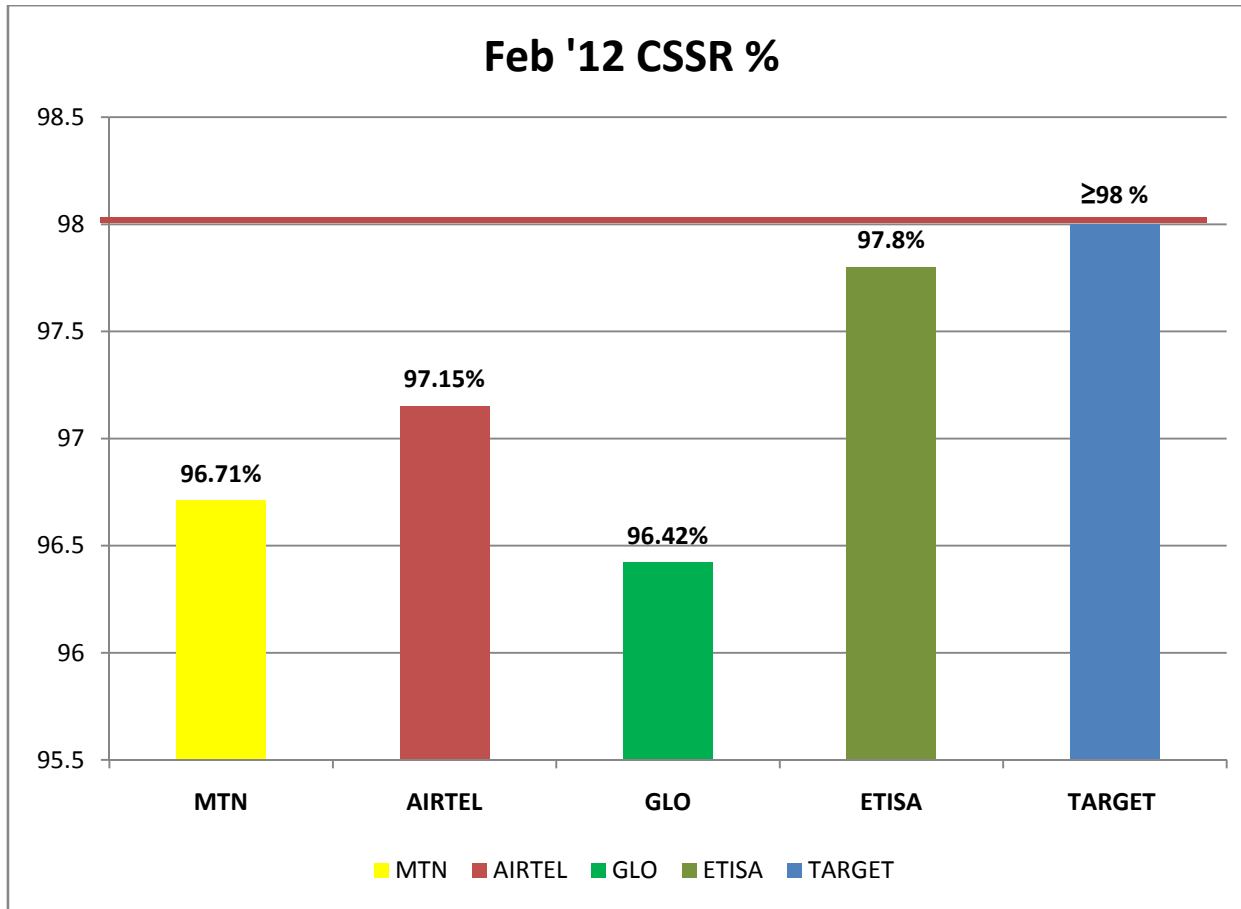


JANUARY and FEBRUARY 2012 GSM OPERATORS QoS KPI SUMMARY SHEET

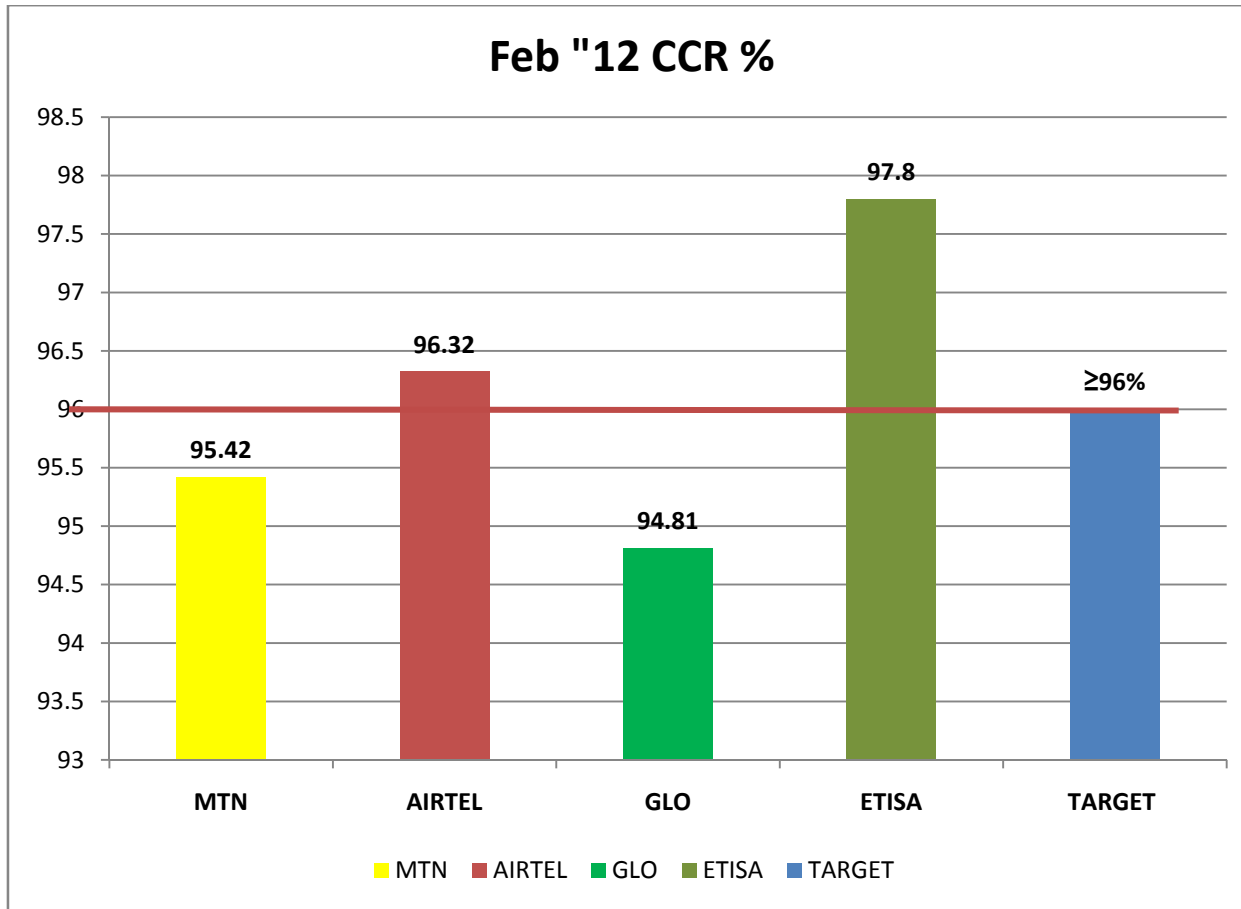
S/N	OPERATORS	CSSR		CDR		HoSR		SDCCH		CCR		TCH CoNG.	
		JAN' 12	FEB' 12	JAN' 12	FEB' 12	JAN' 12	FEB' 12	JAN' 12	FEB' 12	JAN' 12	FEB' 12	JAN' 12	FEB' 12
1	MTN	96.41	96.71	1.34	1.33	95.34	95.1	0.73	0.62	95.12	95.42	1.22	1.20
2	GLO	95.57	96.42	1.81	1.78	96.27	97.21	1.64	1.91	93.84	94.81	4.81	1.66
3	EMTS	98.04	97.80	1.21	1.32	92.98	92.90	1.32	2.25	96.94	96.61	1.34	1.38
4	AIRTEL	97.02	97.17	0.84	0.87	96.94	96.65	0.47	0.67	96.18	96.32	0.53	0.62
5	NCC TARGET	≥98%		≤2%		≥98%		≤1%		≥96%		≤2%	



1.

NCC CSSR Target ≥98%:

MTN, AIRTEL; GLO, ETISALAT; failed to meet the Commission’s target in period under review. Etislat and Airtel can be said have a fair performance when compared with MTN and Glo in the period under review.

