



**भारतीय दूरसंचार विनियामक प्राधिकरण**  
**Telecom Regulatory Authority of India**  
**[भारत सरकार / Government of India]**



Dated: 03.01.2025

**DIRECTION**

**Subject: Amendment to Direction issued vide F. No. RG-17/(3)/2022-QoS dated the 19<sup>th</sup> September 2024 regarding submission of reports to the Authority.**

**F. No. RG-17/(3)/2022-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 providers 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 2<sup>nd</sup> August 2024 (hereinafter referred to as 'the regulations'), which have come into force with effect from 1<sup>st</sup> October 2024;

3. And whereas the Authority, vide its Direction issued vide F. No. RG-17/(3)/2022-QoS dated 19<sup>th</sup> September 2024, directed all service providers having (i) Unified Access Service License; (ii) Unified License with authorization for Access Service; (iii) Internet Service Authorization under any License; and (iv) Authorization under the Telecommunications Act, 2023 for providing Access or Broadband Services, to submit, -

- i. in respect of access service (wireless), the compliance report as per the format specified at Annexure-I to the Direction, within a period of fifteen (15) days from the end of respective quarter or month, as applicable, and the report of significant network outage as per the format specified at Annexure-II to the Direction, within 24 hours of the start of the outage;
- ii. in respect of access service (wireline), the compliance report as per the format specified at Annexure-III to the Direction, within a period of fifteen (15) days from the end of respective quarter;
- iii. in respect of broadband (wireline) service, the compliance report as per the format specified at Annexure-IV to the Direction, within a period of fifteen (15) days from the end of respective quarter,-

and strictly follow the guidelines as specified at Annexure-V to the Direction while submitting the reports to the Authority;

4. And whereas after issuance of the Direction, referred to in the preceding para, service providers have requested the Authority to clarify the methodology for reporting the performance against the parameter "*Percentile value of measured test samples for which download and upload speed is  $\geq$  offered typical download and upload speed in tariff offerings*";

5. And whereas the Authority has duly considered the request, referred in the preceding para, and has decided to amend the Direction dated the 19<sup>th</sup> September 2024 and revise the formats contained in Annexure-I in respect of access service (wireless), Annexure-IV in respect of broadband (wireline) service, and Annexure-V in respect of guidelines attached with the said Direction to include a separate sheet namely 'DU\_Speed' and guidelines for reporting the performance against the parameter "*Percentile value of measured test samples for which download and upload speed is  $\geq$  offered typical download and upload speed in tariff offerings*";

6. 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), and regulation 13 of the Standards of Quality of Service of Access (Wireline and Wireless) and Broadband (Wireline and Wireless) Service Regulations, 2024 (06 of 2024) dated 02<sup>nd</sup> August 2024, hereby directs that the Annexure-I, Annexure-IV and Annexure-V of the direction issued vide F. No. RG-17/(3)/2022-QoS dated 19<sup>th</sup> September 2024 shall be substituted by the Annexures-A, B and C attached with this Direction as detailed below:-

- i. for the Annexure-I, the Annexure-A shall be substituted, containing the format specified for access service (wireless), for submitting compliance report by the service provider, within a period of fifteen (15) days from the end of respective quarter or month, as applicable;
- ii. for the Annexure-IV, the Annexure-B shall be substituted, containing the format specified for broadband (wireline) service, for submitting compliance report by the service provider, within a period of fifteen (15) days from the end of respective quarter;
- iii. for the Annexure-V, the Annexure-C shall be substituted, containing the guidelines to be strictly followed by the service providers while submitting the reports to the Authority;

7. This direction shall come into force with immediate effect.

Enclosures: As above

**Advisor (QoS-I)**

**To All Service Providers having:**

- i. Unified Access Service License;
- ii. Unified License with authorization for Access Service;
- iii. Internet Service Authorization under any License; and
- iv. Authorization under the Telecommunications Act, 2023 for providing Access or Broadband Service.

