

PUBLIC UTILITIES COMMISSION

Order No. 1/2005

In the matter of an application by Guyana Telephone and Telegraph Company Limited for rates for Multi Media Service (MMS) provision.

CORAM

Mr. Justice Prem Persaud, C.C.H. - Chairman
Mr. John Caesar - Commissioner
Mr. Maurice Solomon - Commissioner
with Ms. J. Ganpatsingh Secretary (ag.)/Financial Analyst.

Appearances:

Guyana Telephone & Telegraph Company Ltd.

- Mr. M.G. Fitzpatrick, S.C. - Attorney-at-Law
- Mr. G. Statia - Consultant
- Mr. G. Evelyn - Director of Rates

Consumers:

Ms. E. Cox - President,
Guyana Consumers Association.

Mr. P. Dial - Vice-President
Guyana Consumers Association

Observers:

Mr. Nigel Hughes

Mr. Pierre Strasser

DECISION

It is not unknown that there are great strides and improvement in technology in the telecommunication sector and it appears that the TDMA technology will be replaced by what are now referred to as third - and fourth - generation networks. As a consequence the TDMA technology will be "manufacture discontinued" and the support will be discontinued.

One of the improved technology is the Global System for Mobile communication network (GSM). GT&T has in September 2004 introduced this technology but at no additional cost to the consumers. It has since been overlaying the system with a General Packet Radio System (GPRS) which will permit the implementation of various value-added services.

The technology allows for the provision of non-voice value-added services which involves the sending and receiving of data over a radio wave on the GSM mobile telephone network; and it relies on packet switching as opposed to circuit switching. It is expected to send data faster and more efficiently than on the TDMA network.

In anticipating that some services on the GPRS network will soon be available GT&T has applied to the Commission, under the provisions of Section 41 of the Public Utilities Commission Act No. 10 of 1999 for rates it proposes to charge. The service that it is presently filing for relates to the provision of **Multimedia Messaging Services (MMS)**.

GPRS networks facilitate instant connections so that information can be sent or received immediately as the need arises. No dial-up modem connection is necessary.

Because of the limitation on speed on the GSM circuit switched network, the GPRS network can facilitate the offering of several new services which cannot be offered via GSM. The GPRS overlay has necessitated modification to some of the GSM network elements.

GT&T explains that the GPRS network has been dimensioned to carry initially 10,000 subscribers and to support a maximum throughput of 5 mbps. But the network is scaleable and its throughput can be upgraded to 10 mbps with the system capacity upgraded to 20,000 customers. The achievable data transfer speed is theoretical and the speed actually achievable will depend on:-

1. **The Time of Day** – transfers are slower during peak hours in busy cell networks because voice connections take precedence.
2. The number of time slots the operator allow to be used by a single user.

This application deals with the provision of MMS only. This service allows for personalized multi-media content such as still and moving images, audio, text, video and combinations of these. The customer can create the message using a built-in or accessory camera, images and sounds already stored in the phone, or by down loading content from a web-site.

MMS is not designed to be real-time. It is actually a store-and-forward messaging service. At times it would appear near instantaneous, at other times messages could be delayed, depending on the server load, network availability and location of sender and recipient.

Consumers will need a mobile phone or terminal that supports GPRS; subscription to the service, knowledge of how to send and or receive GPRS information

using their specific model or mobile phone; and a destination, as for example, another mobile phone or an Internet address to send or receive information.

With such a handset the customer will be able to take a digital photograph to use in a message; download audio, graphic and other content from the Internet; record his own voice or download audio to add to a message and add text to a message. The activation process by GT&T will cost the consumer nothing.

On an MMS compatible phone the message will appear with a new message alert; the picture message will open on the screen, the text will appear below the image and the sound will begin to play automatically.

A consumer who does not have an MMS supported handset or GPRS service, but who is sent a multimedia message will however receive a standard short message over the Short Messaging Service (SMS) network from GT&T advising that the multimedia message may be viewed at the web address included with the text message. There will be no charge to the consumer to access the web address to view the message.

When a consumer talks on a GSM mobile phone the circuit switched network reserves a continuous connection to a channel so that no one else can use that channel. With respect to GPRS, however, it is only when a GPRS session is established that packets are sent through the network. In other words, the data channel is only used when information or content is sent. In effect, GPRS packet switched network only utilises the network resources as necessary. As such service or the GPRS is billed on the basis of data transferred rather than time spent on line.

An average picture message, without audio or video is expected to approximate 45 kilobytes and GT&T has applied for rates per message; and not on the basis on time spent on line. It is seeking an order for picture or any other message less than 75 kb at \$45.00 per message, and messages that combine video, audio, text, etc. which exceed 75 kb at G\$100.00. These rates, it says, will apply to either post-paid or pre-paid. The

network will not deliver messages larger than the specified maximum size of 300 kilobytes: and if a single message is sent to multiple recipients the consumer will be billed based on the number of recipients. While GT&T will try to ensure that non-compatible devices are alerted to the fact that a message has been sent and where to access same, the sending customer will be billed regardless of actual delivery or device compatibility.

If the intended recipient's phone is off, the Multimedia Message will be stored and sent to the recipient as soon as the phone is switched on. For those customers whose messages cannot be sent immediately because the handset is either switched off or not in receipt of signal, the message will be stored for a maximum of 48 hours; and messages to be delivered to customers with non complaint devices will be stored for a maximum of 72 hours.

In its application GT&T has filed information relating to the assets which are required to provide the service. They also submitted assumptions and expenses in relation thereto. We have studied and analysed the submission and we make our comments and finding thereon.

