

BoD Service with Vcat, Lcas and GMPLS

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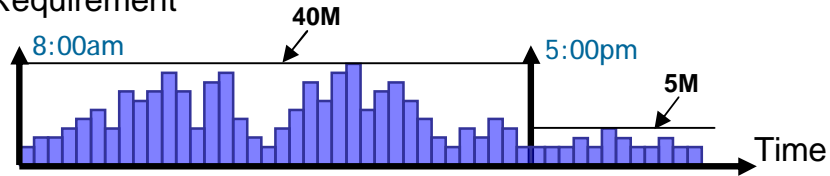
Advanced Technologies Department,
Wire-line Network Business Unit.

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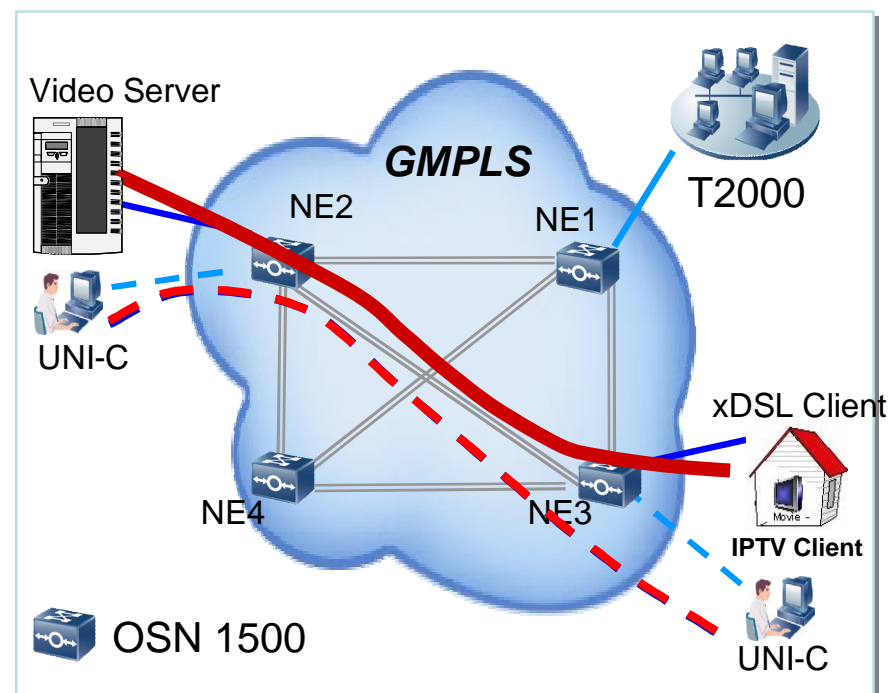
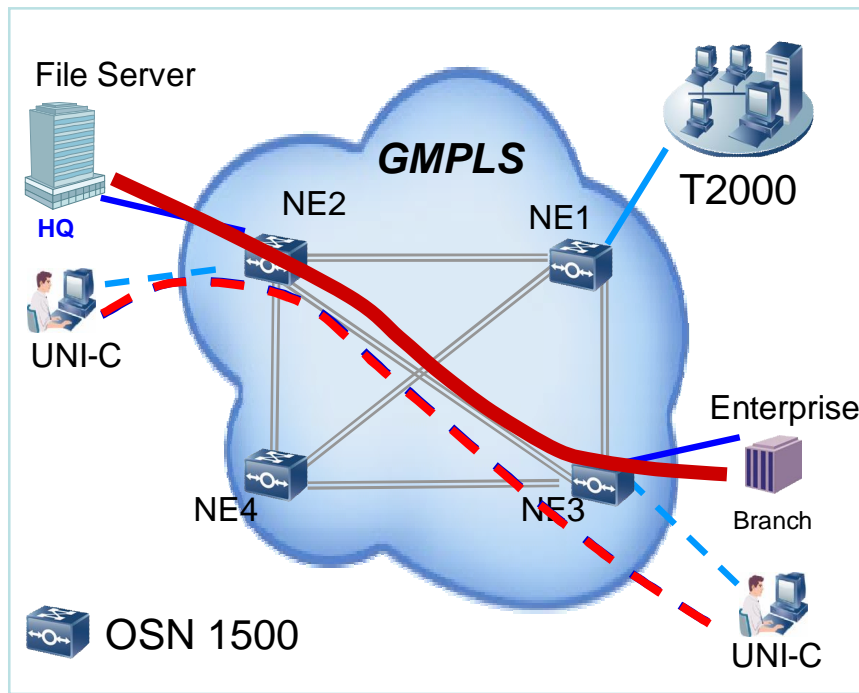
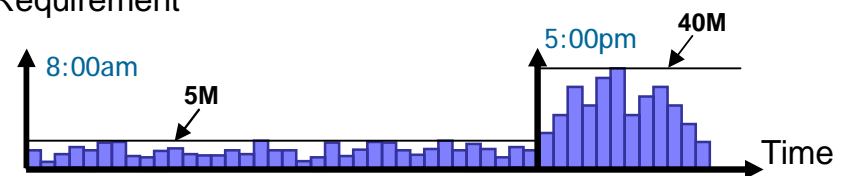


