Government Gazette
Staatskoerant

REPUBLIC OF SOUTH AFRICA
REPUBLIEK VAN SUID-AFRIKA

Vol. 443 Pretoria, 3 May Mei 2002 No. 23391

AIDS HELPLINE: 0800-0123-22 Prevention is the cure

CONTENTS • INHOUD

No.		Page No.	Gazette No.
	GENERAL NOTICE		
Independent Communications Authority of South Africa			
General Notice			
664	Telecommunications Act (103/1996): Intention to make regulations in respect of the standards applicable to asymmetrical digital subscriber line (ADSL) customer premises equipment	3	23391

GENERAL NOTICE

NOTICE 664 OF 2002

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA

NOTICE OF INTENTION TO MAKE REGULATIONS IN RESPECT OF THE STANDARDS APPLICABLE TO ASYMMETRICAL DIGITAL SUBSCRIBER LINE (ADSL) CUSTOMER PREMISES EQUIPMENT.

Notice is hereby given that the Independent Communications Authority of South Africa (ICASA) intends making the following regulation in terms of sections 96 and 55 of the Telecommunications Act, 1996 (Act No. 103 of 1996).

Interested persons are invited to submit written comments or written representations with regard to the proposed regulations, to be received **by no later than 16H00 on 7 June 2002** by post, hand delivery, facsimile transmission or by an electronic version in Microsoft Word for the attention of
Mr. Mortimer Hope, Pr. Eng.
C/O ICASA, Private Bag X10002, Sandton, 2146; or

hand delivered to ICASA, Block A, Pin Mill Farm, 164 Katherine Street, Sandton; or

faxed to (011) 321 8581; or

emailed to mhope@icasa.org.za

MANDLA LANGA
CHAIRPERSON
ICASA

SCHEDULE

1. Definitions

In these regulations, words shall have the same meaning assigned to them in the Telecommunications Act, No. 103 of 1996 as amended, unless the context indicates otherwise.

ADSL	Asymmetrical Digital Subscriber Line
ATU-R	ADSL Transceiver Unit – Remote end (Modem)
ATU-C	ADSL Transceiver Unit – Central end (DSLAM)
AGWN-140	Gaussian White Noise at –140dBm
CPE	Customer Premises Equipment
DSLAM	Digital Subscriber Loop Access Multiplexer
EMC	Electromagnetic Compatibility
ITU	International Telecommunication Union
POTS	Plain Old Telephone Service
PSD	Power Spectral Density
VPI/VCI	Virtual Path Indicator / Virtual Circuit Indicator

2. Applicable standards

Asymmetric Digital Subscriber Line (ADSL) Customer Premises Equipment (CPE) shall comply with the following standards in order to be type approved by the Authority:

a. International Telecommunication Union recommendation ITU-T G.992.1:
SERIES G: TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS.
Digital transmission systems – Access networks: Asymmetrical Digital Subscriber Line (ADSL) transceivers

and/or

International Telecommunication Union recommendation ITU-T G.992.2:
SERIES G: TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS.
Digital transmission systems – Access networks: G.Lite transceivers

b. The test procedure shall be defined by the International Telecommunication Union recommendation ITU-T G.996.1:
SERIES G: TRANSMISSION SYSTEMS AND MEDIA, DIGITAL SYSTEMS AND NETWORKS
Digital transmission systems – Digital sections and digital line system – Access networks: Test procedures for digital subscriber line (DSL) transceivers

c. SABS IEC 60950: Safety of Information Technology equipment
d. CISPR22 class B: Information Technology equipment – Radio disturbance characteristics – Limits and methods of measurement.
e. Surge protection as required by ICASA specification TE-001

3. Informative reference

The following information is provided by Telkom SA to ensure the correct configuration and operation of the ADSL modem on their network.

3.1 Types of DSLAM in the network

DSLAM's in the Network
1) Marconi AXH600e (Version 3.235)
2) Alcatel 7300 (Version GFD5AA42.038)
3) UMC 1000 (Version V140.3R)

