

Indicator	KPI Name	KPI Description	Monitored Services	KPI Details per Monitored Service	
				UoM	Current Quarter actual
General					
G-1	Supply time for initial connection	The Supply time initial connection is the duration from the instant of a valid service order being received from an End User to the instant a working service is made available by the Licensed Operator for use by the End User.	Fixed Voice Services (PSTN)	Days (95%)	
			Fixed Voice Services (PSTN)	Days (99%)	
			Fixed Voice Services (PSTN)	% within agreed delivery time	
			Fixed Voice Services (VoIP)	Days (95%)	
			Fixed Voice Services (VoIP)	Days (99%)	
			Fixed Voice Services (VoIP)	% within agreed delivery time	
			Mobile Services (Voice/VoLTE/Broadband)	Days (95%)	
			Mobile Services (Voice/VoLTE/Broadband)	Days (99%)	
			Mobile Services (Voice/VoLTE/Broadband)	% within agreed delivery time	
			Internet services (DSL)	Days (95%)	
			Internet services (DSL)	Days (99%)	
			Internet services (DSL)	% within agreed delivery time	
			Internet services (FTTH)	Days (95%)	
			Internet services (FTTH)	Days (99%)	
			Internet services (FTTH)	% within agreed delivery time	
			Internet services (Fixed Wireless)	Days (95%)	
			Internet services (Fixed Wireless)	Days (99%)	
			Internet services (Fixed Wireless)	% within agreed delivery time	
			New physical line with any service	Days (95%)	
			New physical line with any service	Days (99%)	
New physical line with any service	% within agreed delivery time				
G-2	Fault Report Rate	A fault report is a report of disrupted or degraded service that is made by an End User and is attributable to the network of the service Licensed Operator or any interconnected public network, and that is not found to be invalid. Faults in any equipment on the End User side of the network termination point are excluded.	Fixed Voice Services (PSTN)	%	
			Fixed Voice Services (VoIP)	%	
			Mobile Services (Voice/VoLTE/Broadband)	%	
			Internet services (DSL)	%	
			Internet services (Fixed Wireless)	%	
G-3	Fault repair time	The duration from the instant a fault has been notified by the End User (to the published point of contact of the Licensed Operator) to the instant when the service element or service has been restored to normal working order.	Fixed Voice Services (PSTN)	Hours access line (80% fastest)	
			Fixed Voice Services (PSTN)	Hours access line (95% fastest)	
			Fixed Voice Services (PSTN)	% within time stated as an objective by the service provider	
			Fixed Voice Services (VoIP)	Hours access line (80% fastest)	
			Fixed Voice Services (VoIP)	Hours access line (95% fastest)	
			Fixed Voice Services (VoIP)	% within time stated as an objective by the service provider	
			Mobile Services (Voice/VoLTE/Broadband)	Hours access line (80% fastest)	
			Mobile Services (Voice/VoLTE/Broadband)	Hours access line (95% fastest)	
			Mobile Services (Voice/VoLTE/Broadband)	% within time stated as an objective by the service provider	
			Internet services (DSL)	Hours access line (80% fastest)	
			Internet services (DSL)	Hours access line (95% fastest)	
			Internet services (DSL)	% within time stated as an objective by the service provider	
			Internet services (FTTH)	Hours access line (80% fastest)	
			Internet services (FTTH)	Hours access line (95% fastest)	
			Internet services (FTTH)	% within time stated as an objective by the service provider	
G-4	Response times for call centre services	The duration from the instant when the address information required for setting up a call is received by the network (e.g. recognized on the calling user's access line) to the instant the human operator answers the calling End User to provide the service requested. Services provided wholly automatically, e.g. by voice response systems, are excluded.	All services offered by operator	Seconds (mean time)	
				% within 20 seconds	
G-5	Response times for directory services	The duration from the instant when the address information required for setting up a call is received by the network (e.g. recognized on the calling End User's access line) to the instant the human operator or an equivalent voice-activated response system answers the calling End User to provide the number information requested.	All directory services	Seconds (mean time)	
				% within 20 seconds	
			Fixed Voice Services (PSTN)	%	

