QUOTE#190618 **18TH JUNE 2019**

To: **The Owners – Cote d'Azur SP50785**
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Valid to: **30 Days**
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MATV SYSTEM UPGRADE – FOXTEL / FTA

This quote is for the upgrade of the FTA/FOXTEL system to accommodate Foxtel's new 4K services.

The current system in place is a TDT/QAM system that converts the satellite signals received to a "Cable" signal, so it can be delivered across a single cable.

At present, the New 4K Services are only available as a direct to home satellite service. Foxtel have not developed the 4 K set top unit in a "cable" version.

Standard satellite delivery requires 4 cables on all backbone / trunk cables and twin cables to each outlet. It is not possible to run new cables to, and within the units.

The Building has limitations on the cabling installed as there is a single wire into each unit as the building was constructed pre-Foxtel IQ + IQ/HD.

Foxtel have developed and recently released a new system that can deliver Satellite signals over a single wire by using an intelligent device (Multistacker) that stacks the satellite signals efficiently and uses higher frequencies to deliver all the services on a single cable.

The upside of the system is that the multi stacker is very cost effective and can deliver Satellite signals over the existing single cable. (no rewiring included)

The limitations are the extreme loss of signal on long cable runs and through splitters. The is overcome by new active (amplified) product range.

Proposal/Requirement

There are several options to upgrade the system.

*The Current TDT system **will be** supported for Foxtel (SD), IQ2/3 (HD) for some time so the Satellite Multistacker (**SMS**) system can be overlayed onto the system with the TDT still operating. TDT system will not support IQ4 and future set top units will not be compatible.*

The options are:

1) The TDT could be removed and the system converted to a Multistacker system only. This would require a system upgrade (backbone) and all residents **MUST** migrate to either IQ3 or IQ4 as the Multistacker is only compatible with IQ3 and 4 set top units.

At present, commercial subscribers are not being given IQ3/4 set top units. If the Multistacker is in installed and TDT removed there could be some impact on any commercial customers in the retail area.

The SLA to service the TDT would not be required.

2) The TDT could be retained and the Multistacker set up to run alongside the TDT on the same MATV system.

This would require a system upgrade (backbone upgrade) and residents can migrate to IQ4 set top units at their convenience. (or IQ3)

At present, commercial subscribers are not being given IQ3/4 set top units. If the Multistacker is in installed and TDT is also retained, the commercial subscribers would have not have any impact on their service.

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BACKBONE UPGRADE OPTIONS

1) The backbone can be retrofitted with the bare minimum of changes to meet the Foxtel Multistacker (SMS) standard.

The dish would be retained. The SMS would be installed at the headend and all amplifiers replaced with high output compatible amplifiers.

The passive devise (splitters /taps in risers) would be changed where necessary until the system meets the Foxtel minimum specification.

2) The backbone would be fully upgraded where all amplifiers are relaced and the passive devices (taps / splitters) would be replaced with high output Active Taps (amplified). The active taps provide a higher output and better balance on the high frequency signals. (better performance , less signal drop outs , reliability)

With either upgrade option , the system will need to be commissioned to Foxtel's new specifications which includes submission of the standard SOW document with photos, system design CAD and signal test logs off an approved instrument.

Multistacker System Info

The new Multistacker **doesn't** require manual intervention for changes, Foxtel have developed the system to do this "over the air" automatically in line with their transmission changes.

If the TDT system is decommissioned, the mandatory SLA is **not** required.

If the Multistacker is to replace the TDT, It would be expected to run both system for several months to allow residents to migrate.

The Multistacker only works with IQ3 and IQ4 set top units. (and future set top units)

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Summary

It is proposed to do a Multistacker upgrade for the site.

- The system will be constructed to have the new satellite signals and the existing TDT signal running.
- It is the owner's discretion to keep both systems running for a short period of time to allow migrations or have both running at once indefinitely .
- Commercial / Retails customers connected to the existing system need to be considered. Foxtel usually do not provide IQ3/4 set tops to commercial customers. They are working on development of a set top unit that is SMS compatible for commercial subscribers.
- The FTA system will not be altered.
- After it is commissioned, residents can change to the new IQ 4 set top units. This will allow seamless migration.
- There is no allowance for any re-cabling or work within the apartments.
    - *It's at the discretion of the owners to leave the TDT in place for set period to allow migration of subscribers.*

(its not known if Foxtel will force all subscribers to the new Multistacker system)

The Multistacker system is developed by Foxtel and is compatible with IQ3(HD), IQ4 (4K UHD) and future version of set top units. The Multistacker is not backwards compatible to IQ2(HD), IQ1 and SD boxes).

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Scope of Works

- Replace the LNB on dish and realign. Leave dish and mount in place.
- Install a Foxtel compliant Multistacker at the headend. (installed in existing rack)
- Integrate SMS output with the TDT signals.
- Upgrade the backbone to the new Multistacker specification (either using active devices in the risers or replacing passive RF taps).
- This includes of replacing amplifiers and devices on the backbone where required. This will be done at every riser and equipment location.
- The new devices will be bonded to earth.
- The system will be commissioned to Foxtel's Multistacker specification.
- Upon completion of the installation the as built documentation will be handed over.

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WIDEBAND AMPS



ACTIVE TAPS



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PRICE SCHEDULE

OPTION: 1)

Install Multistacker and retrofit system with passive design model replacing equipment where necessary only to meet specification.

PRICE (ex GST)	**$**	**9,000.00**
GST 10%	**$**	**900.00**
Price Incl GST		**$9,900.00**

OPTION: 2)

Install Multistacker and retrofit system with active taps and associated equipment.

PRICE (ex GST)	**$**	**13,300.00**
GST 10%	**$**	**1,330.00**
Price Incl GST	**$**	**14,630.00**

A purchase order or written acceptance is required prior to commencing works.

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