BoD Application Scene

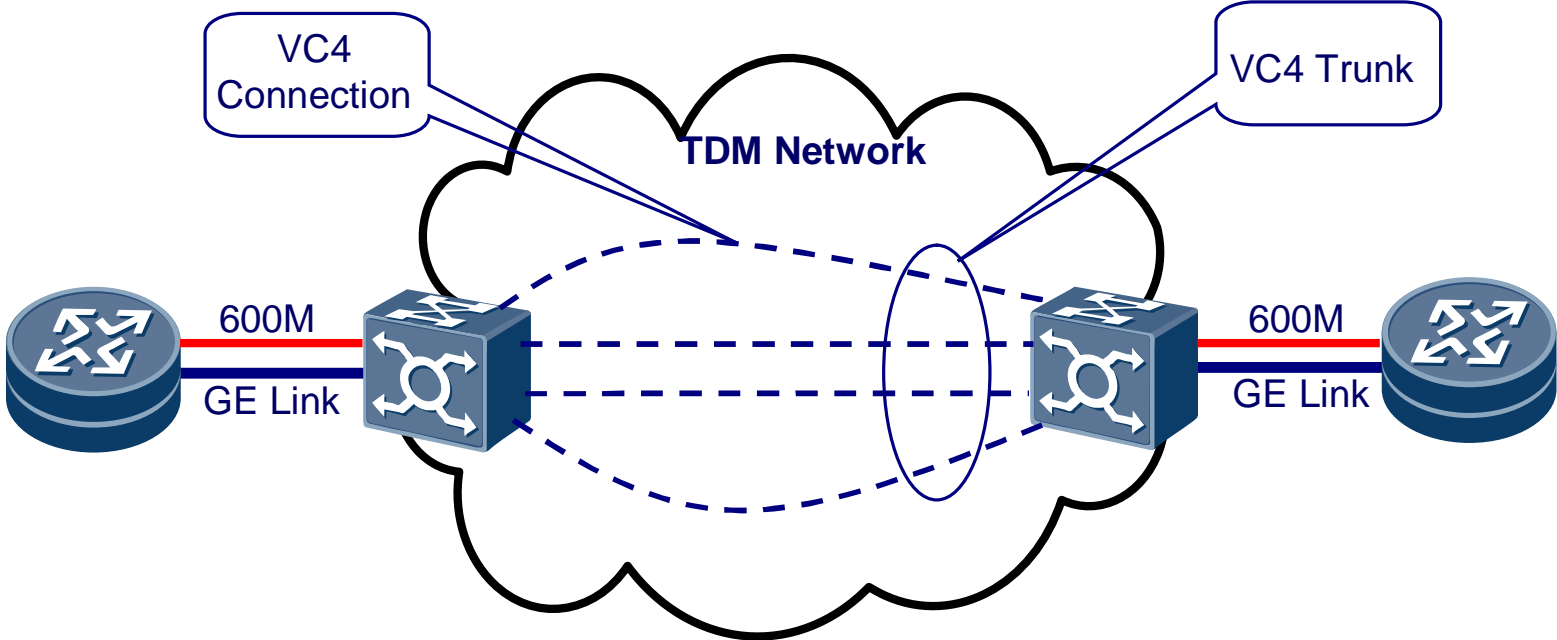
Enterprise Bandwidth