

# Communications for a courier company

The Engineering Problem for this issue is:

A fictional courier company has a fleet of vans that carry parcels anywhere within a 60 mile radius of a major city. Its drivers currently use very old GSM phones to report their positions to the main office, where sales staff tell the drivers where to pick up and deliver. Drivers currently decide on their own routes. The company wishes to modernise its service using the latest available communications technology. 3G coverage is available within the city, but for only a minority of the whole geographical area that the courier company serves. What recommendations would you make for the company? Please be specific about options for device as well as network procurement, and state the reasons for your choices.



Answer supplied by Jay Bregman, Chief Technical Officer, eCourier [www.ecourier.co.uk](http://www.ecourier.co.uk)  
*Your first priority should be gaining additional information about the fleet in order to improve service and efficiency. Location-based services systems should be utilised such that the location of each driver is known at all times. To do this, we would recommend finding a mobile provider with a mature GPRS network. 3G is overkill in this scenario – GPRS is found nowadays almost everywhere there is GSM service, it's cheap and the bandwidth is more than sufficient for this application. When choosing handheld devices, choose a network with a bundle deal that includes a Windows Mobile palmtop computer, a SIM, and a bundle of data (2Mb should be sufficient) for a monthly fee. Invest in a GPS module (either CF or Bluetooth) for your devices.*

*Next, find or build a mobile application which sends back location information regularly (we do it every 10 seconds), which enables job details to be transmitted to the device and signed digitally, and has two-way messaging over GPRS capability (much cheaper than SMS or phone calls). Now, find a provider of a back-end application for the office with a mapping component which reads the location of the devices from a database in real-time and allows you to take bookings online or over the phone and transmit them to drivers. You can even configure your web product to enable your customers to view the exact location of their packages superimposed on a map, increasing customer satisfaction. If you invest in navigation software for the couriers' handhelds, they can scrap their maps and gain an edge in the field.*

*Now, with all that settled, you can go one step further: If you know the location and status of your fleet and your customer addresses, you can build an auto-despatch system which automatically schedules the incoming customer requests to the couriers with no human intervention. With this system, you've automated your business from end to end. Customers book online, track online, and the work is despatched automatically.*

*This is precisely the system eCourier has built. ■*

