

Étér ©É! pÉî L à}Šîbç YPXbç
É2002 ÉL -L V! ' à Un -L r ÉtµG· Eør t\» ¼ ¼Wr
É†ÔÑÐN · NµM VPYr

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t«é^ t|m
C«Y 2002

M' àÁ

µÎ

1. L · Ié 	1
2. É· NµM' à tFM.....	1
3. · NµM' à Ép<Bf I r ^Gr	1
4. É· NµM L ^ÖYsv.....	2
5. ÉpÉi L à}Šibç tµG· Eør ¼Wr L EŠé · v ^ ~ IUn I r -L pý Ép ^a T\I r É¼Wr L ° ç.....	2
6. É· NµM' à ' à° îr	8
6.1 ÉpÉi L à}Šibç tµG· Eør አሰጣ ¼ ¼Wr	8
6.2 የቴሌኮም ኔትወርክ ብቃት	9
6.2.1 L ^a I f É^GE L ^L Y }r • YÉ ngr /PSTN Performance	9
6.2.2 ÉtélpY}r }r • YÉ ngr	9
6.2.3 ÉOm`G }r • YÉ ngr	10
7. M° gE 	11

1. L · I é |

Étér ©É | pÉi L à}Šibç tí-ç\é ÉpÉi L à}Šibç tµG· Eor ÉM¼Wr ç
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2. É· NµM' à tFM

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3. NµM' à Ép<Bf I r ^Gr

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Table 1: **PSTN Services & Network Performance 1st quarter report measured values**

No.	QoS Parameters	Targets/Standards Set by ETA	1 st month measured value	2 nd month measured value	3 rd month measured value	Quarter measured values by ETC	Remarks
1	Call Setup Success Rate	>90%				88.3%	
2	Call Setup Time	<25 second for 95% of established national call				91.0%	
		<35 second for 95% of established international calls				55.5%	
3	Conversational Voice quality	≥ 3.0 on MOS or PESQ scale				NA	
4	Fulfillment of service provision (Installation Orders)						
4.1	Within 48 hours	80%				71.68%	
4.2	Within 96 hours	90%				93.36%	
4.3	Within 7 days	100%				98.65%	
5	Service Restoration Performance						
5.1	Within 48 hours	60%				60.18%	
5.2	Within 96 hours	90%				78.1%	
5.3	Within 7 days	100%				89.59%	
6	Call Center (Operator speed of answer) Performance						
6.1	Calls answered within 40 seconds	90%				98.13%	
6.2	Call answered within 60 seconds	100%				100%	
7	Fault Incidence	500 reports per 1000 lines				NA	Per 12 months

No.	QoS Parameters	Targets/Standards Set by ETA	1 st month measured value	2 nd month measured value	3 rd month measured value	Quarter measured values by ETC	Remarks
8	<i>Public Payphone Service Availability</i>	90%				NA	
	PSTN, Mobile, Dial up and Broadband Internet Access Services						
9	General Customer Complaints	100 complaints per 1000 Subscribers				0.005	

Table 2: Data-com (Internet) Services & Network Performance 1st quarter report measured values

No	QoS Parameters	Unit	Targeted value set by ETA	1 st month measured value	2 nd month measured value	3 rd month measured value	Quarter measured values by ETC	Remarks
1	Dialup Internet Access Service							
1.1	Number of Login Attempts before successful connection	Max of 3 with in 1 minute interval					98%	
1.2	Login Success	95% within 40 seconds					97%	
1.3	Fulfillment of service provision (Installation Orders)	Fulfilled within 24 hours	80%				NA	Not included within the report
		Fulfilled within 48 hours	100%				NA	“
1.4	Service Restoration Performance	Within 48 hours	60%				NA	“
		Within 96 hours	90%				NA	“
		Within 7 days	100%					“