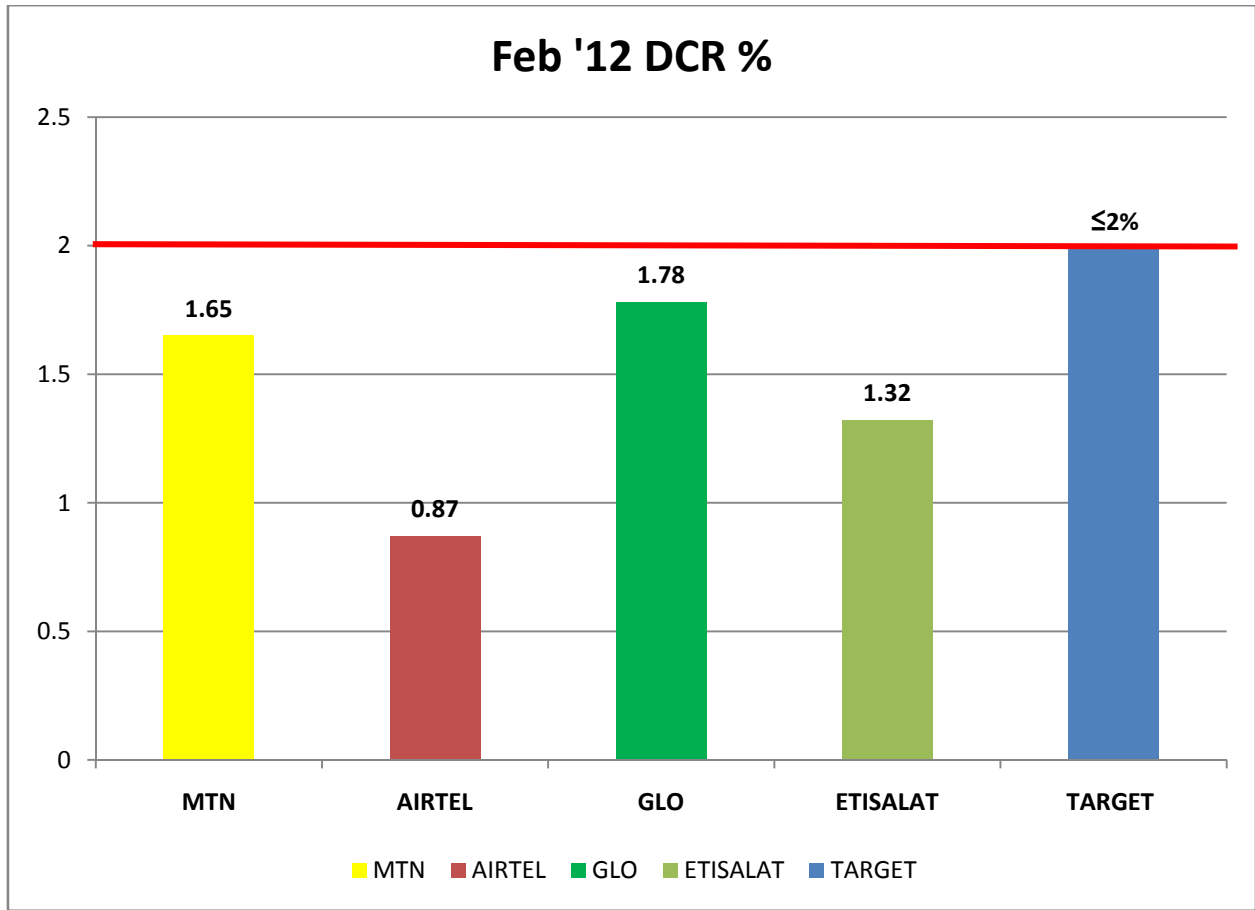


2.

NCC CCR Target ≥96%:

MTN and Glo failed to meet the Commission’s target in the period under review.

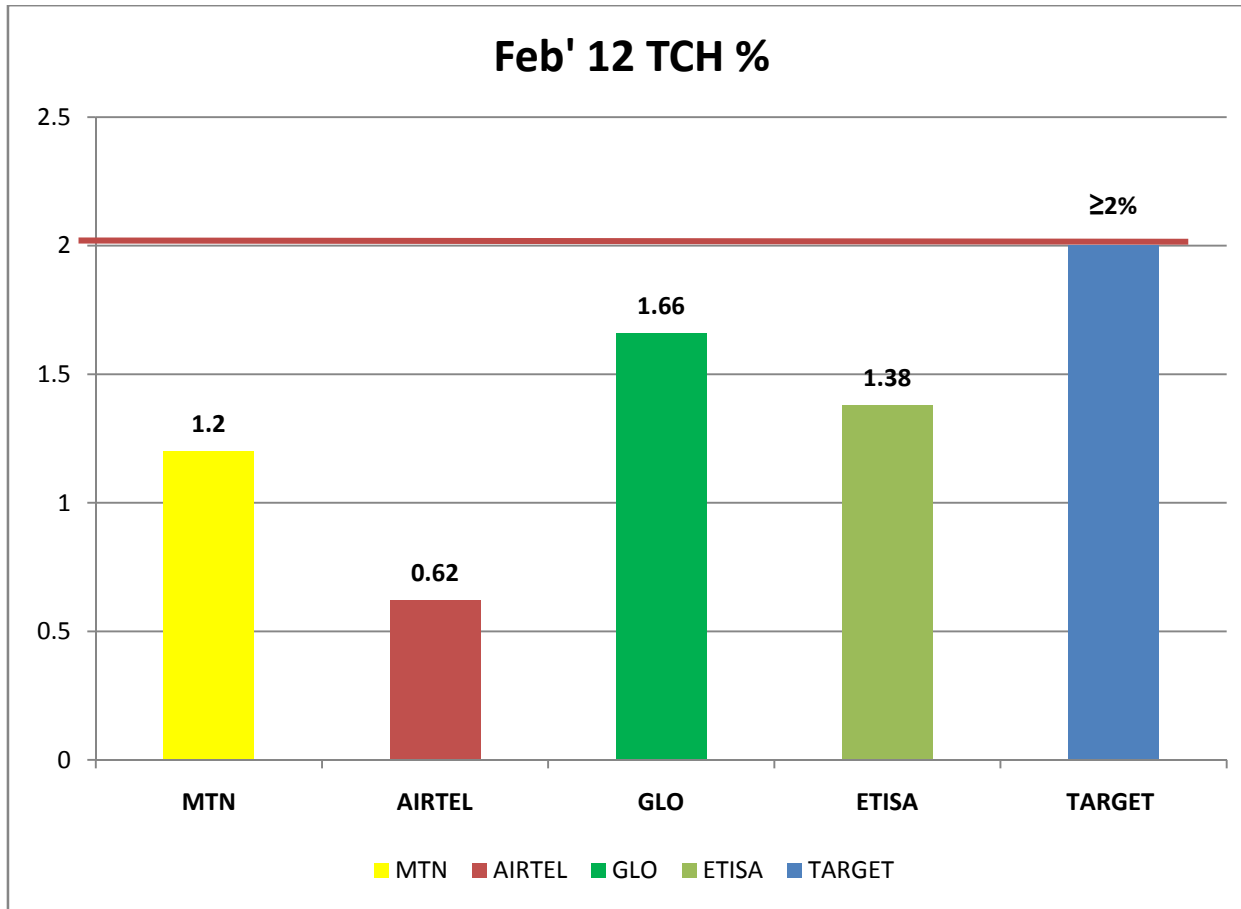
Etisalat had the best performance followed by Airtel in the period under review.



3.

NCC DCR Target ≤ 2%:

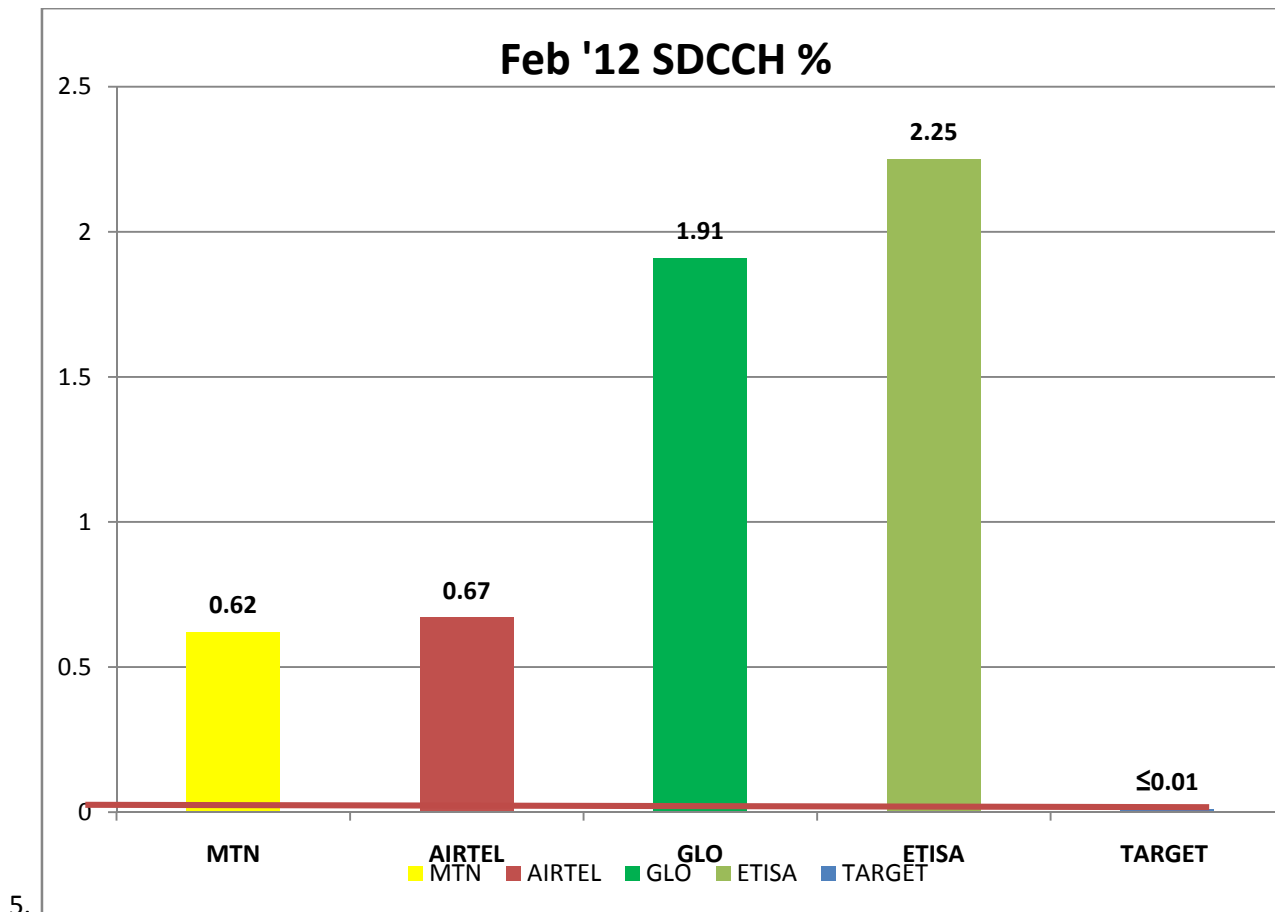
All the Operators met the Commission target in the period under review. Despite meeting the Commission’s target Glo and MTN recorded higher values of Drop Call Rate while Airtel had the best performance in the period under review.



