We Do WiFi

Proposal for the most effective WiFi enablement for:

The greater Mossel Bay area

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1. Executive summary

Mossel Bay leadership wants to align with the growing International trend to make available WiFi services to all its communities for the advancement of such communities in the global technological world we are living in. We Do WiFi has the skills and technology to serve Mossel Bay, its leaders and communities by making available the largest possible footprint of WiFi coverage to the Mossel Bay communities. We Do WiFi has the experience and track-record to serve communities and has inter alia built a large wifi footprint for its Vaal Triangle clients. We propose to erect a short (3m) WiFi tower on the Bay View roof which will reach the vast majority of WiFi users including the Kwanonqaba, Voor Bay, Santos Bay and Mossel Bay town areas. These communities will be included in the advantages that coincide with the global trend of widespread WiFi availability to the citizen of the 21st century.

We Do WiFi has pre-empted the speedy roll-out of WiFi coverage to the mentioned footprint to the benefit of the community and has interacted with the Mossel Bay Municipality to obtain prior approval before this request. The Mossel Bay Municipality subsequently fully and formally endorsed the erection of the suggested infrastructure. We however require a champion member from Life Bay View Hospital for the final go-ahead of the installation. We propose some incentives for Life Bay View Hospital for this commitment and further commit that the final installation of the tower would be completed within one week of commencement. We also will appreciate if we can engage towards some rental agreement for the proposed infrastructure on your roof.

The sections in this document following this Executive summary contain complete detail about the initiative and advantages for the communities who will benefit from this technology. We wish to, by this initiative, uplift the business and private communities of Mossel Bay and hence contribute to the economic well-being of the overall region.

2. Background

Wireless communication is without a doubt the direction in which the new Digital World is heading. The number of large scale public Wi-Fi Hot spots, home Wi-Fi systems, and large distance point to point wireless links are ever increasing. In the last few years, wireless communications technology has evolved tremendously. Most wireless challenges previously thought of as out of reach have now become a reality.

The rate at which technology is progressing calls for an accelerated increase in communication speed.

Thus regular upgrade of communication infrastructure is required to accommodate the ever evolving needs of end users. Installing or upgrading underground copper or fiber networks for the last mile user is not very cost effective and the effort needed translates in it becoming a very timely process.

Last mile networking, the final step between country data centers and the end user, is where wireless networks make the most sense. Not only is it a hugely more cost effective method of networking than copper or fiber, but setup time is a fraction of that of copper or fiber networks.

Contrary to popular belief, not every Internet Service Provider (ISP) has the ability to provide uncontended, low latency, reliable and fast internet access. Uncontended low latency internet access is required to service the growing demand of latest technology equipment and services. Our servers, that are located in the primary data centers of South Africa, have direct plugins to high-bandwidth international and local content connections.

By having more control over where our data comes from we can deliver a better, more reliable and stable service to our clients.

Sector radios are used to distribute data to clients' home equipment. The latest equipment enables us to provide a truly uncontended, low latency, high bandwidth, reliable internet access experience. In our quest to define the optimal WiFi coverage for the greater Mossel Bay area we scrutinized the entire area using various technologies. More than ten possible WiFi connectivity points were investigated. The top connection points are reviewed in the next section.

3. Top possible WiFi connection locations

The top seven possible WiFi connectivity locations from the list that was scrutinized are listed in Table 1 below. Table 1 also makes reference to figures that depict the coverage areas as listed in the figures below Table 1.

Table 1: Top seven possible WiFi connection locations

#	Location	Description	% Coverage (estimated)	View shed reference
1	Life Bay Hospital	Mast protruding building roof by 3m	83	Figure 1a, 1b
2	Spar S.E. corner parking	15m mast mounted in South-East top corner of parking structure	38	Figure 2a, 2b
3	Spar Dot Com computers	15m mast mounted on top of D.C.C roof	39	Figure 3a, 3b
4	Rocky Cliff at point neat Lighthouse	5m mast mounted near cliff edge	18	Figure 4a, 4b
5	Broodmandjie dak @3m	Mast protruding building roof by 3m	31	Figure 5a, 5b
6	Medicross gebou dak @3m	Mast protruding building roof by 3m	20	Figure 6a, 6b
7	Dr. CJ Le Roux Building roof @ 3m	Mast protruding building roof by 3m	30	Figure7a , 7b

In the cases of Figures 1 to 7, version a of the view is the Mossel Bay view whereas version b of the view is the zoomed-out view showing the larger area.

Table 1 indicated that the Life Bay option outweighs the other the options by a significant margin.

The View Shed images corresponding to the references in Table 1 follow below.

