Legal Metrology (Indian Standard Time) Rules, 2026 Notified: Major Step Towards “One Nation, One Time”

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The Government of India has notified the Legal Metrology (Indian Standard Time) Rules, 2026, marking a significant step towards establishing Indian Standard Time (IST) as the common, legally recognised and traceable time reference for the country.

The Rules, notified by the Department of Consumer Affairs, Ministry of Consumer Affairs, Food and Public Distribution, on 27 August 2026 and published in the Official Gazette on 29 August 2026, provide a comprehensive framework for the generation, maintenance, dissemination and use of IST. The Legal Metrology (LM) Department under the Ministry of Consumer Affairs (MoCA) is the regulatory and enforcement authority under the Legal Metrology framework, while the CSIR-National Physical Laboratory (CSIR-NPL), India’s National Metrology Institute, provides the scientific foundation and traceability for IST.

The Rules will come into force 180 days from the date of their publication in the Official Gazette. The initiative supports the Government’s vision of “One Nation, One Time”, ensuring that critical sectors and digital systems across the country operate with a common and reliable time reference.

Why a Common and Traceable Time is Essential

Accurate and synchronised time is fundamental to modern digital and critical infrastructure. Telecommunications, financial transactions and digital payments, power grids, transportation, data centres, government information systems and other critical services depend on accurate time synchronisation and reliable time stamps.

A common national time reference also has an important cybersecurity dimension. Accurate time stamps are essential for correlating events across multiple systems during cyber incidents and for effective security monitoring. The CERT-In Guidelines on Information Security Practices for Government Entities, 2023, recommend synchronisation of ICT systems with standard time sources including NPL and NIC.

CSIR-NPL: National custodian of Indian Standard Time (IST®)

CSIR-NPL is the National Metrology Institute (NMI) of India with the mandate to setup primary national standards and to disseminate them. It maintains India’s national atomic time scale generating IST using an ensemble of atomic clocks and primary frequency standard. IST is continuously kept traceable, within a few nanoseconds, to the international reference time known as Coordinated Universal Time (UTC), maintained by the International Bureau of Weights and Measures (BIPM).

Recognising that making IST a legal reference must be accompanied by adequate availability and geographical reach of traceable time, CSIR-NPL, ISRO and the Department of Legal Metrology under the MoCA jointly established secondary timescales at five Regional Reference Standard Laboratories

(RRSLs) located at Ahmedabad, Bengaluru, Bhubaneswar, Faridabad and Guwahati.

These secondary time scales are continuously traceable to IST maintained by CSIR-NPL, thus creating a distributed national architecture for reliable dissemination of IST.

CSIR-NPL also provides traceability of IST to ISRO for the NavIC system, enabling satellite-based dissemination of Indian Standard Time and strengthening the availability and resilience of national timing services.

Multiple Sources and Multiple Ways to Access IST

The national timing infrastructure developed by CSIR-NPL, ISRO, Legal Metrology and other stakeholders enables IST/ IST traceable time to be disseminated from multiple geographical locations and through multiple technologies, depending on the accuracy and reliability requirements of the end user.

IST can be disseminated through network-based technologies such as NTP and PTP, and satellite-based systems including NavIC. High-precision optical fibre-based technologies such as White Rabbit are also being tested. This distributed architecture provides flexibility for users ranging from ordinary ICT systems to applications requiring highly precise time and frequency synchronisation.

The availability of secondary time scales at the five RRSLs, ISRO's NavIC, together with NPL and NIC time dissemination infrastructure, also provides additional capacity, geographical diversity and resilience for meeting the growing demand for traceable Indian Standard Time.

Building a Resilient National Timing Infrastructure

With increasing dependence on digital technologies, accurate time has become an important element of national infrastructure, cybersecurity and technological resilience. The Rules provide the legal framework for wider adoption of a common Indian time reference, while the infrastructure established by NPL, NIC, ISRO and the RRSL network provides the technical capacity required for its implementation.

The distributed architecture also reduces dependence on a single dissemination point and enables continuity of timing services through multiple independent pathways and technologies.

The notification of the Legal Metrology (Indian Standard Time) Rules, 2026 therefore represents not merely the legal recognition of IST, but the culmination of sustained national efforts to establish a traceable, accurate, widely available, resilient and secure national timing system.

CSIR-NPL remains committed to providing the highest level of scientific traceability for Indian Standard Time and to supporting NIC, ISRO, RRSLs and other stakeholders in ensuring reliable availability of IST across the country.

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