

Etér ©É! pEî L à}Šîb; tî-è\é

I tér ©É! pEî L à}Šîb; YPXb;

£2002 £h&pf' à Un -L r £tµG· Eør t\» ¼ ¼Wr

tÔÑDN F'' £p^aTµ £· NµM VPYr

I Ôg-- tég^ŪŒb; «'' XŒsXr
£tég^ŪŒb; £RW B^ar

t«é^ tIm

γυó 2002γ.ρ^o

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1. L · l é |

Étér ©É | pÉi L à}Šibz tî-çlè ÉpÉi L à}Šibz tµG· Eor ÉMè¼l r ç ÉpÉ}É É T±~ ^YÃ r ÉL ' \ç~ tµG· Eopý Ép' \}Er ç É¼Wr É T± ° nj L \° pÿ ÉL j »° Y ^G»ç~ p· mY l t" 3 Ép\° ' à l L D}à ÉpÉi L à}Šibz tµG· Eor \À ' à MErN Étér ©É | pÉi L à}Šibz YPXBz ÉtµG· Eor ¼Wr tL F<wvç tÔÑÐN É | Š VPYr l p' \} ' à Émésî µª n ' à ¼ Etî-çlè ' à ÉMè | dYn \èDç t-çlè ' à l l ŠàEà ÉdTI ' à VPYr l L µNµN ÉpÉi L à}Šibz tµG· Eor É¼Wr É T± tÔÑÐN ÉMè |]'' VPYr ÉMè | ' » L D}à ÉMèq' i }' à:

l ŠèAà L \Tr 02002 h YPXB}à **የተላከውን** **ደረጃ** pf' à Un -L r ÉtÔÑÐN **ሪፖርት** l L µNµN ^ ~ ' à° îpÿN EmE-Ya t<Fr l M] ' i ^ç«éAàN L EŠè | L ^ÔYstÿ | FግግግÉärç l L EÉr ÉÙpsut' à ÉMèL EŠp' à t<Fr VPYr M-T· ^ ~ l d»'' pµl é ^YN± ^çª p' \ª mt' à l MTግµ¼ EŠYÖ ° î-M ^-µr ÉW\àç t^p" 0% |ª YግG::

2. É · NµM' à tFM

Š YPXB}à l ÉUn tL pý ^Épšግ- ÉMፍŠ' à VPYr l tî-çlè ' à ^ÉpµL µL ' à° îpý pL G_ E YPXB}à ÉMፍÉl r AàEr -l'' r tFM· v tÉär ^}àN:-

- ÉtµG· Eopý p° gMè· v É T±' àç É° l d tµG· Eor M· , qt' à MTግµ¼ ^ ~ Éª ç l ግv ^Y<q ^ç«é¾NY M-T· }' à:
- ÉtµG· Eor ¼Wr L 3ª G | ግ° Mt' àç ÉtµG· Eor šYÚv E'' s l M' à»r tµG· Eor \À ' à ÉMaa | ^YN± ^ç«é' ^- M^uG'

3. NµM' à Ép<Bፍ l r ^Gr

· NµM' à Épª Tµ' à Étér ©É | pÉi L à}Šibz YPXBz 02002 **ደረጃ** pf' à ሩብ አመት 0ፍŠ' à ÉtµG· Eor ¼Wr tL F<wvç tÔÑÐN É | Š VPYr F'' የሚገኙትን መረጃ· v ለpÉi L à}Šibz tµG· Eor ጥራት እና }r' YÉ ብቃት ማነጻጻሪያ ተለይተው ማተካሪያ መስፈርቶቻቸው ግሃ l M}ÑÐY }' à'

4.ፎ. NμM L ^ÔYsv

I YPXb}â ^εpš¶ I fUn -L pj εMfŠ' â VPYr εMμL μL ' â IMšpEär
 AâEr L L šf• v L \Tr }' â:

^} \âN:-

- tî- ç\é' â E YPXb}â በሰጠው የፈቃድ Aâ}q • v
- ኤጅንሴው ባሕር- ' â የአገልግሎት አሰጣጥ እና የቴሌኮም ኔትወርክ ብቃት መለኪያ • v ^ ~ aT± • v

5.ፎፕ፣ L â}šibç tμG· Eør ¼Wr L Ešé| • v ^ ~ IUn I -r -L pj
ፎፕ፣ T\I r ε¼Wr L ° ç

ፎፕ፣ Eør t\» ¼ ¼Wr ^ ~ ፎ}r • YE ngr · NμM EM-T· εMê| μE· Eâ
 L Ešé| • v εMšpEär -t' â:-

