# CASE STUDY: Motor Vehicle Tax and Fee Collection System

*Bangladesh, Bangladesh Road Transport Authority (BRTA)*

CNS' Motor Vehicle Tax and Fee Collection System is an advanced software solution designed to optimize revenue collection. Already active with the Bangladesh Road Transport Authority (BRTA), the bespoke system amalgamates several software operations into a centralized national system. CNS' Motor Vehicle Tax and Fee Collection solutions incorporate several modern hardware and software technologies to maximize the efficiency, security, and revenue generation capacity of the BRTA's motor vehicle tax and fee collection schemes.

## Our History in motor vehicle tax and fee collection

CNS has been developing software solutions for the Bangladesh Road Transport Authority for the past decade. In that time, CNS has overseen the inception, development and implementation of the Motor Vehicle Tax and Fee Collection on behalf of the BRTA across all of Bangladesh's 62 divisions.

The latest project - which started in 2016 - has had CNS develop necessary hardware facilities at the BRTA's head office and Dhaka alongside 15 other specialised 'booths' operated by the Authority elsewhere in Bangladesh. CNS' Motor Vehicle Tax and Fee Collection System continues to operate simultaneously by more than 3,000 users across Bangladesh at all BRTA network connected branches and banks. This includes 330 branch locations and 62 district offices alongside the 15 booths and central BRTA headquarters building.

## Operator Benefits

Thanks to the intelligent design of CNS' Motor Vehicle Tax and Fee Collection System, the BRTA's has seen a significant increase in revenue collected from its digital platforms. The centralized nature of the systems has improved the scope and effectiveness of the BRTA's central vehicle databases. Furthermore, the system is cross-functional and provides instant updates on a range of other matrices on demand. CNS' forward-thinking design of the Motor Vehicle Tax and Fee Collection system has opened new computing possibilities across Bangladesh.

This system is robust, centralized, and easy to use boasting appropriate portals and functionalities for BRTA Officials and Citizens alike. Additionally, CNS robust tracking systems, existing integration with multiple banks and other financial institutions allows for the rapid, secure, and transparent transfer of paid fees and taxes to the client account.

## CNS Technology

CNS' Motor Vehicle Tax and Fee Collection System is an amalgamation of several innovative software and hardware technologies. The combination of which has seen the system surpass the expectations of the BRTA at their facilities across Bangladesh. Crucially, the cross-functional design of the Motor Vehicle Tax and Fee Collection System makes it applicable in a variety of other working environments.

Intelligent software technology is the core of CNS' Motor Vehicle Tax and Fee Collection System. At the centre of the solution is a bespoke, online Revenue Collection System that allows the Bangladesh Road Transport Authority to collect fees. The system - developed wholly by CNS - is entirely centralized, cutting out 'middlemen' and ensuring funds are transferred directly to the client

account. Additionally, the web-based, online platform created by CNS facilitates instant payments through affiliated commercial banks. Motor vehicle tax and fee collections are performed simultaneously from all network branches and affiliated banks on a complex, hybrid network. The network leverages CNS' cloud computing technology from EI Connectivity through a secured intranet Virtual Private Network (VPN). All the system's required redundant network connectivity (WAN) at the BTRA's headquarters, 62 district offices, 330 branch locations and 15 specialized booths were provided by CNS as part of this project.

CNS developed specially designed hardware to support the system. A new data centre at the BRTA's headquarters was established to accommodate the Motor Vehicle Tax and Fee Collection System. To supplement this, an accompanying Disaster Recovery Centre was also installed to protect the BRTA's system in case of a power outage, natural disaster, or any other similar disruption. Furthermore, the data centres hosting the online banking solution provided by CNS use an Oracle 11g Release 2 Grid Computing Database. Robust HP servers developed with Red Hat Linux Enterprise Edition 4.0 host this database to ensure that it is secure from internal and external cybersecurity threats. CNS' comprehensive system also features a Modular Inventory Management System integrated within the Revenue Collection System. This specific system handles secured consumables such as tax tokens, receipts, the entire system's hardware inventory and supporting network equipment. Additionally, the Inventory Management system tracks the status of all hardware, consumables, and security papers in the wider system.