Figure 1a: Life Bay @3m (Areas marked in GREEN are covered from the selected broadcasting point and altitude)

Figure 1b: Bigger Perspective

Figure 2a: Spar S.E corner parking @15m tower (Areas marked in GREEN are covered from the selected broadcasting point and altitude)

Figure 2b: Bigger Perspective

Figure 3a: Spat Dot Com computers @ 15m tower (Areas marked in GREEN are covered from the selected broadcasting point and altitude)

Figure 3b: Bigger Perspective

Figure 4a: Rocky Cliff point near Lighthouse @5m tower (Areas marked in GREEN are covered from the selected broadcasting point and altitude)

Figure 4b: Bigger Perspective

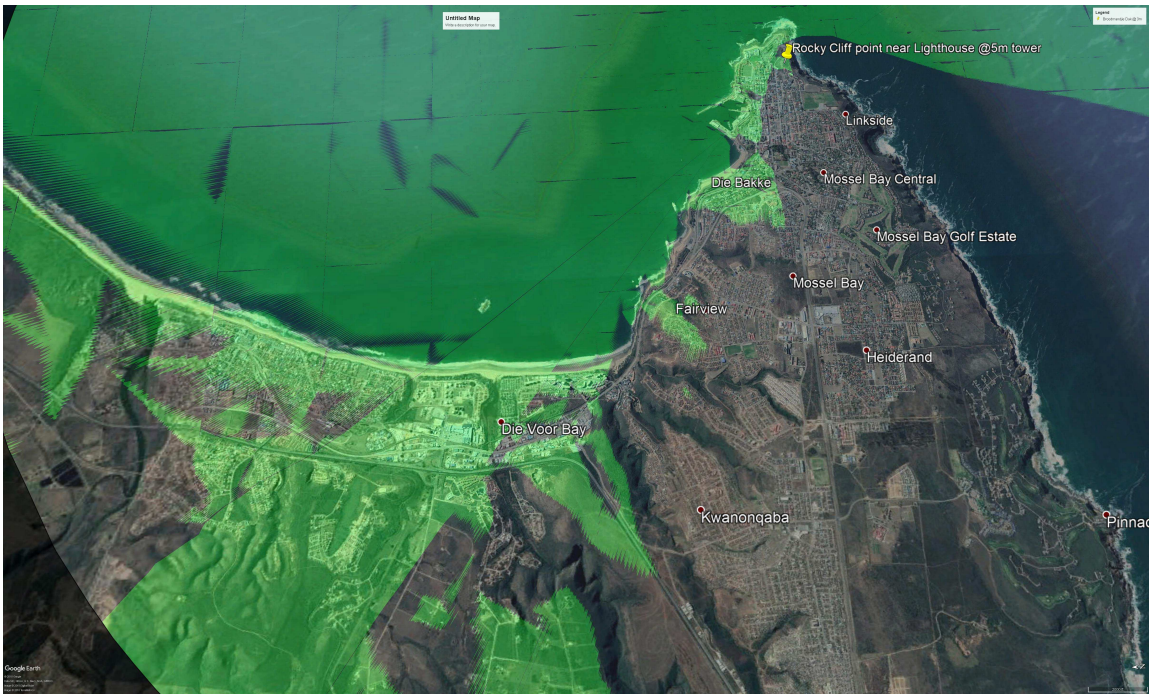

Figure 5a: Broodmandjie roof @ 3m (Areas marked in GREEN are covered from the selected broadcasting point and altitude)

Figure 5b: Bigger Perspective

Figure 6a Medicross building roof @3m (Areas marked in GREEN are covered from the selected broadcasting point and altitude)

