ATTACHMENT A – RECONSIDERATION REQUEST

Summary of Reconsideration Request

1.   SingTel hereby requests that the IDA reconsider certain aspects of its Direction dated 30 December 2005 pursuant to section 69(1) of the Act and sub-section 11.9.1(a)(i) of the Code.

2.   The IDA's Direction can be essentially summarised as follows:

(a)   from a technical standpoint, there is no basis for making a distinction between point-to-point (**PTP**) and point-to-multipoint (**PTMP**) circuits for the purposes of grooming and handover using the G.703 interface standard;

(b)   SingTel has not provided any legitimate justification for differentiating between the A-end link and B-end link of a PTMP circuit;

(c)   the Charge proposed by SingTel in respect of the B-end of a PTMP point circuit is not a new element of the TLLC service and therefore should not be subject to a new Charge under Schedule 9;

(d)   it is unreasonable for SingTel to impose new Charges when SingTel may in fact derive cost savings through the provision of grooming; and

(e)   it is unreasonable for the price of TLLC Service with grooming under Schedule 7B to exceed the cost of full LLC PTMP circuit under Schedule 7A.

3.   SingTel believes that the amendments to Schedule 7B originally made by SingTel are reasonable on the basis of the following:

(a)   firstly, PTP and PTMP circuits provide the necessary distinction between non-grooming and grooming circuits. PTMP circuits by definition are multiple individual circuits aggregated into a single 1984 kbps circuit through a 2 Mbps interface card. PTP circuits do not require grooming because each side of the circuit is of equal bandwidth and therefore does not have to be groomed into a larger aggregated circuit in order to be handed over the FBO;

(b)   secondly, SingTel's proposal to distinguish a PTMP circuit into an A-end link and a B-end link provides the necessary clarity with respect to the applicable technical configuration. In particular, such a description differentiates between the end that connects the End User and the other connecting to the FBO's co-located equipment. It also makes it clear that individual circuits (i.e. the A-end link) will be aggregated into a single 1984 kbps B-end link for handover to the FBO. The use of the terms "A-end link" and "B-end link" is innocuous. It is analogous to the concept of "tail circuit" and "trunk circuit" for PTMP circuits under Schedule 7A (FLLC Service) – a terminology that is well entrenched in Singapore and understood by all Requesting Licensees;

(c)   thirdly, the B-end is an integral part of a PTMP circuit. SingTel is entitled to recover a charge for providing the B-end to FBOs. SingTel has also reviewed the B-end charge for a PTMP circuit and proposed a new charge under Schedule 9; and

(d)   finally, SingTel notes that the provisioning of tie-cables is not relevant to the charges that SingTel imposes under Schedule 7B. The provisioning of tie cables is a separate process to grooming that occurs under Schedule 8B (Co-Location at POA) and therefore does not have any direct relationship to the charges in respect of services provided under Schedule 7B.

4.   Each of these points is discussed in greater detail below.

The distinction between PTP circuits and PTMP circuits

5.   The IDA has expressed its concern about the distinction made by SingTel under Schedule 7B between point-to-point (**PTP**) and point-to-multipoint (**PTMP**) TLLC services for the purposes of grooming and handover using the G.703 interface standard.

6.   The IDA's objection to SingTel's proposal in this regard appears to stem from its view that the handover of TLLCs at the G.703 interface standard with grooming does not require the technical set-up to be any different from what SingTel already provides under Schedule 7B.

7.   In paragraph 2(a) of Annex 1 of the Direction, the IDA has stated:

> *From a technical standpoint, the offering of an additional interface standard for handover does not justify making such distinctions. Currently, a request for TLLC services, with or without obtaining "grooming" services, will comprise of the same elements: circuits connecting between the end-user's premises and SingTel's TLLC equipment; and circuits connecting between SingTel's TLLC equipment to the Requesting Licensee's co-located equipment. Clearly, the handing over of the TLLC service at G.703 interface standard with "grooming" does not require the technical set-up to be any different from what SingTel already currently offers to provide under Schedule 7B. Hence, IDA fails to see any legitimate justification for SingTel to now propose amendments to draw a distinction between PTP and PTMP TLLC service, as well as between "A-end Links" and "B-end Links".*

8.   On this basis, the IDA has directed SingTel to remove the distinction between PTP and PTMP circuits under Schedule 7B, unless it can provide a satisfactory justification for such a distinction.

