

Dual Function WiFi Services - London Black Taxis



Client Requirement Summary

- 4G (LTE) WAN connectivity
- 802.11bgn WiFi with dual SSID
- Captive portal services for user registration and management of analytics
- Optional built-in GPS
- Centralised router provisioning, configuration management and monitoring

Key Benefits

- Cost-effective managed 4G (LTE) and WiFi router services
- Small footprint, low power dissipation easily installed in-vehicle hardware
- Routers which are permanently wired in to vehicle electrical system with the option of vehicle ignition sense
- Embedded Coova Chilli router software acting as a client to cloud-based captive portal services
- Cloud-based user registration and analytics database
- Automated deployment and management

Requirement

Sherbet London Taxis, a London Black Taxi operator and advertising organisation needed to equip 50 of their latest TX4 classic Black Taxis with 4G (LTE) connectivity. The goal was to improve the experience of business customers by providing two levels of service:

1. Public internet access to customers with smart phones and tablets.
2. Passenger information by means of streamed content including location information and news via passenger facing TFT displays.

There was an immediate requirement to equip 50 TX4 vehicles, followed by a further 300 vehicles during the first half of 2016 and up to 2000 vehicles over the next 5 years.

Virtual Access Solution

Sherbet London Taxis chose the Virtual Access GW1042 router incorporating dual SIM 4G (LTE) cellular data modem, dual Ethernet ports and 802.11bgn WiFi. The GPS capability of the GW1042 was not initially required, however the ability to enable the router's GPS feature simply by changing the router's software configuration profile, was an attractive option for potential future cost savings. A combined cellular data and GPS antenna, as an adhesive windscreen mounted device, was included to ensure optimum access to 4G(LTE) and GPS satellite data signals.

The GW1042's ability to support multiple WiFi SSIDs means that completely separate WiFi connections are available for passenger public internet access and for in-vehicle streaming content delivery to the TFT display; the former being broadcast as public WiFi and the latter being a hidden SSID.

A key business driver for the service is to eventually enable monetisation by means of sponsorship from the clients of advertising agencies. The GlobalReach Technology captive portal solution supplied by Virtual Access enables a wide range of user analytics data to be collected and managed by cloud-based application servers. Furthermore the technology offers the facility for gender, location and device specific advert insertion.

Another solution differentiator was the carrier-grade Activator router provisioning and monitoring system designed to scale to tens of thousands of devices. This technology removes the need for routers to be pre-configured, so they can be installed without staff skilled in networking. This enabled Sherbet London Taxis to benefit from rapid deployment as well as the ability to centrally manage router configuration changes and updates if needed.