Requirement



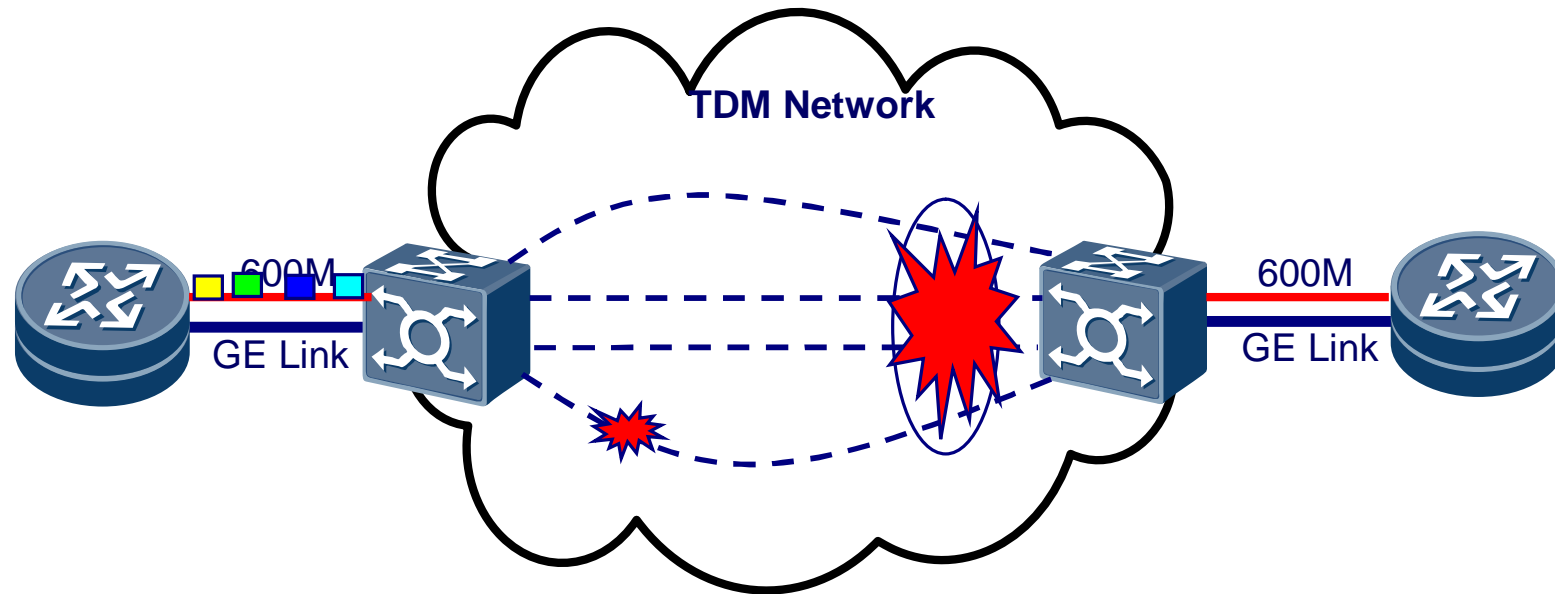
Resident Bandwidth Requirement



