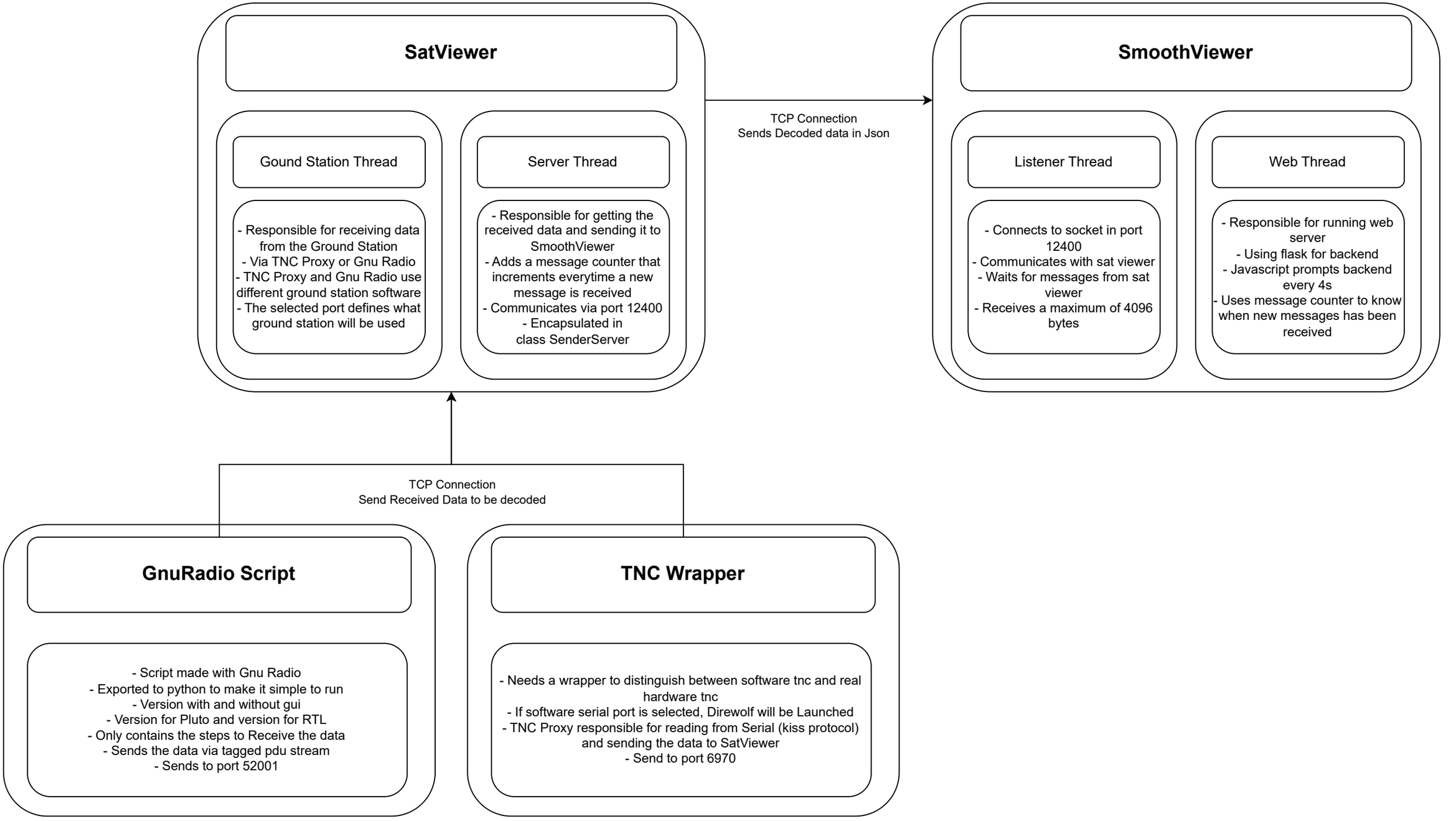
SatViewer
Gound Station Thread
- Responsible for receiving data from the Ground Station
- Via TNC Proxy or Gnu Radio
- TNC Proxy and Gnu Radio use different ground station software
- The selected port defines what ground station will be used
Server Thread
- Responsible for getting the received data and sending it to SmoothViewer
- Adds a message counter that increments everytime a new message is received
- Communicates via port 12400
- Encapsulated in class SenderServer
TCP Connection
Sends Decoded data in Json
SmoothViewer
Listener Thread
- Connects to socket in port 12400
- Communicates with sat viewer
- Waits for messages from sat viewer
- Receives a maximum of 4096 bytes
Web Thread
- Responsible for running web server
- Using flask for backend
- Javascript prompts backend every 4s
- Uses message counter to know when new messages has been received
TCP Connection
Send Received Data to be decoded
GnuRadio Script
- Script made with Gnu Radio
- Exported to python to make it simple to run
- Version with and without gui
- Version for Pluto and version for RTL
- Only contains the steps to Receive the data
- Sends the data via tagged pdu stream
- Sends to port 52001
TNC Wrapper
- Needs a wrapper to distinguish between software tnc and real hardware tnc
- If software serial port is selected, Direwolf will be Launched
- TNC Proxy responsible for reading from Serial (kiss protocol) and sending the data to SatViewer
- Send to port 6970