

Airtel beats TNM in service performance

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A Key Performance Indicators quarterly report released by Malawi Communication Regulatory Authority (MACRA) last week has shown that Telecoms Network Malawi (TNM) Limited is lagging behind in the way it is offering its mobile phone services in comparison to the services offered by Airtel Malawi.

"TNM needs to improve...as its performance key indicators were below acceptable levels," MACRA says in the report.

The regulator says it is however aware that despite the Performance Key Indicators (PKI) looking good, customers in Malawi are still experiencing poor quality of services as evidenced by dropped calls, congestion, poor voice quality and one way transmission.

The report looks at the performances of the two mobile phone service providers in the months of October, November, and December in 2011.

Analysing the KPI's

The report analyses the Key Performance Indicators which has been achieved by these Global Systems for Mobile Communications (GSM) service in the areas of Radio Network, Call Set up Success Rate, SDCCH Congestion, Traffic Channel Congestion, Call Drop rate, Handover Success Rate, GPRS Context Activation Success Rate, SMS Success Rate, Trunk Congestion, and Mobile Switch Centre Availability and Intelligence Network platform availability.

Under the Call Set Up Success Rate, MACRA looked at the percentage of originating calls that were successfully established by customers.

"In any GSM network, not all call attempts made by customers are successfully established and the target for this Key Performance indicator is 98%, meaning only 2% of the calls may experience Call Setup failure beyond which the grade of service will decline," says the report.

While Airtel managed to beat MACRA target, TNM failed to beat the target during the period under review.

While Airtel posted 98.9%, 99% and 99.2% for the three months TNM managed 96.8% and 96.8% in the first two months.

On the percentage of Connections with Good Voice Quality with a focus on Signalling and Traffic Channel Congestion, MACRA measured the percentage of call connections with good voice quality which is made up of two components -

namely Traffic Channel (THC) congestion and signalling (SDCCH) congestion.

"The implication of this congestion is that any customer establishing a call will not be able to successfully make that call. They are likely to encounter messages such as network busy or circuit congestion if using smart phones or a busy tone if using ordinary phones," explains the report.

And under Signalling Channel (SDCCH) Congestion whose target is 0.5 percentage; meaning 99.5% of the calls should be established at any particular time without experiencing signalling channel congestion since the signalling channels facilitate easy establishment of a call.

"Airtel managed to beat the target while TNM failed to meet the target during the entire period under review," says the report.

While on Traffic Channel (TCH) Congestion which is a KPI that directly relates to SDCCH Congestion in as voice quality is concerned, the traffic congestion comes into play when the number of customers are increasing in particular area or network and this is usually resolved by adding software or hardware capacity, especially voice channels, in the affected node of the network in order to increase capacity.

"The target for this KPI is 2%, meaning only 2% of the calls are allowed to fail due to this type of congestion," explains the report and while again Airtel managed to beat the target TNM failed to meet the target during the review.

On Call Drop Rate

On Call Drop Rate which is a key performance indicator that measures number of calls that are prematurely disconnected before end of conversation against the number of all call attempts within the measurement period. Due to failure of handover, radio loss and network congestion both service providers managed to achieve the target.

"The target for this Key Performance Indicator is 2%, meaning only 2% of the calls are allowed to drop during conversation," says MACRA in the report which notes that both GSM operators registered some call drops on their respective networks.

On the Handover Success Rate key performance indicator which is the ability of a customer to talk on the cell phone for a long distance without getting disconnected, Airtel managed to beat the target while TNM failed.

The MACRA report explains that Handover Success Rate is the ability of a call connection to be handed over from one cell to another without losing the connection and it is directly linked to Call Drop rate because a handover failure normally results into a dropped call.

"The target for this Key Performance Indicator is 90%, meaning only 10% of the calls may experience Handover failure beyond which the grade of service will decline," says the report.

Data related services

The report also assessed GPRS Context Activation Success Rate which is a measure of data related services that were successfully accessed by customers. One typical example is the internet.

"The target for this Key Performance Indicator is 90%, meaning only 10% of the calls may experience GPRS Context Activation failure beyond which the grade of service will decline," it says.

Both mobile Network operators achieved the required performance level. This means that data related services were successfully accessed by customers of both networks.

SMS Success Rate

On the SMS Success Rate which measures originating SMSs sent by customers against SMSs received by the intended recipients, both GSM Network Operators managed to achieve the target of SMS Success rate.

MACRA explains that this is affected by a number of factors like when customer's inbox is full as this may prohibit incoming of new SMSs.

"When customers attempt to send an SMS when they don't have credit in the cell phones, a signal of SMS delivery failure is sent back to the SMS serve," the report says.

It explained further that SMS failure can also be caused by fault equipment like transmission, Base Transceiver Station, Base Station Controller, Mobile Switching Centre, SMS server etc.

MACRA says the target for this Key Performance Indicator is 90% meaning 10 out of 100 SMSs may be allowed to fail and in the three preceding months Airtel registered 98.5%, 98.6%, and 98.2% while TNM registered 96.2%, 97.1% and 97.4%.

MACRA also looked at Trunk Congestion which is a measure of traffic congestion between mobile switching centre (MSC) and the various routes like interconnection to other network operators in Malawi including international traffic.

"The target of this key performance indicator is 2%, meaning only 2% of the calls may experience trunk congestion beyond which the grade of service will decline," says the report.

It adds that when there is congestion in a particular route customers will not be able to access services in that route.

"One typical example of such congestion is the call centre route whereby customers cannot easily access the customer care centre. Customers may simply be told by the recorded message that all the customer agents are busy and please hold the line," says the quarterly report.

Both networks managed to beat the target for this indicator.

100% availability

Mobile Switching Centre (MSC) availability is the time in minutes per month when the MSCs were up and running, MACRA says Mobile Switching Centre is the core equipment that controls the entire Code Division Multiple Access (CDMA) network.

"If MSC fails, there can be no network availability in the whole country or in a particular region served by the affected MSC as no calls can be made," it says and that the MACRA target for MSC is 99.999%, meaning only 0.001% of the time or in other words less than six minutes within a year users may experience MSC unavailability beyond which the grade of service is considered unacceptable.

In the three month period, both service providers managed to beat MACRA's target by achieving 100% availability.

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