

# Re: GPS Data Bandwidth Usage

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- *From:* [brentevans@xxxxxxx](mailto:brentevans@xxxxxxx)
  - *Date:* Mon, 20 Aug 2007 14:18:53 -0700
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On Aug 20, 11:18 am, Happy Trails <nom...@xxxxxxxxxxxx> wrote:

On Mon, 20 Aug 2007 09:36:22 -0700, brentev...@xxxxxxx wrote:

I was hoping one of you extremely bright gentlemen or ladies could assist me.

We are running a fleet of approximately 400 vehicles equipped with GPS receivers. These vehicles are transmitting data (not GPS yet) across a Motorola Datatec 900 MHz network. These systems would be setup to transmit every 5 min. Can anyone explain the Bandwidth implications of adding this traffic to our network?

Thanks for the help, Brent

Are you using a "DATATAC" network?

Are you a cop? Or a taxi company?

How many of the 400 are actually active at one time – your busiest time – all of them?

Depending on the load on your network at your current usage level, you could either bring the system to its knees or hardly notice the additional load.

What is the number of milliseconds to transmit/receive/process a single position report?

No matter what the studies that your Motorola rep or your own people have already done show you, I would start conservative, and set the system up initially to report less often, then decrease the reporting period delay in steps till you notice it.

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What is the implication of initially knowing anyone's location say every 10 or 15 minutes instead of every 5 minutes?

Is it easy to change the reporting period without servicing the in vehicle units?

Do you have the option of specifying a "polled report" mode, where each vehicle's position is requested from a centralized server, then it reports?

Sorry My Bad  
DATATAC

We are a Utility.

We are currently upgrading our Service Dispatch software and the powers that be have discovered that they can monitor every move of our field technician. (God forbid they stop for a slurpee) . We generally have 350 to 375 in the field at one time. The studies I have seen on our extremely antiquated network suggest that it would not take much traffic to bring it down

The testing we have currently been doing only allows us to set the transmit time on the field systems. Which makes it a little difficult to change (we cannot remotely upgrade these systems)

These are the current settings we use:

GPS Settings within PEN.INI

GPS\_Poll\_Time = 300

GPS\_Interval = 300

GPS\_Distance = 100

WGM.ini

; 1 = kilometers, 0 = miles

units\_in\_km= 1

Poll Time – Measured in seconds. This is how often the MA polls (grabs data) from the GPS device. No RF traffic created.

Interval – Measured in seconds. This is how often the MA sends the GPS data (lat/long) to the UCAD server which creates RF traffic.

Distance – Measured in Miles or KM/M (depending upon the setting in the WGM.ini). This is how often the MA send the GPS data to the UCAD server based on movement, which creates RF traffic.

Note: GPS Data is sent to the UCAD server via the Interval or Distance setting, whichever comes first.

Additionally, GPS data sent to the server is also transaction driven (e.g. Technician going Onsite, enroute, etc.), which means GPS data transfer to the server can be either via the Interval or Distance

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setting, or due to an action taken by the Tech.