NCC TCH Cong Target ≤ 2%:

All operators met the Commission’s target in the period under review. Significant improvement was observed on Glo network.

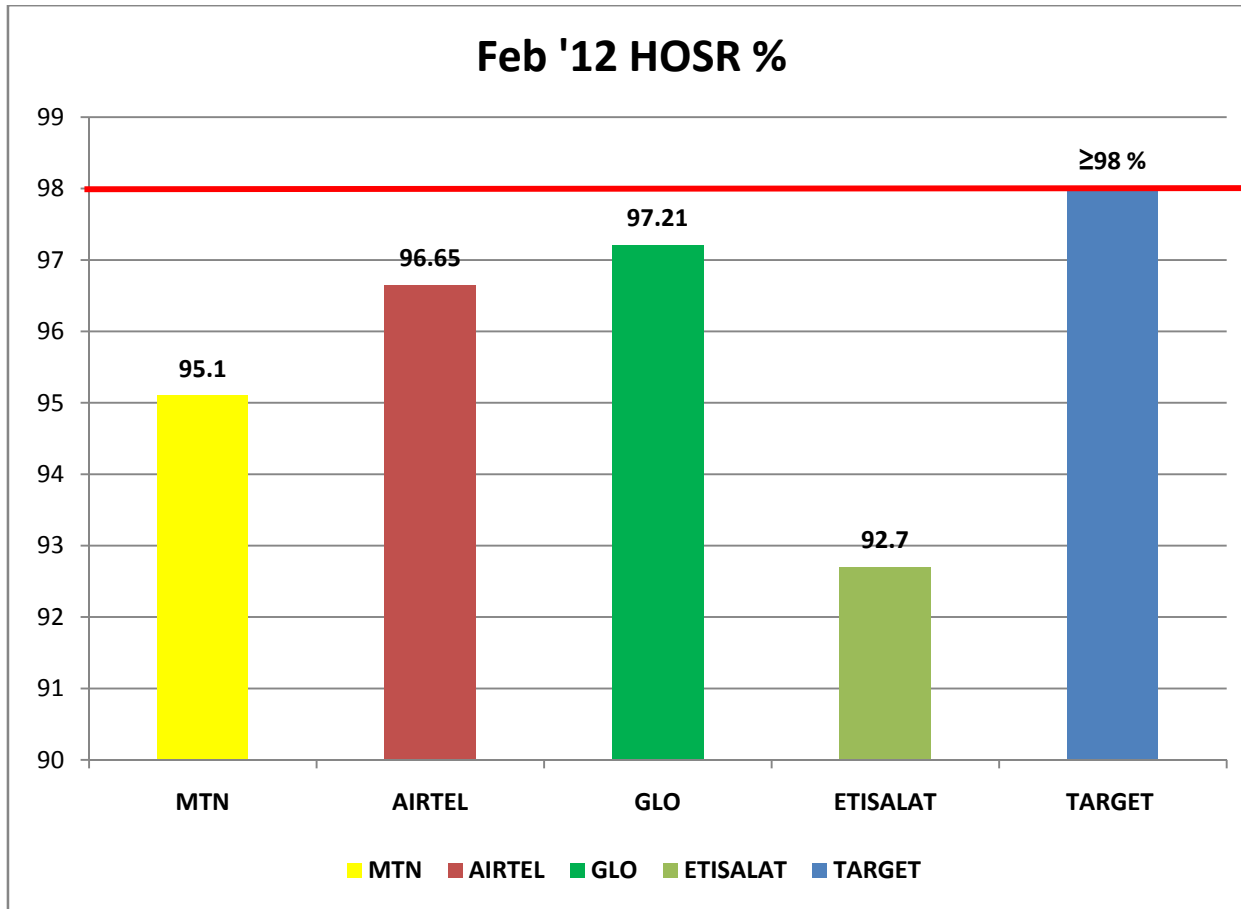
Airtel had the best performance on this KPI when compared with others in the period under review.



5.

NCC SDCCH Cong Target ≤ 0.01:

All the Operators failed to meet the Commission target in the period under review. However, MTN and Airtel recorded lower values on the SDCCH Cong when compared with Glo and Etisalat. Etisalat also recorded the worst performance in the period review. The SDCCH Cong record shows tendency of heavy congestion setting into Etisalat's network when compared with its December, 2011 and January 2012 records.



6.

NCC HoSR Target ≥98%:

All the operators failed to meet the Commission’s target in the period under review. However, fair performance records’ was observed on Airtel and Glo networks in the period under review. Etisalat had the worst performance record when compared with others in the period under review.

Comments February 2012 QoS Report

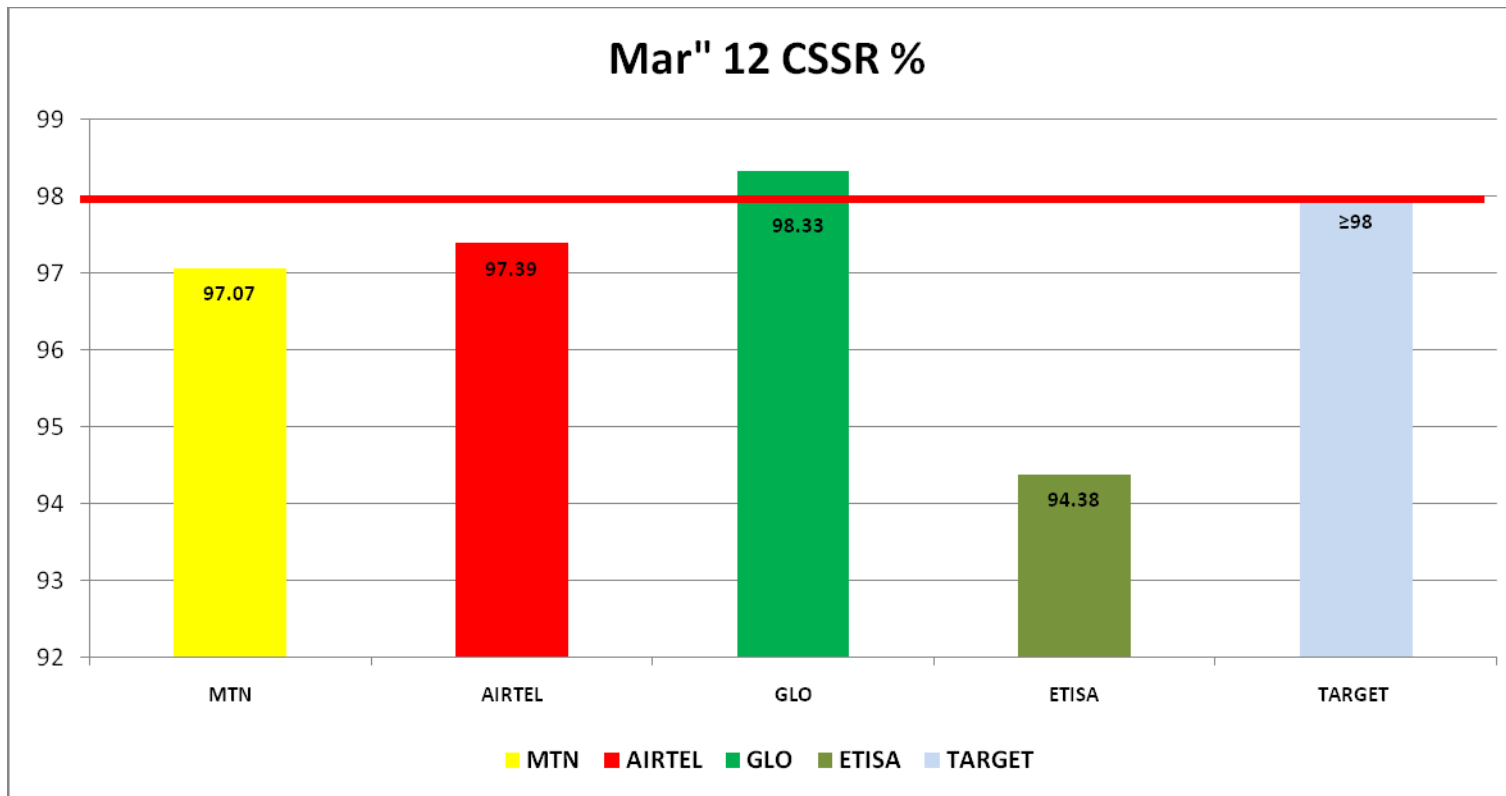
Airtel	Etisalat	Globacom	MTN
<ul style="list-style-type: none"> Airtel recorded marginal improvements in CSSR, CCR, and a marginal decay on TCH, SDCCH and DCR when compared with January 2012 performance record. Airtel had good performance on the respective QoS Kpi when compared with the Commission targets in the period under review. Its overall performance can be said to be good in the period under review. See summary sheet for ease of reference. 	<ul style="list-style-type: none"> Etisalat had marginal decay across the KPIs' in the period under review when compared with January 2012 performance stat. Etisalat performed creditably well in three of the five KPIs', and worse in the SDCCH when compared with the Commission targets in the period under review. Its overall performance can be said to be good with the exception of the SDCCH performance which was worse in the period under review. See summary sheet for ease of reference. 	<ul style="list-style-type: none"> Globacom had marginal improvement across the KPIs' in the period under review except for SDCCH when compared with December 2011 and January 2012 performance stats. The TCH had significant improvement in the period under review when compared with previous performances. Globacom seems to show consistent improvement on all the KPI's since January 2012 when compared with December 2011 performance. This is the first time Globacom is having such consistent performance improvement Its overall performance can be said to be fair in the period under review. See summary sheet for ease of reference 	<ul style="list-style-type: none"> MTN recorded marginal improvements on all the KPIs' in the period under review when compared with January 2012 performance stat. MTN however passed in three KPI when compared with the Commission's targets. Its overall performance can be said to be fair in the period under review. See summary sheet for ease of reference.

