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GENERAL NOTICE

NOTICE 1292 OF 2005

**FINDINGS DOCUMENT IN TERMS OF SECTION 27 OF THE
TELECOMMUNICATIONS ACT (NO. 103 OF 1996) ON THE
ENQUIRY INTO THE PROVISION OF ADSL SERVICE.**

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1. introduction

In Government Gazette No. **27123** of **17** December 2004, the Authority gave notice and solicited public input in terms of Section 27 of the Telecommunications Act, on consumer's experiences and views on the manner in which the ADSL service is provided in South Africa.

The closing date for submissions was **17** January **2005** and was subsequently extended to 21 January **2005**. The Authority received Four Hundred and Forty Six (446) submissions by the closing date, of which Thirty Six (36) requested an opportunity to make oral submissions.

Definitions

“**Asymmetric Digital Subscriber Line (ADSL)**” means a modem technology that converts twisted-pair telephone lines into access paths for multimedia and high-speed data communications. The bit rates transmitted in both directions are different. **Y.101 (00), 12¹**

“**Broadband**” is an always-on data connection that is able to support various interactive services, and has the capability of a minimum download speed of 256 **Kbps**.²

Broadband is a “transmission capacity that is faster than primary rate Integrated Services Digital Network (ISDN) at 1.5 or 2.0 Megabits per second (**Mbits**)”.³

Broadband is used in this document to refer to higher bandwidth, always-on services, offering data rates of **128** kbps and **above**.⁴

¹ <http://www.itu.int/sancho/querydefinitions.asp>

² Telecom Regulatory Authority Of India (TRAI) Press Release No. 30/20049 April 29, 2004 Page 4.

³ Recommendation I.113 of the ITU Standardization Sector definition.

2 Legislative Framework

2.1 The Telecommunications Act, Act 103 of 1996 as amended, (the Act) empowers the Independent Communications Authority of South Africa (ICASA), (hereinafter referred to as "the Authority"), the power to conduct an enquiry into any matter relevant to *'the achievement of the objects mentioned in section 2⁵*.

Section 2, lists amongst others, the following as the objects of the Act:

- (a) *promote the universal and affordable provision of telecommunication services;*
- (f) *promote the development of telecommunication services which are responsive to the needs of users and consumers;*
- (j) *ensure fair competition within the telecommunications industry*
- (k) *promote the stability of the telecommunications industry;*
- (m) *protect the interests of telecommunications users and consumers.*

The Authority received forty six (46) complaints with regard to the ADSL service, which necessitated further investigation. Section 27(1) of the Telecommunications Act provides that the Authority can undertake an enquiry on any issue that relates to the promotion of the objects of section (2).

⁴ OFTEL Internet and Broadband brief 10-12-2003

⁵ Section 27(1) (a) of Telecommunications Act

3. POLICY ISSUES

Telkom raised a concern that the enquiry focuses on a specific broadband offering by Telkom rather than focusing on broadband services that have been offered in the Telecommunications industry. In general, Telkom emphasised that it is not the only telecommunications operator offering Broadband Service, as there are other operators like SENTECH ("My Wireless"), WBS ("iBurst") and VODACOM (3G) also involved in this market. They further argued that new licensees like the Second National Operator (SNO) and the Under-Services Area Licensees (USALs) might also offer broadband services.'

The Authority indicated to Telkom and all parties present at the hearing, that it received forty six (46) complaints with regard to the ADSL service as provided by Telkom. The nature and volume of these complaints necessitated a need to examine the nature, manner and quality of the ADSL service.⁷

The main policy considerations that arise as a consequence of provision of the ADSL service are as follows:-

- 3.1 Should Telkom include bandwidth into the cost of line rental and modems? Should there be duplication of payment for line rental i.e. ADSL line and business line rental or residential line rental? How can ICASA ensure that the cost of the service is not excessive?**

3.1.1 International bandwidth/SAT3 Cable.

⁶ Page 4 of Transcript Vol. 1

⁷ Page 10 of Transcript Vol. 1

Firstly and most importantly it was argued that bandwidth costs are decreasing worldwide and this trend has not filtered down to South Africa'. Some presenters alluded to the fact that Telkom's bandwidth charge for the SAT3⁹ cable¹⁰ is several times more expensive than what international providers charge for access to the same cable, even though Telkom is one of the largest shareholders of this cable. There were also allegations levelled at Telkom that they are not utilising international bandwidth to its fullest capacity, and that any unused capacity would be wasted. Further, the general consensus from the presenters was that the bandwidth cost is incurred by the ISP and not by Telkom as the ISP pays for the international link". From the total of submissions received:

- 9 fifty six percent (56%) of subscribers are against the inclusion of bandwidth into the cost of line rental and modems;
- 9 twenty eight percent (28%) of subscribers are of the view that the inclusion of bandwidth will reduce costs;
- 9 sixteen percent (16%) of subscribers did not answer the question.

Several presenters argued that South Africa is unique in the sense that it separates the access charge from the Internet charge.

Telkom appeared unaware that it is common practice internationally to charge a single fee for both access and Internet portions. Telkom also stated that there are specific, separate costs for line rental, ADSL access charges, call charges and ISP charges. With respect to the SAT3 cable Telkom refused to comment stating that it did not form part of the ADSL inquiry.¹²

⁸ Page 146 of Transcript Vol. III

⁹ South Atlantic Telecommunications cable no.3

¹⁰ Page 65 and 96 of Transcript Vol. III Internet Solutions presentation

¹¹ Page 54 of Transcript Vol. III

¹² Page 139 of Transcript Vol. VI Telkom closing presentation

3.1.2 Duplication of line rental.

From the total of submissions received, eighty one percent (81%) of subscribers would like to pay for one line rental as duplication of payment is not justifiable, whereas, nineteen percent (19%) of subscribers accept line rental provided that the price is reduced.

Most presenters argued that Line rental should be dropped for ADSL subscription as the very same twisted copper pair used in the last mile is used for ADSL access and Telkom incurs no extra costs of rolling out additional cabling¹³.

Majority of presenters argued that there should not be duplication on charges for line rental and service costs. MyADSL users further argued that line rental should be abolished. The rationale for such arguments is that the same piece of copper that goes from the exchange to the subscriber's house¹⁴ and that the underlying infrastructure does not justify the high cost of line rental. Some raised views that Telkom "ties in" customers by forcing them to take a telephone unnecessarily and that people should not be forced to pay for an analogue line but only for the copper wire¹⁵.

One of the presenter mentioned that Telkom could argue that the additional line rental is for deploying of new infrastructure which is Capex and that expenditure is usually written off after 3 years but users continue to pay R680 every month¹⁶.

