

## NATIONAL AGENCY INLAND

Resolution No. 3323-A, OF 18 NOVEMBER 2009

DOU 29 DECEMBER 2009

*Provides for the adoption of the standards of Communication Protocols and Data Dictionary Standards data NTCIP-National Transportation Communications for ITS Protocol developed by the National Electronics Manufacturers Association (NEMA), in conjunction with the American Association of State Highway and Transportation Officials (AASHTO) and the Institute of Transportation Engineers (ITE).*

The Board of the National Transportation - ANTT, in exercise of its functions, based on voting DWG - 169/09, 17 December 2009 and as contained in Case No. 50500.091490/2008-48,

CONSIDERING the provisions of art. 24, item IV, of Law No. 10233 of June 5, 2001, which gives the ANTT authority to make and publish rules and regulations concerning the operation of roads and terminals,

CONSIDERING the need to regulate the use of automated traffic monitoring and management of highways in operation under the responsibility of federal highway concessionaires ANTT governed by, and proper monitoring by the Agency of the activities described, and

CONSIDERING the need to make changes, relocation and expansion of the useful life of these systems from different vendors, we adopted the premise of conceptual unity and functional requirements, integrated, allowing compatibility, interchangeability and interoperability of components of this system, RESOLVES:

Article 1, establish the protocol to be used on federal highways covered by ANTT, in order to promote the standardization of information exchange between equipment ITS (Intelligent Transportation Systems), by promoting their integration.

Article 2 For the purposes of this resolution, it is:

I - ITS (Intelligent Transportation Systems) - Intelligent Transport Systems - A set of equipment and systems for monitoring traffic used on federal highways granted, provided the equipment and systems for data collection, monitoring and sensing installed along the roads, equipment and systems for traffic monitoring stations installed in operating and monitoring located on highways and equipment and systems installed in Operational Control Centers of the utilities, whether the data collection and management and other operational control centers with which these systems share information e

II - NTCIP - set of Communication Protocols and Data Dictionary Data Standards for ITS systems developed by the National Electronics Manufacturers Association (NEMA), in conjunction with the American Association of State Highway and Transportation Officials (AASHTO) and the Institute of Transportation Engineers (ITE), which were designed to meet the needs of various systems, subsystems and services to service users of ITS systems.

Article 3 The Dealers of Highways Granted governed by ANTT should adopt Protocol NTCIP - National Transportation Communications for ITS Protocol, developed by the National Electronics Manufacturers Association (NEMA), in conjunction with the American Association of State Highway and Transportation Officials (AASHTO) and with the Institute of Transportation Engineers (ITE), which will regulate the use of equipment, systems and ITS applications in federal highways granted.

Article 4 The set of Communication Protocols and Data Dictionary Data Standards for the Communication Center Field (NTCIP C2F - Center to Field) should be used for communication between the equipment and monitoring systems, traffic controllers, panels Variable message traffic, traffic sensors, meteorological sensors, OCR (Optical Character Recognition), registers speed (radar), weight sensors, motion sensors, weight control, access ramps, traffic signals, CCTV (Closed Circuit TV) - only the control of cameras, other systems of data collection installed along the roads, with the Operation Control Centers and their collection systems and operational management of the utilities to which they are connected.

Article 5 The set of communication protocols and data dictionaries Data Standards for Communication Center to Center (C2C NTCIP - Center to Center) should be used for communication between equipment and systems installed in Operational Control Centers of the dealers Centers Operational Control of other utilities systems and agencies and Regulators.

Paragraph. Also fall into this mode of communication between the systems of checkpoints, toll plazas and any other centers of data collection installed along the roads, with the Centers for Disease Control and Operation of utility systems Agencies and Regulatory Bodies .

Article 6 All the details concerning the engineering, deployment, migration of existing systems for NTCIP and all information related to their use can be found in the NTCIP 9001 - The NTCIP GUIDE, free on site [www.ntcip.org](http://www.ntcip.org).

Article 7 is for the ANTT supervise and monitor the use of these standards.

Article 8 is hereby established within eighteen months for the conversion of the existing highways in for these standards.

Article 9 is hereby established within six months to adopt these standards in purchases of new systems and equipment.

Article 10. Omissions will be settled by the Superintendency for the Exploration of Road Infrastructure - SUInfo.

Article 11. This Resolution enters into force on the date of its publication.

**BERNARDO FIGUEIREDO**  
Director General