PO Box 10315, Phillipstown, Christchurch, New Zealand. Mobile 021 348-001 E-Mail: matt@wifiguys.co.nz

# Shotover Sunshine Festival WiFi Network Report

Hi Nick

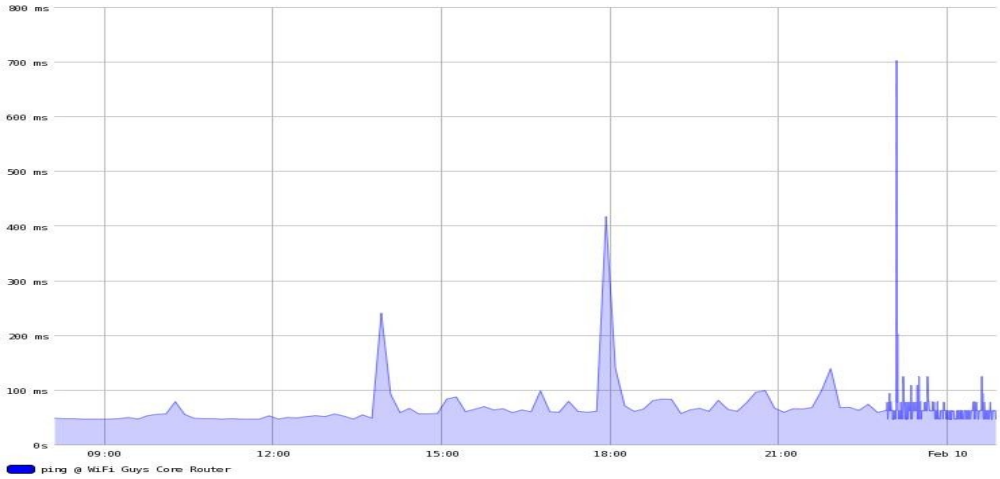
Thank you for the oppitunity to offer my services to your company and allow me to put my skills to good use.

As you know the internet connect connection with the Telecom ADSL was perfect and did not drop off once. There were no issues with any of the wired network that I was aware of.

The WiFi preformed well apart from one laptop in the VIP Bar. I would have liked to looked that this more closely to see why it dropped of a few times during the eveing. Was it signal strenght due to the mass of people around the laptop, hardware related problem or local interferance?

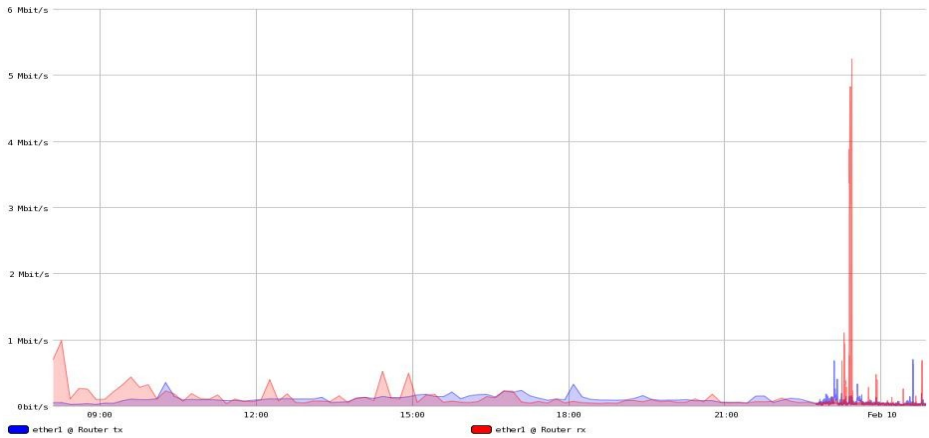
Here are some screen shots of the Networking and Wireless preformance.

**Latancey to Internet**




The graph show how stable the ADSL connection was with only a few spikes, this did not affect the preformance for access to remote servers for the POS systems.