G-6	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.	Fixed Voice Services (VoIP)	%	
			Mobile Services (Voice/VoLTE/Broadband)	%	
			Internet services (DSL)	%	
			Internet services (FTTH)	%	
			Internet services (Fixed Wireless)	%	
G-7	Billing correctness complaints resolution time	The duration from the instant an End User billing complaint is notified to the published point of contact of a Licensed Provider and is not found to be invalid to the instant the cause for such complaint has been resolved.	Fixed Voice Services (PSTN)	Hours (80% fastest)	
			Fixed Voice Services (PSTN)	Hours (95% fastest)	
			Fixed Voice Services (PSTN)	% within time stated as an objective by the service provider	
			Fixed Voice Services (VoIP)	Hours (80% fastest)	
			Fixed Voice Services (VoIP)	Hours (95% fastest)	
			Fixed Voice Services (VoIP)	% within time stated as an objective by the service provider	
			Mobile Services (Voice/VoLTE/Broadband)	Hours (80% fastest)	
			Mobile Services (Voice/VoLTE/Broadband)	Hours (95% fastest)	
			Mobile Services (Voice/VoLTE/Broadband)	% within time stated as an objective by the service provider	
			Internet services (DSL)	Hours (80% fastest)	
			Internet services (DSL)	Hours (95% fastest)	
			Internet services (DSL)	% within time stated as an objective by the service provider	
			Internet services (FTTH)	Hours (80% fastest)	
			Internet services (FTTH)	Hours (95% fastest)	
			Internet services (FTTH)	% within time stated as an objective by the service provider	
G-8	Network availability of the "core" network	Probability that "core" network services are available for an End User. "Core" network availability refers to network availability excluding local unavailability of a network due to access network unavailability.	FixedVoice Services (PSTN)	%	
			FixedVoice Services (VoIP)	%	
			Mobile Services (Voice/VoLTE/Broadband)	%	
			Internet services (DSL)	%	
			Internet services (FTTH)	%	
			Internet services (Fixed Wireless)	%	

Voice

V-1	Call Set-Up Success Rate	The ratio of successful calls to the total number of call attempts in a Reporting Period. An unsuccessful call is a call attempt to a valid number where neither called party busy tone, nor ringing tone, nor answer.	Voice Services (PSTN, national)	%	
			Voice Services (PSTN, international)	%	
			Voice Services (VoIP national)	%	
			Voice Services (VoIP international)	%	
			Voice Services (Mobile Voice, national)	%	
			Voice Services (Mobile Voice, international)	%	
			Voice Services (VoLTE, national)	%	
			Voice Services (VoLTE, international)	%	
V-2	Call set-up time	The duration from the instant when the address information required for setting up a call is received by the network (e.g. recognized on the calling End User's access line) and the instant when the called party busy tone or ringing tone or answer signal is received by the calling End User (e.g. recognized on the calling End User's access line).	Voice Services (PSTN, national)	Seconds (mean time)	
			Voice Services (PSTN, national)	Seconds (95%)	
			Voice Services (PSTN, international)	Seconds (mean time)	
			Voice Services (PSTN, international)	Seconds (95%)	
			Voice Services (VoIP national)	Seconds (mean time)	
			Voice Services (VoIP national)	Seconds (95%)	
			Voice Services (VoIP international)	Seconds (mean time)	
			Voice Services (VoIP international)	Seconds (95%)	
			Voice Services (Mobile Voice, national)	Seconds (mean time)	
			Voice Services (Mobile Voice, national)	Seconds (95%)	
			Voice Services (Mobile Voice, international)	Seconds (mean time)	
			Voice Services (Mobile Voice, international)	Seconds (95%)	
			Voice Services (VoLTE, national)	Seconds (mean time)	
			Voice Services (VoLTE, national)	Seconds (95%)	
Voice Services (VoLTE, international)	Seconds (mean time)				
Voice Services (VoLTE, international)	Seconds (95%)				
V-3	Voice Quality	Represents the intrinsic quality of speech signal after transmission. This Parameter takes into account the degradations generated on the signal by the transmission links.	Voice Services (PSTN)	MOS exceeded for 90%	
			Voice Services (VoIP)	MOS exceeded for 90%	
			Voice Services (Mobile Voice)	MOS exceeded for 90%	
			Voice Services (VoLTE)	MOS exceeded for 90%	
V-4	Speech Delay	The end-to-end delay is the delay from mouth to ear, which means the transmission delay over the whole transmission path. For the purpose of this Regulation, end-to-end delay does not take into account the transducers delay (loudspeaker and microphone) while measurements are done at the electrical interfaces of the end terminals.	Voice Services (PSTN, national)	Milliseconds (mean time)	
			Voice Services (PSTN, international)	Milliseconds (mean time)	
			Voice Services (VoIP national)	Milliseconds (mean time)	
			Voice Services (VoIP international)	Milliseconds (mean time)	
			Voice Services (Mobile Voice, national)	Milliseconds (mean time)	
			Voice Services (Mobile Voice, international)	Milliseconds (mean time)	
			Voice Services (VoLTE, national)	Milliseconds (mean time)	
Voice Services (VoLTE, international)	Milliseconds (mean time)				