It was also noted that South Africa is the only country that charges for line rental but international trends have shown that line rental is not charged

¹³ Page 23 of Transcript Vol. III MyADSL.

¹⁴ Page 120 of Transcript Vol. 1.

¹⁵ Page 41 and 65 of Transcript Vol. IV.

¹⁶ Page 52 of Transcript Vol. IV.

for¹⁷ and that Telkom is possibly using line rental to subsidise the cost of providing ADSL¹⁸.

Further arguments by presenters were that line rental was charged to recover the cost of DSLAM ports. However, Telkom denied this and argued that there was more to line rental than to cover DSLAM ports¹⁹.

Telkom's response was that line rental covers the cost of the copper to the customer's premises which offers basic telephony²⁰. Therefore, the R87.00 is subscription to be connected to the telephone exchange²¹. The ADSL line rental is for the additional equipment which is required to convert the copper pair into an ADSL link²². They also stated that the equipment must be upgraded and maintained therefore there has to be recovery of those operational costs.²³ Telkom further stated that because DSL is a high-speed data service, an additional line rental is charged²⁴.

From the total submissions received, seventy percent (70%) argued that the Authority should stimulate competition so as to reduce excessive costs and ensure that services are offered at internationally comparative rates. Thirty percent (30%) of submitters did not respond to this question.

Several proposals were put forth and it was suggested that the Authority:

- i. should promote competition in the local loop environment by allowing ISP's access to the local loop or allow them to provide their own last mile access.

¹⁷ Page 140 of Transcript Vol. III.

¹⁸ Page 18 of Transcript Vol. IV.

¹⁹ Page 49 of Transcript Vol. I.

²⁰ Page 8 of Transcript Vol. I.

²¹ Page 121 of Transcript Vol. IV.

²² Page 122 of Transcript Vol. IV.

²³ Page 97 of Transcript Vol. IV.

²⁴ Page 8 of Transcript Vol. I.

- ii. compel Telkom to lower its prices. An example of the Indian regulator (TRAI) was quoted where prices were forced down by seventy percent (70%) after TRAI identified high broadband prices being one of the barriers to growth of Internet and broadband **services**.²⁵
- iii. ask Telkom to remove the access charge, as this is unique to South Africa.
- iv. deem the SAT3 cable to be an essential telecommunications facility and **subsidise/lower prices**.²⁶
- v. the Authority should allow ISP's to co-locate their equipment with Telkom.
- vi. use Cost of Accounts and Cost Allocation Manuals (CONCAM) to determine the actual costs incurred by Telkom to ensure that they are not overcharging.

3.1.3 ICASAs Findings

There are various issues that have been raised with respect costs of services. The Authority finds the following with respect to these issues;

3.1.3.1 Firstly with respect to the SAT3 cable: In 2003, the Authority conducted an enquiry in terms of section 51 of the Telecommunications Act No. 103 of 1996 as amended, on the question of regulation of the SAT3 cable. Therein the Authority wanted to declare the SAT3 cable an essential telecommunications facility and therefore subject it to wholesale pricing. The process was subsequently suspended pending the promulgation of the Convergence Bill. Moving forward, the Authority intends to further investigate the costs of international bandwidth. The Authority is currently revisiting its enquiry into Undersea Cables with specific emphases on regulation of the landing station. It is anticipated that the enquiry will be completed by the end of this financial year.

²⁵ TRAI Press Release No. 30/20049 April 29, 2004 Page 3.

²⁶ Page 9 of Transcript Vol. VI Mr. Halloway's presentation.

3.1.3.2 Secondly with respect to the issue of line access and usage charges: the Authority notes that Telkom submits that there was no separate pricing that they were aware of and/or alternatively that the international trend was not to separate charges. The presentation by MyADSL on this issue proposed a compromise that in the opinion of the Authority appears fair and capable of addressing the issue of separate costs. The proposal was that Telkom be entitled to charge a once off access charge and thereafter, charge only for line rental. The Authority believes in the interests of consumer protection and without further justification from Telkom for continued charges for access, that the charge for access only be levied once off at the inception of the service and thereafter charges be restricted to line rental only. This issue is integral to the costing of the service and shall be addressed by regulation by the Authority so as to ensure enforceability.

3.1.3.3 Thirdly with respect to the issue of increasing competition in the local loop: the Authority notes that in other jurisdictions, increased competition in the local loop has reduced costs of telecommunication services. A number of the Organisation for Economic Co-operation and Development (OECD) countries have stressed the economic and social importance of developing broadband Internet infrastructures and ensuring rapid growth in their subscriber bases". However, the Authority notes that currently the Convergence Bill process is underway. One of the outcomes of this process under Chapter 8 sections 47 to 52 thereof is that the issue of facilities will cease to be monopolised by a specified number of operators and be more to all other operators.

²⁷ Organisation for Economic Cooperation and Development DSTI/ICCP/TISP(2002)5/FINAL report

- 3.1.3.4 Fourthly with respect to the suggestion that we use the Indian model to reduce the costs of broadband Internet access: the Authority has noted that TRAI took into account the following factors in order to reach the result of reduced costs of telecommunications:
- i. the stagnating growth of Internet services and minimal uptake of broadband deployment in the country;
 - ii. subscription prices of broadband services in India.

Therefore applying this standard within the South African context would be problematic and contrary to our legislative environment for the following reasons:-

The costing tools that the Authority uses in the South African context in order to determine whether services being offered to consumers are over or undercharged are Chart of Accounts/Cost Allocation Manual (CONCAM) and the Rate Regime.

The Rate Regime is the process whereby the Authority undertakes to review prices in the PSTS sector and determines the maximum by which prices can be increased in a given price cap year. It also sets caps or limits on how much an operator could increase a particular service or basket of services, more especially those services that affect residential user.

COA/CAM as submitted by the operators allows the Authority to see the different costs associated with various services. After analyzing these manuals, we can determine the cost of providing a particular service which should be used as a basis for deciding what the selling price should be. If the Authority were to find that the operator's selling price is far above the cost of providing that service, the operator will be deemed to be over-recovering and thereby exploiting consumers. The Authority

has the power to request Telkom, a major operator or any operator with Significant Market Power (SMP) to decrease those prices by a margin determined by the Authority which would be inline with the calculated costs according to CONCAM.

It must be noted that currently COA/CAM does not cater for individual services like DSL, however, it provides ~~for~~ Broadband services in general. The Authority can request costing information relating to ADSL using the requirements of CONCAM and objects of the Telecommunications Act. Therefore, currently the Authority is in the process of analysing Telkom's manuals that were submitted this year. The cost of broadband will be analysed. Thereafter the Authority in conjunction with the Department of Communications, intends to formulate a broadband policy that ~~will~~ address and regulate all broadband services in South Africa generally.