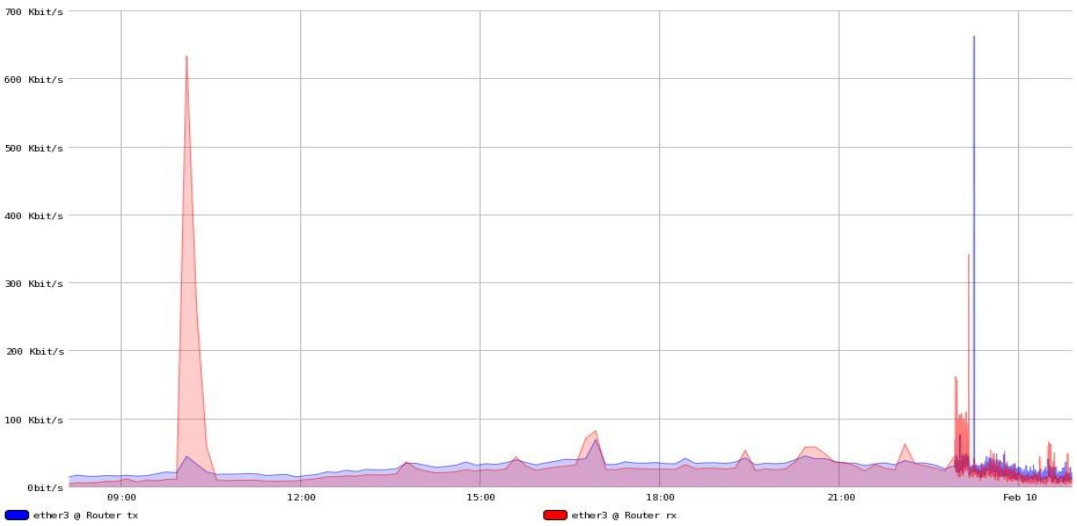
# Telecom ADSL Data Throughput




This graph shows how little data was transferred during the event. This is one of the reasons that the system worked so well due to the small packets of data to run the POS network.

Near the end of the evening, as seen in the above graph, again was an incease the ping times. I expect this was again when I changed from LAN to WIFi .

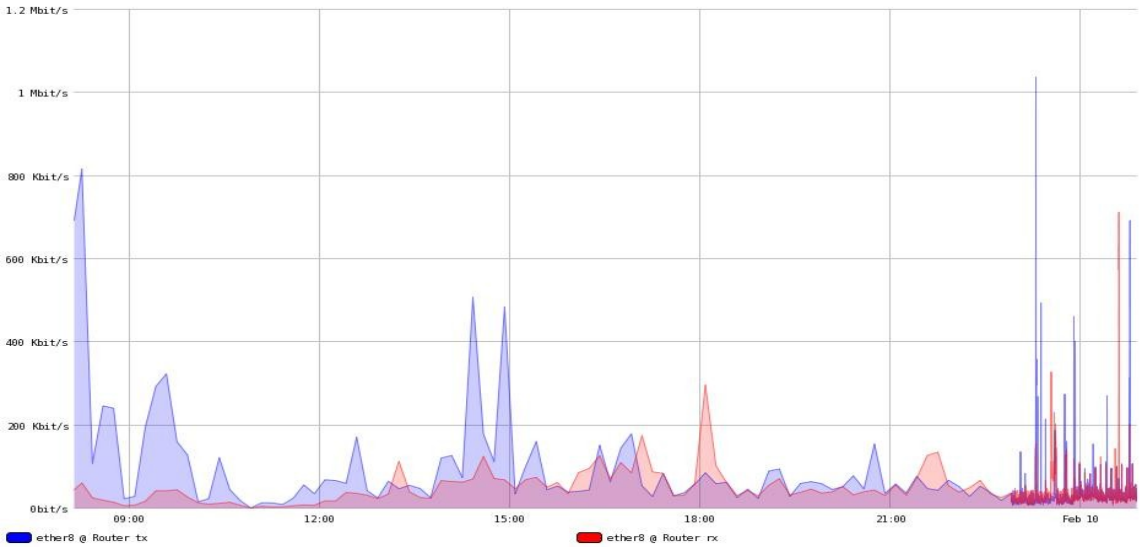
# Server Data Usage




This the showing the data usage to the onsite server. At the start you can see the spike in data throughput, this maybe a software update of some type?