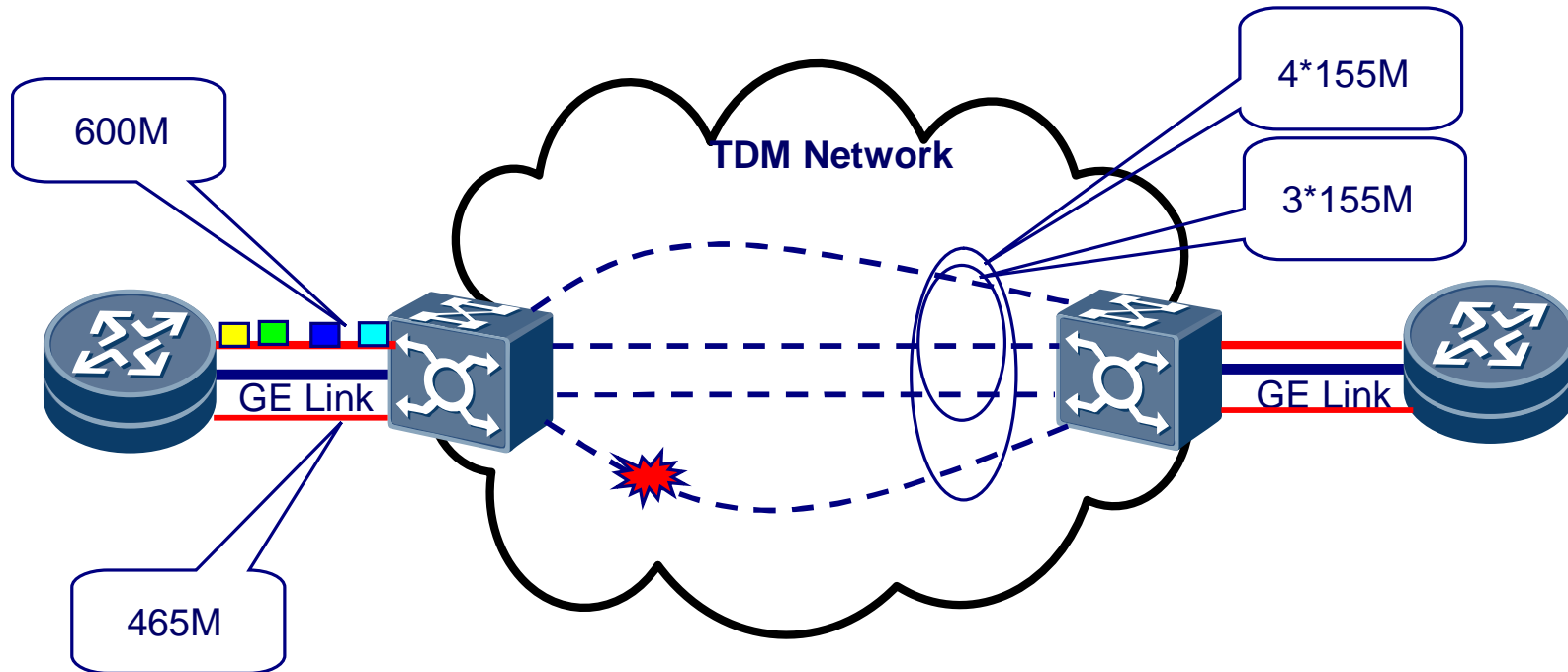
VCAT Technology in TDM Network