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**Performance Monitoring Report for Access service (wireless)**

**1 Basic Details**

<b>Name of the Service Provider</b>	
<b>Name of the LSA</b>	
<b>Report for the Quarter/ Month ending</b>	
<b>Year</b>	

**2 Network Details at the end of reporting period**

<b>Technology</b>	<b>Number of Base Stations</b>	<b>Number of Cells</b>
2G		
3G		
4G		
5G		
<b>Total</b>	<b>0</b>	<b>0</b>





































**Annexure-C****Guidelines to be followed while submitting the Compliance Reports for Access (wireless), Access (wireline) and Broadband (wireline) services and Significant network outage****A. Mode of Submission of Reports:**

- i. All reports are required to be submitted in online mode through the portal developed by TRAI in this regard by pushing the details through Application Programmable Interfaces (APIs).
- ii. Each service provider shall require to enable secure Application Programmable Interfaces (APIs) for submission of the reports.
- iii. However, till the APIs are developed and tested, reports may also be submitted by uploading of excel file on the portal.
- iv. Compliance report for Broadband (wireline) can be submitted either through API or through uploading of excel file on the portal.

**B. Common guideline for submission of compliance report for Access (wireless), Access (wireline) and Broadband (wireline) services and Significant network outage:**

- i. LSA or Service area code, as given below, should be filled:

S No	LSA or Service area Name	Code	S No	LSA or Service area Name	Code
1	Andhra Pradesh	AP	12	Madhya Pradesh	MP
2	Assam	AS	13	Maharashtra	MH
3	Bihar	BR	14	Mumbai	MUM
4	Delhi	DL	15	North East	NE
5	Gujarat	GJ	16	Odisha	OR
6	Haryana	HR	17	Punjab	PB
7	Himachal Pradesh	HP	18	Rajasthan	RJ
8	Jammu And Kashmir	JK	19	Tamil Nadu	TN
9	Karnataka	KT	20	Uttar Pradesh (East)	UPE
10	Kerala	KR	21	Uttar Pradesh (West)	UPW
11	Kolkata	KOL	22	West Bengal	WB

- ii. Correct State/ UT and District should be filled as mentioned on Local Government Directory (<https://lgedirectory.gov.in/>). Further, State/ UT code, as given below, should be filled:

S No	State/ UT Name	State/ UT Code	S No	State/ UT Name	State/ UT Code
1	Andaman And Nicobar Islands	AN	19	Madhya Pradesh	MP
2	Andhra Pradesh	AP	20	Maharashtra	MH
3	Arunachal Pradesh	ARP	21	Manipur	MN
4	Assam	AS	22	Meghalaya	MG
5	Bihar	BR	23	Mizoram	MZ
6	Chandigarh	CHD	24	Nagaland	NG
7	Chhattisgarh	CG	25	Odisha	OR
8	Delhi	DL	26	Puducherry	PD
9	Goa	GO	27	Punjab	PB
10	Gujarat	GJ	28	Rajasthan	RJ
11	Haryana	HR	29	Sikkim	SK
12	Himachal Pradesh	HP	30	Tamil Nadu	TN
13	Jammu And Kashmir	JK	31	Telangana	TL
14	Jharkhand	JH	32	The Dadra And Nagar Haveli And Daman And Diu	DN
15	Karnataka	KT	33	Tripura	TR
16	Kerala	KR	34	Uttar Pradesh	UP
17	Ladakh	LD	35	Uttarakhand	UK
18	Lakshadweep	LK	36	West Bengal	WB

- iii. All details in the prescribed format should be filled properly. No cell/ row/ column should be left blank.
- iv. Wherever benchmark against a QoS parameter is prescribed in terms of percentage (%), value for that QoS parameter is to be filled in decimal (upto two decimal places) without putting '%' symbol. E.g. 90% is to be filled as '90.00'.
- v. For other benchmarks also, decimal (upto two decimal places) is to be filled.
- vi. Apart from QoS parameters specified in the regulations, supporting information has been sought as a part of the compliance report. This supporting information is required to compute the performance against the specified QoS parameter. Wherever the supporting information is provided, performance against the respective QoS parameter shall be calculated automatically (highlighted in yellow). However, the service provider may verify that the computed value is correct.