A/ ፎፕ፣ L â}šibç tμG· Eør አሰጣ¼ ¼Wr:-

- L aI f ε^GE L ^L Y ማስገባት እና ¼μ~ አገልግሎት
- ፎፕ፣ pY}r L ^L Y ማስገባት እና ¼μ~ አገልግሎት
- εHéQn (EÛ| tμG· Eør ngr
- ፎፕ፣ gMê• v ç i Xq εM^p-μ- tμG· Eør ngr
- εJ ዝብ ስልክ tμG· Eør L Y
- ε¼V M~ŠG tμG· Eør ngr

E/ የቴሌኮም ኔትወርክ ብቃት:-

- εL aI f ^GE ኔትወርክ ብቃት
- ፎፕ፣ pY}r ኔትወርክ ብቃት
- εOm G ኔትወርክ ብቃት

L Ešé| • v -t' â

I p° d\är L Ešé| • v L PTr IUn I -r -L pj YPXb}â εፕ፣ T\I r ε¼Wr
 L ° ç IMšpEär Pç° Tφ v pšYœT' â ^ ç aMšpE' â dYI " G'

Table 1: **PSTN Services & Network Performance 2002EC 4th 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%	86.19%	83.47%	83.4%	84.87%	
2	Call Setup Time	<25 second for 95% of established national call	88.24%	89.14%	90.06%	89.08%	
		<35 second for 95% of established international calls	53.29%	49.18%	50.51%	51.46%	
3	Conversational Voice quality	≥ 3.0 on MOS or PESQ scale	NA	NA	NA	NA	
4	Fulfillment of service provision (Installation Orders)						
4.1	Within 48 hours	80%	74.56%	81.7%	76.15%	81.14%	
4.2	Within 96 hours	90%	86.96%	92.14%	90.71%	94.57%	
4.3	Within 7 days	100%	88.89%	94.79%	99.82%	99.92%	
5	Service Restoration Performance						
5.1	Within 48 hours	60%	69.73%	68.67%	71.72%	72.67%	
5.2	Within 96 hours	90%	83.52%	83.91%	85.22%	87.40%	
5.3	Within 7 days	100%	95.31	95.98%	94.64%	96.04%	
6	Call Center (Operator speed of answer) Performance						
6.1	Calls answered within 40 seconds	90%	98.29%	98.75%	98.94%	98.94%	
6.2	Call answered within 60 seconds	100%	100%	100%	100%	100%	
7	Fault Incidence	500 reports per 1000 lines	0.05	0.049	0.05%	0.17	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	NA	NA	NA	
9	PSTN, Mobile, Dial up and Broadband Internet Access Services General Customer Complaints	100 complaints per 1000 Subscribers	0.052	0.001	0.001	0.015	Per 12 months

Table 2: Data-com (Internet) Services & Network Performance 2002EC 4th 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	Max 5 within 1 min	Max4 within 1 min	Max 7 within 1 min	6 try in 1 min	
1.2	Login Success	within 40 seconds	95%	65%	70%	60%	65%	
1.3	Fulfillment of service provision (Installation Orders)	Fulfilled within 24 hours	80%	79%	75%	65%	70%	
		Fulfilled within 48 hours	100%	65%	80%	75%	70%	
1.4	Service Restoration Performance	Within 48 hours	60%	50%	55%	55%	50%	
		Within 96 hours	90%	70%	65%	72%	75%	

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
		Within 7 days	100%	65%	80%	70%	71.67%	
2	Broadband Internet Access							
2.1	Network Latency		≤ 200 ms for local link	36 ms	40 ms	32 ms	36 ms	
			≤ 300 ms for international link	190 ms	127 ms	138 ms	151 ms	
2.2	Throughput		≥ 75% of subscribed level for 95% of the time during busy hours	93.67%	92.16%	89%	91.61%	
2.3	Packet Loss		≤ 1%	1.5%	2%	1.2%	1.5%	
2.4	Network Availability		≥ 99%	93.35	93.35	98.71	95.80%	
2.5	Fulfillment of service provision(Installation Orders)	Within 72 hours	80%	75%	80%	77.50%	77.50%	
		Within 120 hours	90%	80%	85%	82.50%	82.50%	
		Within 7 days	100%	100%	100%	100%	100%	
2.6	Service Restoration Performance	Within 48 hours	80%	80%	80%	80%	80%	
		Within 72 hours	100%	100%	100%	100%	100%	