Figure 6b: Bigger Perspective

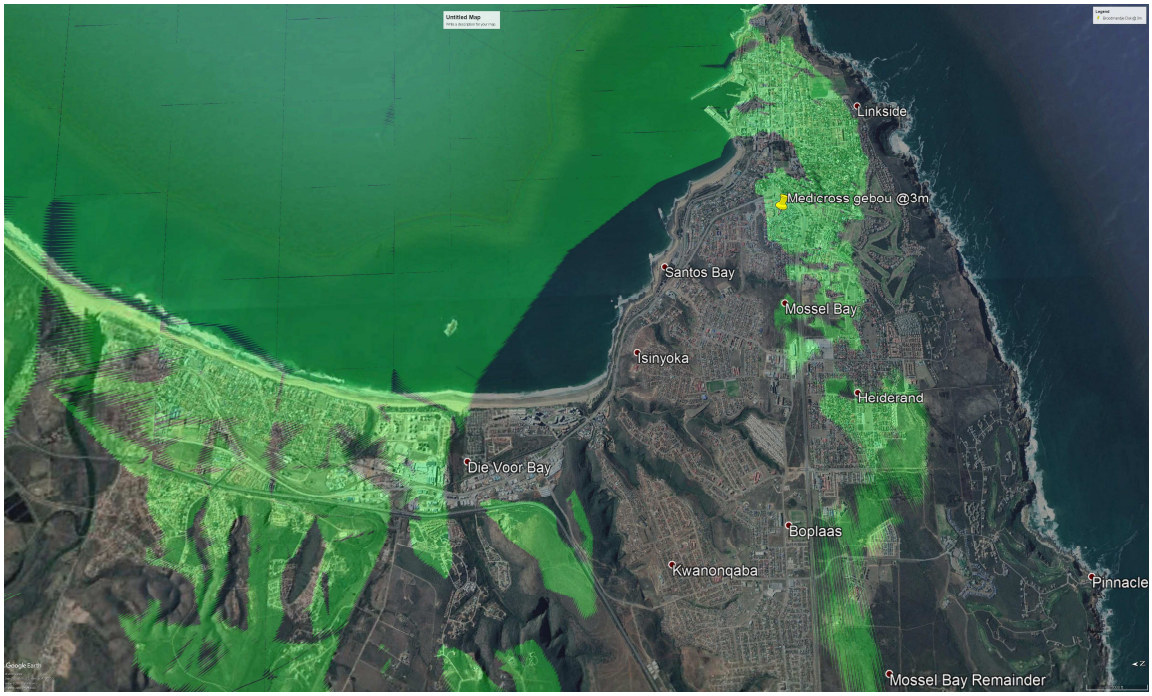

Figure 7a: Dr. CJ Le Roux Building roof @ 3m (Areas marked in GREEN are covered from the selected broadcasting point and altitude)

Figure 7b: Bigger Perspective

The preferred connectivity location is discussed in the next section.

4. Preferred Data Distribution Location

Overall connection coverage toward a futuristic strategy to improve the internet connectivity of the greater Mossel Bay area to the advantage of the business and residential communities of the area should be a priority factor.

Life Bay view Hospital is the ideal location to implement radio equipment in Mossel Bay. This conclusion follows from the data listed in Table 1 as well as from the View Shed figures below Table 1.

The top of the North-East corner of the building (Figure 5) is the ideal vantage point to take advantage of the surrounding geography.

Figure 5: Life Bay View Hospital North East corner

5. Proposal

The proposal is to erect a prefabricated tower to protrude the highest point of the building by 3 meters inside the courtyard located at the very top and center of the building.

The installation will include:

- Tower assembly
- Weatherproof Case
- AC Power to tower according to Life Hospital's standards.
- Hardline data connection to tower from outside source.

The tower installation will be done by professional installers within 1 day and with no interruption to the usual operations at the Life Bay Hospital. The installation will be at zero cost to any owner in Mossel Bay. The overall installation process with be overseen by a certified Nebosh qualified supervisor. The hospital superior will be involved in the overall project management planning and will be included in the pre-installation as well as the post-installation sign-off. The hospital superior and other nominated officials will be included in the on-going quality inspection processes of the installed infrastructure. The regular safety inspection reports of the installed infrastructure will be made available to the nominated officials of the greater Mossel Bay area.

The usage of the WiFi coverage to the greater Mossel Bay area will be recorded on an on-going basis and will be made available to the nominated officials of Mossel Bay towards furthering the growth and enhancement of the greater Mossel Bay area. We-Do-WiFi will also facilitate and participate in actions where the WiFi-coverage advantages for the greater Mossel Bay area can be leveraged to the improvement of the local economy of the region.

6. Unique value proposition

A contented WiFi service is a service where the demand for internet access and the maximum available bandwidth is such that the users have to contend for the limited available internet bandwidth. The high-speed fiber connection to our national and international servers will allow us to provide uncontended services to selected users. The contention ratio of the Wifi service provided will be controlled to allow Life Bay Hospital controlled uncontended internet access. This service can be made available of part of Life Bay Hospital's distinguishing services and thus be included in its service portfolio to its client community.

Furthermore, the lease agreement for the space occupied by the relatively short tower will include a preferential agreement for our premium WiFi package.

We will also liaise with the relevant authorities towards erecting navigation lights for air traffic on top of the same tower and will erect such light free of charge.

As in the case of our nationally and internationally connected internet servers we are also well connected to leading internet service providers. This allows us to plan and commit to installation time-frames and execute accordingly. Our certified Nebosh and NHBRC officials will ensure a smooth and seamless installation of the relatively short tower. This will ensure that an internationally accredited top quality installation service will be provided.

We also commit to a post-installation services agreement where services expectations are agreed upfront and where service delivery results are regularly tested as per Service Level Agreement meetings. Our commitment is to serve the community of Mossel Bay and to support the growth of the area in terms of its business plans.

Lastly, we are eager to meet with the decision-makers of Life Bay Hospital to explore other opportunities where we can benefit Life Bay Hospital and the community on a win-win basis.

7. Summary

Mossel bay's business and residential communities will large benefit by supporting the implementation of the latest wireless technology as per this proposal. This technology can also be upgraded in the background seamlessly and without disruption to Mossel Bay users and as such ensure that the users remain on par with the global connected community. This proposal will serve the advancement of the greater Mossel Bay area, its people and its economy as and such overall support by the relevant authorities for this proposal is required to reap the benefits of the proposed improvements.