AU-4/2/7(2)/2024-QoS 1/28772/2024



भारतीय दूरसंचार विनियामक प्राधिकरण TELECOM REGULATORY AUTHORITY OF INDIA भारत सरकार / Government of India



Dated: 24th October 2024

DIRECTION

Subject: Direction under section 13, read with sub-clauses (i) and (v) of clause (b) of sub-section (1) of section 11, of the Telecom Regulatory Authority of India Act, 1997 (24 of 1997) and the Standards of Quality of Service of Access (Wireline and Wireless) and Broadband (Wireline and Wireless) Service Regulations, 2024 (06 of 2024) dated 02nd August 2024, regarding timely submission of data for audit.

- **F. No. AU-4/2/7(2)/2024-QoS** ---- Whereas the Telecom Regulatory Authority of India (hereinafter referred to as "the Authority"), established under sub-section (1) of section 3 of the Telecom Regulatory Authority of India Act, 1997 (24 of 1997) (hereinafter referred to as "TRAI Act"), has been entrusted with discharge of certain functions, *inter alia*, to regulate the telecommunication services; ensure compliance of terms and conditions of license; ensure technical compatibility and effective inter-connection between different service providers; lay-down the standards of quality of service to be provided by the service provider and ensure the quality of service and conduct the periodical survey of such services provided by the service providers so as to protect the interest of the consumers of telecommunication service;
- 2. And whereas the Authority, in exercise of the powers conferred upon it under section 36, read with sub-clauses (i) and (v) of clause (b) of sub-section (1) of section 11, of the TRAI Act, made the Standards of Quality of Service of Access (Wireline and Wireless) and Broadband (Wireline and Wireless) Service Regulations, 2024 (06 of 2024) dated the 2nd August 2024 (hereinafter referred to as 'the regulations'), which have come into force with effect from 1st October 2024;
- 3. And whereas regulation 12 of the regulations provides for record keeping by the service providers and sub-regulation (2) of the said regulation reads as under: -

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"(2) Every service provider shall maintain complete and accurate records of raw or primary and processed data relating to the compliance of benchmark of each QoS parameters specified in regulations 4, regulation 6, regulation 7, regulation 9 and regulation 10, as applicable, in electronic form in such manner, period and format as may be directed by the Authority, from time to time.";

- 4. And whereas regulation 13 of the regulations provides for reporting by the service providers and the said regulation reads as under: -
 - "13. Reporting.— (1) Every service provider shall create or upgrade their system within six months of notification of these regulations for collection of primary data, its storage, processing, performance report generation and their online submission to the Authority, in respect of each QoS parameters specified under regulation 4, regulation 6, regulation 7, regulation 9 and regulation 10 in such manner and format, at such intervals and within such time limit as may be specified by the Authority, from time to time, by an order or direction.
 - (2) Every service provider shall establish a system for live monitoring of network availability and report to the Authority in such manner, format and frequency as may be specified by the Authority by an order or direction.
 - (3) The benchmark of each QoS parameters specified in sub-regulation (1) shall be measured, reported, and complied at license or authorised Service Area level, as may be specified by the Authority, from time to time, by an order or direction:
 - Provided that the Authority may, from time to time, by an order or direction, specify certain QoS parameters to be measured and reported to the Authority for specific States or Union Territories or districts for a specific purpose and period.";
- 5. And whereas regulation 14 of the regulations provides for audit to verify the performance reported by the service providers to the Authority under regulation 13 and the said regulation reads as under: -
 - **"14. Audit.** (1) The Authority may, from time to time, through audit conducted either by its own officers or employees or through an agency appointed by it, verify the performance against the Quality of Service parameters, specified in regulation 4, regulation 6, regulation 7, regulation 9 and regulation 10, as reported to the Authority under regulation 13 by the service provider.";

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And whereas the Authority has been conducting the audit of QoS performance, as

reported by the service providers, through its own officers or employees or through an agency

appointed by the Authority.

7. And whereas it has come to the notice of the Authority that some service providers have

either delayed provision of data or provided partial data to the audit agency during the past

quarters;

8. Now, therefore, the Authority, in exercise of the powers conferred upon it under section

13, read with sub-clauses (i) and (v) of clause (b) of sub-section (1) of section 11, of the

Telecom Regulatory Authority of India Act, 1997 (24 of 1997), hereby directs all service

providers providing access service (wireless) under a license or Authorisation under the

Telecommunications Act, 2023, to -

(i) submit to the Authority or the officers or employees of the Authority or the audit

agency appointed by the Authority, the required data for the purpose of audit, as per

the format specified at Annexure-I to this Direction, on monthly basis, within a

period of **ten (10) days** of the end of each month.