Table 3: **GSM Cellular Mobile Network Performance 2002EC 4th 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%				96.68%	Aggregate value only
2	Call Setup Time	<25 second for 95% of established national calls	NA	NA	NA	NA	The measured value is not provided with the report
		<35 second for 95% of established international calls	NA	NA	NA	NA	“
3	Dropped Call Rate	<2%				23.00%	Aggregate value only
4	Handover Success Rate	>95%				94.97%	Aggregate value only
5	Blocked Call Rate	<2%	NA	NA	NA	NA	
6	SDCCH Blocking Rate	< 0.5%				1.09%	Aggregate value only
7	TCH Blocking Rate	< 5%				1.78%	Aggregate value only
8	Conversational Voice Quality	≥ 3.0 on MOS or PESQ scale				NA	

Table 4: **PSTN, Mobile and Internet Services Billing Performance 2002EC 4th 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	0.340%	73.62%	73.62%	NA	NA	
1.2	Northern A.A. zone	0.115%	100%	100%	»	»	
1.3	Southern A.A. zone	0.005%	100%	100%	»	»	
1.4	South Western A.A. zone	0.051%	73.33%	100%	»	»	
1.5	Eastern A.A. zone	0.004%	-	33.33%	»	»	
1.6	Western A.A. zone	0.059%	100%	100%	»	»	
2	Regional						
2.1	Northern Region	0.250	89.65	89.65	»	»	
2.2	North-Eastern Region	0.119	100	100	»	»	
2.3	Semera Region	-	-	-	»	»	
2.4	North Western Region	0.000	-	-	»	»	
2.5	Western Region	0.467	51.06	100	»	»	
2.6	Asosa Region	0.100	100	100	»	»	
2.7	Eastern Region	0.180	100	100	»	»	
2.8	Jijiga Region	-	-	-	»	»	
2.9	Southern Region	0.000	-	-	»	»	
2.10	South south west Region	-	-	-	»	»	
2.11	South western Region	0.684	91.98	96.18	»	»	
2.12	Gambela Region	-	-	-	»	»	
2.13	South Eastren Region	0.019	92.30	100	»	»	

I šéC L \Tr I tí-ǵǵé' á ŠpdL ° ' á £¼Wr °T± (100%) አንሽY ሲታይ £«|GtY' t'ézpy}ጅ ጥፊ· Eፀr t\»¼ ngr 130% ከደረጃው በታች መሆኑን ŠdTI' á VPyr EL T«r pvFóG'

- £«|GtY' t'ézpy}ጅ L ^L Y nGbr t¶¼Mít' á nGbpj ^ǵ«é° ሥጋFt' á E YPXB}á ¼|h <dTI ár °ǵ|...v L <ŠG
 - ✓ 50% £Mፀ}ár 148 \-r ' á^¼
 - ✓ 75% # 196 # #
 - ✓ 71.67% £Mፀ}ár 17 d-r ' á^¼ £¼ፍ~ ጥፊ· Eፀr |ፍ' L D~t' á VPyr ' á^¼ £ፍፍፀ ላይDǵ
 - ✓ 28.33% £Mፀ}ár °. O 17d-r ' á^¼ £¼ፍ~ ጥፊ· Eፀr |Fፍ' ~t' á::

I šéC L \Tr I tí-ǵǵé' á ŠpdL ° ' á £¼Wr °T± (100%) አንሽY ሲታይ የዲያልኦፕ አንተርኔት £¼ፍ~ ጥፊ· Eፀr £L ^° r ngr 128.33% ከደረጃው በታች መሆኑን VPyrj |L EEqG'

- £nZ-mǵ- t'ézpy}ጅ ጥፊ· Eፀr Eፍ. , ት E YPXB}á ¼|h <dTI ár °ǵበኞች L <ŠG:-
 - ✓ 77.5% £Mፀ}ár 172 \tr ' á^¼
 - ✓ 82.5% # 120 # # ^~
 - ✓ 100% # 17 d-r ' á^¼ £t'ézpy}ጅ ጥፊ· Eፀr አግኝትዋል::

^EšéC I tí-ǵǵé' á ŠpdL ° ' á £¼Wr °T± (100%) አንሽY ሲታይ £nZ-mǵ- t'ézpy}ጅ ጥፊ· Eፀr t\»¼ በተቀመጠለት የአገልግሎት አሰጣጥ ደረጃ መሰረት መከናዎኑን ŠdTI' á VPyr EL T«r pvFóG ::

