

Soundbox Fintech Payment Notification Terminal Firmware

Basic Requirements

Basic requirements for a Soundbox Firmware plus Payment Terminal Management System, as demanded by most payment gateway companies and banks, including cooperative banks, from MQTT & TMS Cloud service providers, include the following key points:

Server Location and Remote Configuration

The TMS (Terminal Management System) and MQTT (Message Queuing Telemetry Transport) server should be located in India. There should be a feature to remotely change the MQTT server details on the device, including the domain name/IP address and port.

FOTA Server

The Firmware Over-The-Air (FOTA) server, also based in India, should allow firmware upgrades targeting specific soundboxes based on their serial numbers.

Language Pack Management

Soundboxes should have the capability to download language packs on demand via TMS commands. These packs must be hosted on a secure HTTPS server, protected with an API key, and the soundbox should be able to download and replace the existing language pack.

Audio Playback for Marketing

There should be a dedicated space on the soundbox for downloading and storing audio files in MP3 or WAV format. The soundbox should play these audio files as voice broadcasts for marketing

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purposes when prompted by an MQTT command.

Device Monitoring and Reporting

The device should regularly notify the TMS of its ON/OFF status and its health status, including details like battery status, location, network status, and current language pack, at five-minute intervals.

MQTT Inquiry Responses

The soundbox should be able to respond to MQTT inquiry commands from the TMS, providing a health packet with additional information useful for troubleshooting, such as available RAM, ROM, and flash memory space.

Location Tracking

The soundbox should include GPS functionality to provide location data based on 4G cell or WiFi, included in the health pack or as a response to an MQTT command inquiry.

Security and Certification

There should be proper handling of security certificates (.CRT) to ensure secure MQTT connections and secure HTTPS downloads of firmware and language packs.