It is the Authority's view that Telkom should also be reminded of their commitment towards delivery as a core driver of transformation and progress in South Africa as per their announcement on 6 June 2005.

3.1.3.5 With regard to co-location of facilities: This is regulated in terms of the facilities leasing regulation promulgated in Government Gazette number 27186 in terms of section 44 of the Act. The facilities leasing regulations have recently been republished for public comment. We therefore encourage ISPs and other VANS to make an input to this process to ensure that the suggestions made on co-location are taken into account during the finalisation of that process.

3.1.3.6 With respect to the issue of the ADSL being included in the regulated basket: the Authority undertook a Price Cap Review in 2004-2005. The Price Cap regulations were promulgated on 6th July 2005 and the

intended implementation date is 01 August 2005. The effect of including ADSL (Home branded ADSL services and its equivalents) in the regulated residential sub-basket will allow the Authority to exercise regulatory oversight over increases that Telkom would charge to consumers. Any further increase is subject to the Authority's approval.

4. CONSUMER PROTECTION ISSUES

The concerns on issues of consumer protection that have resulted from provision of ADSL service are as follows:-

4.1 Does Telkom inform widely its potential subscribers about all ADSL modems approved by the Authority, and if so how?

Ninety five percent (95%) of subscribers from the total submissions responded that Telkom does not inform its subscribers about all ADSL modems approved by the Authority.

Other subscribers of the service have communicated that Telkom does not inform its potential subscribers about all ADSL modems approved by the Authority. In fact, Telkom informs potential subscribers about only two modems and these are the two modems that are said to come free if one wishes to subscribe for the service through Telkom. Although the majority of subscribers think it is Telkom's responsibility to inform subscribers about all ADSL modems and their features, a few subscribers think it is the Regulator's responsibility to so inform **subscribers.**²⁸

In Telkom's written submission, Telkom asserts that it is not required by any license condition to inform customers of every item of CPE that has been approved by the Authority. Telkom has also communicated that although it

²⁸ Page 1 of written submission Internet Society of South Africa.

is not obliged to, as a socially responsible company it does inform potential subscribers of all ICASA approved modems on their **webpage**²⁹. The Authority has confirmed this and there is reference to all ICASA approved modems on Telkom's website.

4.2 Should Subscribers be restricted to only two suppliers of modem?

- Telkom has communicated that it does not restrict subscribers to only two suppliers and has further elaborated that the fact that it has filed prices for two different ADSL modems as a non-basket service does not mean that subscribers are restricted to purchasing either of the two modems. Telkom further asserts that like any other supplier they only stock a limited range of modems. Telkom opines that ADSL subscribers are sophisticated users who understand **modems**.³⁰ Ninety nine percent (99%) of subscribers from the total of submissions received do not agree to being restricted to two modems.

Further, some of the subscribers indicated that modems from Telkom are not of a good **quality**.³¹ It was also submitted that a subscriber which uses a non-Telkom recommended modem, experiences problems with the after sales support. Generally in such situations, Telkom will not be of assistance or able to timeously assist until a subscriber can prove that the fault is not with the **modem**.³²

4.3 ICASA's Findings

After having analysed all public input on the matter, the Authority finds on these issues as follows:

²⁹ Page 6 of Telkom's written submission.

³⁰ Page 7 of Telkom's written submission

³¹ Page 25 of Transcript Vol. VI.

³² Page 1 of written submission from Enrico Zanolin

4.3.1 the obligation to communicate different modems that are type approved for ADSL is a responsibility of the Authority and not Telkom. Therefore, all type approved ADSL modems shall be duly displayed and listed on the Authority's website;

4.3.2 The Authority has investigated and ascertained that the Telkom website does have other non-Telkom recommended ADSL modems advertised;

4.3.3 With respect to the maintenance of modems and unavailability of parts for non-Telkom recommended modems, the Authority is of the view that Customer Premises Equipment (CPE) for ADSL supply is a deregulated market, and therefore suppliers of equipment must provide relevant after sales maintenance. However, there should be no discrimination in line or modems fault attendance turn around times by Telkom as it charges for call out to address such faults, whether or not the modems are Telkom recommended.

4.4 Did Telkom inform their customers that they intended introducing a cap of 3G Byte on the service, and if so when?

There were a total of **446** submissions received by the Authority of which forty six percent (**46%**) subscribers of agree that Telkom did inform them; thirty seven percent (37%) saying that Telkom did not inform them and seventeen percent (**17%**) were silent on the matter. Those who knew about the cap were informed through the Telkom website, when signing up for the service, through media releases and other on-line users.

Telkom confirms that the cap was not part of the product offering from the date of the launch of the service but that it was only implemented once the ADSL base reached critical mass and excessive bandwidth utilisation impacted negatively on user experience. Given Telkom's explanation, it is

understandable why so many subscribers who were not aware of the cap are those who were the initial subscribers of the service. However, currently Telkom's website clearly specifies that the service is capped at three levels namely:- 2Gbyte, 3Gbyte and 4Gbyte.

Most subscribers of the service indicated that Telkom did not communicate the introduction of the cap at the outset and this introduction however does not make the service the same service to which they initially subscribed. Subscribers who subscribed for the service at a later stage were aware that the service is capped, as the information is available on Telkom's website although they do not agree with it.³³ Another view was that if a subscriber is paying more for a service there should be a Service Level Agreement (SLA) in place³⁴.

4.5 Is it reasonable to put a 3GByte cap on the service? Given the capping of the service, do the subscribers still get the promised 512kbps downstream speed?

What would be regarded as abuse of the service according to Telkom? Is this an International norm? Is it possible to identify and penalize the minority who abuse the service?

Capping of the service to 3Gbyte is the most contentious issue about the service as it is currently being provided by Telkom. The issues raised were the following:-

4.5.1 Telkom submitted that the capping of the ADSL service takes place only once between the Internet Access Provider (IAP) and the Internet Service Provider (ISP) and is enforced by the Internet Service Provider and itself?

³³ Page 4 of written submission Michael Eibl

³⁴ Page 21 of Transcript Vol. IV.

³⁵ Page 6 of Transcript Vol. 1 Telkom's presentation.

Internet Solutions countered Telkom's suggestion on this issue by seeking clarity and/or elaboration from Telkom in relation to a diagram that formed part of Telkom's presentation. In response to this question Telkom admitted to the fact that the part of the diagram where the capping was effected, falls within the PSTS network³⁶ and not the ISP networks.

4.5.2 The critical issue that was raised by most presenters was that they do not agree with the capping mainly because the cap did not only affect international bandwidth usage but also affected access to locally based websites.

