



# Satellite-based Tolling System

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The [National Highway Authority of India \(NHAI\)](#) has invited **expressions of interest (Eoi)** for the implementation of a [satellite-based electronic toll collection system](#).

- The winning entity will have to develop a **geo-referenced map** and **toll-charging software** for the [Global Navigation Satellite System \(GNSS\)](#).
  - A **georeferenced digital map** or image has been tied to a known Earth coordinate system, so users can **determine** where every point on the map or aerial photo is **located on the Earth's surface**.
  - A GNSS is the generic term for any of the **satellite constellations** that broadcast **positioning, navigation** and **timing data**. It is used in all forms of transportation like space stations, aviation, maritime, rail, road and mass transit.
  - [Indian Regional Navigation Satellite System \(IRNSS\)](#) is an **autonomous system** designed to cover the **Indian region and 1500 km** around the **Indian mainland**. The system **consists of 7 satellites**.
- NHAI plans to implement the GNSS-based electronic toll collection system **alongside RFID-based Fastags** currently being used by vehicles.
  - FASTag is a device that employs [Radio Frequency Identification \(RFID\)](#) technology for **making toll payments** directly while the vehicle is in motion.

**Read more:** [NHAI](#)

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