- vii. In case, performance of some period, due to force majeure or otherwise, has been excluded from calculating the overall performance against a QoS parameter, then details of such exclusion including period of exclusion, reason for exclusion etc. is to be mentioned in the last row of the compliance report below the respective QoS parameter.

**C. Specific guideline for submission of compliance report of Access (wireless):**

- i. All sheets of Annexure-A (i.e., Basic details, PMR, Supporting Info, Cell\_Master, Downtime, CBBH, DCR\_CS, DCR\_PS, DL\_PDR, UL\_PDR, Call\_established, DU\_Speed), completely filled, are required to be submitted at once for a particular LSA. However, in case of submission of compliance report through APIs, sequence of submission of sheets will be intimated separately. Further, information of DCR\_CS and DCR\_PS sheets will be submitted in a single API.
- ii. Following values are allowed to be filled against the specified parameters:

<b>S. No.</b>	<b>Particular</b>	<b>Values allowed</b>
1	Name of the Service Provider	AIRTEL, BSNL, MTNL, RJIL, VIL
2	Cell Global Identity (CGI)	CGI should be unique and not be repeated. Each different CGI should be filled in separate row.
3	Pin Code	Correct PIN should be filled. It should be six digits numeric value.
4	City/town/Village	Name should be mentioned in same manner for different cells under column 'City/ town/ Village'
5	Site (Location) ID	Physical ID of the site, if any, else name of location may be filled. It should be mentioned in same manner for different cells.
6	Lat and Long	It should be accurate to 5 decimal places.
7	Base Station ID	Base Station ID of the respective CGI should be filled.
8	Type of site	Macro/ Micro/ IBS/ Small Cell/ Other
9	Technology	2G, 3G, 4G, 5G
10	Mode	FDD/ TDD/ NA (NA stands for 'Not Applicable')

11	Radiating frequency band (MHz)	It should be number without mentioning MHz like 900, 1800, 2100 etc.
12	Types of Media Connectivity	Fiber/ Microwave/ Satellite/ Other
13	Whether Cell is a part of network slicing?	Yes/ No
14	Date of Commissioning of Base Station and Date of De-commissioning of Base Station, if any	In DD-MMM-YY format like 01-JAN-24
15	TCBH and CBBH	It should be starting time of the TCBH/ CBBH in 24 Hours format like busy hour of 1 to 2 pm should be written as 13:00.  TCBH is as defined in the regulations, whereas CBBH should be one-hour period in a day during which the cell experiences the maximum traffic.

- iii. Details of all Base Stations/ cells of all technology working in the LSA should be provided. All Base Stations/ cells working for at least one day in the reporting period should be included.
- iv. In sheet 'Downtime', cell wise downtime of each day of the reporting period in decimal hours (upto two decimal places) is to be mentioned. Like 90 minutes downtime is to be reported as 1.50.
- v. In sheets 'DCR\_CS', 'DCR\_PS', 'DL\_PDR' and 'UL\_PDR', cell wise DCR and PDR of each day of the reporting period observed during CBBH is to be mentioned in decimal (upto two decimal places). Further CBBH of each cell of each day of the reporting period is to be mentioned in sheet 'CBBH' in 24 Hours format.
- vi. DCR and PDR values will be in % ranging from 0 to 100 (upto two decimal places). However, there is no need to place % sign against each DCR/ PDR value.
- vii. Apart from decimal DCR/ PDR value, only following applicable codes, as prescribed in the regulation, can be filled: DNE, NOP, NAV and NDM. No other value should be filled in DCR/ PDR cells.
- viii. In sheets 'Call\_established', total number of calls successfully established in each cell during CBBH of each day of the reporting period is to be provided.
- ix. Performance against parameter '*Percentile value of measured test samples for which download and upload speed is  $\geq$  offered typical download and upload speed in tariff offerings*' is to be submitted as follows:

