

Introduction

The lodge has installed an NBN satellite dish on the west wing upper lounge balcony. The dish links to a NBN Skymuster II satellite located 35000k above the earth on the latitude of Melbourne. At this distance the dish to satellite alignment is very sensitive & critical. The two NBN satellites are serving approximately 400,000 remote Australians. The NBN service is limited by a Fair Usage Policy to ensure that all users have some capacity available at all times. The system provided to the lodge by SKYMesh is limited to 120Gb per month as a result of this policy and this has to be shared amongst everyone staying at Pygmy Possum during that time.

Safety

The dish uploads and satellite downloads are high energy radio beams and everyone needs to be aware of the following warning. **KEEP OUT OF THE BEAM.** This notice is also posted on the west wing upstairs lounge balcony door. **The lounge balcony door must be kept locked.**

Satellite dish warning

IMPORTANT SAFETY NOTICE

Do not allow any part of your head or body to come within the satellite dish beam area as indicated in this diagram.



When visually inspecting the satellite dish:

Do not allow any part of your body to come within the satellite dish beam area.

Do not attempt to access a roof area without appropriate training and equipment.

For additional safety when inspecting the satellite dish, always ensure the **nbn™** modem is unplugged from the power pack.

Voucher System

With a maximum lodge occupancy of 54 people and a 120Gb total capacity per month each user is limited to approximately 450Mb/week. To ensure week one guests don't use all the system capacity, and leave nothing for week four guests, a voucher system is used. Each guest (over 5 years of age) has been allocated 2 vouchers.

- Voucher A can be used 20 times with each use limited to 7Mb
- Voucher B can be used 12 times with each use limited to 40Mb

For weekly guests these vouchers expire 7 days after initial use or at the exhaustion of their number of use times. For longer term guests the expiry term and the use times are extended appropriately.

The total voucher allocation per weekly guest is 620Mb. This obviously exceeds 450Mb and assumes not all users or sessions will use their allocation.

Hardware

The system hardware consists of the satellite dish, the NBN modem, router and two Wifi points in each wing. An Uninterrupted Power Supply (UPS) provides filtered power and approximately 30 minutes of power backup in the case of a power failure. All systems are shown on in the photo below. The UPS, the modem, router and Wifi point are all on and working normally in the photos and their indicator lights are all a steady blue colour.



Troubleshooting

The main issue encountered with the system to date is loss of satellite connection. This will occur when the satellite is taken offline for maintenance work OR if the dish is misaligned. Satellite maintenance is typically scheduled in the period between midnight and 7am and on completion the system may not reconnect. The modem will blink white. Wind, rain and snow will affect the system and connectivity may be lost.

If the system fails to connect the system should be powered down by turning the UPS off and waiting for 5-10 minutes. This will prevent the battery backup providing power. The UPS on/off switch is to the left of the blue UPS light. Please record the time the system was out, the state of the indicator lights, and the success or failure of the reboot. **DO NOT** touch the modem as it is less accessible. The modem indicator lights are shown below.

Modem Indicator Light

	<u>Indicator</u>	<u>Meaning</u>
●	No Light	No power
○	Solid White	Initial power up
◉	Pulsing White	Attempted network entry
●	Solid Blue	Online
◉	Pulsing Blue	Device busy and working normally
●	Solid Amber	Sleep mode
◉	Pulsing Amber	Installation mode
●	Solid Red	Device reboot required; if this does not clear then call for service
◉	Pulsing Red	Fault detected Call for service



System Alignment & Snow Clearing

A build-up of snow on the dish will affect the connectivity.

However:

1. Light snow build-up on the dish should be ignored. The dish faces north and even a weak sun will melt the snow.
2. If the snow is falling then don't clear the dish. There is little point in doing multiple snow clearances.
3. If the snow has built up on the dish and is causing problems then it can be cleared with the following steps.
 - a. Turn off the UPS power as described above. This will stop the modem trying to connect with the satellite and reduce the beam risk noted above.
 - b. Lightly clear the snow with the spider broom.
 - c. Do not use anything heavy like a kitchen broom.
 - d. Do work safely on the balcony
 - e. Lock the balcony door when finished
 - f. Repower the system
 - g. Record and email internetpp@elouerskiclub.asn.au if this was successful or not.

We can't emphasize enough that alignment is critical and that you should be careful not to accidentally move the dish during snow clearing, and never try to align the dish yourself. Any misalignment may stop or reduce the system efficiency, and unfortunately, we probably can't get an NBN technician to repair an alignment issue until Spring.

System Support

If the system remains offline after powering off and on, then an email (if possible) should be sent to internetpp@eloueraskiclub.asn.au noting the time the system failed, the state of the indicator lights, and the weather conditions. This email is forwarded to a number of club members, one of whom will contact Skymesh our NBN provider and may call the lodge for additional information. If the email is unavailable then contact the following club/board members:

- Stafford van Putten 0404 831 141
- Aleks Rachlewicz 0410 874 899
- Paul Greenfield 0410 620 154
- Jon Barber 0412 163 460
- Judy Jenkinson 0413 778 412

Using the club phone will cost \$2 to a mobile. Assume one of us will call back if the money runs out during the call.