Attention:

- Improvement does not mean the new key performance indicator threshold is met; it means that the trend to reach the threshold is progressing towards the set target of the indicator taking into consideration the challenges the operators are facing today.
- Decay means the Performance Indicator concerned is slightly worse than in the previous month.
- Poor means the Indicator is consistently poor in the period under review.

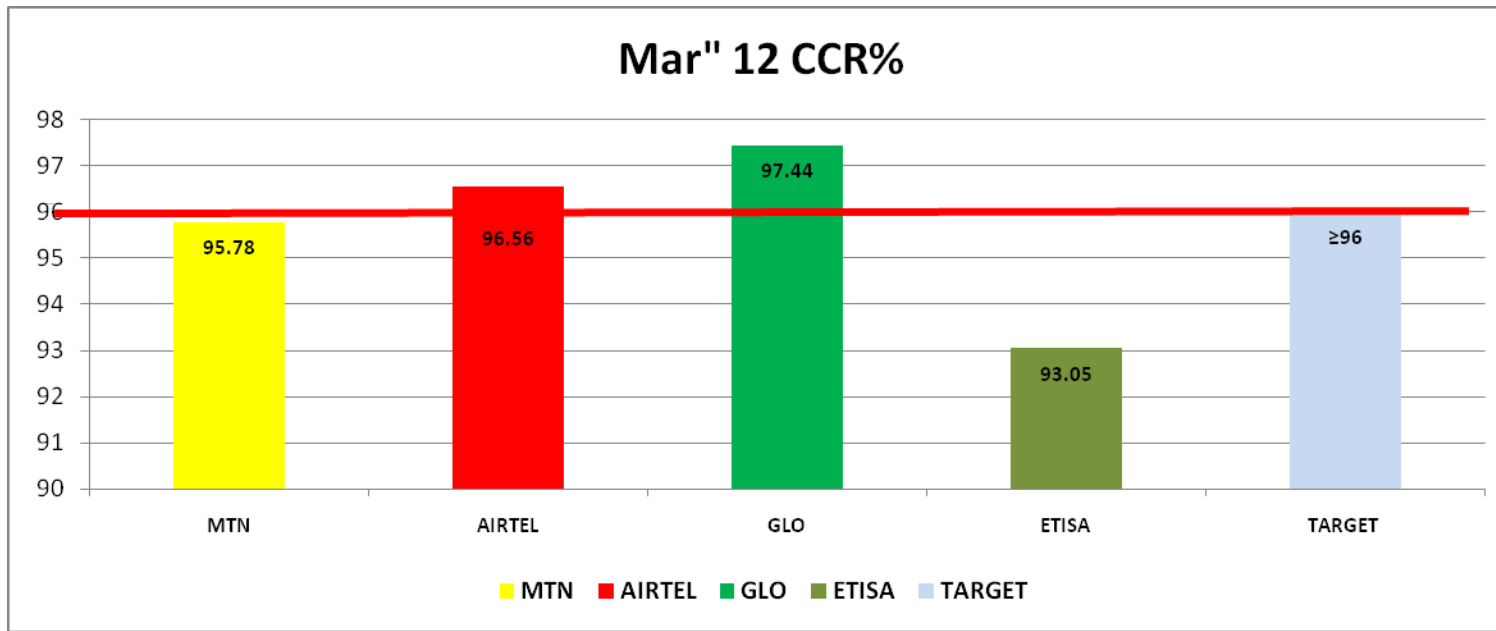
FEBRUARY and MARCH 2012 GSM OPERATORS QoS KPI SUMMARY SHEET

S/N	OPERATORS	CSSR		CDR		HoSR		SDCCH		CCR		TCH CoNG.	
		FEB' 12	MAR' 12	FEB' 12	MAR' 12	FEB' 12	MAR' 12	FEB' 12	MAR' 12	FEB' 12	MAR' 12	FEB' 12	MAR' 12
1	MTN	96.71	97.07	1.33	1.33	95.1	95.14	0.62	0.58	95.42	95.78	1.20	1.33
2	GLO	96.42	98.33	1.78	1.13	97.21	97.73	1.91	0.39	94.81	97.44	1.66	1.09
3	EMTS	97.80	94.38	1.32	0.86	92.90	89.67	2.25	1.64	96.61	93.05	1.38	1.40
4	AIRTEL	97.17	97.39	0.87	0.86	96.65	96.64	0.67	0.58	96.32	96.56	0.62	0.54
5	NCC TARGET	≥98%		≤2%		≥98%		≤0.2%		≥96%		≤2%	



NCC CSSR Target ≥98%:

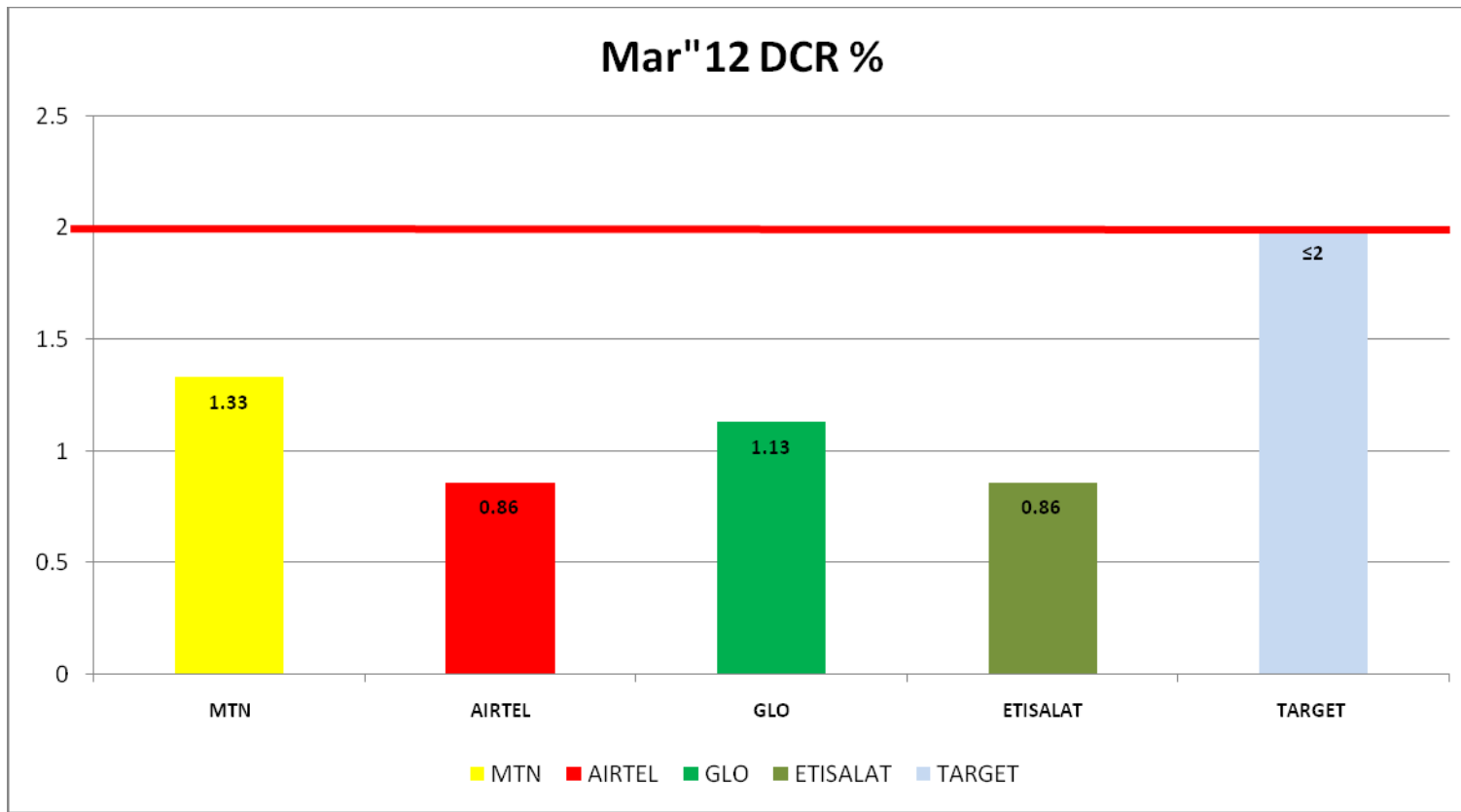
- GLO met and slightly superseded the Commission minimum target, recorded best performance when compared with others in the period under review.
- MTN, AIRTEL and ETISALAT failed to meet the Commission’s target.
- However, MTN and AIRTEL recorded an almost good performance when compared with the Commission minimum threshold in period under review.
- ETISALAT recorded a poor performance when compared with Commission minimum threshold in the period under review.



