



भारतीय दूरसंचार विनियामक प्राधिकरण
Telecom Regulatory Authority of India

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No: TRAI/RO/BLR/IDTR/2026-27

Date: 10 April 2026

To,

Senior Research Officer (QoS)
Telecom Regulatory Authority of India
Tower F, World Trade Centre
Nauroji Nagar
New Delhi - 110029

**Sub: Acceptance and publishing IDT report of Satara, Maharashtra LSA: Q/E
March 2026.**

TRAI vide its work order No. AU-42/6(2)/2023-QoS/3790/(E010053) dated 22 Aug 2024, has appointed M/s Red Mango Analytics Pvt. Ltd for duration three years i.e. up to 31 Jul 2027 for conducting independent Drive Test in each of the License Service Areas (LSA) covering State of Karnataka, Kerala, Maharashtra & Goa and Mumbai falling under jurisdiction of Regional Office.

2. Guideline for Drive Test was conveyed to all TSPs vide TRAI HQ vide letter no. AU-4/2/6(1)/2024-QoS/61/E-13395) dated 12 Aug 2024. Approved IDT format was conveyed vide by TRAI HQ on 06 Nov 2024. Quarterly plan for IDT for Q4 of 2025 was approved by TRAI HQ through e-office on **24 December 2025**. As per schedule, IDT of Satara was scheduled from **10 March 2026 13 March 2026**.

3. IDT was planned for **Satara** based on District wise DCR analysis for **Maharashtra LSA**, customer complaints and report of previous Drive test carried out by this office. The drive test was carried out for **four days. Part of First Day Highway Drive, Part of First Day, Second day, Third Day, and Fourth Days city drive along the route Walk test and hotspots were carried out.** Selection of drive test route was based on DCR GIS map shared by the HQ. All base stations with poor DCR value were selected to be covered. In addition, static locations and walk locations were selected based on consumer complaints and place of public importance. The drive test was fully supervised by RO officials both physically and virtually. Wide range of findings have been obtained as part of drive test providing excellent comparison of networks and inputs for network operations/ planning.

4. IDT was conducted for **648.60 Kms of Satara including 535.5 Kms of City drive, 15 Hot spots, 9.8 Kms Walk Test, and Highway drive of 103.3 Kms** as per details given below: -

Sl. No	Drive test route	Type of route	Distance covered (KMs)/ Locations	From date	To date
1	Pune to Satara	Highway	103.3	10-Mar-2026	10-Mar-2026

2	Satara city & nearby areas	City	535.5	10-Mar-2026	13-Mar-2026
3	Satara city & nearby areas	Hotspot	15 Locations	10-Mar-2026	13-Mar-2026
4	Satara city & nearby areas	Walk test	9.8	10-Mar-2026	13-Mar-2026
5	Satara city	Inter Operator Calling	1 Location	13-Mar-2026	13-Mar-2026

5. M/s Red Mango Analytics Pvt. Ltd had submitted soft copy of IDT report on 30th March 2026, and hard copy of the report received on 06th March 2026.

6. Summary of TSP - wise findings. TSP wise key findings as brought out in the IDT Report are submitted as under (References to Tables cited below are as in Main IDT report):

1. Airtel:

Voice

- o 95.24% call setup success rate and 0.96% drop call rate have been observed in 3G/2G network mode for LSA. Performance is not meeting the benchmark of 98.00% for call setup success rate. (refer table-3)
- o 98.48% call setup success rate and 0.64% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for LSA. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-5)
- o 97.41% call setup success rate and 0.82% drop call rate have been observed in 3G/2G network mode for city drive. Performance is not meeting the benchmark of 98.00% for call setup success rate. (refer table-13)
- o 97.72% call setup success rate and 0.97% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for city drive. Performance is not meeting the benchmark of 98.00% for call setup success rate. (refer table-15)
- o 100.00% call setup success rate and 0.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for all hotspot locations. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-21)
- o 100.00% call setup success rate and 0.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) at all walk test locations. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-69, 70, 71 & 72)
- o 70.45% call setup success rate and 3.23% drop call rate have been

observed in 3G/2G network mode for highway drive. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table-77)

- o 100.00% call setup success rate and 0.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for highway drive. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-79)