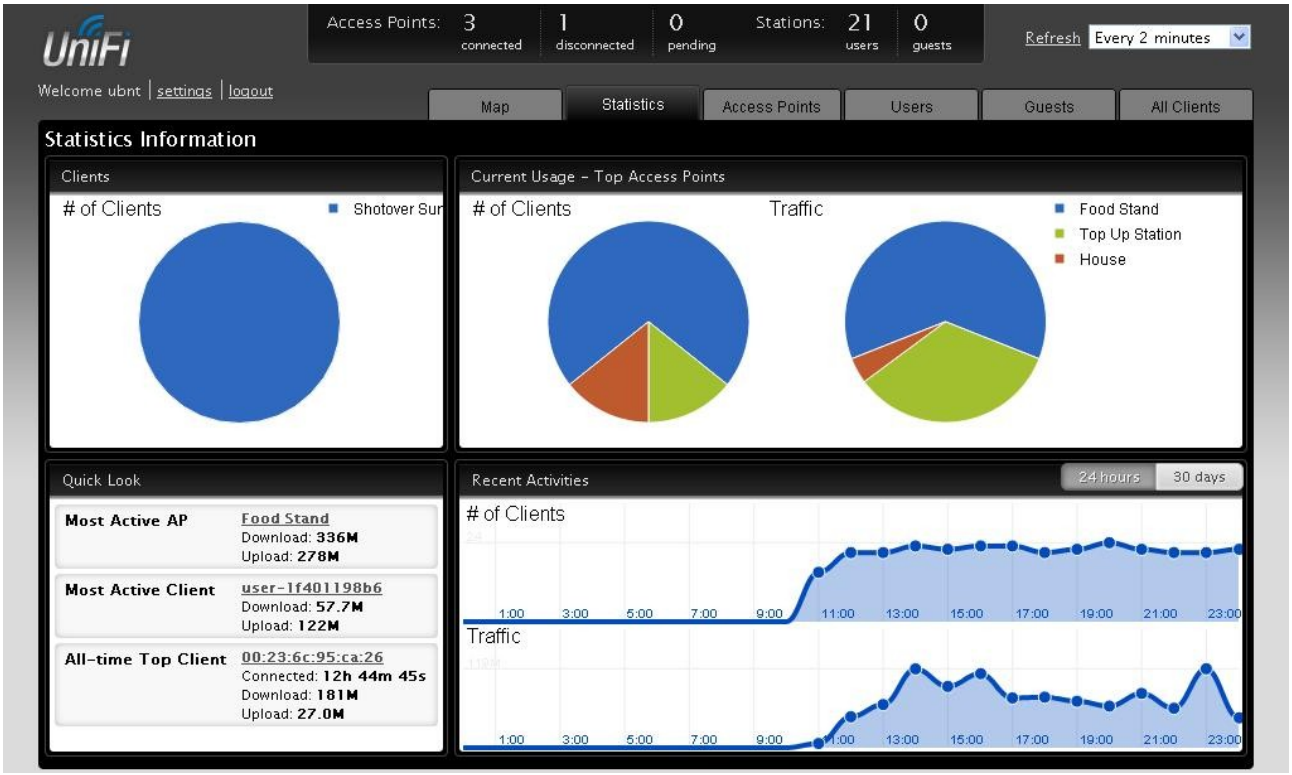
The spike at the end is blue which shows the server transmitting data. Not sure what this data was, possible when I changed my laptop from Local Area Connection to WiFi connection and seen the lost data it hs not counted as one lump.

# Enterance and Food Vendors Data Throughput




The graph show the data usage throught the network cable supplying the enterance and Food Vendors. This will also have data usage also from others roaming from one WiFi radio to another with cellphones etc.

