

In addition to its original purpose, the Ku subsystem has been utilized to achieve two other purposes:

- (1) UDP packets originating from an instrument on the aircraft can be arranged to be delivered directly to a DFRC supplied workstation in the GHOC or to a Scientist supplied computer. (see figure 1)
- (2) Direct control of a payload instrument on the aircraft can be done using either one of the DFRC supplied workstations in the GHOC or by a Scientist supplied computer. (see figure 2)

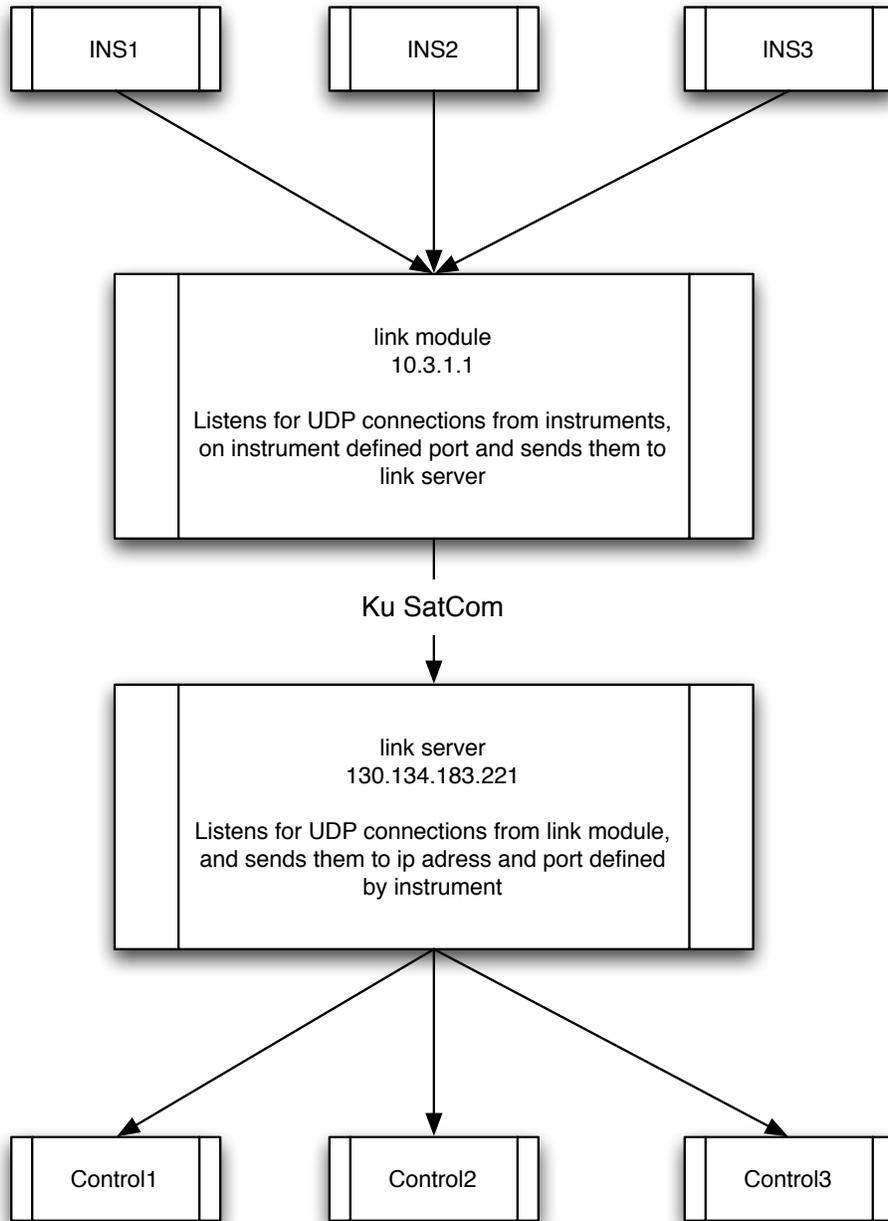


Figure 1 Packet Forwarding over Ku

A short memo on routing and port forwarding for Global Hawk via the Ku SatCom system
version 1.10 14 July 2010 dvs