2.

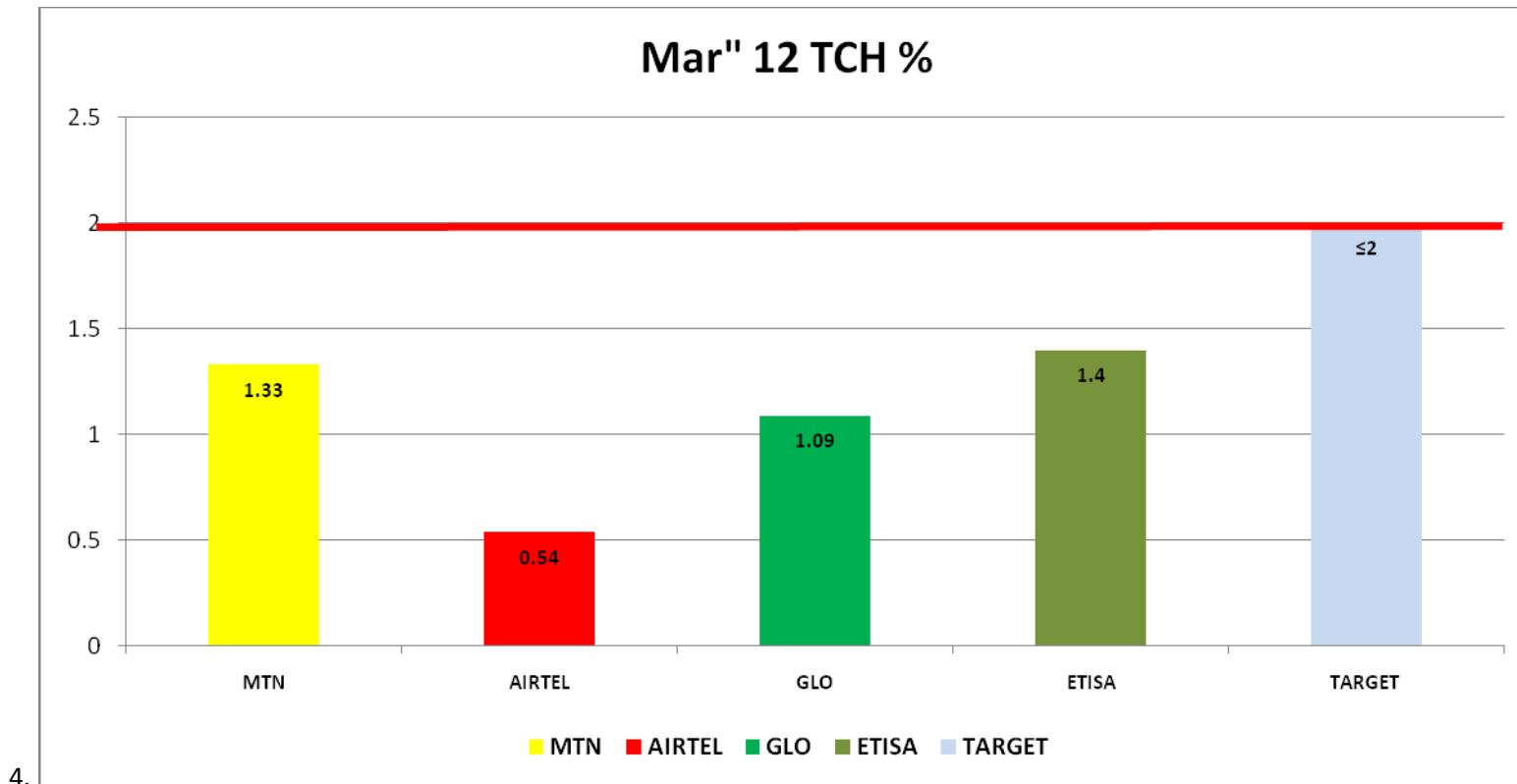
NCC CCR Target ≥96%:

- AIRTEL and GLO met and slightly superseded the Commission’s minimum target in the period under review.
- GLO recorded the best performance with compared with others in the period under review
- MTN and ETISALAT did not meet the Commission’s minimum threshold in the period under review.
- However MTN recorded an almost good performance when compared with the Commission minimum threshold
- ETISALAT recorded the worst performance when compared with Commission minimum target and others in the period under review



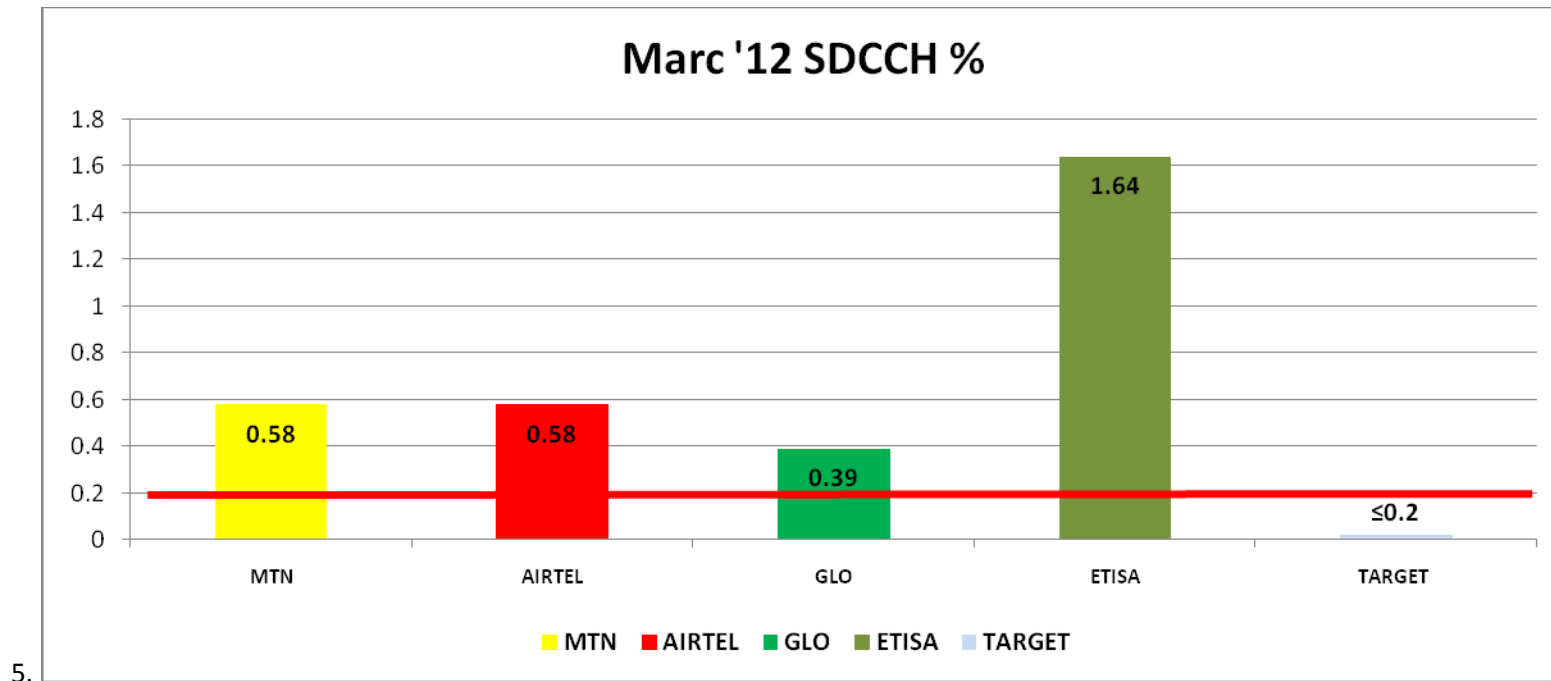
NCC DCR Target ≤ 2%:

- All the Operators met and superseded the Commission minimum threshold in the period under review. Drop Call Rate across board shows marginal improvement.
- AIRTEL and ETISALAT tied in recording the best performance in the period under review.