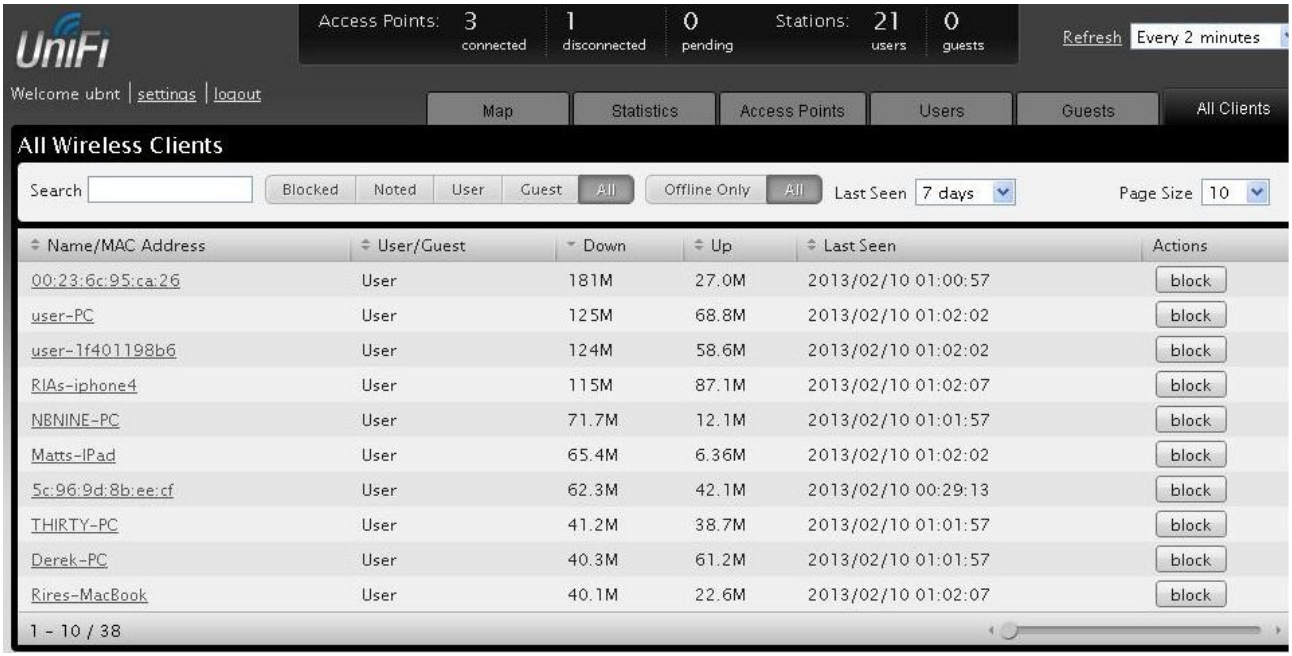
# WiFi Statistics




The data above tells us the majority of WiFi traffic was the food vendors. This was expected. The max clients conencted about 10pm was 24. The traffic peaked about 1:30pm and 11pm with 119M of data used at this time.

This data is based only on WiFi users on the 4 x WiFi Radios I installed.

# TOP 10 WiFi Clients




The top user downloaded only 181M of data. The software allows you to edit the client details and display a name instead of MAC address etc for future refferance. Looks like there was no abuse of the data usage on WiFi network.

## Conclustion:

In general the event was a suscess. Not much could have been done to make things more stable as there were no majour outages.

Power seems to be one of the most important factors that can upset the network greatly. This can be resolved with battery backs in a few places. 12V or 24V can be used.

As much as I love WiFi, you can not beat the network cable, by far the best way to get backbone network access to each location around the site. This and local WiFi togeather worked like a treat.

The 5Ghz link to the house preformed well with no issues and would be a second option to backbone networking in future sites with low interferance issues. This is a simple and affective way to widen coverage and hard to reach locations with cable runs over 100M.

Traffic rules can be configure in my router to prioritise the data so your POS system would get priority over other traffic if there was a need to do so in the future with high traffic or low bandwitdh sites

I look forward to improving our business relationship and working togeather to be able to provide a reliable, proffessional and funtional service to your customers in the near future.

Thank you

Matt Wilson
Director
WiFi Guys Ltd

p: 021 348-001
e: matt@wifiguys.co.nz
w: www.wifiguys.co.nz