Data

- o Airtel has 117.34 Mbps average download speed & 22.68 Mbps average upload speed for LSA. (refer table-11)
- o Airtel has 113.79 Mbps average download speed & 19.33 Mbps average upload speed across the measured routes for city drive. (refer table-19)
- o District & Sessions Court Satara, District Collector Office Satara, Karad Municipal Council, Lonand Junction, Mahabaleshwar Bus Stand, Mahabaleshwar Temple and Shri Yamai Devi Temple Aundh have less download speed (less than 100 Mbps) out of total 15 hotspot locations for auto-selection mode (5G/4G/3G/2G). (refer table- 38, 39, 41, 42, 43, 44 & 48)
- o District & Sessions Court Satara, District Collector Office Satara, Lonand Junction, Mahabaleshwar Bus Stand, Mahabaleshwar Temple, Panchgani St Stand, Phaltan Municipal Council, Shri Yamai Devi Temple Aundh and Tehsildar Office Karad have less upload speed (less than 20 Mbps) out of total 15 hotspot locations for auto-selection mode (5G/4G/3G/2G). (refer table- 38, 39, 42, 43, 44, 45, 46, 48 & 49)
- o Main Market Mahabaleshwar has less download speed (less than 100 Mbps) out of total 4 Walk Test locations for auto-selection mode (5G/4G/3G/2G). (refer table- 74)
- o Main Market Mahabaleshwar has less upload speed (less than 20 Mbps) out of total 4 Walk Test locations for auto-selection mode (5G/4G/3G/2G). (refer table- 74)
- o Airtel has 113.12 Mbps average download speed & 20.89 Mbps average upload speed across the measured routes for highway drive. (refer table-83)

2. BSNL:

Voice

- o 91.21% call setup success rate and 4.43% drop call rate have been observed in 3G/2G network mode for LSA. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table-3)

- o 83.41% call setup success rate and 5.84% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for LSA. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table-5)
- o 91.17% call setup success rate and 4.54% drop call rate have been observed in 3G/2G network mode for city drive. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table-13)
- o 86.04% call setup success rate and 7.71% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for city drive. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table-15)
- o 88.00% call setup success rate and 0.76% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for all hotspot locations. Performance is not meeting the benchmark of 98.00% for call setup success rate. (refer table-21)
- o 100.00% call setup success rate and 0.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) at Karad Railway Station & Satara Railway Station walk test locations. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-69 & 72)
- o 100.00% call setup success rate and 5.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) at Main Market Mahabaleshwar walk test location. Performance is not meeting the benchmark of 2.00% for drop call rate. (refer table- 70)
- o 26.32% call setup success rate and 6.67% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) at Satara New St Bus Stand to Market Yard walk test location. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table- 71)
- o 91.89% call setup success rate and 2.94% drop call rate have been observed in 3G/2G network mode for highway drive. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table-77)
- o 91.89% call setup success rate and 2.94% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for highway drive. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table-79)

Data

- o BSNL has 6.64 Mbps average download speed & 2.74 Mbps average upload speed for LSA. (refer table-11)

- BSNL has 5.66 Mbps average download speed & 2.14 Mbps average upload speed across the measured routes for city drive. (refer table-19)
- District Collector Office Satara, Lonand Junction, Mahabaleshwar Bus Stand, Rajpath Market Area Satara, Shri Yamai Devi Temple Aundh, Tehsildar Office Karad, Wai Municipal Council and Zilla Parishad Satara have less download speed (less than 10 Mbps) out of total 15 hotspots locations for auto-selection mode (5G/4G/3G/2G). (refer table-39, 42, 43, 47, 48, 49, 50 & 52)
- Lonand Junction, Panchgani St Stand, Shri Yamai Devi Temple Aundh, Tehsildar Office Karad and Zilla Parishad Satara hotspot locations have less upload speed (less than 2 Mbps) out of total 15 hotspots locations for auto-selection mode (5G/4G/3G/2G). (refer table- 42, 45, 48, 49 & 52)
- All walk test locations have less download speed (less than 10 Mbps) except Satara Railway Station for auto-selection mode (5G/4G/3G/2G). (refer table- 73, 74 & 75)
- Karad Railway Station has less upload speed (less than 2 Mbps) out of total 4 Walk Test locations for auto-selection mode (5G/4G/3G/2G). (refer table- 73)
- BSNL has 8.73 Mbps average download speed & 2.86 Mbps average upload speed across the measured routes for highway drive. (refer table- 83)

3. RJIL: Voice

- 99.50% call setup success rate and 1.01% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for LSA. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-5)
- 99.43% call setup success rate and 1.15% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for city drive. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-15)
- 100.00% call setup success rate and 0.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for all hotspot locations. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-21)
- 100.00% call setup success rate and 0.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) at all walk test locations. Performance is well within the benchmark of 98.00% &

