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SPECIFICATION DPT-SWS-002

**FUNCTIONAL REQUIREMENTS FOR SINGLE EXCHANGE LINE
HOUSE TELEPHONE SYSTEMS (HTS)**

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**FUNCTIONAL REQUIREMENTS FOR SINGLE EXCHANGE LINE
HOUSE TELEPHONE SYSTEMS (HTS)**

1. INTRODUCTION

- 1.1** A House Telephone System (HTS) is a telephone switching system which, compared to an ordinary PABX, has been designed to handle only low calling-rates and usually offers somewhat limited PABX facilities and features. As a result such systems are ideally suited for private residential use and are not intended for application in normal business environments where it's use would be limited. However the traffic handling capacity of a HTS could suit certain small businesses practised from home (e.g. medical practitioners etc.).
- 1.2** HTSs which are submitted to the Department for licensing will be tested in accordance with the latest issue of specification **DPT-SWS-001**, with the limitations and relaxations contained in this specification. For the purpose of this specification all references made to the words "PABX" and "PBX" in specification **DPT-SWS-001** should be replaced by the words "House Telephone Systems".

2. SYSTEM SIZE

Number of exchange lines:	1 Maximum
Number of extensions:	4 Maximum
Internal speech links:	1 Minimum

3. EVALUATION AND FIELD-TRIAL

- 3.1** The supplier will be required to submit a fully equipped system for evaluation purposes.
- 3.2** A field-trial of one HTS, as submitted for approval and modified to meet the Department's requirements, must be arranged for a minimum period of 1 month, to determine the satisfactory operation of the system under actual service conditions.

4. EMERGENCY SERVICE

- 4.1** HTSs shall provide a minimum of one direct connection to the public exchange in the event of a system failure. When the system is restored to service the exchange line shall automatically be re-connected to the HTS. However, in the case of a power failure, where a call is in progress on restoration of the power, re-connection of the exchange line to the HTS shall be delayed until the call has been completed.
- 4.2** The standard telephone supplied by Telkom must be connected to the mains-fail extension of the HTS.
- 4.3** Alarm facilities are optional.

5. INTERMEDIATE FEEDBRIDGES AND ROUTING SIGNALS

- 5.1 Intermediate feedbridges are not compulsory. Telephones may connect directly to exchange lines for incoming and outgoing extension to exchange line calls. In all cases the transmission performance must be such as to meet the transmission mask right up to a 9 dB line attenuation (Exchange to telephone).
- 5.2 The system shall accept loop-disconnect pulses and DTMF signals as routing information from Departmental approved telephones or terminals.

6. FACILITIES

- 6.1 Line lockout; Camp-on free, ringing or busy; Trunk offer; Night service; Call interception and Busying facilities are optional.

7. STANDARD INTERFACE REQUIREMENTS

- 7.1 The following should be read in conjunction with **Chapter 2** of **DPT-SWS-001**:
 - 7.1.1 Any mention of the connection of an intermediate feedbridge for extension to exchange line calls in **Chapter 2** may be ignored when provision is made for regulated Telkom telephones to interface directly with the exchange line.
 - 7.1.2 **Paragraph 2.4.1.1**: Ringing current shall have a nominal frequency between 16 Hz and 50 Hz. Cognisance should be taken of Telephone Attachments' responses to ringing current which is specified as 16 2/3 Hz and 25 Hz.
 - 7.1.3 **Paragraph 2.7.1**: The frequency of dial tone is not important, but it should contain a large 400 Hz component if the system is to cater for Telephone Attachments using dial tone detection devices.
 - 7.1.4 **Paragraphs 2.7.4, 2.7.5, 2.7.6, 2.7.9 and 2.7.10**: Number unobtainable tone; Equipment busy tone; Warn tone; Camp-on tone and Special tones are not compulsory, but are preferred.
 - 7.1.5 **Paragraph 2.8.5**: The architectural structure of a HTS shall be such that not more than two (2) telephones may be connected in parallel to an exchange line, in addition to the ring current detection circuitry of the system.
 - 7.1.6 **Paragraph 2.8.5.8**: The dialing of digit "1" may be used for recall purposes.
 - 7.1.7 **Paragraph 2.11.1.5**: HTSs shall meet all the requirements of **Paragraph 2.11.1.4** when the extension line resistance is taken to be 50 Ω minimum. (The maximum exchange/instrument loop attenuation at 1400 Hz is 9 dB).

8. TRAFFIC AND NUMBERING SCHEMES

8.1 The following should be read in conjunction with **Chapter 3** of **DPT-SWS-001**, Standard Specification for Switching Systems:

8.1.1 Paragraph 3.3: Traffic tables may be ignored.

8.1.2 Paragraph 3.4.1: The internal numbering scheme of the system may be determined by the supplier, with the following exceptions:

8.1.2.1 Extensions shall dial digit "0" to gain access to the public exchange.

8.1.2.2 Extensions may dial Digit "1" for recall purposes.

9. INSTALLATION AND MAINTENANCE

9.1 The control unit of the system shall plug directly into the standard wall socket as supplied and installed by Telkom SA.

9.2 The system shall consist of a maximum of four extension instruments. The standard telephone instrument supplied by Telkom SA, shall be retained and shall be connected to the 'mains-fail' position as specified in **Paragraph 4.2** hereof.

9.3 HTSs may be supplied in kit form for installation by the purchaser. The original manufacturer will be obliged to provide a back-up service in terms of maintenance and repair, as well as a consultancy service for installation and commissioning.

9.4 HTS kits may be marketed through selected retail outlets and will be made up of the following:

9.4.1 One control and switching unit,

9.4.2 One standard telephone, (if required)

9.4.3 The necessary standard installation material in the form of plugs, sockets and wire as used for installation by Telkom,

9.4.4 Clear installation, commissioning and first-line maintenance instructions,

9.4.5 A proof of purchase form, to be completed by the supplier and the purchaser for return to the Telkom regional office.

9.5 Only instruments licensed by the Department may be used as extension instruments.

9.6 Installations shall conform to the codes of practice stipulated in the document **DPT-S-02** and shall be clearly reflected in the installation instructions. Telkom SA may inspect the installation at any time to ensure that the necessary standards are adhered to.

9.7 The Department and Telkom SA shall be indemnified against any claims whatsoever which may arise from the use of the system.

9.8 In the event of a call-out for a fault which is subsequently proved to be attributable to the use of such a system and not to the service provided by Telkom SA., a call-out fee commensurate with tariffs ruling at the time, may be charged by Telkom SA.