Various caps were suggested ranging from 6Gbyte to 100Gbyte³⁷ per month. There was also a suggestion of 3Gbyte to 5Gbyte per day³⁸. The general range for the capping of the service was between 10Gbyte and 20Gbyte.

Almost all presenters agreed that the cap was unreasonable and without merit³⁹. Several international comparisons were drawn where the cap in other countries was substantially higher or non-existent.

Some of the key concerns raised about the capping were:

- i. the 3Gbyte cap is split between upstreaming and downstreaming of data, thus resulting in a 50:50 split;
- ii. local internet browsing affects the 3Gbyte monthly cap;
- iii. once the 3Gbyte cap has been reached, no international websites can be browsed as Telkom has indicated that one gets moved to a slower international link for international websites.

³⁶ Page 53 of Transcript Vd. I Telkom's presentation.

³⁷ Page 207 of Transcript Vd. IV.

³⁸ Page 59 of Transcript Vol. II

³⁹ Pages 60, 20 ; 90, 15; 6, 130, 10; 142, 15 of Transcript Vol. I

Telkom has responded to the issue by saying that the service is mainly meant for the following purposes: web-surfing; email application; to send one hundred and twenty (120) photographs per month by email; to send and receive one thousand and six hundred (1600) emails without attachments; watch one two-hour video per month; download eighty (80) tracks of music per month and online gaming for one and a half hours per week. Presenters argued that in other jurisdictions the cap is higher and in some countries it is non-existent i.e. there is no cap at all. They further argued that the most common uses, to which **ADSL** is put, internationally are for online gambling and gaming⁴⁰.

In terms of “the abuse of the service”, Telkom further argued that it would consider people who need to download and upload huge amounts of data, do on line trading, and download content games and videos as people who abuse the service. Telkom communicated that approximately two and a half percent (2.5%) of the users abuse the **service**.⁴¹ Telkom further indicated that nowhere on its website does it indicate the restricted uses or limited uses of the **ADSL** services as laid out above.

A total of seventy one percent (71%) of subscribers that responded are of the view that Telkom regards maximum use of the service, as abuse. They indicated that Telkom regards the following activities as “abuse”: surfing the web, downloading large files (e.g. music and video contents), on-line games, etc. It is possible to identify and penalise abusers. The majority of subscribers do not regard capping as an international norm.

Other subscribers of the service communicated that what could be regarded as “abuse of service” is being on the Internet 24/7. They further argued that broadband is specifically designed for the applications that Telkom considers as “abuse of the service”. Internationally, the norm is to provide

⁴⁰ Page 12 of Transcript Vol. 111.

⁴¹ page 37 transcript vol 1 Telkom's oral submission

subscribers with the real broadband service that is much cheaper than is currently being provided in South Africa and capped at a much higher level, or not at all.⁴²

4.6 ICASA's Findings

There are various issues that arose from the issue of the 3Gbyte cap that is imposed. The Authority finds on the various issues as follows:-

- 4.6.1 The first consideration is that of the level of the cap on the 3Gbyte ADSL service: With respect to the issue of the 3Gbyte cap being introduced on a date subsequent to the introduction of the service due to subscribers reaching a "critical mass", the Authority is of the view that Telkom was not sufficiently specific on what amounts to a "critical mass". Further, Telkom failed to clearly specify the rationale for a 3Gbyte cap as opposed to another cap". Lastly, Telkom also argued that the lack of sufficient bandwidth necessitates the need for the cap. The Authority was not satisfied as to why Telkom was unable to procure the necessary bandwidth in order to address the need for increased bandwidth in order to meet the needs for the service. The issue canvassed was that such increase in bandwidth would result in an increase in cost. In response to this assertion, MyADSL provided international comparisons that indicated provision of the same service with higher caps at a lower cost. Telkom argued that New Zealand and Australia have introduced caps.⁴⁴ Further it is important to note that MyADSL, contrary to Telkom, argues that Telstra's (Australia) cap of ADSL is 50Gbytes as opposed to Telkom's 2Gbyte. The Authority is therefore of the view that there is a need to undertake an in depth study on the cap that is placed on the ADSL service, particularly the 3Gbyte offering as compared to the cost

⁴² page 24 transcript vol. II response from Rudolf Muller

⁴³ page 8 of Telkom's written

⁴⁴ page 6 & 7 of Transcript Vol.I

of such service by international standards. Therefore, even with respect to the upper end cap of 4Gbyte, this cap still appears to be lacking by international comparison and standards. This does however, trigger a need for an indepth study and investigation by the Authority on this issue. This will be duly undertaken in the regulation making process to be commenced shortly.

The Authority has further been able to ascertain from other jurisdictions that operators such as British Telecoms have not applied the service cap at all and provide a similar ADSL service at a lesser amount of f9.99 which translates to approximately R 120.00. In other jurisdictions that have been investigated including Mauritius the ADSL service is offered at speeds of 512/256K at a cost of R630.00

Therefore, the Authority believes that a regulation is required to increase the cap on ADSL services in line with international standards of the service. The exact threshold will have to be considered in the course of the relevant public process. It is important however to emphasise that 3Gbyte appears wholly inadequate for the needs of subscribers by international comparison.

4.6.2 The second issue that is directly linked to the 3Gbyte cap is that of the so called "abuse" of the service. The Authority heard different submissions from Telkom on intended use of the service and from MyADSL on the internationally recognised use of the service.

4.6.2.1 The first issue that arises in this regard is contractual in nature. With respect to the first group of subscribers that subscribed prior to the imposition of the cap, Telkom was obliged to not only inform them of the proposed introduction of the cap, but further to give them an opportunity to get out of the contract should they so choose. Therefore, a unilateral

imposition of a material condition on the **contract** is definitely a major amendment of contract that affects consensus on the terms of contract. From a consumer protection point of view, this negatively affects the rights of the consumer without due consultation. However, the second group of ~~subscribers who~~ contracted with Telkom after the introduction of the 3Gbyte cap, did so with full knowledge of the terms and conditions of the contract which included introduction of the 3Gbyte cap. Therefore, the Authority is of the view that consultation be undertaken with the first group of subscribers to give them opportunity to discontinue subscription should they choose.