- £nZ-mǵ- t'ézpy}ጅ L ^L Y nGbr t¶¼Mít' á nGbpj ^ǵ«é° ሥጋFt' á E YPXB}á ¼|h <dTI ár °ǵ|...v L <ŠG
 - ✓ 80% £Mፀ}ár 148 \-r ' á^¼ ^~
 - ✓ 100% £Mፀ}ár 172 \-r ' á^¼ £¼ፍ~ ጥፊ· Eፀr |ፍ' L D~t' á VPyr ' á^¼ £ፍፍፀ ሲሆን I tí-ǵǵé' á

ŠpdL ° ' à £¼Wr °T± (100%) አንሽሃ ሲታይ £¼μ-
 ተμG· Eør £L ^° r ngr በተቀመጠለት የአገልግሎት
 አሰጣጥ ደረጃ መሰረት መከናዎነን ŠdTI ' à VÞYr EL T«r
 pvFíG '

6.1.3. £Jœn ^GE ተμG· Eør (Public Payphone service) ¼Wr :-

I]¿píN ' °N I<Y- £Mè\U £Jœn ^G v ተμG· Eør ¼Wr¿ I pL EŠp
 tí~¿\é' à £¼Wr L EŠé| Ié| ^dN¼N I YÞXb}à VÞYr ' à^¼ GŠipý
 †GpμEĐN I šéC NÉ¿|r £ተμG· Eør ¼Wr °T±' à¿ EL μNN †GpuEN::

6.1.4. £p° gMè v¿ i Xq £M^p~μ- ተμG· Eør ¼Wr:-

የመስፈርቱ ስታንዳርድ የተቀመጠው ለአንድ አመት ሲሆን በየወሩ የተቀመጠው ልኬት
 አግባብነት የሌለው ስለሆነ መታረም ይኖርበታል። በዚህም ምክንያት የአገልግሎት
 ጥራቱን መገምገም አልተቻለም።

6.1.5. £B]n ŒÛ| ተμG· Eør ngr :-

£ª¿I...v B]n ŒÛ| ተμG· Eør ngr¿ I pL EŠp I tí²¿\é' à £pdL ° ' à
 £¼Wr °T± I †¿- £Hé]n ŒÛE μéší (Billing Period) Špš¶° r ° i FF £ŒÛ|
 L ° £f | • v (Bills) ' à^¼ £MèdYI à £ŒÛ| i Xq • v (Billing complaints) L ° ¿
 Š2% L nE¼ £EI r N £MèG \éD¿ Š YÞXb}à £pFŠ' à VÞYr
 ^¿ª Mè| L EŒp' à I †«é^ †Im ^~ I V±é v £dTI à £Hé]n ŒÛ| i Xq • v
 (Billing complaints) L ° ¿ Š2% | } \ ^~ ^¿«éAàN I ሶስቶ' à Un -L r
 የነበረውን ጥንካሬ የዞ የቀጠለ በመሆኑ £Mè Tq q ' à° ír }' à ::

6.2.2 ftézpY}ir }ir • YŒ ngr

6.2.2.1 E«|GtY tēzpY}ir }ir • YŒ

E«|GtY tēzpY}ir }ir • YŒ_z I L ° dN ftézpY}ir · z'f}r EL L ^Tr ŠM[®]T^µ L āŠW • v L < ŠG 95% |CEā I 40 \ z – µéšī ' ā^{1/4} ^ŠiqM L D_z ^z«Elr I tī⁻z\é' ā fpdL ° ' ā f^{1/4}Wr^aT_± I éµGŌN I YPXB}ā I ŠāG ŠdTI ' ā VPYr EL T«r ^z^apuE' ā ^ŠiqM fD}' ā ftézpY}ir · z'f}r 65% |CG nu \éD_z Š^{1/4}Wr^aT_±' ā I 30% d_z]ŌG' ŠŌŋt'f' ā Un –L r t_zŃY \éq''^a · O I 10% |CG **σaaG hŏBtA'**

6.2.2.2 fnZ–m_z– tēzpY}ir }ir • YŒ

fnZ–m_z– tēzpY}ir }ir • YŒ_z f^{1/4}Wr_z EL E<r fpdL ° ā L Ešé| • v (Parameters) EN]Ei ^z^a “Network Latency”, “Throughput” ^~ “Packet loss” fL]\Eār z I pL EŠp Š YPXB}ā I ŠāG fD}' ā VPYr f|>t' ā z L T_± • v I tī⁻z\é' ā Špšŋ⁻ ā f^{1/4}Wr^aT_± **hŏŃY t'BtPΔ::**