GT&T has estimated their expenses from the MMS service based on a percentage of the projected revenues. We have compared the projected expenses as percentage of 2003 actual cost, and based on these, adjustments were made to Year 1's expenses. Year 2's expenses were adjusted to allow for a 25% increase on adjusted Year 1's expenses.

We have disallowed the advisory fees as we find no evidence of any advice or assistance offered to GT&T.

We calculated the depreciation based on the adjustments made to the rate base.

Schedule C of the filing has an item, "Billing System" valued at US\$2,600,000.00: GT&T assigns 20% of this cost to the MMS service. It was

ascertained from GT&T that this is a new billing system, capable of billing for data service, and as such it is needed for the GPRS services.

It is GT&T's intention to first change over all mobile billing to the new system and then the landline services. It was confirmed that the new billing system is capable to handling over 300,000 consumers. When we use the projected subscribers to the MMS service of 18,000 it is coming out at 6% of the capacity of the new billing system. We therefore allow 6% of the billing system cost for the MMS service. In its filing GT&T explains that the GPRS network will facilitate the offering of several new services which cannot be offered via GSM only. It seems reasonable to conclude if they seek to offer three or four other services claiming a 20% to the billing cost they will have to instal a new billing system to cater for all the services they provide!!

The difference of the adjusted expenses from those projected by GT&T were 28.58% in Year 1 and 44.59% in Year 2. Accordingly, we reduced the rates filed for by (30%) thirty percent.

From the adjustments made to the expenses, rate base and the filed rates, the rates of return is calculated to be 5.43% in Year 1, and 14.25% in Year 2. This, of course, compares most favourably with GT&T's filed rate of return of 5.99% in Year 1 and 14.40% in Year 2.

Included herein are the GT&T's MMS filing with our adjustments.

ORDER

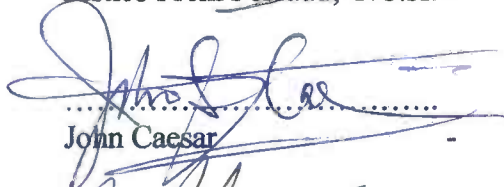
Based on the foregoing and considering it to be fair, reasonable and just in all the circumstances, the Commission hereby orders a rate of thirty dollars (\$30.00) per message under 75 KB; and seventy dollars (\$70.00) per message over 75KB.

This order shall take immediate effect.

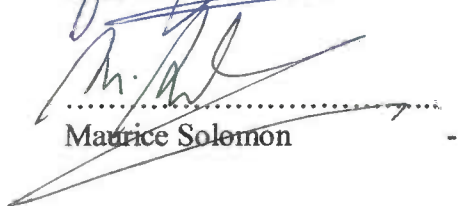
This 4th day of January, 2005.


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Justice Prem Persaud, C.C.H. -

Chairman


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John Caesar -

Commissioner


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Maurice Solomon -

Commissioner



GT&T MMS FILING

Expenses	As % of Revenue	Year 1	Year 2	Yr 2003	Yr 1 as %	Yr 2 as %
		G\$	G\$	Audited Report G\$	of Yr 2003	of Yr 2003
Selling & Administrative	10	10,160,640	20,321,280	900,592,000	1.13%	2.26%
Corporate Operations	5	5,080,320	10,160,640	982,417,000	0.52%	1.03%
Depreciation	10	29,904,374	37,163,937	2,727,506,000	1.10%	1.36%
Advisory Fees (6%)	6	6,096,384	12,192,768	851,747,000	0.72%	1.43%
Operational Expenses	12.5	12,700,800	25,401,600	983,474,000	1.29%	2.58%
Other Expenses	5	5,080,320	10,160,640	620,129,000	0.82%	1.64%
Total Expenses		69,022,838	115,400,865			

PUC ADJUSTMENTS

	% of 2003 Actual	Year 1 G\$	Year 2 G\$
	Selling & Administrative	1.00%	9,005,920
Corporate Operations	0.50%	4,912,085	6,140,106
Depreciation		22,442,355	30,448,119
Advisory Fees (6%)		0	0
Operational Expenses	1.00%	9,834,740	12,293,425
Other Expenses	0.50%	3,100,645	3,875,806
Total		49,295,745	64,014,857
% difference from filing		28.58%	44.53%



Therefore propose to reduce filed for rates by 30%

Proposed rates		
Under 75K	31.5	32
over 75K	70	70

Using GT&T's assumption for message usage
 Under 75K : Over 75K
 10:05
 2:01

Average cost of message = 45

Adjusted rate of return calculation

	Year 1 G\$	Year 2 G\$
SALES REVENUES		
Average Subscribers	9000	18000
Estimated Monthly messages	180	180
Estimated Yearly messages	1,620,000	3,240,000
Annual Revenues	72,900,000	145,800,000
Less: Bad Debts	1,458,000	2,916,000
Net Sales Revenue	71,442,000	142,884,000
Less Expenses	49,295,745	64,014,857
Surplus	22,146,255	78,869,144
Taxes @45%	9,965,815	35,491,115
Profit after Taxes	12,180,440	43,378,029
Rate of Return	5.43%	14.25%



Adjustment to Rate Base

Investment (schedule C) US\$	1,458,749	500,000
Total investment US\$	1,458,749	1,958,749
Adjustment		
Billing system (6% of cost allowed instead of 20%)	364,000	364,000
Allowed investment	1,094,749	1,594,749
Depreciation adjustment	0	109,475
Allowable Rate Base exchange rate	1,094,749 205	1,485,274 205
Guyana Dollar Equivalent.	224,423,545	304,481,170