2.00% respectively. (refer table-69, 70, 71 & 72)

- 97.22% call setup success rate and 5.71% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for highway drive. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table- 79)

Data

- RJIL has 187.37 Mbps average download speed & 23.46 Mbps average upload speed for LSA. (refer table-11)
- RJIL has 176.95 Mbps average download speed & 19.81 Mbps average upload speed across the measured routes for city drive. (refer table-19)
- District & Sessions Court Satara, District Collector Office Satara, Mahabaleshwar Temple, Shri Yamai Devi Temple Aundh and Tehsildar Office Karad have less download speed (less than 100 Mbps) out of total 15 hotspot locations for auto-selection mode (5G/4G/3G/2G). (refer table- 38, 39, 44, 48 & 49)
- District & Sessions Court Satara, District Collector Office Satara, Mahabaleshwar Temple, Tehsildar Office Karad and Zilla Parishad Satara less upload speed (less than 20 Mbps) out of total 15 hotspot locations for auto-selection mode (5G/4G/3G/2G). (refer table- 38, 39, 44, 49 & 52)
- Karad Railway Station has less download speed (less than 100 Mbps) out of total 4 Walk Test locations for auto-selection mode (5G/4G/3G/2G). (refer table- 73)
- Satara Railway Station has less upload speed (less than 20 Mbps) out of total 4 Walk Test locations for auto-selection mode (5G/4G/3G/2G). (refer table- 76)
- RJIL has 261.99 Mbps average download speed & 19.62 Mbps average upload speed across the measured routes for highway drive. (refer table- 83)

4. VIL:

Voice

- 98.52% call setup success rate and 0.75% drop call rate have been observed in 3G/2G network mode for LSA. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-3)
- 98.75% call setup success rate and 0.51% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for LSA. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-5)
- 98.43% call setup success rate and 0.80% drop call rate have been

- observed in 3G/2G network mode for city drive. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-13)
- o 98.30% call setup success rate and 0.58% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for city drive. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-15)
 - o 100.00% call setup success rate and 0.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for all hotspot locations. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-21)
 - o 100.00% call setup success rate and 0.00% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) at all walk test locations. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table- 69, 70, 71 & 72)
 - o 100.00% call setup success rate and 0.00% drop call rate have been observed in 3G/2G network mode for highway drive. Performance is well within the benchmark of 98.00% & 2.00% respectively. (refer table-77)
 - o 97.22% call setup success rate and 2.86% drop call rate have been observed in auto-selection mode (5G/4G/3G/2G) for highway drive. Performance is not meeting the benchmark of 98.00% & 2.00% respectively. (refer table- 79)

Data

- o VIL has 44.38 Mbps average download speed & 12.98 Mbps average upload speed for LSA. (refer table-11)
- o VIL has 46.86 Mbps average download speed & 12.92 Mbps average upload speed across the measured routes for city drive. (refer table-19)
- o Phaltan Municipal Council has less download speed (less than 10 Mbps) out of total 15 hotspot locations for auto-selection mode (5G/4G/3G/2G). (refer table- 46)
- o District Collector Office Satara, Lonand Junction, Mahabaleshwar Temple, Panchgani St Stand and Zilla Parishad Satara have less upload speed (less than 2 Mbps) out of total 15 hotspot locations for auto-selection mode (5G/4G/3G/2G). (refer table- 39, 42, 44, 45 & 52)
- o VIL has 25.88 Mbps average download speed & 12.51 Mbps average upload speed across the measured routes for highway drive. (refer table- 83)

7. Proposed Key Action Points from TSPs. Key action points (both short and

long term) for TSPs are proposed as under: -

- a. TSPs should take cognizance of the report and carry out network improvement, as required.
- b. All TSPs should carryout physical and soft optimization of their network and confirm with pre and post plots within fifteen days of publication of report.
- c. All TSPs should carry out / plan additional sites to augment their infrastructure. TSPs should provide timelines for the same.
- d. All TSPs to take actions to improve data throughput at route, static and walk test locations, as required.

8. Draft input for press Release Draft for Press Release is included in the report.

9. Recommendations. It is recommended that a copy of the Drive Test report be shared with the TSPs for their information and necessary corrective action. Further, the TSPs shall update the Action Plan and Compliance Report through the ATR/PMR Portal in accordance with the ATR Guidelines dated 17-09-2025.

Digitally signed by
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