9.   SingTel seeks the IDA's reconsideration of this aspect of the Direction. There are legitimate and strong technical reasons for making a distinction between PTMP and PTP circuits under Schedule 7B.

10.   As the IDA has mentioned in Annex 1 of its Direction, the primary difference between a PTMP and PTP circuit under Schedule 7B is that the former is provided with grooming while the latter is not.

11.   When SingTel hands over circuits to an FBO without grooming, the FBO receives a PTP circuit. This is because each side of the PTP circuit is of equal bandwidth and does not have to be groomed into a larger circuit in order to be handed over to the FBO. As a PTP circuit does not undergo any aggregation into a larger capacity circuit prior to handover to the FBO, there is no need for grooming or handover using the G.703 interface standard.

12.   However, this is not the case with PTMP circuits, where SingTel will need to groom the individual circuits into a single 1984 kbps circuit and hand them over to the FBO using the G.703 interface standard.

13.   As the IDA is aware, the grooming of individual circuits into a single 1984 kbps circuit for handover at the G.703 interface standard will require the use of a 2 Mbps

interface card by SingTel (each interface card comprises of two (2) 2 Mbps channel ports, which in turn comprises of thirty-two 64 kbps channels, with one of these being reserved for signalling). The use of a 2 Mbps interface card (and therefore grooming) is not required in respect of a PTP circuit.

14.   An explanation of the distinction between each circuit is set out in Diagram 1 and 2 below.

Diagram 1: Point-to-Point Circuit

Diagram 2: Point-to-Multipoint Circuit
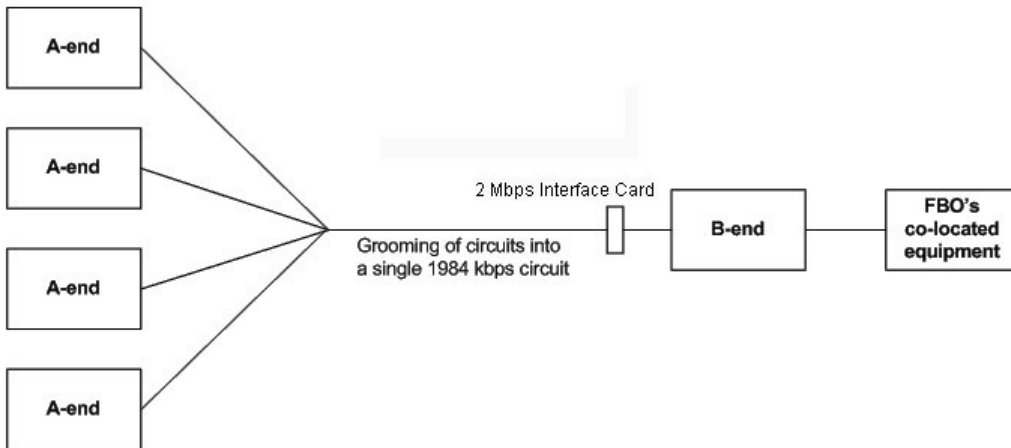
15.   In the absence of a requirement for SingTel to provide grooming under Schedule 7B (i.e. prior to the IDA's Direction dated 19 October 2005), SingTel is effectively only required to provide PTP circuits to FBOs.

16.   However, the requirement for SingTel to groom circuits and handover them over to FBOs at the G.703 interface standard effectively introduces a new service into the Schedule 7B – a PTMP service, comprising of multiple individual circuits which are groomed into a single 1984 kbps circuit using a 2 Mbps interface card for handover to the FBO. In the event that SingTel is required to provide grooming under Schedule 7B (and where such grooming is requested by the FBO), SingTel will have to provide the TLLC service through a PTMP circuit and use a 2 Mbps interface card.

17.   The technical difference between PTMP and PTP circuits is therefore significant. The directed requirement to provide grooming results in the effective introduction of a new service under Schedule 7B (i.e. a TLLC PTMP service). SingTel's proposed distinction between PTMP and PTP circuits is needed to ensure that Schedule 7B provides a technically accurate depiction of the services to be provided by SingTel.