No	QoS Parameters	Unit	Targeted value set by ETA	1 st month measured value	2 nd month measured value	3 rd month measured value	Quarter measured values by ETC	Remarks
2	Broadband Internet Access							
2.1	Network Latency	≤ 200 ms for local link					NA	“
		≤ 300 ms for international link					NA	“
2.2	Throughput	≥ 75% of subscribed level for 95% of the time during busy hours					NA	“No means to measure this value”
2.3	Packet Loss	≤ 1%					NA	“No means to measure this value”
2.4	Network Availability	≥ 99%					95.44%	
2.5	Fulfillment of service provision(Installation Orders)	Within 72 hours	80%				64%	
		Within 120 hours	90%				67.24%	
		Within 7 days	100%				77.21%	
2.6	Service Restoration Performance	Within 48 hours	80%				78.5%	
		Within 72 hours	100%				100%	

Table 3: **GSM Cellular Mobile Network Performance 1st quarter report measured values**

No.	QoS Parameters	Targets/Standards	1 st month measured value	2 nd month measured value	3 rd month measured value	Quarter measured values	Remarks
1	Call Setup Success Rate	> 98%				95.44%	
2	Call Setup Time	<25 second for 95% of established national calls				NA	The measured value is not provided with the report
		<35 second for 95% of established international calls				NA	“
3	Dropped Call Rate	<2%				0.92%	
4	Handover Success Rate	>95%				92.14%	
5	Blocked Call Rate	<2%				NA	
6	SDCCH Blocking Rate	< 0.5%				2.68%	
7	TCH Blocking Rate	< 5%				3.23%	
8	Conversational Voice Quality	≥ 3.0 on MOS or PESQ scale				NA	

Table 4: **PSTN, Mobile and Internet Services Billing Performance 1ST Quarter report measured values**

No	Performance parameters (For PSTN, Mobile & Internet) Measurement Areas	Percentage of billing complaints in any one billing period ≤ 2%	Complaints resolved within days		Time taken to refund deposits after closure		Remarks
			15	30	By Zonal and Regional Offices (≤ 10 days)	By Head Office (≤ 15 days)	
1	Addis Ababa						
1.1	Central A.A zone	0.28%					
1.2	Northern A.A. zone	0.115%					
1.3	Southern A.A. zone	0.009%					
1.4	South Western A.A. zone	0.241%					
1.5	Eastern A.A. zone	0.021%					
1.6	eastern A.A. zone	0.038%					
2	Regional						
2.1	Northern Region	0.36%					
2.2	North-Eastern Region	0.009%					
2.3	Semera Region	0%					
2.4	North Western Region	0.047%					
2.5	Western Region	0.571%					
2.6	Asosa Region	0.13%					
2.7	Eastern Region	0.318%					
2.8	Jijiga Region	0					
2.9	Southern Region	0					
2.10	South south west Region	0					
2.11	South western Region	0.705%					
2.12	Gambela Region	0					
2.13	South Eastren Region	0.003%					

D N I pE'' f nZ-mz- t e z p Y } r } r • Y E ¼ W r z E L E < r f p d L ° á L E Š i } • v (Parameters) E N J E i ^ z ^ a “Network Latency”, “Throughput” ^ ~ “Packet loss” f L J \ E á r G Š i q t ' á I V P Y p j ' á ^ ¼ t G p < p p N ^ z ^ a N E z | r f p d \ ° ' á ^ } „ C z E L E < r f M e ^ v G š - f E N f M i G } ' á : } μ Y • z ^ z ^ a M i q ' d ' á “Ping ^ ~ traceroute “ f L J \ E á r ^ > v z ' " N E Š é C t μ G • E o r f p š ¶ ° _ Û r " z v z I L ° d N L E < r f M i u G I L D } á I M i d ¼ E ' á μ e š i f p ¶ F L T ± f i š V P Y r E M i T n I e O Š Y ¼ U } ' á :

6.2.3 f O m " G } r • Y E n g r

f O m " G } r • Y E n g r z I p L E Š p Š Y P X b } á I Š á G f d T I ' á V P Y r f i > t ' á z L T ± • v I t i ^ z \ e ' á Š p š ¶ ^ - á f ¼ W r ° T ± ¶ Y I M } Ñ D Y ^ z ^ a M e Š p E ' á " d Y m G ::