- (a) In accordance with the sub-regulation (2) of regulation 6 of the regulations, *every service provider shall, in all its tariff offerings for broadband (wireless) service, indicate the typical download and upload speed generally available to the consumers.*
- (b) Actual tariff offering wise performance against the parameter is to be filled in separate sheet namely 'DU\_Speed' and 'Refer Sheet DU\_Speed' is to be mentioned below column '*Percentile value of measured test samples for which download and upload speed is  $\geq$  offered typical download and upload speed in tariff offerings*' in 'PMR' sheet.
- (c) The performance against the parameter can be measured by selecting top tariff offerings, based on number of subscribers, so that at least 75% of prepaid as well as postpaid subscribers are covered in these selected tariff offerings.
- (d) Testing is to be done for all the tariff offerings as selected above and following the measurement methodology as per para 4.4 of Schedule-I of the regulations. As per measurement methodology, test calls shall be made from at least 1067 distinct cell coverage areas in a service area having more than one lakh cells and 600 in case of service areas having less than 1 lakh cells, for each tariff offering. However, if some of the selected tariff offerings are having same offered typical download and upload speed, then such tariff offerings will be considered a part of a group for the purpose of measurement and reporting of performance against this parameter.
- (e) With reference to para 4.4.4 (vii) of measurement methodology, it is clarified that download speed observed for each test calls of a particular tariff offering or group of tariff offerings are to be arranged in descending order and **80<sup>th</sup> percentile value** of the so arranged download speed will be the performance against the parameter for download speed for the respective tariff offering or group of tariff offerings. In order to meet the prescribed benchmark, at least 80% samples should have download speed more than the offered typical download speed.
- (f) Similarly, performance for upload speed will be calculated.
- (g) Performance of each tariff offering will be submitted in a separate sheet namely 'DU\_Speed' in Annexure-A. Combined performance of the group of tariff offerings will be submitted against different tariff offerings of the group having same typical download and upload speed.
- (h) The value of offered typical download speed, measured download speed, offered typical upload speed and measured upload speed are to be reported in Mbps in 'DU\_Speed' sheet under the column '*Offered typical download speed (In Mbps)*', '*80th percentile value of download speed measured in test samples (In Mbps)*', '*Offered typical upload speed (In Mbps)*' and '*80th percentile value of upload speed measured in test samples (In Mbps)*' respectively.
- (i) With respect to the provision of measurement methodology regarding distribution of test calls within TCBH, it is clarified that normally



networks have two TCBH- day TCBH and night TCBH. The testing is to be done in these two TCBHs to the maximum extent possible.

- (j) Same sample test calls may also be used for measurement of the performance against the parameters- Latency (in 4G and 5G network), Packet drop rate (in 4G and 5G network) and Jitter (in 4G and 5G network).

**D. Specific guideline for submission of Significant network outage report:**

- i. Incidences of significant network outages (services not available in a district for more than 4 hours) are to be reported to the Authority in **Annexure-II** within 24 hours of their occurrence.
- ii. While submitting the report only Part-I of Annexure-II is to be submitted.
- iii. Action taken report including root cause of such significant network outage and corrective actions taken thereof are to be reported to the Authority in **Annexure-II**, within 72 hours of restoration of the services. Part-I of Annexure-II should be same as reported earlier and details of action taken are to be filled in Part-II.
- iv. All other guidelines as mentioned for Access (wireless) as applicable for this report are to be followed.

**E. Specific guideline for submission of compliance report of Access (wireline):**

- i. Details of multiple LSAs can be submitted in single file.
- ii. Following values are allowed to be filled against the specified parameters:

S. No.	Particular	Values allowed
1	Name of the Service Provider	AIRTEL, APSFL, BSNL, MTNL, QTL, RJIL, TTML, TTSL, VIL, VMIPL

- iii. Service providers, who are providing both access (wireline) and broadband (wireline) service, are required to report the performance of 'Customer Service' related parameters in access (wireline) compliance report only. However, the report should include the performance of 'Customer Service' related parameters for both the services i.e., access (wireline) and broadband (wireline).

