GPRS Performance

The information below shows a **comparison of the percentage of time that buses could be tracked in real time** in June this year.

PMR Radio	PMR Radio	GPRS Radio
Wilts & Dorset Buses (main fleet, most routes)	First Buses (Warminster to Bath route)	Bodmans Buses (Salisbury to Warminster route)
53%	**45%**	**83%**

The percentage figures are derived by calculating the maximum number of tracking polls that could be received from all buses in the fleet over a 24 hour period and this is the usual method for comparison of what is normal operation for the fleet in question. However, this figure does **not** indicate that 17% of the polls were lost between Warminster and Salisbury as within the calculation one or more buses could be off road for repair or powered off over night, which is fine for comparing a fleets 'normal' percentage.

Figures for **working buses only** and those that show only operational buses cannot easily be calculated as it is not possible for us to know when a bus is going to be switched on or off. However, looking at the tracking data we have available, four of the GPRS trial buses were powered on all day on Tuesday 20 July and **returned 95 to 97 percent of the polls possible**, i.e. one every 30 seconds for 24 hours or 2880 polls.

Surrey County Council also operate a GPRS fleet that is maintained by Trapeze and their tracking data shows similar results, i.e. around 95 percent of all polls are being received for buses that are active (switched on) throughout a monitored 24 hour period.

So all operational buses in both Surrey and Wiltshire return 95 to 97 percent of all possible polls. The shortfall is due to buses swapping between cells just as a mobile phone does when moving and polls are lost during the re-registration. GPRS coverage in Wiltshire is very good (coverage maps are available on the web) but a bus will very occasionally travel through a small areas of no coverage. The GPRS system tries to establish a connection automatically to minimise outages and this typically takes one to three minutes, after which normal real time is re-established.