Mobile

M-1	Dropped call rate	The proportion of incoming and outgoing calls which, once they have been correctly established and therefore have an assigned traffic channel, are dropped or interrupted prior to their normal completion by the End User, the cause of the early termination being within the Licensed Operator's network.	Mobile Services (Mobile Voice)	%	
			Mobile Services (VoLTE)	%	
M-2	Coverage	Network coverage is defined as the specific signal level indication at which the mobile device can log in to the network and initiate a call and/or data session.	GSM	Maps and %	
			UMTS	Maps and %	
			LTE	Maps and %	
M-3	Completion Rate for SMS	The ratio of correctly sent and received short messages (SMS) between two terminal equipment.	Mobile Services (SMS)	%	
Broadband					
B-1	Throughput	The data transmission speed is defined as the data transmission rate that is achieved separately for downloading and uploading specified test files between a remote web site and a user's computer.	Internet services (Mobile Broadband)	Mbps (5% slowest)	
			Internet services (Mobile Broadband)	Mbps (mean)	
			Internet services (Mobile Broadband)	Mbps (95% fastest)	
			Internet services (DSL)	Mbps (5% slowest)	
			Internet services (DSL)	Mbps (mean)	
			Internet services (DSL)	Mbps (95% fastest)	
			Internet services (FTTH)	Mbps (5% slowest)	
			Internet services (FTTH)	Mbps (mean)	
			Internet services (FTTH)	Mbps (95% fastest)	
			Internet services (Fixed Wireless)	Mbps (5% slowest)	
			Internet services (Fixed Wireless)	Mbps (mean)	
			Internet services (Fixed Wireless)	Mbps (95% fastest)	
B-2	Latency	Refers to the round trip time required for a packet to travel from a source to a destination and back. It is used to measure the delay on a network at a given time.	Internet services (Mobile Broadband, national)	Milliseconds	
			Internet services (Mobile Broadband, international)	Milliseconds	
			Internet services (DSL, national)	Milliseconds	
			Internet services (DSL, international)	Milliseconds	
			Internet services (FTTH, national)	Milliseconds	
			Internet services (FTTH, international)	Milliseconds	
			Internet services (Fixed Wireless, national)	Milliseconds	
Internet services (Fixed Wireless, international)	Milliseconds				
B-3	Web page loading time	Duration between the instant the download request of the Web page is sent by the End User to the host server and the instant when the Web page download is correctly completed.	Internet services (Mobile Broadband)	Seconds	
			Internet services (DSL)	Seconds	
			Internet services (FTTH)	Seconds	
			Internet services (Fixed Wireless)	Seconds	

CERTIFICATION:

I (name and position of Authorized representative) declare that: I am authorized to submit this Quality of Service Measurements Report on behalf of (name of Licensed Provider) and that based on information known to me or provided to me by employees responsible for the data being submitted, I hereby certify that the data set forth in this Report has been examined and reviewed and is true, accurate and complete. I acknowledge that providing the Authority incomplete or inaccurate information in this Report can be punished by fines and other enforcement actions in accordance with Article 12 of the Quality of Service Regulation.

NOTE: Licensed operators must only report General KPIs; TRA will conduct measurements for the remaining KPIs.