

‘One Nation, One Time’ and how it works | Explained

TH [thehindu.com/news/national/what-is-one-nation-one-time-how-it-works/article71409841.ece](https://www.thehindu.com/news/national/what-is-one-nation-one-time-how-it-works/article71409841.ece)

Debayan Tewari

August 31, 2026



Banking and digital payments, telecommunications, railways, power systems, computer networks and government records depend on accurate time and time stamps. Image for representation only | Photo Credit: Getty Images/iStockphoto

The story so far: The Centre notified the Legal Metrology (Indian Standard Time) Rules, 2026, on August 27, 2026, making it compulsory that Indian Standard Time (IST) be made the single reference for legal, administrative, commercial and other official purposes across the country.

“The Rules will come into force 180 days from the date of their publication in the Official Gazette... The 180-day period will allow government departments, businesses, institutions and other organisations to make the required changes to their systems before the Rules come into force,” the government said in a statement on Sunday (August 30, 2026).

Why ‘One Nation, One Time’?

The government said that the need for a common time reference has increased with the growing use of digital and technology-based systems. Banking and digital payments, telecommunications, railways, power systems, computer networks and government records depend on accurate time and time stamps.

“Differences between time sources can affect the coordination and recording of such activities. The Rules are aimed at ensuring that important systems across the country use accurate and consistent Indian Standard Time,” it said.

The common time reference is expected to support accurate time-stamping of banking and digital payment transactions, coordination among railways, airports and other transport systems, reliable functioning of telecommunication and internet networks, precise time-keeping in power systems, upkeep of government and legal records, and coordination of emergency and other time-critical services, the Ministry said in a statement.

On January 27, 2025, the Department of Consumer Affairs had notified the Draft Legal Metrology (Indian Standard Time) Rules, 2025, to synchronise time across India. It had teamed up with National Physical Laboratory (NPL) and India Space Research Organisation (ISRO) to “disseminate IST with millisecond to microsecond accuracy” from five legal metrology laboratories.

The government had said that the precision was vital for navigation, telecommunications, power grid synchronisation, banking, digital governance, and scientific research.

IST, according to the government, is based on “Coordinated Universal Time (UTC) with a +5:30-hour offset (and) is maintained by the CSIR-National Physical Laboratory (CSIR-NPL).”

“Despite its importance, IST is not mandatorily adopted by all Telecom Service Providers and Internet Service Providers, many of whom rely on foreign time sources like GPS. Synchronising all networks and systems to IST is essential for national security, real-time applications and the smooth operation of critical infrastructure,” the government had said last year.

It had constituted a high-power inter-ministerial committee to formulate a policy framework, regulation, and legislation for the adoption of IST under the Legal Metrology Act, 2009. Helmed by the Secretary (Consumer Affairs), the committee had representatives from NPL, ISRO, IIT Kanpur, NIC, CERT-In, SEBI, railways, and telecom departments among others.

What the latest Rules mean?

According to the CSIR-NPL, the trademark for “IST® has been registered in 2024” but the time was not “legalised” in India.

“IST is generated using advanced atomic clocks and satellite links to ensure that it is traceable to Coordinated Universal Time (UTC), the international reference time, with

an uncertainty of less than 3 nanoseconds. The IST is widely disseminated with millisecond accuracy with NTP (Network Protocol Service) servers at CSIR-NPL,” CSIR-NLP says on its website.

CSIR-NLP says that ISRO has been “given traceability to IST, with nanosecond accuracy” via satellite links NavIC, India’s independent satellite system.

A key feature of the Rules is the emphasis on reducing dependence on foreign satellite-based time sources. The Rules enable the use of NavIC along with other approved Indian timing sources, for secure and reliable time dissemination.

As part of the ‘One Nation, One Time’ initiative, the Ministry in July 2026 had commissioned a White Rabbit Technology-based IST Dissemination Demonstration Network at the Regional Reference Standard Laboratory in Bengaluru.

The government said that the new system “upholds the sovereignty of the nation’s digital infrastructure by eliminating India’s reliance on foreign time sources like GPS”. This will provide critical sectors “maximum protection” against cyber-attacks and data manipulation, it said. The high-precision time synchronisation technology will be “revolutionary” and maintain the stability of high-frequency financial markets, stock exchanges, digital banking payments, telecommunications networks, and national power grids.

The Bengaluru pilot had shown how IST can be disseminated across sectors.

(With inputs from PTI)

Published - August 31, 2026 12:10 pm IST