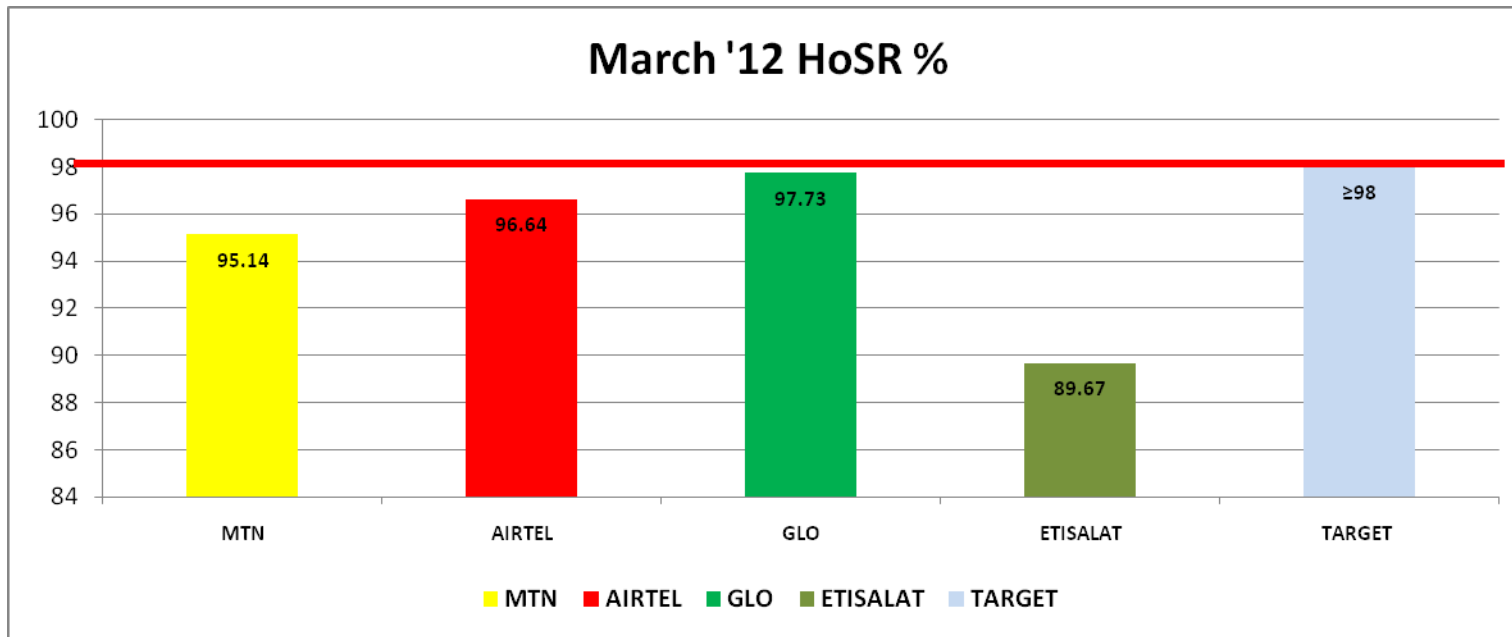
NCC TCH Cong Target ≤ 2%:

- All operators met and superseded the Commission’s minimum threshold in the period under review.
- AIRTEL recorded the best performance when compared with others in the period under review.



NCC SDCCH Cong Target ≤ 0.02%:

- All the Operators failed to meet the Commission target in the period under review.
- GLO recorded significant performance improvement and as well recorded the best performance when compared with others in the period under review.
- ETISALAT recorded the worst performance both when compared with Commissions' target and with other operators' performance in the period review.
- Marginal improvement was recorded by all the operators in the period under review



6.

NCC HoSR Target ≥98%:

- All the operators failed to meet the Commission’s target in the period under review.
- GLO recorded the best performance with an almost good performance when compared to Commission’s minimum threshold and with others in the period under review.
- AIRTEL can be said to have recorded a fair performance when compared with Commission’s minimum threshold in the period under review.
- Etisalat recorded the worst performance record when compared with others and Commission’s minimum threshold in the period under review.

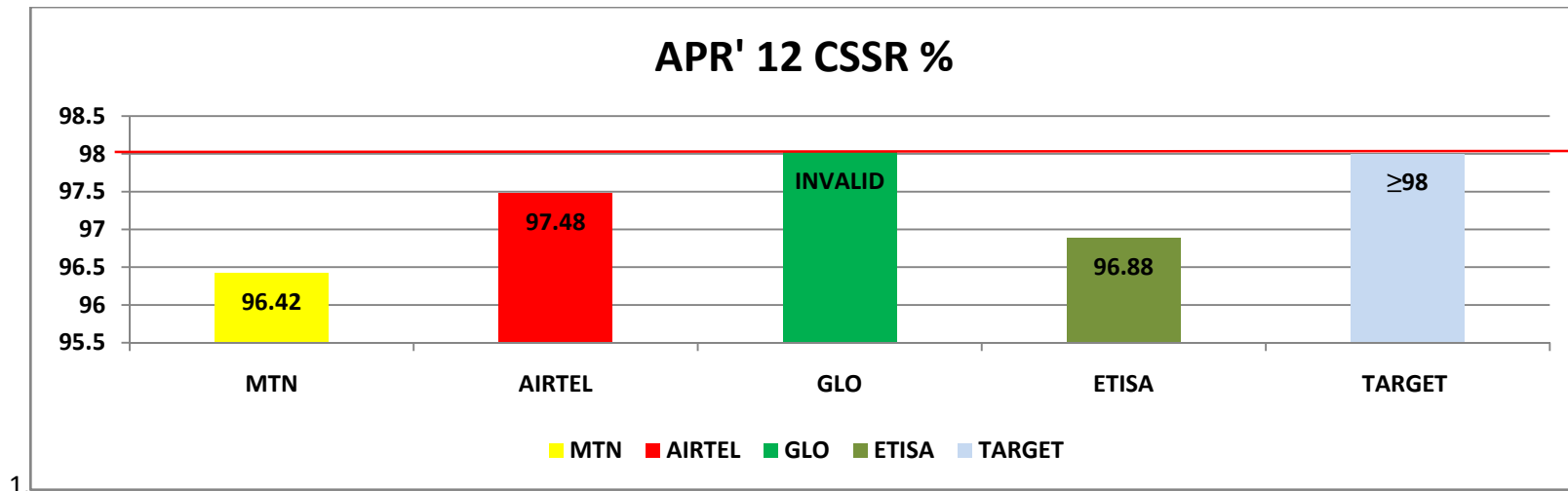
APRIL 2012 QoS AUDIT REPORT

MARCH and APRIL 2012 GSM OPERATORS QoS KPI SUMMARY SHEET

S/N	OPERATORS	CSSR		CDR		HoSR		SDCCH		CCR		TCH CoNG.	
		MAR' 12	APR' 12	MAR' 12	APR' 12	MAR' 12	APR' 12	MAR' 12	APR' 12	MAR' 12	APR' 12	MAR' 12	APR' 12
1	MTN	97.07	96.42	1.33	1.41	95.14	94.67	0.58	0.61	95.78	95.20	1.33	0.89
2	GLO	98.33	98.02	1.13	1.17	97.73	97.67	0.39	0.39	97.44	97.45	1.09	1.09
3	EMTS	94.38	96.88	0.86	1.22	89.67	91.28	1.64	1.36	93.05	95.81	1.40	1.95
4	AIRTEL	97.39	97.48	0.86	0.92	96.64	96.33	0.58	0.47	96.56	96.59	0.54	0.55
5	NCC TARGET	≥98%		≤2%		≥98%		≤0.2%		≥96%		≤2%	

Note: The GloQoS recorded values for March 2012 and April 2012 does not reflect actual Glo network performance within the periods under review and is therefore not acceptable as it is misleading. However the values are displayed for reference and record purposes pending the conclusion of ongoing QoS data integrity investigation of Glo network.