**F. Specific guideline for submission of compliance report of Broadband (wireline):**

- i. All service providers having Cat-A license/ authorisation are required to submit single compliance report on 'All India' basis. Whereas service providers having Cat-B or Cat-C license/ authorisation are required to submit the compliance report on LSA basis.

- ii. Details of 'Category of License or Authorisation' is to be filled in compliance report as Cat-A/ Cat-B/ Cat-C.
- iii. Details of multiple service areas can be submitted in single file.
- iv. Name of service provider should be filled uniformly for all compliance reports. However, unique code, if any allotted by the Authority, may be filled in the compliance report in place of name of the service provider.
- v. Performance against parameter '*Percentile value of measured test samples for which download and upload speed is  $\geq$  offered typical download and upload speed in tariff offerings*' is to be submitted as follows:
  - (a) In accordance with the sub-regulation (2) of regulation 9 of the regulations, *every service provider shall, in all its tariff offerings for broadband (wireline) service, indicate the typical download and upload speed generally available to the consumers.*
  - (b) Actual tariff offering wise performance against the parameter is to be filled in separate sheet namely 'DU\_Speed' and 'Refer Sheet DU\_Speed' is to be mentioned below column '*Percentile value of measured test samples for which download and upload speed is  $\geq$  offered typical download and upload speed in tariff offerings*' in 'PMR\_Broadband' sheet.
  - (c) The performance against the parameter can be measured by selecting top tariff offerings, based on number of subscribers, so that at least 75% of prepaid as well as postpaid subscribers are covered in these selected tariff offerings.
  - (d) Testing is to be done for all the tariff offerings as selected above and following the measurement methodology as per para 6.2 of Schedule-I of the regulations. As per measurement methodology, the minimum number of subscribers to be selected from each tariff offering shall be at least 1067 for service areas having subscriber base of more than 1 lakh and 600 for subscriber base of less than one lakh for making test calls. However, if some of the selected tariff offerings are having same offered typical download and upload speed, then such tariff offerings will be considered a part of a group for the purpose of measurement and reporting of performance against this parameter. Further, selection of subscribers from different tariff offerings of a group shall be in proportion to the subscriber base of each tariff offering.
  - (e) ISPs who are submitting the PMR on 'All India' basis can take into consideration the subscribers base of all India for deciding the number of subscribers to be tested for each tariff offering.
  - (f) The performance against the parameter can be measured by initiating test calls from the selected subscribers' location and following the measurement methodology as per para 6.2 of Schedule-I of the regulations. Test call can be initiated by the subscriber or the representative of the service provider. However, log of such test calls is to be maintained by the service provider.
  - (g) With reference to para 6.2.4 (v) of measurement methodology, it is clarified that download speed observed for each test calls of a particular tariff offering or group of tariff offerings are to be arranged

in descending order and **90<sup>th</sup> percentile value** of the so arranged download speed will be the performance against the parameter for download speed for the respective tariff offering or group of tariff offerings. In order to meet the prescribed benchmark, at least 90% samples should have download speed more than the offered typical download speed.

- (h) Similarly, performance for upload speed will be calculated.
- (i) Performance of each tariff offering will be submitted in a separate sheet namely 'DU\_Speed' in Annexure-B. Combined performance of the group of tariff offerings will be submitted against different tariff offerings of the group having same typical download and upload speed.
- (j) The value of offered typical download speed, measured download speed, offered typical upload speed and measured upload speed are to be reported in Mbps in 'DU\_Speed' sheet under the column 'Offered typical download speed (In Mbps)', '90th percentile value of download speed measured in test samples (In Mbps)', 'Offered typical upload speed (In Mbps)' and '90th percentile value of upload speed measured in test samples (In Mbps)' respectively.
- (k) With respect to the provision of measurement methodology regarding distribution of test calls within TCBH, it is clarified that normally networks have two TCBH- day TCBH and night TCBH. The testing is to be done in these two TCBHs to the maximum extent possible.
- (l) Same sample test calls may also be used for measurement of the performance against the parameters- Latency, Packet drop rate and Jitter.

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