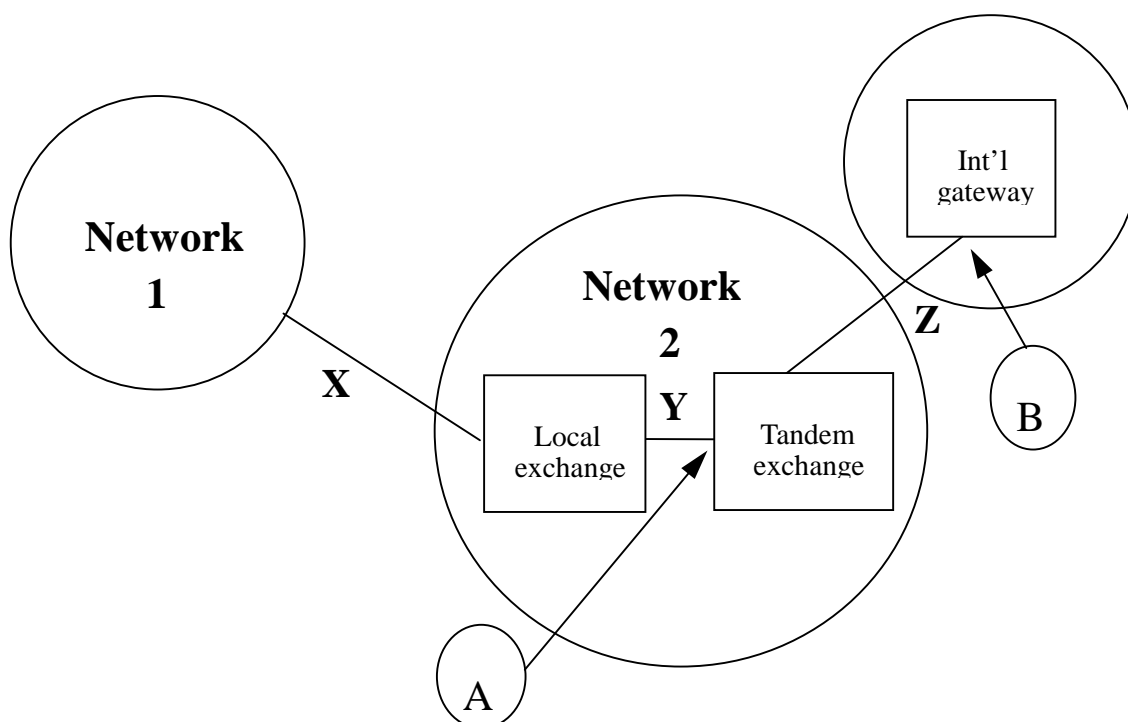


Figure 3. Examples of “Tromboning”

9. In Figure 3, Network 1 is interconnected to the Tandem exchange of Network 2 via one of its local exchanges using the interconnection link X and part of Network 2’s trunk capacity Y. The effective POI is at point A in this case. The TA considers that such an interconnection shall be facilitated by Network 2 if there is sufficient spare capacity at Y for use in the interconnection. However, Network 2 should be compensated for leasing capacity at Y to Network 1 at the carrier-to-carrier rate whereas the responsibility of setting up the link X should be equally shared by the two networks.

10. Similarly, in Figure 3, Network 1 is connected to the international gateway via Network 2 through links X, Y and Z. The effective POI is at point B.

In this case, Network 1 should pay for the leasing of the links Y and Z at the carrier rate while the responsibility of setting up the link X should be shared between Network 1 and the operator of the international gateway. Again, this configuration will only be possible if sufficient capacity exists at links Y and Z and it is technically possible to interconnect the circuits in this fashion.

11. This Statement is being issued as a guideline, pursuant to section 6D of the Telecommunications Ordinance.

Office of the Telecommunications Authority
18 March 2002