3.2 Profiles configured

Profile Parameters configured on each DSLAM	**Expected Sync Rate (KHz) (Indication on DSLAM)**	
	Downstream	Upstream
a) Profile 1: (FAST) Maximum Rate (Rate adaptive)	>8000	>800
b) Profile 2: (FAST) 6.144M Down and 640k Up (Rate adaptive)	6144	640
c) Profile 3: (FAST) 1.024M Down and 512k Up (Fixed rate)	1024	512
d) Profile 4: (FAST) 512K Down and 256k Up (Fixed rate)	512	256
e) Profile 5: (FAST) 256k down and 128k Up (Fixed rate)	256	128
f) Profile 6: (INTERLEAVED) Maximum rate (Rate adaptive)	>7600	>800
g) Profile 7: (INTERLEAVED) 6.144M down and 640k up (Rate adaptive)	6144	640
h) Profile 8: (INTERLEAVED) 1.024M down and 512k up (Fixed rate)	1024	512
i) Profile 9: (INTERLEAVED) 512k down and 256k up (Fixed rate)	512	256
j) Profile 10: (INTERLEAVED) 256k down and 128k up (Fixed rate)	256	128
k) Profile 11: (INTERLEAVED) G.Lite (Rate adaptive)	1536	512

3.3 Telkom loops

The minimum downstream and upstream rates are 640kbps and 320kbps respectively for all loops up to 4.5Km and 512kbps and 256kbps respectively for all loops up to 5.3Km. A signal to noise margin of 6dB shall be maintained for all connections.

Loop length	Noise @ ATU-C	Noise @ ATU-R
0.5Km (0.5mm)	AWGN -140	
0.5Km (0.5mm)		AWGN -140
3.0Km (1.5km x 0.5mm + 1.5km x 0.4mm)	AWGN -140	
3.0Km (1.5km x 0.5mm + 1.5km x 0.4mm)		AWGN -140
5.0Km (1.5km x 0.5mm + 3.5km x 0.4mm)	AWGN -140	
5.0Km (1.5km x 0.5mm + 3.5km x 0.4mm)		AWGN -140
5.3Km (1.5km x 0.5mm + 3.8km x 0.4mm)	AWGN -140	
5.3Km (1.5km x 0.5mm + 3.8km x 0.4mm)		AWGN -140

3.4 Encapsulation

The modem shall support at least a bridged connection and will be tested with a third party PPPoE client (Telkom's Jetstream software).

Protocol	Additional Information
a) Bridged	Can the modem be configured for RFC1483 VCMUX and LLC/SNAP. Is a bridged connection configured as the factory default.
b) PPPoE	To be tested with the Jetstream software. The modem is configured for transparent bridging. Determine if the unit has an internal PPPoE application.

3.5 ATM requirements

- The modem shall preferably be configurable for a range of VPI / VCI values and shall default to VPI=8 and VCI=35.
- The modem shall respond to OAM F5 loop back cells (Path)
- The modem shall support the Unspecified Bit Rate (UBR) class of service.
- All other ATM classes of service shall be noted for future reference.

Dog ate your Gazette?
... read it online

www.SA Gazettes.co.za

A new information Portal keeping you up to date with news, legislation, the Parliamentary programme and which is the largest pool of SA Gazette information available on the Web.

- Easily accessible through the www!
  - Government Gazettes - from January 1994
  - Compilations of all Indexes pertaining to the past week's Government Gazettes
  - All Provincial Gazettes - from September 1995
  - Parliamentary Bills - as of January 1999
- Available in full-text, with keyword searching
- Sabinet Online scans, formats, edits and organize information for you. Diagrams and forms included as images.
- No stacks of printed gazettes - all on computer. Think of the storage space you save.
- Offer Bill Tracker - complementing the SA Gazettes products.

For easy electronic access to full-text gazette info, subscribe to the SA Gazettes from Sabinet Online. Please visit us at www.sagazettes.co.za

SABINET online

Tel: (012) 663-4954, Fax: (012) 663-3543, Toll free: 0800 11 11 73, e-mail: info@sabinet.co.za, www: http://www.sabinet.co.za

Printed by and obtainable from the Government Printer, Bosman Street, Private Bag X85, Pretoria, 0001
Publications: Tel: (012) 334-4508, 334-4509, 334-4510
Advertisements: Tel: (012) 334-4673, 334-4674, 334-4504
Subscriptions: Tel: (012) 334-4735, 334-4736, 334-4737
Cape Town Branch: Tel: (021) 465-7531

Gedruk deur en verkrygbaar by die Staatsdrukker, Bosmanstraat, Privaatsak X85, Pretoria, 0001
Publikasies: Tel: (012) 334-4508, 334-4509, 334-4510
Advertensies: Tel: (012) 334-4673, 334-4674, 334-4504
Subskripsies: Tel: (012) 334-4735, 334-4736, 334-4737
Kaapstad-tak: Tel: (021) 465-7531