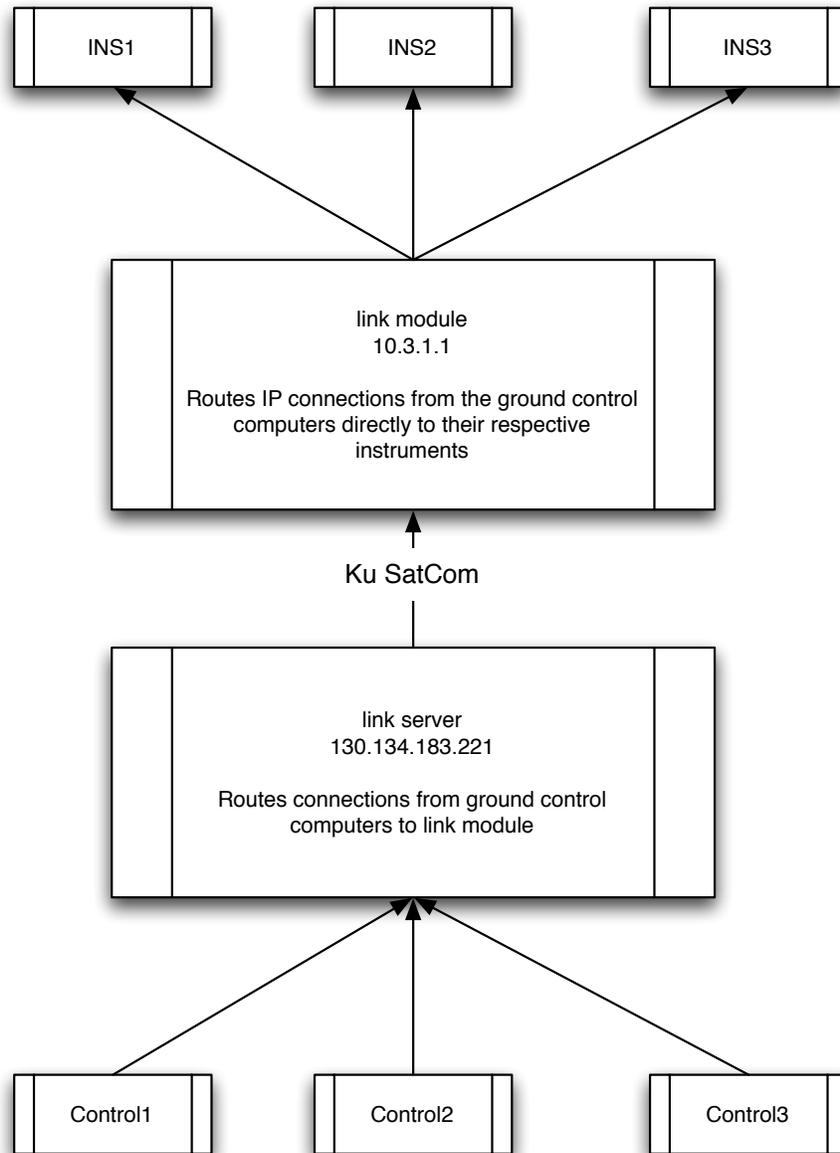


Figure 2 Command and Control over Ku

To employ UDP port forwarding from the aircraft to your GHOC receiver:

- (1) Assign a port from the range defined for your instrument in the ICD for your instrument to send TO on the link module, IP address 10.3.1.1
- (2) Determine the address of the machine you want data delivered TO in the GHOC.
- (3) Assign a port for your GHOC receiver to listen to for data; this can be, and in most cases will be, the same as the one you send to on the aircraft.
- (4) Give this information to the person configuring the forwarder; for GloPAC or GRIP, this is Don Sullivan.

To set up routing to command and control an instrument on the aircraft from your GHOC workstation.

Case 1: If you have no need to access the wide area via http or others, simply set your default router to 130.134.183.221 (link server) and access your instrument directly using it's aircraft address.

Case 2: If you need to access the wide area via http or others, you will have to ADD a route to the 10.3.1.0 network, and access your instrument directly using it's aircraft address. The commands to do it, are for the different OSs, are:

Linux:

```
route add -net 10.3.1.0 netmask 255.255.255.0 gw 130.134.183.221 eth0
```

Windows:

```
route add 10.3.1.0 mask 255.255.255.0 130.134.183.221
```

BSD/OSX:

```
route add -net 10.3.1.0 -netmask 255.255.255.0 130.134.183.221
```

NOTE: These HAVE TO BE TYPED EXACTLY AS SHOWN

Yes, they are all very similar in syntax, but each REQUIRES it's own variant