

UISS SatGate AddOn 2.0 by: LU4EG

This AddOn is like a "bridge" joining Radio and APRS-IS (APRS Internet Service). It has two functions: RF to Internet and Internet to RF.

Using it you can send the "birds" downlink packets to <http://www.ariss.net> or <http://www.findu.com/cgi-bin/pcsat.cgi> in real time, for other HAMs in the world to see all the passes over your location. UISS SatGate send this info to satgate.aprsca.net on port 14580.

Also you can use the "reverse" mode to transmit the world APRS-IS info at your APRS local frequency.

IMPORTANT NOTE: This Module is only for UISS Professional Edition.

APRS-IS Server:

Host and **Port** of the APRS-IS server to connect.

Validation #: Servers need this to know if you are a licenced HAM radio. It is the same you use with UI-View or WinPack. If you do not have it yet, ask for it at: <http://www.apritch.myby.co.uk/uiv32.htm>

Filter: The server gives all CallSigns from every part of the world packets, you may use a filter for example "p/RS0/W3ADO/RAFT". That means all Stations begining with RS0, W3ADO and RAFT, including all SSIDs. A complete using description of this filter you can see it at: <http://wa8lmf.net/aprs/JAVaprsFilters.htm>

AutoConnect 30 seconds after Start selected, simply do this.

APRS-IS Send:

Position Beacon: This is defined by your UISS APRS Position Setup.

You can change the APRS Symbol only for "IGate Symbol", add UISS tag and the option for compressed format.

Comment: Use the text you want with option to add PHG info.

Interval: Is the interval time (in minutes) for your transmission to the APRS-IS Server.

You use a "**Status Text**" and also add it the RF **best DX**.

APRS **Bulletins** using the text you want, can be send selecting "**Send**" in the Bulletin frame.

Auto Answer selected will send the text in its box when you receive a message from other satation from APRS-IS.

Igate (RF to Inet):

Gate Only Direct: Use it unselected if you want not to Gate digipeated stations.

Is possible to "**Gate All**", that means every packet or "**Gate only CallSigns**" they are those you **ADD** to de list (using wildcards). The can delete them using the "**Delete**" Button.

Rx Port: This is the AGWPort connected to the radio you want to use for "receive" the packets.

MHeard - DX Direct Only unselected, takes account also stations heard via any digipeater, and selected, only direct heard Stations.

MHeard - Expire Time You can choose 2, 3, 6 or 12 hours.

Igate (Inet to RF):

Pack/min: Means Packets per minute. As Packets received from the APRS-IS server are too much (specially if you did not define a filter), this parameter limits the amount of packets per minute you will transmit, as you know, APRS frequencies must be as "clear" as possible! You can choose 6, 7, 8 or 9 packets/min.

Tx Port: This is the AGWPort connected to the radio you want to use for "transmit" the packets. Choosing Port "0" will disable this function.

UNPROTO Path: Default is WIDE2-2, but you can use what you want.

Packet Type: Can be "ALL" or "Position", "Bulletin", "Object" and/or "Message"

Miscellaneous:

Log Files: They will be saved into "***Logs_SatGate***" folder, and are:

igated.txt - All packets from RF to Inet.

serv_conn.txt - Every connection with APRS-IS server.

inet_RF.txt - All packets from Inet to RF.

aprs_is - All packets from Inet.

incomming_msgs.txt - Messages received from APRS-IS stations.

web_visits.txt - Web visitors IP Address.

WEB Server: When enabled, the Web Server brings access through internet giving some information about the program.

You can test it (using the same PC) setting <http://127.0.0.1> in your internet browser, this will show the UISS SatGate web site. Take in account, if you are running another web server (for example UI-View's) using port 80, then, you must change the port, for example to port 82. Then you can check it at: <http://127.0.0.1:82>

Once made these initial testing, and if you are running it in a LAN, server needs to set the port number into your router addressing it to that PC IPAdress (for example 192.168.0.1).

If you have "Dinamic IP Addrress", go to <http://www.no-ip.com> and get a free DNS (for example I get <http://lu4eg.ddns.net>) with it you or anybody can access to UISS Web server from anywhere.

Port: Default is 80, but you can select any port desired.

WEB Header Comments: Will be the header text of your web site, for your name, city, e-mail address, etc.

ISS Position Object: Enable it, system will send an APRS Object every 2 minutes. This will be seen in the APRS maps showing the ISS current position. Program takes ISS current position from <http://isstracker.com>

Use Procedure:

First to do is Connect with the APRS-IS server pressing "Connect" button. You'll see stations packets coming from the server in the "APRS-IS Packets" upper list.

RF to Internet Gate:

While receive RF packets, they appear in the upper blue "MHeard" window (Station, RFPATH, Distance and Bearing) . The most far away station will be indicated as "DX" station.

If these APRS frames have the "Gate" condition, they'll be send to internet and you can see them in the "Gate RF to Inet" lower light green list.

Internet to RF Gate:

While receiving APRS-IS packets, they appear in the " APRS-IS Packets" upper list (all of them has passed throug the "filter" criteria), then, will be RF transmitted to the RF port port, and you can see them in the middle light blue list.

Comments:

Special thanks to Guy Roels, [ON6MU](#) for his valuable coding help.

For suggestions, bug reports, please email to: lu4eg@hotmail.com

Added to the previous version:

- 1_ Compressed Beacon.
- 2_ "ONLYRF" and "NOGATE" detection on the Path for do not iGate the packet.
- 3_ Memorizing of UISS initial "To" and "Via", to return them when SatGate goes off.
- 4_ Possibility of Gate "RF to iNet" or "iNet to RF" separately.
- 5_ Generation of PHG values in beacon comments.
- 6_ Wildcards for CallSigns selection in RF to iNet.
- 7_ Change APRS Symbol to Igate (I&).
- 8_ Double click on Position RF list, show complete packet data.
- 9_ Double click on Beacon and ISS Object timers, timeout the timers.