- 4.6.2.2 The second issue with respect to so called “abuse of the service” is whether Telkom is entitled to purport to provide a broadband service and then thereafter restrict the uses to which it can be put: the Authority is of the view that ADSL from its definition is a broadband service. From the definition of ADSL as provided by the ITU, it is referred to as ***“modem technology that converts twisted-pair telephone lines into access paths for multimedia and high-speed data communications?”***

From the above definition, an ADSL user can expect to be able to use the service for all multimedia applications and high speed data communications. Therefore in order to get specific on what multimedia services entails, it is necessary to look at Telecommunications Act and the ITU which defines multimedia as:-

- * telecommunications service that integrates and synchronises various forms of media to communicate information or content in an interactive format include services such as:
 - (a) *Internet through Television;*
 - (b) *pay-per view;*
 - (c) *video on demand;*
 - (d) *electronic transitions (including e-commerce);*

(e) text;

(f) data;

(g) graphics;

(h) animation;

(i) audio;

(j) visual content, but should not include mobile cellular telecommunications service and PSTS.

- the combination of multiple forms of media such as audio, video, text graphics, fax and telephony in the communication of information.

Based on the definition of multimedia as per the Act, the restricted Telkom list of uses to which ADSL can be put is not legally justifiable. Therefore to use the ADSL service for the multimedia functions as listed above can not be said to amount to an “abuse” of the service, for this is what the service was intended for by this definition. Thus, in the course of promulgating the regulation that shall address the nature of the ADSL service, this definition of multimedia and multiple uses ADSL can be put to, will be taken into account.

Therefore, the rationale behind imposing the 3Gbyte cap to protect users from a small minority who abuse the service and that the ADSL service was only meant for certain applications and that downloading of content games and videos and online trading, constitutes the abuse of the service, advanced by Telkom, is considered by the Authority, to be unjustifiably restrictive. It is the Authority’s view that as Telkom’s ADSL is a broadband service, Telkom should not regard ADSL subscribers who do online trading and download games and videos, as “abusers of the service”, in line with the international trends and practices on the one hand and the wide definition of multimedia in terms of the Act, on the other. This is based also on the fact that other jurisdictions do not cap their services whilst others put higher caps ranging between 10Gbyte and 60Gbyte.

4.6.3 Considering the cost of the service, should subscribers monitor their own international utilization? Or should It be Telkom's responsibility to so monitor?

Most subscribers did not comment on this issue although someone did mention that many people use monitors to keep track of how much bandwidth they have used⁴⁵.

Telkom responded by saying that subscribers can check their bandwidth usage with a bandwidth usage tool. Subscribers can set up the tool which is able to send an email with daily, weekly or monthly indicators?

4.6.4 ICASA's Findings

The Authority finds on this issue as follows:-

As Telkom is already monitoring use of ADSL so as to impose 3G cap, it would be easy to notify the subscriber when they are approaching the maximum on their cap at the threshold of 1Gbyte usage progressively until the 3Gbyte cap is reached.

This finding shall be duly incorporated in the relevant regulation making process.

4.6.5 Should subscribers of any service be negatively Impacted by other subscribers especially if they are paying a premium for the service? How can the situation be remedied?

⁴⁵ Page 147 of TranscriptVd. I.

⁴⁶ Page 35 of TranscriptVd. I.

One presenter commented that since ADSL consumers compared to the rest of the residential market are paying a premium for the service, they should be treated no differently from business users. However, since business users are paying more for the service, they should be given a higher cap⁴⁷.

Subscribers of ADSL have commented that as a result of Telkom's decision to port prioritize the service, some subscriber's speeds are negatively impacted by other subscribers using the service. They have argued that if you are paying a premium for the service you do not want to be impacted upon by other users also using it⁴⁸. Some subscribers, notably residential users, are not affected by port prioritization.

Telkom's comment was that it prioritizes in terms of mean time to install and repair for business subscribers and that business subscribers create more peak hour traffic, therefore it provides more bandwidth for that peak hour traffic which contributes to the cost of the service⁴⁹.

4.6.6 ICASA's Findings

The Authority finds on these issues as follows:-

- 4.6.6.1 From a consumer protection point of view, if the product is the same, there should be no distinctions in respect of the cost. Telkom's contention that it provides more bandwidth for business customers or subscribers at peak times, which contributes to a higher cost of the service, does not hold true. Telkom has stated that they provide the access portion and that ISPs provide the Internet portion. Thus,

⁴⁷ Page 65 of Transcript Vol. I.

⁴⁸ CA/002/03 response to Telkom letter

⁴⁹ Page 154 of Transcript Vol. IV.

bandwidth costs required for the access portion is borne by the ISP. The Authority finds that Telkom charge only according to the speed of the service provided.

4.6.7 On average what kind of service do ADSL users experience?

Some subscribers are satisfied with the service whilst others complain that ADSL is slow and overpriced⁵⁰. Other subscribers assert that the service is good at the beginning of the month but once the cap is reached the quality of the service deteriorates and one cannot access international websites⁵¹.

One subscriber's service was down for two weeks due to a technical problem resulting in substantial inconvenience. It required 20-30 telephone calls to Telkom to get the problem attended to fixed but he believes the service is reasonable although there have been instances where he has experienced difficulty connecting⁵².

Telkom responded by saying that users have expressed an overall satisfaction of the service. According to a Markinor survey that was conducted, eighty four percent (84%) of residential customers and eighty seven percent (87%) of business customers' said that the ADSL service met their expectations⁵³.

During the hearings Telkom was requested to furnish the Authority with details of the survey, including the questionnaire and the results. Telkom provided the Authority with a document containing the research approach that was used; the three main drivers that motivated people to subscribe to the service and information regarding how well ADSL met customers'

⁵⁰ Page 65 of Transcript Vol. I.

⁵¹ Page 109 of Transcript Vol. III.

⁵² Page 34 of Transcript Vol. IV.

⁵³ Page 9 and 21 of Transcript Vol. I.

expectations. MyADSL also conducted a survey among ADSL users (not only amongst MyADSL subscribers) in South Africa where the question was "Are you satisfied with the service? Eighty three percent (**83%**) of the respondents said "**No**".⁵⁴ MyADSL has also conducted a poll asking people if they thought the price of the ADSL service in South Africa was fair and ninety eight percent (**98%**) of the people said "No".

4.6.8 ICASA's Findings

The Authority finds on this issue as follows:-

4.6.8.1 Considering Telkom's ADSL subscriber base has increased substantially, it would be important that Telkom conducts a survey amongst these subscribers as well. The Authority further finds that it will be necessary for Telkom to conduct open ended surveys on a regular basis and that both the questionnaire and the result of the survey be posted on the Telkom website.

4.6.8.2 With regard to deteriorating quality of service: the Authority is of the view that a good service should be rendered consistently throughout the month for all subscribers. The Authority will undertake an independent study in the current financial year on the pricing of telecommunications services. This will address issues of service satisfaction in relation to pricing of services.

4.6.9 What do you think is an appropriate cap (if any) for the ADSL service? Should this cap be measured for only international traffic or local and international?

