مؤشرات الأداء الرئيسية KPIs

جدول رقم (١) الخاص بالجولات الميدانية (Drive Test)

المؤشرات الخاصة بخدمات الجيل الثاني		
المؤشر	**القيمة المقبولة**	**Comments**
Call Setup Success Rate (CSSR)	**>=99%**	**يتم الاخذ بنظر الاعتبار تناسب عدد العينات مع عدد السكان**
Drop Call Rate (DCR)	**<=1%**	
RX-Level	**Reporting**	
RX-Qual	**Reporting**	
المؤشرات الخاصة بخدمات الجيل الثالث		
parameter Name	**Value Accepted**	**Comments**
CSSR	**>=97%**	
DCR	**<=1%**	
EC/IO	**Reporting**	
MOS	**>=3.5**	

المؤشرات الخاصة بخدمات الجيل الرابع (DT)				
Indicator		**Average/ Accepted**	**النسبة المئوية للفحص Total Samples**	**Reference (International Standard) & COMMENTS**
Throughput	**Downlink /Application Throughput**	>= 10 Mbps	70 %	
	Uplink /Application Throughput	>= 3 Mbps	70 %	
Latency (ms)		< = 150 ms	>= 80%	
Packet Loss Ratio		< = 3%	>= 80%	

parameter Name		Outdoor	Indoor	النسبة المئوية للفحص Total Samples	Reference (International Standard)
RSRP	RSRP in city	-100dBm	-110dBm	80%	Reference Signal Receive Power is the average power of Resource Elements (RE) that carry cell specific Reference Signals (RS) over the entire bandwidth, so RSRP is only measured in the symbols carrying RS. **ETSI TS 136 214 v15.2.0 (2018-07)**
	RSRP in rural area	-105dBm	-110dBm	80%	
	RSRP in highway	-110dBm		80%	
SINR		**Reporting**			
CSFB		**Reporting**			
RSSI		**Reporting**			

جدول رقم ٢ الخاص بمؤشرات الـ(OSS)

2G OSS KPIs	
Percentage of calls dropped * coverage * signaling * interference	<1%
BH Percentage of calls blocked due to network congestion (TCH Blocking)	<0.5%
BH SD BLK	<2%
Call set-up success rate (within own network)	>99%
Duration of interruption due to handover	<150 ms
Paging / Alerting delay * First page * Final attempt	 <4sec <15sec
Billing complaints per 1000 bills issued	<5
Percentage of billing complaints resolved within 30 days	99%
3G OSS KPIs	
Average of Total NW-3G Voice call setup success rate	99 %
Average of PACKET R99 CSSR	95%
Average of Total NW-HSDPA Accessibility	98%
Average of Total NW-3G Voice drop call rate	< =1%
Average of Total NW-PACKET R99 DCR	<= 2%
Average of Total NW-HSDPA Drop	< =2%
Average of RAB CONGESTION	< 1%

Core KPI's		
KPI Name	Details	Value
Attach success rate (Combine)	its indicate for any call CS or establish PS session through MME	>=98%
bearer activation success rate	Since there is no RNC or BSC in between the core and the tower, there is bearer activation for each site from core side and this KPI's reflecting the core activating links with towers successfully	>=98 %
Paging success rate	its calculate the success rate in message that sent from UE to MME	>=97 %
Network availability (every 6 months)	Determines the probability of a mobile network performing all its required functions and its split to a core network and an access radio network	>=99.5

مؤشرات الاداء الرئيسية العامة			
Indicator	**Target Value**	**Published Measurement**	**Definition and Reference International Standard**
Call Center Response Time	85% in 60 sec	Statistics provided by operators	Time taken to answer a customer call that passed the IVR until an answer is received from the Customer Response Center operator. Number of calls received from customers that passed the IVR and the time taken to answer each such call are measured. Then the percentage answered by the operator within 60 seconds is calculated ETSI EG 202057-1
Billing correctness complaints rate			The proportion of bills resulting in an End User complaining about the correctness of a given bill. A bill correctness complaint is an expression of dissatisfaction with the accuracy of a bill received from an End User. ETSI EG 201 769 V1.1.2 (2000-10) specifies "Billing correctness complaints" in paragraph 5.9 ETSI ES 202 057-1 V2.1.1 (2013-01) also specifies "Bill correctness complaints" in paragraph 5.11
Percentage of billing complaints resolved within 10 working days	> 90 % Per 3 months		
Percentage of billing complaints resolved within 20 working days	> 97% Per 3 months		

KPI Name	Description	Service	Service	Value
RRC Connection Establishment Success Rate in city	its calculate the success to make session for calls /internet	CS/PS	Calls/Data	>99%
RRC Connection Establishment Success Rate in rural area and Highway	its calculate the success to make session for calls /internet	CS/PS	Calls/Data	>=97%
ERAB Establishment Success Rate in city	its calculate the success if the session completed doen if calls or data	CS/PS	Calls/Data	>99%
ERAB Establishment Success Rate in rural area and Highway	its calculate the success if the session completed doen if calls or data	CS/PS	Calls/Data	>=97%
Handover Success Rate	it's the percentage of success handover from site to site	PS	Data	>90%
ERAB Drop rate	call drop in session of date due to many jumps happened in ISP path	PS	Data	<=1%
UE Context Drop Rate	the session drop in user end mobile	PS	Data	<=1%
CS Fallback Success/Redirection Rate	its calculate the call success rate that fallback from 4G to 2G or 3G	CS	Calls	>=99%
IF Handover Success Rate(with 2nd carrier)	handover session of data from LTE to LTE	PS	Data	>90%
S1 Signaling Success Rate	its calculate success rate between enodeB and MME (its calculate the quality link between site and MME)	PS	Data	>99%
DL_Sheduling_Latency (ms)	its calculate time quality from UE till MME or ISP and indicate to link quality or BSS or MME or ISP (all layer of BSS LTE)	PS	Data	<30ms
RB UL Interference (dBm)	its calculate the uplink interference	PS	Data	<100%
Network availability (every 6 months)	Determines the probability of a mobile network performing all its required functions and its split to a core network and an access radio network	CS/PS	Calls/Data	>=99.5