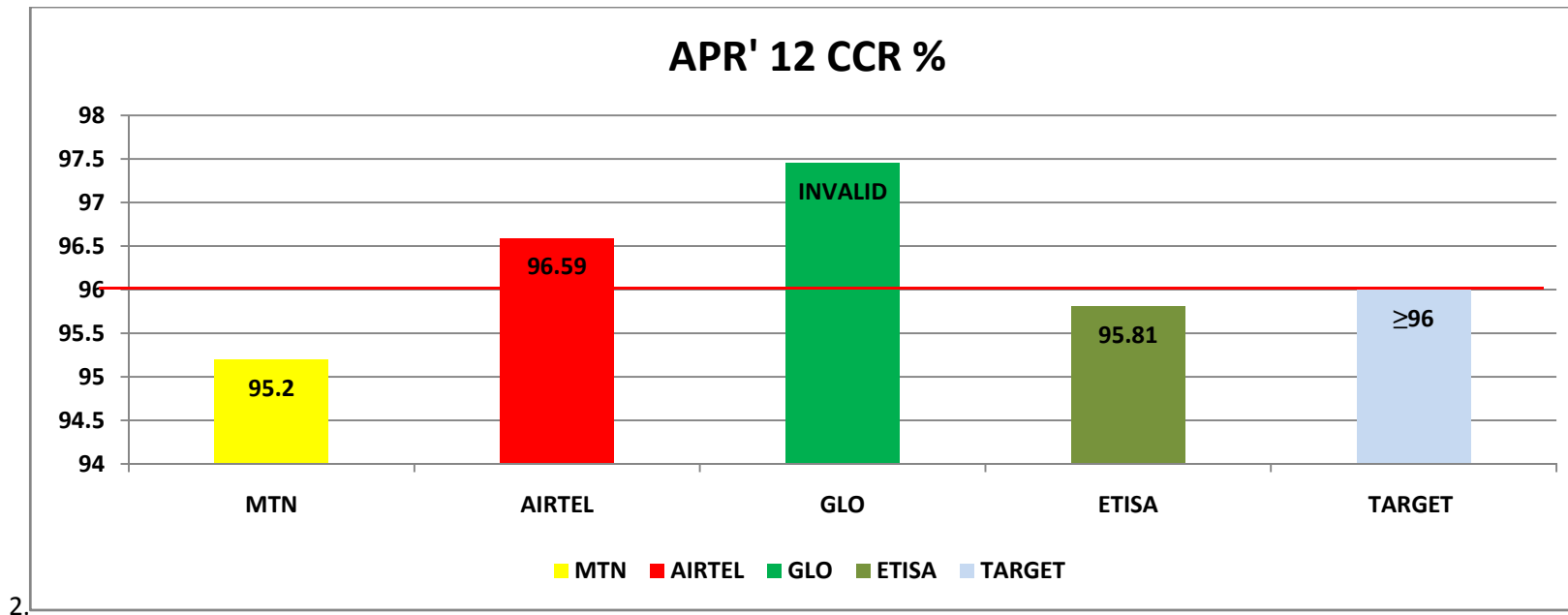
APRIL 2012 QoS AUDIT REPORT



NCC CSSR Target ≥98%:

- GLO data capture for March 2012 and April 2012 lacked integrity and therefore is not acceptable to the Commission.
- An average of 15% of Glo data were not available (N/A) in the period under review
- MTN, AIRTEL and ETISALAT failed to meet the Commission's target.
- AIRTEL recorded an impressive performance when compared with the Commission target of $\geq 98\%$ within the period under review.
- ETISALAT and MTN recorded poor performances when compared with Commission minimum threshold in the period under review.

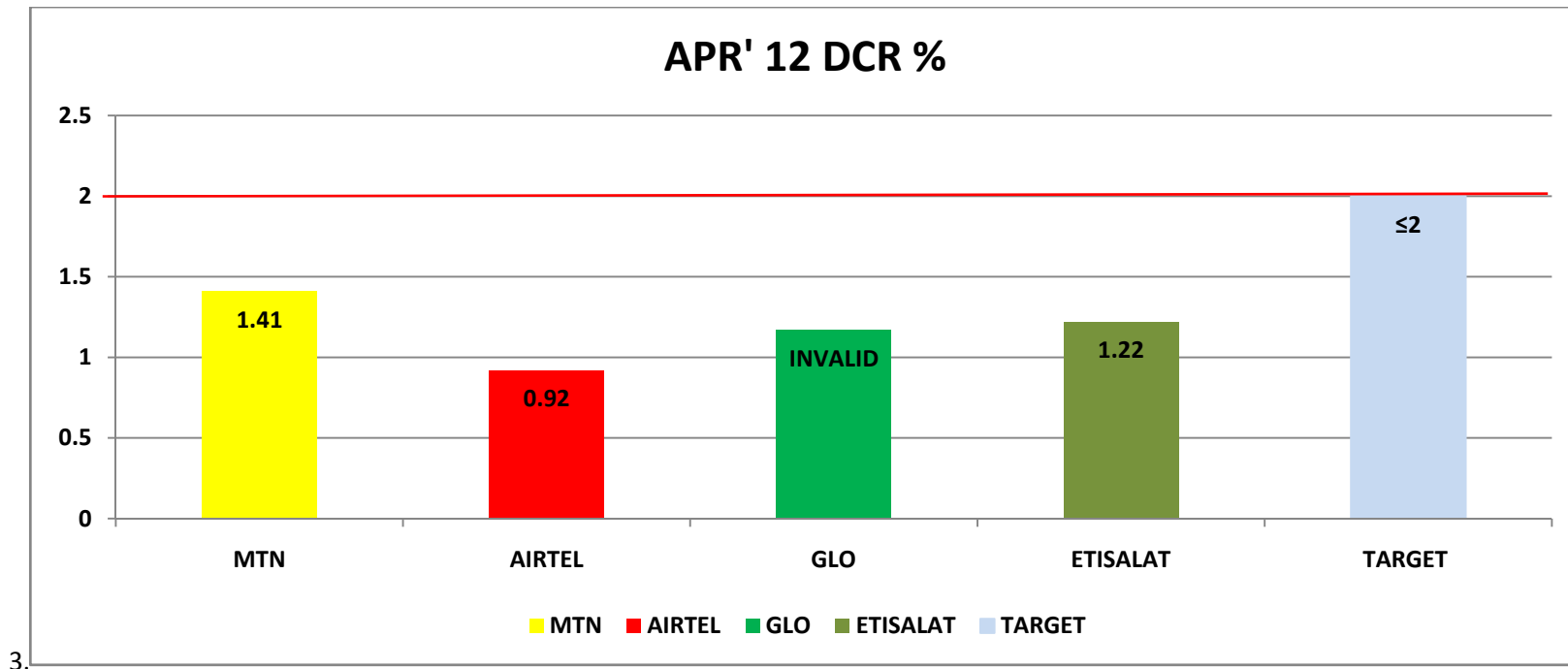
APRIL 2012 QoS AUDIT REPORT



NCC CCR Target ≥96%:

- AIRTEL met and slightly superseded the Commission's target of ≥96% within the period under review.
- GLO record of 97.45% which met and superseded the target of ≥96% as shown is doubtful and therefore not acceptable
- An average of 15% of GLO data were not available (N/A) in the period under review
- MTN and ETISALAT did not meet the Commission's minimum threshold in the period under review.
- However AIRTEL recorded an impressive performance when compared with the Commission's minimum threshold
- ETISALAT recorded a lower performance when compared with Commission minimum target within the period under review

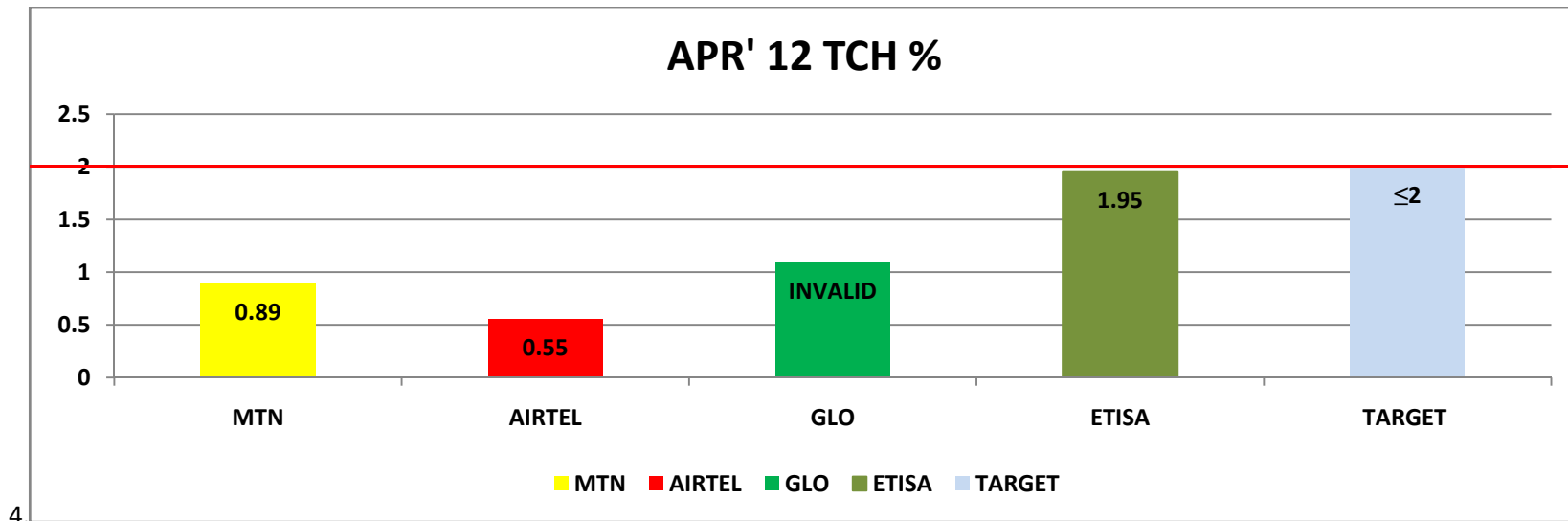
APRIL 2012 QoS AUDIT REPORT



NCC DCR Target ≤ 2%:

- MTN, ETISALAT and AIRTEL met and superseded the Commission minimum threshold in the period under review..
- GLO data evaluated lacks transparency and is therefore under investigation.
- An average of 15% of Glo data were not available (N/A) in the period under review
- AIRTEL recorded the best performance in the period under review.

