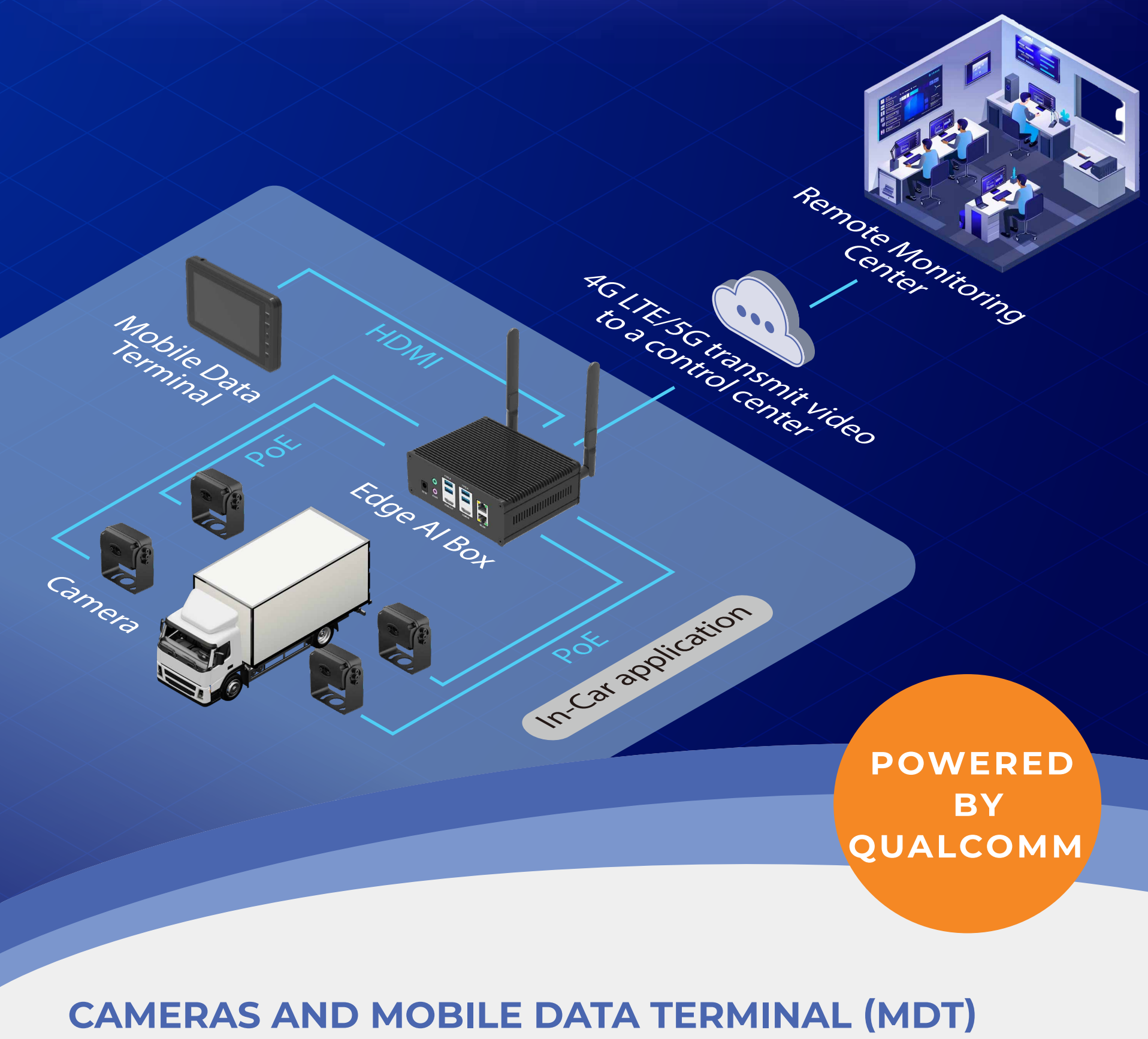
# ADVANCED FLEET SURVEILLANCE: INTEGRATING IP CAMERAS, MOBILE DATA TERMINALS, AND EDGE AI FOR ENHANCED FLEET MANAGEMENT

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## CAMERAS AND MOBILE DATA TERMINAL (MDT)

Most haul and trailer trucks typically rely on basic dash cameras, but a more comprehensive fleet surveillance system should incorporate multiple IP-enabled cameras to provide a wider field of view. An optimal setup includes at least four cameras: a standard front-facing camera, plus additional cameras for the sides and rear of the vehicle. Drivers and fleet managers should also have an in-truck Mobile Data Terminal (MDT) that can simultaneously display video feeds from these multiple cameras. This system integrates with an in-vehicle Edge AI Box, which manages and processes all video footage in real time. The Edge AI Box enhances monitoring and documentation by performing advanced analytics, such as object recognition and anomaly detection, directly at the edge, thus providing real-time insights and improving overall fleet management efficiency.

## EDGE AI BOX

Standard Mobile Data Terminals (MDTs) and radio units may not be sufficient for advanced fleet management needs. Therefore, a dedicated in-vehicle computer equipped with high-performance computing and networking capabilities, known as the Edge AI Box, is essential. This device serves as an Internet gateway, providing real-time access to remote resources and managing the input and output of video data from the IP cameras. The Edge AI Box facilitates real-time video processing and analysis, significantly improving the overall effectiveness of the fleet management system.

## REMOTE MONITORING CENTER

Inside the truck, the MDT enables drivers to monitor activities around the vehicle, manage potentially risky situations, and capture images of other vehicles or critical areas. Additionally, location-based services and positioning data can be integrated to track the truck's precise location in real time. To extend these capabilities, video feeds and location data can be transmitted to a Remote Monitoring Center via LTE long-range mobile communications. This setup allows fleet managers and personnel at headquarters or remote locations to access live video from the truck’s cameras and monitor its position. This provides comprehensive support, oversight, and coordination for managing fleet operations, optimizing route planning, and responding to critical incidents more effectively.

## SYSGRATION'S IN-CAR VIDEO SOLUTIONS


Invest in our state-of-the-art fleet management solution to improve safety, optimize operations, and gain real-time control over your fleet's performance. Upgrade today and experience unparalleled efficiency and security for your fleet operations.