Application Note

ANSS21 – Enable PushSmart to HelmSmart server

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SeaSmart G2 adapters can automatically post vessel data to the HelmSmart.net cloud server using on-board internet access point.

This operation happens in the background along with the normal local live browser updates, data logging, and TCP/UDP data server functions.

To use the Web Browser interface start by entering the SeaSmart adapters local URL (either [http://ssenetg2](http://ssenetg2) or [http://sswifi2](http://sswifi2)).

Next – select the Adapter Setup link on the bottom of the screen.
The Config page will allow for changing various device settings directly from the browser interface.
Select “HTTP POST Enabled” from the config dropdown

To automatically post new updates to the HelmSmart cloud server, select the PushSmart Option from the drop-down list.

Other options are available to push updates directly to a private Amazon S3 data store or to a private local server that will process the PushSmart protocol.
For automatic HelmSmart update – select the PushSmart option.

Your SeaSmart adapter must have access to the internet via a router or access point to provide live vessel updates. Otherwise, data is stored in internal SD Memory until a connection is detected and then will automatically upload all stored data in a process called “Store and Forward”
Next – select the desired update interval in seconds by filling in the “HTTP POST Interval” field.

Since HelmSmart updates rely on internet service and normally occur at 1 minute intervals, selecting smaller intervals will not usually improve response and will incur higher access charges if using metered connections.
It is very important to have a valid and accurate time source when uploading data to HelmSmart in order to search for data at a later time.

Normally it is best to use the local GPS as a time source if available. Otherwise select Network time (NTP) to use the internet as a time source.

If no time source is available – enter a valid EPOCH time to use on next device reboot.
Once a new Time source is selected - the adapter must be rebooted to re-sync.
After changes are made to HTTP POST and Time Source – select “Save Settings”
To reboot adapter – select “Reset”
After the adapter is reset – it will re-sync to the selected time source and start monitoring the bus at the selected sample interval.

This is indicated by the **Data IN** LED blinking at the selected sample Rate.
Once the PushSmart Interval is reached, the device will update the internal SD memory with a buffer sample of bus data in case an internet connection is not available.

This is indicated by the **SD Write** LED turning ON along with the Data IN LED.
The adapter will then attempt to write to the HelmSmart cloud server using the vessel’s internet access as indicated by **PostReq** going on also.
Finally, if the HelmSmart server write was successful – the **PostACK** LED will light briefly (all four in a row) and then all LEDs will reset to start the next cycle.

By monitoring the LED functions – you can determine the SeaSmart adapter is successfully finding and updating the HelmSmart server.