
CONSULTATION ON REVISION OF TECHNICAL SPECIFICATIONS FOR LINE TERMINAL EQUIPMENT

**Submission by StarHub Ltd to the
Info-communications Development Authority of Singapore**

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1. StarHub Ltd (“**StarHub**”) thanks the Info-communications Development Authority (the “**Authority**”) of Singapore for the opportunity to comment on its review of the Technical Specifications for Terminal Equipment (the “**Specifications**”).

StarHub’s comments on the Specifications for connection to the Public Switched Telephone Network (“PSTN”)

2. Firstly, our existing media terminal adaptor (“**MTA**”) equipment complies with the current PSTN specifications. Our current firmware (and end-of-life equipment) cannot support the revisions to Table 1: Ringing Signal and Service Tones in the Public Switched Telephone Network. It is also not clear to us whether the changes to the ringing tones will result in compatibility issues with fax machines currently available in the market.

3. Should the revised ringing signal and service tones be adopted, we note that there could be equipment in the market which operate using different periodicities. This has the potential to result in customer confusion (e.g., difficulties in differentiating between Ring Tones, Busy Tones and Call Waiting Tones). As there does not appear to be any compelling reasons to modify this table, we would propose that the Authority revert to the original version of the table.

4. Secondly, there appears to be an inconsistency between:

- (1) Clause 6.2.2.1, which states that “A DC resistance of $80\ \Omega$ to $450\ \Omega$ for line currents between **20 mA** to $110\ \text{mA}$ ”; and
- (2) § 6.3.1 ES 201 970, which states that: “DC current shall be **$\geq 18\ \text{mA}$** and $< 70\ \text{mA}$ when connected with a resistor in the range of $0\ \Omega$ to $500\ \Omega$ at the NTP. It is recommended that the DC current is in the range of $25\ \text{mA}$ to $40\ \text{mA}$ ”.

5. For consistency, we recommend that the clauses be based on “ $\geq 18\ \text{mA}$ ”.

6. Finally, Clause 6.2.1.4 states that “TE shall be able to withstand sustained ringing voltages from the telephone line of $85\ \text{V rms}$ at nominal frequency of $24\ \text{Hz}$ ”. We note that this is dependent on the voice service card, and our current equipment is unable to support the revised ringing voltages requirement. As such, we recommend that this clause be amended to also support ringing voltages from the telephone line of $70\ \text{V} \sim 75\ \text{V rms}$.

StarHub’s comments on the Specifications for connection to the Integrated Services Digital Network (“ISDN”)

7. StarHub proposes the following changes to the Specification, to ensure compatibility with our system:

Annex A.1

Optional Layer 3 Requirements	ITU-T Rec. Q.931 (05/98)	StarHub's Option
Timers in the user side	9.2	Change to : T314 and T321 are not supported. T301, T302, T303, T304, T309, T310, T316, T317, T318, T319 and T322 are supported.

Annex A.2

Called party subaddress (Q.931 clause 4.5.9)

Octet	Field	StarHub's Option
3	Extension bit	Change to : Supported
	Type of subaddress	Change to : Supported
	Odd/even indicator	Change to : Supported
4, etc	Subaddress information (Note 1)	Change to : Supported

Calling party subaddress (Q.931 clause 4.5.11)

Octet	Field	StarHub's Option
3	Extension bit	Change to : Supported
	Type of subaddress	Change to : Supported
	Odd/even indicator (Note 1)	Change to : Supported
4, etc	Subaddress information (Note 1)	Change to : Supported

Channel identification (Q.931 § 4.5.13)

Octet	Field	Value(s) recognized		StarHub's Option
3	Information channel selection	<u>Basic interface</u> No channel	<u>Primary rate information</u> No channel	Change to : Supported
		B2 channel	B2 channel	Change to : Supported
3.2	Number/Map	Channel is indicated by the		Change to :

(Note 2)		slot map in the following octet(s)	Supported
3.3 (Note 2)	Channel number / Slot map	Slot map	<u>Change to :</u> Supported

Progress indicator (Q.931 clause 4.5.23)

Octet	Field	Value(s) recognized	StarHub's Option
4	Progress description	Interworking has occurred and has resulted in a telecommunication service change	<u>Change to :</u> Not supported

StarHub's comments on the Specifications for connection to the Broadband Multimedia Cable Network

8. We recommend that this Specification incorporate ITU-T Rec. J.167, which describes the MTA device initialisation and provisioning process. We suggest that the Authority could incorporate ITU-REC J.167 either as part of Annex A, or as an additional Annex to the Specification.

Other Comments

9. We would also request the Authority to consider extending the lead time granted to equipment suppliers/dealers for compliance with the revised Specifications. We believe that 6-months may be too short a time for equipment suppliers/dealers to introduce the necessary upgrades to ensure compliance. As there does not appear to be any time urgency to implement the changes to the Specifications, we believe that a 1-year grace period would be more reasonable.

Conclusion

10. StarHub appreciates the opportunity to comment on the revised Specifications, and we urge the Authority to consider our comments on the Specifications for connection to the PSTN, ISDN and the cable network.