Explanation of the need to distinguish between an A-end link and a B-end link

18.   The IDA has also objected to SingTel's description of the two elements of a PTMP circuit in terms of an 'A-end link' and a 'B-end link'. In paragraph 2 of Annex 1 of the Direction, the IDA has stated:

> *"In the case of the PTMP TLLC service, SingTel also proposes to further define such service by breaking it into two separate elements: an "A-end Link" comprising a circuit connecting the end-user's premises to SingTel's TLLC equipment; and a "B-end Link" comprising a circuit connecting SingTel's TLLC equipment to the Requesting Licensee's co-located equipment at SingTel's exchange building".*

19.   And further at paragraph 2(a) of Annex 1 of the Direction:

> *"IDA fails to see any legitimate justification for SingTel to now propose amendments to draw a distinction between PTP and PTMP TLLC service, as well as between "A-end Links" and "B-end Links"* (our emphasis).

20.   SingTel has distinguished between the A-end link and B-end link of a PTMP circuit to clearly distinguish between the sides of the circuit that connects to:

(a)   the End User's site (i.e. the A-end); and

(b)   the Requesting Licensee's co-located equipment at a SingTel exchange (i.e. the B-end).

21.   The distinction between the A-end link and the B-end link of a PTMP circuit is set out in clauses 1.2, 1.5(b), 1.6 and Annex 7B-4 of Schedule 7B. Such a distinction is intended to make it clear which side of the circuit connects to the End User and the FBO's co-located equipment.

22.   It is also intended to make it clear that the A-end links will be groomed into a single 1984 kbps B-end link for handover to the Requesting Licensee's Co-Located Equipment at the SingTel exchange. This is evident in clause 1.5(b) and Annex 7B-4 of Schedule 7B.

23.   This description of certain parts of a TLLC in this manner is similar to the distinction between a tail circuit and a trunk circuit under Schedule 7A, which by analogy would be the A-end link and the B-end link respectively under Schedule 7B.

24.   As the IDA is aware, SingTel grooms 'tail circuits' under Schedule 7A into a single 1984 kbps 'trunk circuit' for handover to the Requesting Licensee (see Annex 7A.5 of Schedule 7A). In practice, when SingTel provides grooming to an FBO under Schedule 7B, SingTel needs to groom individual A-end links into an aggregated B-end link for handover the groomed service to the Requesting Licensee.

25.   SingTel has given effect to this technical requirement by providing the Requesting Licensee with the option of acquiring grooming through acquisition of a PTMP circuit offered under Schedule 7B. This is analogous to a 'trunk circuit' under Schedule 7A.

26.   The rollout by FBOs of trunk circuits to SingTel's exchanges has altered the configuration of SingTel's network and the manner in which TLLC handover will occur under Schedule 7B.

27.   Previously, trunk circuits extended from the SingTel exchange building to the FBO's premises and an FLLC was provided under Schedule 7A. Since FBOs are now meant to have rolled out their trunk networks to SingTel exchanges, the groomed TLLCs are now effectively aggregated into a trunk circuit inside SingTel's exchange building for handover to the FBO.

28.   The concept of A-end and B-end does not change with a change in the physical location in which TLLC is handover. The concept provides a clear distinction between the individual circuits that go to the customer (i.e. the A-end link) and the process by which those individual circuits are groomed into a single circuit for handover to the Requesting Licensee (i.e. B-end link).

29.   It would not be possible for SingTel to provide grooming in the absence of a 1984 kbps B-end link. As the IDA is aware, grooming involves the aggregation of various small bandwidth circuits into a single larger circuit for handover to the Requesting

Licensee. The B-end link provides the aggregation point in this instance. Without such aggregation, circuits would have been handed over individually, that is, as a PTP circuit, rather than a PTMP circuit.

30.   On this basis, SingTel requests that the IDA reconsider its stated position and allow SingTel retain its original amendments to Schedule 7B:

(a)   distinguishing between PTMP and PTP circuits, with only the former being subject to grooming and handover to the relevant FBO using the G.703 interface standard; and

(b)   describing a PTMP circuit in terms of an A-end link and a 1984 kbps B-end link.

Charges for the TLLC Service with grooming

31.   The IDA has stated the following in paragraph 2(b) of Annex 1 of the Direction:

> *"under SingTel's proposal, SingTel wants the Requesting Licensee to pay the same current charges for the TLLC Service but these charges now only cover the circuit connection between the end-user's premises and SingTel's TLLC equipment (i.e. SingTel's so-called "A-end Link"). To complete the TLLC service, the Requesting Licensee will also have to pay an additional monthly recurring charge of $1500.00, just to obtain the same connection between SingTel's TLLC equipment and its co-located equipment (i.e. SingTel's so-called "B-end link").*

32.   As SingTel has noted above, the B-end 'trunk circuit' is an integral part of a PTMP circuit, which provides the aggregation point for individual groomed circuits. As such, the B-end forms an integral part of the TLLC PTMP service. SingTel would not be able to provide an FBO with a groomed circuit at the handover point in the absence of a B-end 'trunk circuit'. SingTel is entitled to recover the relevant the B-end charge.