⁵⁴ page 16 of transcript Vol IV

The first question of the measure of the cap has already been canvassed in great detail above under 4.6.1. The second question still requiring consideration is whether the cap should count towards local or international usage. The majority of subscribers feel that local traffic should not count towards the cap which should apply to international traffic **only**⁵⁵.

Some of the presenters further argued that once an individual reaches the 3Gbyte cap then they should still be able to surf the local websites at the same broadband speeds. Currently they argue that once one reaches the 3Gbyte cap, they are unable to access local websites at broadband speed but only at narrowband speeds.

The Authority heard argument to the effect that this capping has had the effect of discouraging local web hosting. This then also affects innovation in web development among local website developers and in turn the production of local Internet content.

Some subscriber argued that when the 3Gbyte cap is reached, they should be allowed to top up and ~~or~~ purchase extra bandwidth at a rate charged per megabyte downloaded instead of having to purchase another user account⁵⁶.

Telkom responded by saying that the average usage is way below the 3Gbyte cap and therefore the 3Gbyte cap is **reasonable**⁵⁷. They also stated that the cap is there to protect international links which is an expensive cost component in providing the **service**⁵⁸ and that capping local bandwidth has always been a condition of the service. They do not

⁵⁵ Page 90&150 of Transcript Vol. I.

⁵⁶ Page 38 of Transcript Vol. IV.

⁵⁷ Page 93 of Transcript Vol. IV.

⁵⁸ Page 29 of Transcript Vol. I.

differentiate between local and international traffic because they do not have the sophisticated systems needed to do so⁵⁹.

4.6.10 ICASA's Findings

The Authority is of the opinion that the count of local use towards the cap should be removed. This is more so as the inclusion of the cap on local use has an indirect effect on the hosting and increased use of local websites. Further, this is underscored by the fact that Telkom did not object to removal of the cap for local bandwidth use and further indicated that its network can distinguish between local and international usage⁶⁰. This factor will **also** be included in the regulation making process.

On the aspect of top up, the Authority is of the view that top up should be permissible without the need to purchase a new user account. This has an impact on the consumer's right to efficient access to the service.

5. TECHNICAL ISSUES

The main technical issues or considerations that arise as a consequence of provision or subscription to the ADSL service are as follows:-

5.1 Should Telkom guarantee the throughput speeds of the service?

There are several different schools of thought on this issue. Some advocate a minimum speed of 56K be maintained as an absolute minimum level of service⁶¹, while others totally disagree and point out that 56K is not broadband and that the 512K speed should always be

⁵⁹ Page 31 of Transcript Vol. I.

⁶⁰ Page 105 of Transcript Vol. IV.

⁶¹ Pages 41 and 48 of Transcript Vol. III

maintained⁶². The Telecommunications Regulatory Authority of India (TRAI)⁶³ has set out in its definition of broadband, specific minimum download speed of 256 Kbps. The ITU standardization sector has on the issue of broadband speed recommended that transmission capacity that is faster than primary ISDN at 1.5 to 2.0 Mbps.

Telkom maintained that the very nature of ADSL is a "best effort" service and no throughput speed can be guaranteed. Telkom also stated that the only area of speed for which they are in control of is between the subscriber and the local exchange?

Telkom further indicated that the oversold network does not guarantee any committed throughput or bit rate to a customer, but available throughput would be there at any one time. The alternative is for Telkom to guarantee and dedicate bandwidth for any customer alone through the network for their specific purposes, but that is a considerably more costly.⁶⁵

5.2 ICASA's Findings

The Authority's findings on these issues is as follows:-

A broadband service needs to be distinguishable from a narrowband service. This is more so as the definition of ADSL as per the ITU is "..... high speed data communications". Further, this is defined as a broadband service. The Authority accepts and adopts the definition of broadband as provided and recommended by the ITU – T as being "transmission capacity that is faster than primary rate Integrated Services Digital Network (ISDN) at 1.5 or 2.0 Megabits per second (Mbps)"; the Indian Telecommunications Regulator - "An always-on data connection

⁶² Page 25 Of Transcript Vd. II

⁶³ <http://www.trai.gov.in>

⁶⁴ Page 133 of Transcript Vd. iv Telkom's final response.

⁶⁵ Page 14 of Transcript Vol. 1 Telkom's presentation.

that is able to support various interactive services, and has the capability of a minimum download speed of 256 Kbps”; and the UK Office of Communications (**OFCOM**)– “Broadband is used in this brief to refer to higher bandwidth, always-on services, offering data rates of 128 kbps and above, which some guarantees minimum speeds for their services”. Based on the above facts, it is clear that Telkom’s suggested minimum speed that can be guaranteed at no further costs are 156Kbps which may be argued not to be a broadband speed.

The Authority in its regulation making process shall make recommendations requiring Telkom to guarantee minimum broadband speeds in line with the ITU obligations for this service so as to ensure its broadband character.

5.3 How does port prioritization affect the quality of service that subscribers receive? Should Telkom give traffic priority to certain subscribers? When should subscribers be informed about port prioritization and how it would affect them?

Telkom stated that port prioritisation is only on the international connectivity on their 3Gbyte service and 2Gbyte service and not the 4Gbyte service and that port prioritisation was necessary to throttle peer to peer applications while giving priority to http traffic. Telkom further stated that http traffic was the intended use of the ADSL service.⁶⁶

Presenters differed on their views of port prioritisation: some not being too concerned with it while others would like it to be scrapped completely⁶⁷. Several presenters alluded to the fact that an ADSL service was a broadband service that can have several applications, and that there could

⁶⁶ Pages 33 and 34 of Transcript Vol. 1

⁶⁷ Pages 97, 5 and 10 and 66 of Transcripts Vol. I and Vol. II respectively.

be no “intended use” of an ADSL service, thus port prioritisation would violate this principle—.

There were suggestions that Telkom introduce offerings with different packages that are built towards different user’s requirements. This would enable them to define abuse of those packages?

5.4- **ICASA’s Findings**

The Authority is of the view that Telkom failed to provide any international precedent and a financial justification for port prioritisation. The Authority therefore finds that from a consumer protection point of view, if the product is the same, there should be no distinctions in respect of the cost and priority of customer’s service over others. The Authority recommends that Telkom charge only according to the speed of the service provided and that it is not in their discretion as to which websites the subscribers should visit and when.

This issue will be incorporated into the regulation.

5.5 **Should Telkom have a set contention ratio which is made public? (like 50:1 users on a 512 service)?**

The majority of the presenters indicated positive support for publishing the contention ratio.