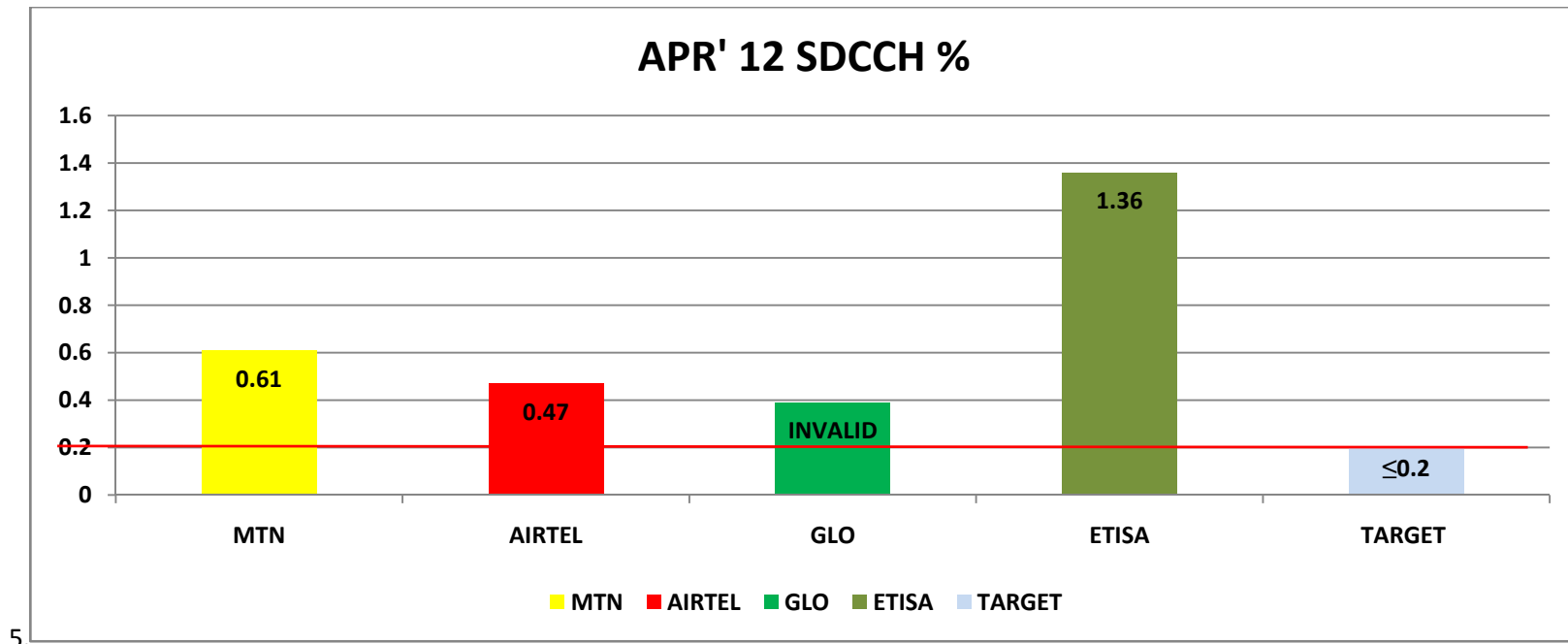
APRIL 2012 QoS AUDIT REPORT



NCC TCH Cong Target ≤ 2%:

- MTN, ETISALAT and AIRTEL met and superseded the Commission's target of ≤2% within the period under review.
- AIRTEL recorded the best performance when compared with others in the period under review.
- ETISALAT recorded value in the period under review shows evidence of gradual congestions on the TCH; however ETISALAT met the Commission's target of ≤2%.
- GLO recorded values for this KPI. see earlier comments on above KPI.GLO value does not reflect actual network performance in the period under review.
- An average of 15% of GLO data were not available (N/A) in the period under review

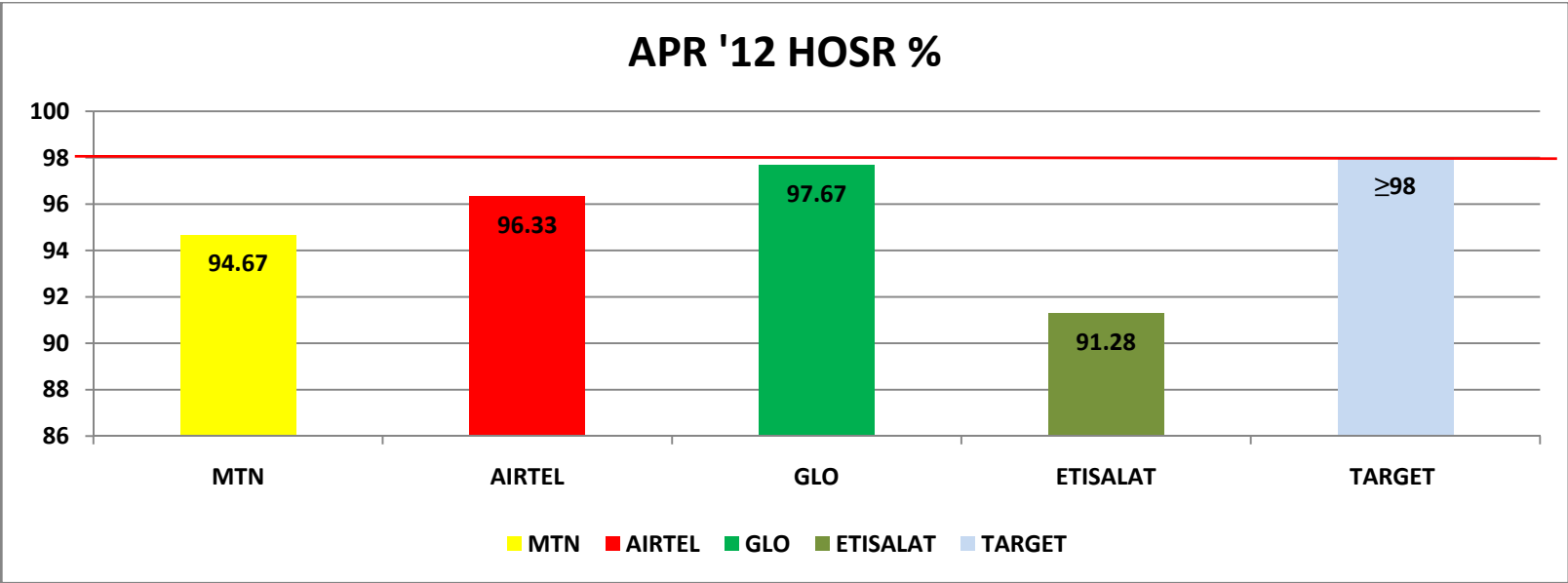
APRIL 2012 QoS AUDIT REPORT



NCC SDCCH Cong Target ≤0.2%:

- All the Operators failed to meet the Commission target within the period under review.
- GLO value cannot be validated and does not reflect actual network performance in the period under review.
- An average of 15% of GLO data were not available (N/A)
- ETISALAT has consistently recorded worst performance when compared with other operators' performance and the Commission's target of ≤0.2%.

APRIL 2012 QoS AUDIT REPORT



6.

NCC HoSRTarget ≥98%:

- MTN, ETISALAT and AIRTEL failed to meet the Commission’s target in the period under review.
- GLO recorded value cannot be validated in view of earlier comments above.
- General performance by the Operators was poor on this KPI in the period under review.
- Etisalat recorded the worst performance when compared with others and Commission’s minimum threshold in the period under review.

APRIL 2012 QoS AUDIT REPORT

Comments APRIL 2012 QoS Report:

GLO NETWORKS:

- GLO submitted that it carried out upgrade on all Huawei BSC (according to GLO work is on-going) and swapping of some ALCA TEL BSCs with HUAWEI BSCs in period under review. However, investigations reveal that some of the BSCs reported to have been swapped and decommissioned carried traffic within the period under review; this calls for further investigations of GLO network performance.
- Reviewing GLO QoS KPI capture and evaluation in the period under review, it can be conveniently stated here without prejudice that GLO QoS data for March 2012 and April 2012 cannot be validated taking for instance the disparity observed in the values recorded for RTCH Assignment Congestion and RTCH Assignment Success Rate in the period under review.
- Also comparison of related KPI's in some BSCs within the GLO network did not make any technical sense, hence indicating that some substantial portion of the data were either manipulated or adjusted to make the network indices look good and meet the Commission's target