

## CASE STUDY

### Aquarius Motor Inn

#### About the Motor Inn

Aquarius Motor Inn has excellent service and facilities including a swimming pool, private spa pool, SKY Guest Select (50+ SKY channels), and free, unlimited, wireless internet.

Aquarius Motor Inn is in a quieter part of the Mount and is the ideal 'base' to explore the area. Whether it's the glorious stretch of white sandy beaches, the bustling harbor with its many visiting cruise liners, the fantastic hot saltwater pools, or the Mount itself, they are within close proximity of all the major attractions.



#### THE PROBLEM

Aquarius Motor Inn is located in Mount Maunganui, Tauranga New Zealand. It is a sizeable multi-story motel with an emergency New Zealand housing facility operated by the New Zealand government. The Aquarius Motor Inn needed a new and affordable Wi-Fi access point solution to provide a stable Wi-Fi connection throughout the grounds. Their installer, Networx NZ, worked with Go Wireless NZ to provide a quality solution to deliver full Wi-Fi coverage without excessive cabling and financial outlay. The solution the inn was looking for had to be both mesh-capable and low-budget. Aquarius Motor Inn was previously using Ubiquiti access points that were failing their network requirements due to the 2.4G network not fitting their capacity.



#### Provided By Networx New Zealand

Networx is a Bay of Plenty based IT company specialising in Wifi solutions. They implement solutions that mitigate common issues and provide timely support to ensure their customers have a quality wifi service that performs.

## PRODUCTS DEPLOYED



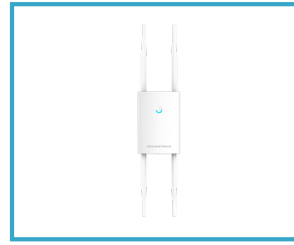
**GWN7630**  
**Wi-Fi 6 Indoor**  
**Access Point**

Indoor public spaces



**GWN7605**  
**Wi-Fi AP Indoor**  
**Access Point**

Retail locations



**GWN7630LR**  
**Outdoor Long Range**  
**Access Point**

Outdoor areas



**GWN.Cloud**  
**Cloud Management**  
**Platform**

Access Point Management

## THE SOLUTION

Grandstream's GWN Wi-Fi Access Points were chosen due to their ability to provide excellent meshing functionality that aligned with Aquarius Motor Inn's goals and price range. To test the solution, NetworxIT chose the GWN7625 (ac wave 2 4x4:2 antenna gains 2.4Ghz 3.5dBi/ 4.5Ghz 5dBi) and a smaller GWN7602. The increase in gain as opposed to a typical 3dBi integrated antenna for a 2x2 802.11ac small/medium enterprise-grade access point provided better connectivity and meshing capabilities than the currently deployed Ubiquiti device.

The GWN7602 was housed in the installer's steel garage with a 2-meter air gap to the house and 3 walls to the office with the master GWN7625. The signal had to penetrate the house and garage and provide a healthy mesh connection. To the installer's surprise, they were getting greater than > 15Mbps throughput over the mesh connection.

NetworxIT NZ tested the devices in a different client site where floors and walls were constructed with concrete, which caused signal penetration issues. A GWN7630 was deployed as a master device and cabled this using VDSL extenders to the core LAN, with a GWN7625 as the slave device. The testing resulted in complete room coverage and provide no less than 20Mbps across the coverage area. With testing complete, this model of a meshing solution was then used at the Aquarius Motor Inn motel as a proven way to overcome cabling and building material constraints.

Fourteen Wi-Fi Access Points, nine GWN7630s, four GWN7605s, and a single GWN7630LR were deployed. The GWN7630LR was deployed outside as a backup device if meshing is interrupted or delayed. The GWN7630s and GWN7605s were installed downstairs in the roof and downstairs in the building apartments. The upstairs apartment roofs house the cabled master access points and downstairs access points operate over a mesh connection to the master devices.

# THE RESULT

The GWN Wi-Fi access points created a solution that provides all the rooms within the Aquarius Motor Inn motel with a stable and completely covered Wi-Fi environment. The 40-50 users who regularly rely on the network for email and internet access now have consistent Wi-Fi access throughout all the rooms. Throughout the mesh deployment, Wi-Fi speeds never drop under 20 Mbps, even in rooms that have severe construction interference. Due to choosing Grandstream, the Aquarius Motor Inn was able to create a cost-effective Wi-Fi solution for their business and customers.

AP	RSSI	Channel	IP Address	Clients	Actions
▼ C0:74:AD:83:3D:F4	—	5G 44	172.16.40.28	5	
C0:74:AD:86:FB:F8	5G -71	5G 44	172.16.40.38	0	🔗
C0:74:AD:83:3D:E0	5G -64	5G 44	172.16.40.35	2	🔗
▼ C0:74:AD:83:3E:F8	—	5G 124	172.16.40.25	3	
C0:74:AD:87:2B:50	5G -57	5G 124	172.16.40.24	3	🔗
▼ C0:74:AD:83:3D:AC	—	5G 36	172.16.40.29	3	
C0:74:AD:87:2A:F0	5G -58	5G 36	172.16.40.32	0	🔗
▼ C0:74:AD:97:3A:48	—	5G 36	172.16.40.44	0	
C0:74:AD:87:2B:28	5G -57	5G 36	172.16.40.31	0	🔗