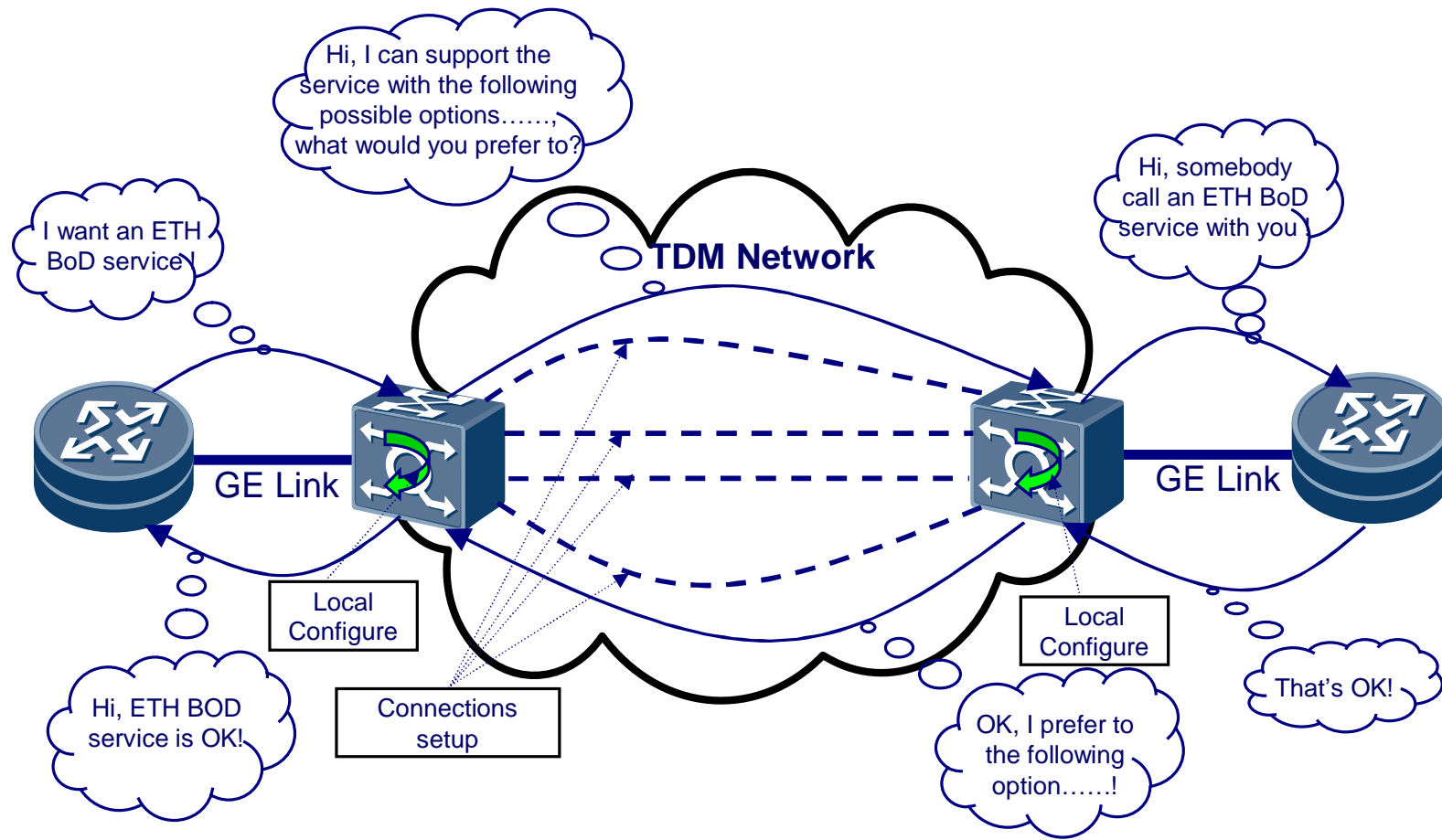
VCAT Without LCAS When Member Connection Broken