Telkom confirmed that they could set specific contention ratios, but believed that they already have a variety of products in the 2Gbyte, 3Gbyte and 4Gbyte products, and could bring out more if there is

⁶⁸ Pages 133, 10; 142 and 20 of Transcript Vol. I

⁶⁹ Page 195 of Transcript Vol. IV.

consumer demand. Telkom also indicated that it certainly could be in a position if the market required that it differentiate its product offerings to provide more, but believe plans are going forward for more innovative ways of billing for volume or throughput. Telkom is planning to cater for those requirements and needs for **future**.⁷⁰

- Telkom stated that the contention ratio was confidential information and would not be made publicly available⁷¹.

MyADSL proposed contention ratio off 20:1 and 50:1 in line with international best practice.

5.6 ICASA's Findings

The Authority finds the following on this issue:-

Telkom can not justify its reasons for not making its contention ratios known to its subscriber save to say that that they are operating in a sensitive area of competition and deregulation. However, in the international arena, such contention ratios are publicly available. All ADSL lines – regardless of service provider - are subject to contention, meaning that the network bandwidth available is shared between a number of subscribers. The ratio to which the available bandwidth is shared between users is the "contention ratio". All UK providers, including British Telecoms (BT) and Swift Internet⁷², are subject to the set contention ratios is 20:1 and 50:1. Services targeted at casual home users are frequently cheaper, but have a higher contention ratio. This means that the available network capacity is shared between a greater number of users. Business services have a lower contention ratio, which will provide a more consistent level of

⁷⁰ Page 39 of Transcript Vol. I,

⁷¹ Page 50 of Transcript Vol. I

⁷² <http://www.swiftinter.net/adsl.php#products>

performance. A 50 to 1 contention ration means the bandwidth may be shared with up to 50 other subscribers, whereas a 20 to 1 contention ration means the bandwidth may be shared with no more than 20 other subscribers⁷³.

In the regulation making process to follow, the Authority will suggest the inclusion of set and known contention ratios for the provided service, this is so as to protect consumers.

6. **Additional Issues**

Additional issues raised by ADSL subscribers can be categorised as follows:-

6.1 **24 Hour ADSL service reset**

During the hearings it transpired that Telkom periodically resets the ADSL service at different times of the **night**⁷⁴. Some of the ADSL users indicated that this resulted in disconnections, particularly if a user was in the middle of downloading files from the Internet and **as** a result had to reconnect to restart the same **download**⁷⁵. It was indicated that this had an effect on the monthly cap. Further, the subscribers argued that there is no specific times when the disconnection can be predicted to occur, it occurs at any point in time within the twenty four (24) hour period.

Telkom indicated that there are technical reasons for the reset and at least once in twenty four (24) hours the network has to be reset so as a user is timed out. For instance, the amount of volume of throughput can

⁷³ <http://www.idnet.net/broadband/contentionratio.html>

⁷⁴ Page 39 of Transcript Vol. I

⁷⁵ Page 145 of Transcript Vol. III

be monitored and if the cap has to be applied, that is when it is applied, measurement cannot take place while the session is in place.”

This was argued against by internet Solutions who claim that it is not necessary to reset a session in order to measure caps.⁷⁷ Further support for this argument came from members of MyADSL to the effect that every 24 hours the IP addresses for ADSL are reset by Telkom no matter what you are doing. Any files one might have been downloading are suddenly cut off. At this point in time, as the IP is changed, one is now open to threats from the person that was on your new IP address.⁷⁸ MyADSL also accepted that the reset is not a problem; the only issue is to know predictably as to what times the reset will occur so that they can plan accordingly.

6.2 Dynamic and Fixed IP Addresses

It was argued that Telkom would have ADSL users believe that they assign Dynamic IP addresses for their own good so as to avoid hackers.

The argument by MyADSL members was to the effect that Telkom is merely protecting their lucrative Diginet business, which is based on fixed IP addressing. This means that once ADSL users are allocated fixed IP addresses, it would mean that the Diginet take up would stop as fixed IP addressing is used for ISPs to host websites which is currently not viable on ADSL.⁷⁹

It was further suggested that Telkom could also introduce additional services such as fixed IP addresses for ADSL users, allowing them to host their own websites. The reasons cited here was the fact that most entities

⁷⁶ Page 39 of Transcript Vol. I.

⁷⁷ Page 54 of Transcript Vol. I

⁷⁸ Page 145 of Transcript Vol. III.

⁷⁹ Page 145 of Transcript Vol. III.

host their websites internationally as it is too costly to do it locally as fixed IP addressing is not available on ADSL services provided by Telkom⁸⁰.

6.3 ICASAs Findings

The Authority is of the view that Telkom failed to justify the periodic resetting of the service on a twenty four (24) hour basis. Telkom only indicated that the reset was for the calculation of the 3Gbyte cap and for technical purposes which were never clarified to the Authority.

This however was argued against by other presenters that the cap calculation can be done without the reset⁸¹.

It was also argued that the reset of the service by Telkom was aimed at ensuring that subscribers would always have a dynamic IP address rather than a fixed one. It was highlighted and argued that allocation of fixed IP addresses would negatively impact upon the uptake of the Diginet service offered by Telkom.

However, it is the Authority's view, that this will not be the case as ADSL by its nature is a shared service with set contention ratios. The Authority shall thus, in the regulation making process suggest the exclusion of the daily service reset and the dynamic IP address.

7. LEGAL ISSUES.

7.1 SERVICE LEVEL AGREEMENT(S) (SLA)

During the hearings, Telkom stated that they enter into service level agreements with their ADSL subscribers. However, there was little or no detail as to what these agreements entail. The Authority was advised by

⁸⁰ Page 115 of Transcript Vol. III Mr. Ness's presentation.

⁸¹ internetSolution's written presentation.

Telkom that its SLA is available on their website and it is a public document.

The Authority found that seventy-seven percent (77%) of subscribers are in favour of the SLA's which should encapsulate the following:

- throughput speed
- down time and up time
- ⌘ bandwidth
- service availability
- ⌘ maintenance compensation

A search was conducted on Telkom's website and two documents were found: There is an order form for telephone service(s) attached with abridged conditions of contract. The abridged contract deals, in general terms, with issues of liability and non-liability of Telkom, billing, intellectual property rights of Telkom, rights of Telkom to suspend and or terminate services and so forth. The abridged contract is not ADSL specific and evidences little or no relevance to ADSL subscribers.