(ii)facilitate and provide access for downloading of the live QoS performance data from

relevant counters or alarm etc., against the specified QoS parameters, by the audit

agency or the officers or employees of the Authority, for three consecutive days in a

month, or quarter, as required; and

(iii) strictly follow the guidelines as specified at Annexure-II to this Direction while

providing the data for the purpose of audit under the provisions of regulation 14 of

the regulations.

9. This Direction shall come into force with immediate effect.

Signed by

Teipal Singh

Date: 24-10-2024 12:14:53

Enclosures: As above

Advisor (QoS-I)

To,

All Service Providers having:

- 1. Unified Access Service License and providing Access Service (Wireless);
- 2. Unified License with authorization for Access Service (Wireless);
- 3. Authorization under the Telecommunications Act, 2023 for providing Access Service (Wireless).

BASIC DETAILS Annexure-I

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Data for audit of Perfo	ormance Monitoring Report (PMR) of Access (wireless) service
Please tick as applicable:	(a) 3-day Live	(b) Monthly historical data
· · · · · · · · · · · · · · · · · · ·		
	Basic Details	
Name of the Service Provider		
Name of the LSA		
Reporting Month		
Total No. of Point of Interconnections (Pol)		
TCBH of the network (in 24 Hr. format) No. of Post paid subscriber (on last date of the		
reporting month)		
No. of Pre-paid subscriber (on last date of the		
reporting month)		
Typical download speed(s) offered in different plans		
(in Mbps)		
Typical upload speed(s) offered in different plans (in		
Mbps)		
Ne	etwork summary at the end of the repo	rting month
Technology	Number of Base Stations	Number of Cells
2G		
3G		
4G		

0

Total

Cell Master Annexure-I

Cell Global Identity (CGI)	Service Provider code	LSA Code	Technology (2G/ 3G/ 4G/ 5G)	Whether Cell is a part of network slicing? (Yes/ No)	Date of Commissioning	Date of De- commissioning (if any)

Cell Wise Downtime Annexure-I

			Day-1 (Date)	Day-2 (Date)	Day-3 (Date)	
CGI	Service Provider code	LSA Code	Cell down time (in hr) as per down and restoration alarm log (to be provided)	Cell down time (in hr) as per down and restoration alarm log (to be provided)	Cell down time (in hr) as per down and restoration alarm log (to be provided)	Cell wise total down time in the month (in hrs.)

Network Parameters (Voice) Annexure-I

				Day-1 (Date)			Day-2 (Date)			Day-S	(Date)		Total for the month				
Serv Provi Cod	der L	LSA Code	Total No. of calls established during TCBH	Total No. of call attempts during TCBH	Total No. of calls established (originated from within service provider network) during TCBH	Total No. of call attempts (originated from within service provider network) during TCBH	established	attempts during	calls established (originated from within service provider network)	from within	Total No. of calls established during TCBH	Total No. of call attempts during TCBH	Total No. of calls established (originated from within service provider network) during TCBH	call attempts (originated from within service	Total No. of calls established during TCBH	Total No. of call attempts during TCBH	(originated from	(originated from within service	

Network Parameters (SMS) Annexure-I

				Day-1 (Da	ate)			Day-2 (Date)			Day-3	(Date)			Total for th		
P	Service rovider Code	LSA Code	No.of generated and successfully delivered SMS in service provider's network	SMS generated	call attempts on call centre /	Number of calls connected to call centre / customer care	successfully delivered SMS in service	Total number of SMS generated within service provider's	of call	connected to call centre /	successfully	Total number of SMS generated within service provider's	Total number of call attempts	Number of calls connected to call centre / customer care	and successfully delivered SMS in	generated	of call attempts on	Number of calls connected to call centre / customer care

DCR_CS (CBBH) Annexure-I

				Day-1 (Date)		Day-2 (Date)			Day-3 (Date)		Day wise dro	p call rate (D	CR) for th	e month during CBBH
CGI	Service Provider code	LSA Code	СВВН	Total number of interrupted (dropped) calls	Total number of calls successfully established	СВВН	Total number of interrupted (dropped) calls	Total number of calls successfully established	СВВН	Total number of interrupted (dropped) calls	Total number of calls successfully established	Day-1	Day-2		Last day of the month

DCR_PS (CBBH) Annexure-I

				Day-1 (Date)			Day-2 (Date)			Day-3 (Date)		Day wise drop	call rate (DCR) for	the month	during CBBH
CGI	Service Provider code	LSA Code	СВВН	Total number of interrupted (dropped) calls	Total number of calls successfully established	СВВН	Total number of interrupted (dropped) calls	Total number of calls successfully established	СВВН	Total number of interrupted (dropped) calls	Total number of calls successfully established	Day-1	Day-2		Last day of the month