- E“Call setup success rate” I t i ^ z \ e ' á f p d L ° ' á f ¼ W r ° T ± Š 98% I F " \ e D z I V P Y p j F " f d T I ' á 95.44% } ' á I Š é C L \ T r ' ° 2.56% | C G Š ¼ W r ° T ± I q v L D } á z L μ z š n " u F G ::
- E“call setup time” I V P Y p j ' á ^ ¼ f d T I L T ± ' " N G Š i r ^ E E i E f ¼ W r ° T ± ' á z I L μ N μ N f t E N t d Û ^ ~ f A μ Y ' á ^ ¼ ¼ V • v ^ z r Ū Y \ z r I N z | C G μ e š i " ^ p ~ μ < G f M E ' á z L • E 0 t ^ t ¶ V " D - G ::
- E“Drop call rate” f p d L ° ' á f ¼ W r ° T ± Š 2% I q v \ e D z I V P Y p j N f d T I ' á 0.92% } ' á I Š é C L \ T r f p μ , ' á ' á ° i r Š ¼ W r ° T ± t z Ñ Y \ e q " t I T q v } ' á :
- E“Handover success rate” f p d L ° ' á f ¼ W r ° T ± Š 95% I F " \ e D z I V P Y p j f d T I ' á • z 92.14% } ' á ^ E Š é C Š p d L ° ' á f ¼ W r ° T ± ¶ Y \ e } Ñ D Y I 2.86% | C G œ i n E 0 " μ f G ::
- E“Blocked call rate” f p d L ° ' á f ¼ W r ° T ± 2% I e D z N I V P Y p j ' á ^ ¼ f d T I L T ± ' " N G Š i r ^ E E i E f ¼ W r ° T ± ' á z L μ N μ N t G p u E N ::
- E“SDCCH Blocking rate” f p d L ° ' á f ¼ W r ° T ± Š 0.5% | } \ \ e D z I V P Y p j f d T I ' á • z 2.68% } ' á ^ E Š é C Š p d L ° ' á f ¼ W r ° T ± ¶ Y \ e } Ñ D Y I 2.18% | C G œ i n E 0 " μ f G ::

- "TCH Blocking Rate" $\leq 5\%$ Iqv \éDž IVPYp)N EdTI' á 3.23% }' á IšéC L \Tr Epμ, ' á ' á° ír Š¼Wr aT± tžŇY \éq'' ÉpaE }' á:
- "Conversational Voice Quality" ≤ 3.0 Ššé| IF'' IéDžN IVPYpý ' á¼ EdTI L T± ' '' N GŠír ^EEîE IOm'' G až|...v L <ŠG ÉpaTμ' ž É-Nò ¼Wr aT±ž L μNμN tGpuEN::

7. M° gE|

I 2002 IL -L V|' á Un -L r IdTI' á VPYr L \Tr IL a|f É^GE L ^LY ÉtμG· Eør t\»¼ ¼Wr ^~ É}r· YÉ ngr aT± ŠEiEotý ÉtμG· Eør šYÚv tžŇY \éq'' ÉpaE IéDžN tž«ž- ÉtμG· Eør ¼Wr L L šf· v GŠír ŠaT± Iqv \éDž GŠíqt' á IVPYpý |Gp<ppj L L šf· v tEá'

EOm'' G ^~ ÉtžpY}r ÉtμG· Eør t\»¼ ¼Wr ^~ É}r· YÉ ngr I tí-ž\é' á ŠpdL ° ' á ÉtμG· Eør ¼Wr aT± tžŇY \éμL μL á tž«ž- œi pf tŌŇDN |Ft' á L L šf· v Ié UN tž«ž- ÉtŌŇDN L L šf· v a· O L áEá IL áEá |GpEŠá IL D~t' á ÉtμG· Eør ¼Wr aT±t' á IšéC L ° ž t-žG ' '' N dž]óG EMER tGpuEN'

^EšéC I t° gF'' IL a|f É^GE L ^LY & IOm'' G ^~ I tžpY}r ÉtμG· Eør t\»¼ ¼Wr ^~ É}r· YÉ ngr F'' Éqα ° ž<W ^~ a<M μø vž IL EÉr ^ž«éAáN É¼Wr L ža G |Ň° Mt' ž ÉtμG· Eør šYÚv IMaaG ^~ ¼Wr |E' á tμG· Eør IL ^° r Éaž|...ž ^Y<q L ° ž M]a· i -Mē| Eé\° ' á '' μmG'