VCAT With LCAS When Member Connection Broken



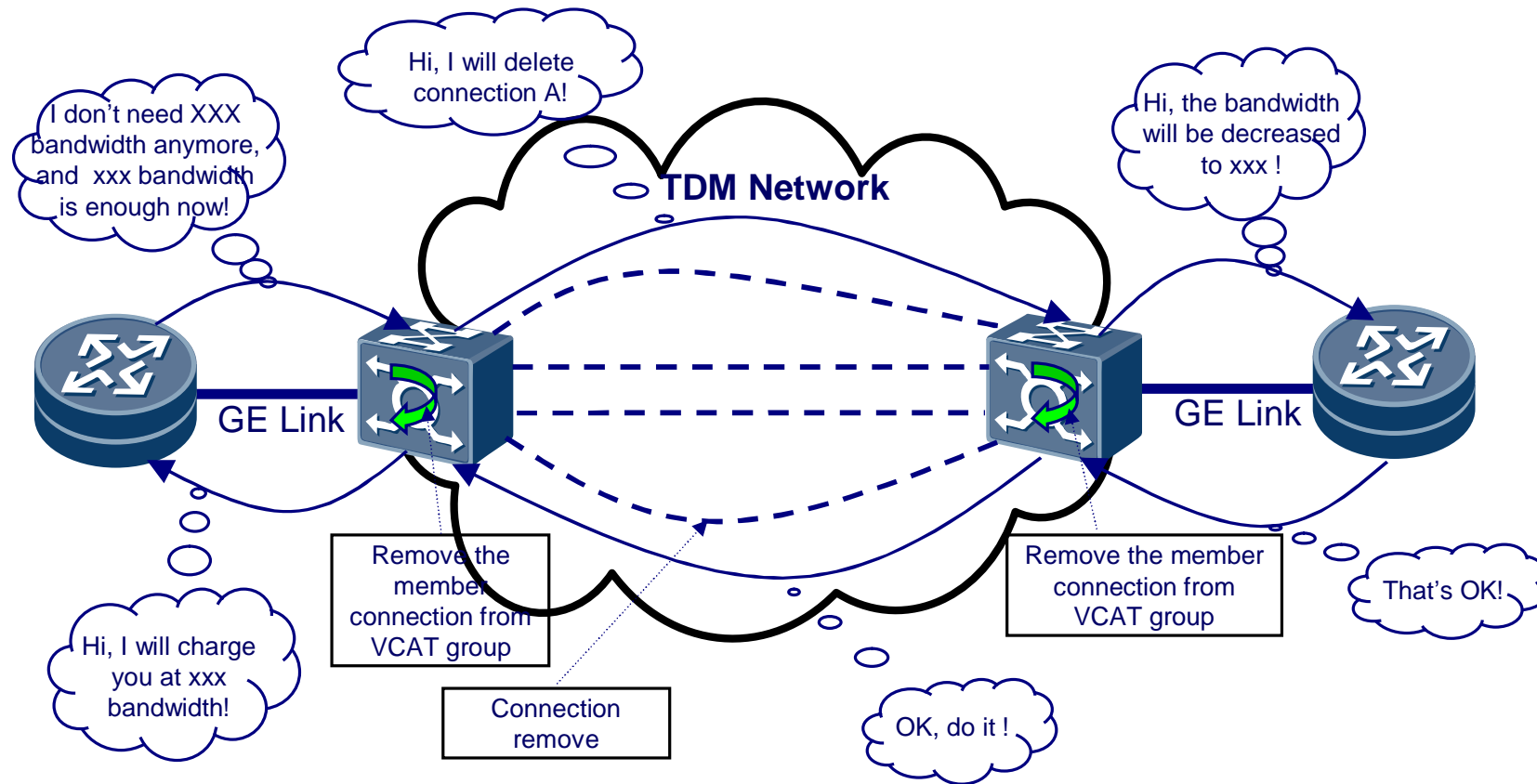
BoD Service Setup Through GMPLS Call



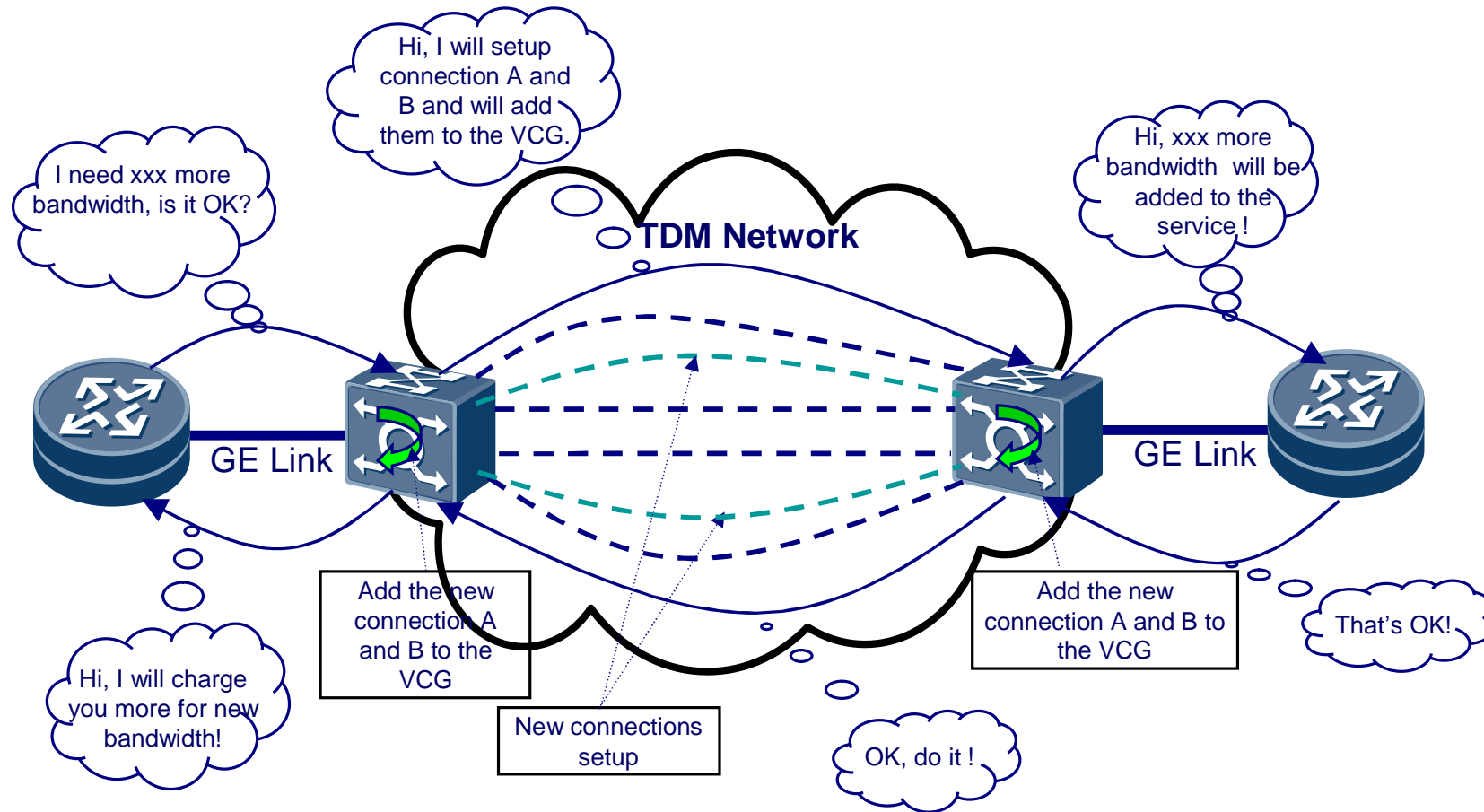
Negotiated Parameters

Parameter Name	Possible Options at Source	Preferred Option at Destination
Client Signal Adaptation and Multiplexing Path	<ol style="list-style-type: none"> 1. ETH->GFP-T/F->VC 2. ETH->GFP-T/F->ODU 3. ETH->LAPS->VC 4. ETH->HDLC->VC 	1. ETH->GFP-T/F->VC
TDM Connection Type/ Needed Number	<ol style="list-style-type: none"> 1. SDH VC4 / 30 2. OTH ODU1 / 2 	1. SDH VC4 / 30
VCAT Capability	<ol style="list-style-type: none"> 1. SDH VC VCAT Capable 2. OTH ODU VCAT Capable 	1. SDH VC VCAT Needed
LCAS Capability	<ol style="list-style-type: none"> 1. SDH VC LCAS Capable 2. OTH ODU LCAS Incapable 	1. SDH VC LCAS Needed
VCG ID	32bit integer value	32bit integer value
Client Signal Type	ETH	ETH
Others

Bandwidth Decreasing Procedure



Bandwidth Increasing Procedure



Impact To Existing Protocol

GMPLS Signaling

- Ø GMPLS Call- RFC4974 have already supported the negotiation procedure
- Ø The negotiation parameter need be enriched.
 - Possible mapping and adaptation path sets

GMPLS Routing

Ø If VCG members are co-routed, the differential delay of different member can be ignored, so the routing protocol is not necessary to extended.

Ø If VCG members are diversy-routed, the differential delay of different member should not be ignored, the routing protocol should concern the link and node delay for path calculation.

Question ?

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Thank You

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