- E”Network Latency” I tī⁻z\é' ā fpdL ° ' ā f^{1/4}Wr^aT_± EAµY ' ā^{1/4} · z'f}r Š200ms |}\ ' ''N ^ŠāG \éD_z E†EN t dŪ · z'f}r h300ms |}\ ' ''N ^ŠāG fD}' }' ā' I VPYpý F'' fD}' ā EAµY ' ā^{1/4} · z'f}r 36ms \éD_z E†EN t dŪ · z'f}r 151ms }' ā' I šéC L \Tr fµµ, ' ā ' ā^o ir Š^{1/4}Wr^aT_± t_zŃY \éq'' tITqv }' ā:
- E”Throughput” I tī⁻z\é' ā fpdL ° ' ā f^{1/4}Wr^aT_± fMÉ' ā ŠŪpf f r WŌŒ Ū\ r I Mē YI r µéšī 95% I MŌD}' ā \tr ' ā^{1/4} pEŒs fMµ, ' ā “Throughput” Š^az|f' ā ŋY I p^aTµ' ā ' āG ŠpµEŌ' ā^aT_± Š75% I qv L D_z fEl r N }' ā: I YPXB}ā I ŠāG I dTI ' ā VPYr F'' ^z^appµEŌ' ā pEŒs fµµ, ' ā ” Throughput” 91.61% }' ā' I šéC L \Tr ŠpdL ° ' ā f^{1/4}Wr^aT_± **hŏŃY Ō16.51% |CG hŏ nEŌ ''µfG:: ŠŌŋt'f' ā Un –L r t_zŃY \éq''^a · O I 73.86% |CG **hŏt'ŏ σaaG hŏBtA'****

3. ትኩረት የሚያስፈልጋቸው ጉዳዮች፡-

- Cellular mobile network dropped call rate ከተቀመጠለትና በሶስተኛው ሩብ አመት ከነበረበት የጥገና ደረጃ በከፍተኛ ደረጃ የቀነሰ በመሆኑ ችግሩ ተጠንቶ አፋጣኝ ምልሽ ማግኘት ያለበት ጉዳይ ነው።
- PSTN call setup time ከተቀመጠለት የጥገና ደረጃ ከፍተኛ ልዩነት የአለውና በተከታታይ ሩብ አመታት እየቀነሰ የመጣ በመሆኑ መፍተሄ የሚያስፈልገው ጉዳይ ነው።
- የዲያልኦፕ ኢንተርኔት መስመር ማስገባት ከጠየቁ ደንበኞች ውስጥ 30% የሚሆኑት አገልግሎቱን በ48 ሰዓት አያገኙም ማለት በአገልግሎቱ ተጠቃሚዎች፣ በአገልግሎት ሰጭው እና በሀገሪቱ እድገት ላይ የሚያሳድረው አሉታዊ ተጽኖ ቀላል የማይባል በመሆኑ ተጠቃሚዎችን ለማስቀመጥ የሚያስፈልገው ጉዳይ ነው።
- Public payphone service, conversational voice quality, Cellular mobile and blocked call rate መስፈርቶች (parameters) ለሰጠው የአገልግሎት አሰጣጥ ጥራት እና የገቢው ምንጭ ላይ ለሚፈጸሙት ስልጠናዎች ለሰጠው የአገልግሎት አሰጣጡን መመዘን በሚያስችል መልኩ መዘጋጀት ይኖርባቸዋል።
- የGeneral customer complaints and PSTN Fault Incidence መስፈርቶች ስታንዳርዳቸው የተቀመጠው ለአንድ አመት ሲሆን በየወሩ የተቀመጠው ልኬት አግባብነት የሌለው በመሆኑ ወደፊት እርምጃ ተወስዶ በአመት አንድ ጊዜ ብቻ የአመቱ ልኬት ሪፖርት ሊደረግ ይገባል።

የተጠቃሚዎች ግንኙነት ለማረጋገጥ የሚያስፈልገው ጉዳይ ነው። የገቢው ምንጭ ላይ ለሚፈጸሙት ስልጠናዎች ለሰጠው የአገልግሎት አሰጣጡን መመዘን በሚያስችል መልኩ መዘጋጀት ይኖርባቸዋል።