An "Acceptable Use Policy (AUP) for ADSL Access Service" was found on the Telkom website. It is interesting to note that this document is dated 14 April 2005, a day after the hearings on ADSL commenced. It contains a definition clause and an introduction that reads ***"The purpose of this AUP is to ensure equity of access to all users of the ADSL access service. The Telkom ADSL access service can provide equity of access to all customers by ensuring the best possible speeds and performance for the majority of its customers. After a diligent search, the Authority could not find any document on ADSL that substantially resembles a service level agreement. Other parties that made representations were of the view that***

SLA's will benefit subscribers to the ADSL service⁸², though Internet Solutions was less optimistic about the prospects of such service level agreements. It was argued by Internet Solutions that SLA's service level agreement may be introduced when there is competition in the telecommunication market.⁸³

7.2 ICASA's Findings

The Authority disagrees that SLA's may not be introduced when there is no competition in the market. It is our opinion that it is in fact opportune to introduce service level agreements while Telkom is enjoying a de facto monopoly in order to protect the interests of users, subscribers and consumers. The lack of competition and liberalization in the market warrants that the incumbent be put to terms as to what service they can provide to consumers, and should they fail to meet their terms, consumers should be in a position to enforce their contractual rights.

The Authority finds that given the overwhelming view that SLA's will benefit consumers and the fact that Telkom is not against such a development, Telkom and its potential subscribers should enter into a SLA with terms and conditions that deal with the most contentious issues that may adversely affect the relationship of the parties. Such issues may include, but are not limited to, throughput speeds, service reset, contention ratios, port prioritization, speed, on-line gaming, improper or excessive usage, complaint procedures, dispute resolution mechanisms and referral of disputes to the Authority.

The Authority shall endeavour to incorporate the suggested provisions of the content in the proposed regulations.

⁸² Pages 129-130 of Transcript Vd. III

⁸³ Page 9 written submission, Internet-Solutions and Page 105 of Transcript Vol. III.

8. CONCLUSION AND RECOMMENDATIONS.

Divergent and dominantly assenting views were put forth in this enquiry about issues pertaining to the provision of the ADSL service by Telkom. Some of the pertinent issues deliberated upon and which formed the basis of the enquiry, were amongst others; (i) whether there should be a duplication of payment for line rental, i.e. ADSL line rental or residential line rental; (ii) how can the Authority ensure that the cost of the service is not excessive; (iii) whether customers should be restricted to only two suppliers of modem?; (iv) whether Telkom informed their customers that they intended introducing a cap of 3GByte on the service and if so when?

To this end, it was evident from arguments and proposals advanced by most presenters that, the practice adopted by Telkom to levy access charges and service charges, is financially burdensome to the consumers and not in line with the practice in other international jurisdictions where, there is a single fee for both access and Internet portions. An ancillary issue, linked to this which was advanced, was that of the international bandwidth or access to the SAT3 cable, which was said to be excessively expensive in South Africa even though Telkom was a major shareholder. This was an issue which Telkom refused to be drawn into, citing its irrelevance in the ADSL enquiry.

It should be noted that the Authority has the responsibility in terms of section 2 of the Telecommunications Act 103 of 1996, to promote the universal and affordable provision of the telecommunications services. It is in this context that the Authority concludes that, the charge for access shall only be levied once off at the inception of the service and thereafter be restricted to line rental.

Another issue that the majority of the presenters were unanimous about was that, costs for ADSL services offered by Telkom in South Africa were exorbitant when compared to other international jurisdictions. It should be noted that the proactive step taken by the Authority to orchestrate a Price Cap Review, which will have the effect of incorporating Home ADSL into the regulated residential sub-basket, will have a positive impact on the cost of ADSL service, as it will be subject to regulatory control.

On the other hand, it should be noted that during the enquiry, Telkom emphasised that in the near future it would be implementing the reduction of ADSL service costs. Subsequent to the finalisation of the ADSL enquiry, Telkom announced that the ADSL service cost reduction will be effective from 1 August 2005. It is further imperative to note with regard to the SAT 3 cable, the Authority is currently dealing with issues of the Undersea Cables and looking, the outcome of which is expected before the end of this financial year.

On the issue of modems, the Authority concluded that Customer Premises Equipment for ADSL supply is a deregulated market and that it is the Authority's responsibility to communicate type approved modems and not Telkom's responsibility.

The issue of the imposition of the 3G Byte Cap was highly contentious with most of the presenters expressing outrage on the said cap, indicating that it is too low; affecting the download speed and not in accordance with the practices in most international jurisdictions, whilst Telkom defended its position.

In an effort to carry out its mandate to protect consumers, the Authority has concluded that, it is imperative to increase the ~~cap~~ in line with

international trends and a regulation will be promulgated to give effect to this objective.

In considering whether Telkom should guarantee throughput speeds to ADSL subscribers, the Authority accepts and adopts the definition of broadband as provided and recommended by the ITU as follows: "transmission capacity that is faster than primary rate Integrated Service Digital Network (ISDN) at 1.5 to 2.0 Megabits per second (Mbits)". The Authority shall, in its regulation, make recommendations that will require Telkom to provide minimum speeds for the services so as to ensure that its broadband character is at all times maintained and sustained.

On the subject of port prioritisation, Telkom contends that port prioritisation is necessary to throttle peer to peer applications while giving priority to http traffic, since the traffic of the latter was the intended use of the ADSL service. There was a luke warm reaction from the presenters as some expressed the view that port prioritisation should be scrapped whilst others were not concerned. A number of presenters were of the view that if the intended use of the ADSL service was for the http traffic, then that negate and defeat the principle that a broadband service can have several applications. The Authority recommends that there should be no discrimination between users of ADSL services in so far as costs and priority are concerned.

Telkom made it clear that contention ratio is confidential information and cannot make it publicly available. The reasons supplied by Telkom for its refusal to make contention ratios publicly available do not hold. International practice is that contention ratios are made available to the public for scrutiny. The Authority shall, in the regulation making process, suggest the inclusion of known contention ratios for services provided in order to protect consumers.

With regard to the resetting of the ADSL service, Telkom appears unable to provide a cogent reason why it resets services on a 24 hour basis. The main reason furnished by Telkom is that reset is for the calculation of the 3Gbyte cap and for technical purposes which were not clarified to the Authority. A number of presenters argued that it is not necessary to reset in order to measure caps. Put differently, cap calculation can be done without the reset. The Authority shall, during the regulation making process, suggest the exclusion of the daily service reset.

On the subject of a Service Level Agreement the Authority recommends that Telkom and its ADSL subscribers should enter into such Agreements with terms and conditions that deal with most contentious issues that may adversely affect the relationship of the parties. Such issues may include, but are not limited to, throughput speeds, service reset, contention ratios, port prioritisation, **speed**, on-line gaming, improper **or** excessive usage, complaint procedures, dispute resolution mechanisms and referral of disputes to the Authority.

The Authority therefore undertakes to embark on a regulation making process within four weeks of publication of this findings document in order to ensure provision of a consumer relevant, cost effective and affordable ADSL service.