DL PDR (CBBH)
Annexure-I

				Day-1 (Date)			Day-2 (Date)			Day-3 (Date)	Day wise voice packet drop rate in downlink for the month during CBBH				
CGI	Service Provider code	LSA Code	СВВН	traffic packets dropped or lost (not successfully transmitted) in the	Total number of voice traffic packets of bearer entered for transmission	СВВН	Total number of voice traffic packets dropped or lost (not successfully transmitted) in the downlink	packets of bearer entered	СВВН	Total number of voice traffic packets dropped or lost (not successfully transmitted) in the downlink	Day-1	Day-2		Last day of the month	
		-										,			

UL PDR (CBBH)
Annexure-I

				Day-1 (Date)		Day-2 (Date)			Day-3 (Date)		Day wise voice pa	cket drop rate in upli	nk for the	month during CBBH
CGI	Service Provider code	LSA Code	СВВН	Total Number of missing voice traffic packets that are not delivered to higher layers (packets lost) of a data radio bearer	Total number of voice traffic packets that are to be delivered to higher layers of a data radio bearer	СВВН	Total Number of missing voice traffic packets that are not delivered to higher layers (packets lost) of a data radio bearer	voice traffic packets that are	СВВН	Total Number of missing voice traffic packets that are not delivered to higher layers (packets lost) of a data radio bearer	Total number of voice traffic packets that are to be delivered to higher layers of a data radio bearer	Day-1	Day-2		Last day of the month

POI Annexure-I

	Service			Da	y-1 (Date)	Da	y-2 (Date)	Day	/-3 (Date)	Total for	the month
S No	provider Code	LSA Code	Pol Details	Number of failed calls during TCBH	Number of call attempts to the Pol during TCBH	Number of failed calls during TCBH	Number of call attempts to the Pol during TCBH	Number of failed calls during TCBH	Number of call attempts to the Pol during TCBH	Number of failed calls during TCBH	Number of call attempts to the Pol during TCBH

Broadband Data Annexure-I

S No	Service provider code	LSA code	No. of Cell I	Ds covered	No. of test			easurement from Day		as applicable thodology provided in the Reg	[As gulations]
3140	Service provider code	LOA COUC	4G	4G 5G		rest server in ructait	Latency (in ms)	Jitter (in ms)	Packet drop rate (%)	20th percentile value of download speed (in Mbps)	20th percentile value of upload speed (in Mbps)

Note: Same format should be used for 3-day live and monthly data submission. The monthly data will be based on the measurements taken during the month

Annexure-II

Guidelines for submission of data under the provision of regulation 14 of the Standards of Quality of Service of Access (Wireline and Wireless) and Broadband (Wireline and Wireless) Service Regulations, 2024 pertaining to audit.

- 1. The service provider shall provide the details or data sought by the audit agency appointed by the Authority, or the officers or employees of the Authority, promptly, within **ten (10) days** of the end of each month, for smooth conduct of audit as per the provisions of regulation 14 of the Standards of Quality of Service of Access (Wireline and Wireless) and Broadband (Wireline and Wireless) Service Regulations, 2024 pertaining to audit.
- 2. Annexure-I to this Direction provides the details of data to be submitted for three-day live measurement on daily basis as well as the data to be submitted on monthly basis within ten (10) days of the end of each month.
- 3. The format in Annexure-I covers some key QoS performance parameters. The audit agency, or the officers or employees of the Authority, shall conduct sample audit against the remaining QoS parameters to check integrity of data, resulting performance as reported by the service provider to the Authority including the compliance of regulations and measurement methodology.
- 4. The data under column in white colour is required in both cases i.e. during 3-day live measurement as well as for monthly data submission.
- 5. For the columns in green colour, the data dump from the relevant data source is to be provided during 3-day live measurement. Subsequently, based on the data dump, the audit agency shall prepare the data as per the format in the Annexure-I for 3-day live measurement. The data in light blue column is not required for 3-day live measurement.
- 6. Similarly, for the columns in light blue colour, the relevant data is to be provided at the end of month. Thus, the template for monthly data will contain details in all white columns and light blue columns.
- 7. In case of broadband service, similar format shall be used for 3-day live measurement and monthly data submission. The monthly QoS performance data submission will be based on the measurements taken during the month while 3-day performance shall be prepared based on data measurements taken during the relevant 3-days of the month.
- 8. In this regard, direction No. RG-17/(3)/2022-QoS dated the 19-09-2024 may also be referred.