

**REPORT ON THE QUALITY INDICATORS OF INTERNET IN THE CARS SERVICES  
ASSOCIATED TO MACHINE TO MACHINE SERVICES PROVIDED BY TATA  
Communications (Italy) Srl**

**YEAR 2021**

This document illustrates the quality indicators of internet in the car services associated to machine to machine services provided by TATA Communications (Italy) Srl, pursuant to and for the purposes of Article 10 of AGCOM Resolutions n.179/03/CSP and n.154/12 /CONS and following amendments.

With regard to each indicator, the following data are indicated:

- a. the measurements made;
- b. the final reports for the semester (for the indicators for which the half-yearly final reports are also provided) and for the year 2021;
- c. the definition of the indicator;
- d. the explanatory notes on the methods by which the measurements are made;
- e. the survey periods.

## 1. COMPLAINTS REGARDING CHARGES

Indicator	Measure	Target	Results 1st semester 2021 (from January 1 to June 30, 2021)	Results 2th semester 2021 (from July 1 to December 31, 2021)	Results year 2021
Complaints regarding charges	Ratio of the number of complaints concerning charges on SIMs received in the period of detection and the average number of SIMs active in the same period	1,20%	0,63%	0,63%	0,63%

Definition: the ratio between the number of complaints (relating to prepaid SIMs charges) received in the period of detection and the average number of SIMs active in the same period.

Note:

- the detection system allows to include all cases of complaints for charges received (regardless of their validity or not), including complaints about roaming charges and those relating to charges for additional / premium services.
- active SIM means a SIM that allows access to internet in the car services associated to machine to machine services provided by Tata Communications (Italy) Srl.

Periods of detection:

1st semester: from January 1<sup>st</sup>, 2021 to June 30<sup>th</sup>, 2021.

2nd semester: from July 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021.

Annual: from January 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021.

## 2. PROBABILITY OF TRANSFER OF SMS TO SMS CENTER

Indicator	Measure	Target	Results 1st semester 2021 (from January 1 to June 30, 2021)	Results 2th semester 2021 (from July 1 to December 31, 2021)	Results year 2021
Probability of transfer of SMS to SMS Center	Percentage of SMS taken over by SMS-C with respect to all the messages arrived to SMS-C.	99%	99,8%	99,8%	99,8%

Definition: the probability that an SMS message sent by the user (Mobile originated) be actually delivered to the SMS collection and management center (SMS-C).

Note:

- the survey is census;
- the data have been collected for each network cell;
- the data have been collected 24 hours a day every day for the periods of detection of the year 2021;
- SMS not originating from or not delivered to a number for mobile and personal services are excluded from the survey.

Periods of detection:

1st semester: from January 1<sup>st</sup>, 2021 to June 30<sup>th</sup>, 2021.

2nd semester: from July 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021.

Annual: from January 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021.

### 3. TIME OF DELIVERY OF SMS AT THE FIRST ATTEMPT

Indicator	Measure	Target	Results 1st semester 2021 (from January 1 to June 30, 2021)	Results 2th semester 2021 (from July 1 to December 31, 2021)	Results year 2021
Time of delivery of SMS at the first attempt	Arithmetical average of daily times of delivery of the SMS at the first attempt in the period considered	7''	3,27 sec.	3,27 sec.	3,27 sec.

Definition: arithmetic average of daily delivery times of the SMS at the first attempt in the period of detection.

Note:

- the survey is census;
- the data have been collected for each network cell;
- the data have been collected 24 hours a day every day for the periods of detection of the year 2021;
- SMS not originating from or not delivered to a number for mobile and personal services are excluded from the survey.

Periods of detection:

1st semester: from January 1<sup>st</sup>, 2021 to June 30<sup>th</sup>, 2021.

2nd semester: from July 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021.

Annual: from January 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021.

#### 4. ACCESSIBILITY TO PACKAGE SWITCHING DATA SERVICE ON GSM NETWORKS

Indicator	Measure	Target	Results 1st semester 2021 (from January 1 to June 30, 2021)	Results 2th semester 2021 (from July 1 to December 31, 2021)	Results year 2021
Accessibility to package switching data service on GSM networks	Percentage of requests to establish a package data connection, originated or terminated on the operator's network that are successfully carried out.	98,20%	98,56%	98,56%	98,56%

Definition: Probability that, in a display condition indicating the presence of coverage, a request to establish at least one channel for data traffic is satisfied by the GPRS / EGPRS network.

Note:

- the survey is census;
- the data have been collected for each network cell;
- the data have been collected 24 hours a day every day for the periods of detection of the year 2021;
- SMS not originating from or not delivered to a number for mobile and personal services are excluded from the survey.

Periods of detection:

1st semester: from January 1<sup>st</sup>, 2021 to June 30<sup>th</sup>, 2021.

2nd semester: from July 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021.

Annual: from January 1<sup>st</sup>, 2021 to December 31<sup>st</sup>, 2021.