33.   SingTel has reviewed its proposed B-end charge for PTMP circuits and has proposed new charge in Schedule 9 for the IDA's approval. A revised copy of Schedule 9 is included in Attachment 3.

34. The new charges proposed by SingTel for B-end trunk circuit of the PTMP circuit are as follows:

	Monthly Recurring Charges	
	Original proposed in 30 December 05	Revised Proposed Charge
1984 kbps B-end link	$1,900	$950

35. SingTel would like to clarify that the revised Charges quoted above have been calculated on a retail-minus basis, rather than on a cost-oriented basis. This is consistent with the supply of TLLCs under Schedule 7B as a Mandated Wholesale Service under the Code and the IRS/MWS Schedule. As the IDA is aware, paragraph 8.4.6.3 of the IRS/MWS Schedule provides that TLLCs are to be provided on a 50% discount on the prevailing standard price under SingTel's retail offering in the CBD area.

36. On this basis, SingTel is entitled to recover a B-end charge for PTMP circuits provided under Schedule 7B and the charge is set out in SingTel's proposed Schedule 9.

Charges for Tie-Cables

37. In paragraph 2(b)(iii) of Annex 1 of the Direction, the IDA has stated:

> *"SingTel may enjoy costs saving as a result of IDA's decision requiring SingTel to offer to handover TLLC service at G.703 interface standard with 'grooming' service. Currently, a Requesting Licensee that obtains multiple TLLCs from SingTel does not have to option to request for the TLLCS to be "groomed". As such, for each TLLC that it obtains, SingTel must provision an individual circuit (or tie-cable) to connect the TLLC from its TLLC equipment to the Requesting Licensee's co-locations equipment. With grooming, SingTel will only need to provision one circuit or tie-cable for every 1984 kbps of groomed TLLCs. While it could be argued that the provisioning of "grooming" service entails additional activities, IDA notes that SingTel already imposes a separate charge for performing "grooming"*

service. Accordingly, it is unreasonable for SingTel to seek to impose additional charges when in fact SingTel may derive cost savings".

38.   SingTel would like to clarify that tie-cables are provisioned at the Requesting Licensee's request under Schedule 8B (Co-Location at Point of Access). The provisioning of tie-cables is a separate issue from grooming and occurs independently of grooming.

39.   The provisioning of tie-cables occurs in the context of co-location under Schedule 8B. In any case, it is not accurate for the IDA to state that SingTel derives cost savings by providing grooming.

40.   On this basis, SingTel submits that the issue identified by the IDA are not relevant to the cost of grooming and as such should not be considered by the IDA in its decision on reconsideration.

G.703 interface standard as an alternative to V.35

41.   In paragraph 3(b) of Annex 1 of the Direction, the IDA has directed SingTel to amend Schedule 7B to ensure that:

(a)   all TLLCs with bandwidths between 64 kbps and 1984 kbps can be handed over using the G.703 interface standard; and

(b)   SingTel will groom TLLCs with bandwidths between 64 kbps and 1536 kbps if the Requesting Licensee requests handover via the G.703 interface standard.

42.   In accordance with SingTel's explanation above, SingTel notes that the existing drafting of Schedule 7B remains appropriate for the following reasons:

(a)   for PTMP circuits, while the A-end link will always be handed over at the V.35 interface standard, SingTel grooms the B-end link into a single 1984 kbps circuit for handover to the FBO at the G.703 interface standard. As such, an FBO will always have a PTMP circuit handed over at the G.703 interface standard; and

(b)   for PTP circuits, since the PTP circuit is a dedicated link of equal bandwidth between both connection points, handover will occur via the V.35 interface standard. In the

event that the FBO requires a PTP circuit to be handed-over using the G.703 interface standard, the FBO can and should request a PTMP circuit.

43.   Given the above explanation, SingTel submits that it will not necessary to amend Schedule 7B in accordance with the IDA's drafting instructions in paragraph 3(b) of Annex 1 of the Direction.