



Australian Government

Digital Switchover Taskforce



Free-to-air satellite TV for hotels, motels and caravan parks

Between 2010 and 2013 analog TV signals are being switched off and replaced with digital-only signals. Some areas of regional and remote Australia will be unable to receive terrestrial free-to-air TV services and may need to access free-to-air digital TV through the Viewer Access Satellite Television (VAST) service.

Information about satellite TV reception and distribution systems that may be suitable for operators of small hotels, motels and caravan parks in regional and remote areas of Australia is outlined below.

Please note: the term “unit” means guest accommodation including rooms, apartments, on-site vans, powered sites, cabins or other similar arrangements.

Options for the reception and distribution of free-to-air satellite TV services

There are three main options accommodation providers may want to consider for providing VAST services to their guests. Other options are available and it is recommended providers consult an antenna installer with experience in satellite master antenna TV (SMATV) systems and master antenna TV (MATV) systems for further and more detailed advice.

Options:

1. Install a satellite dish and VAST set top box for each separate unit.
2. Install a Satellite Master Antenna System (SMATV) to distribute the signal to units.
3. Upgrade an existing Master Antenna TV (MATV) analog distribution system to provide the VAST service to units.

Any decision on the provision of television services to guests at hotels, motels and caravan parks is a matter for each individual accommodation provider having regard to available technology, building design and the particular circumstances of their business.

Option one: install a satellite dish and VAST set top box in each unit

Under this option a satellite dish, cabling and outlets suitable for the distribution of satellite TV is installed in each unit. Each unit also requires its own VAST set top box supplied by either the operator or, in the case of a caravan site, the operator or guest.

An example of this type of installation and associated costs is included in this information sheet.

Advantages:

- A standard VAST set top box attached to a TV receiver can be used in each unit to receive free-to-air digital TV.
- Installation is relatively simple with the output from the dish connected directly to the VAST set top box.
- The accommodation provider can decide how many of their units are to be provided with access to VAST.
- Guests have access to all the VAST services including the Electronic Program Guide (EPG), closed captioning and regional news services.

Disadvantages:

- If services are to be provided to additional units, then each unit will require its own dish and set top box.
- While a caravan park may provide a fixed dish on site for independent travellers, it is unlikely that all guests would have a VAST set top box. For these guests, park management could provide or rent out a set top box, similar to how motels rent out DVD players.

Option two: install a SMATV system

Under this option, a single satellite dish receives the VAST signal which is distributed to units using a multiswitch and coaxial cable. The distribution system may be simple, using a single multiswitch, or complex with several multiswitches, antennas and distribution amplifiers. Each unit is then equipped with a VAST set top box. Examples of this type of installation and associated costings are provided in this information sheet.

Advantages:

- One satellite dish can serve two or more units.
- A single multiswitch system can service from four to eight units very effectively.
- Larger professionally designed installations using amplifiers and more than one multiswitch can serve a large number of units.
- Guests have access to all the VAST services including the EPG, closed captioning and regional news services.

Disadvantages:

- The system is more complex than a stand-alone installation and requires additional expenditure on multiswitch(es) and a coaxial cable network.
- Additional work may be required to bury the coaxial cable.
- While a caravan park may provide its guests with an outlet with the VAST signal, it is unlikely that all its guests would have a VAST set top box. For these guests, park management could provide or rent out a set top box, similar to how motels rent out DVD players.

Option three: upgrade an existing MATV system

Some accommodation sites would already have an MATV system to provide free-to-air and subscription television services to guests. These systems typically decode and demodulate the subscription and free-to-air TV signals to analog baseband signals which are then remodulated using analog modulators and distributed over a cable network to each unit. There is scope to upgrade these systems allowing them to carry the VAST free-to-air services. An example of this type of installation and associated costings is included in this information sheet.

Advantages:

- The existing distribution system (cabling etc) can be used, with additional headend elements being added to provide the VAST service.
- Existing analog TVs can continue to work (providing they are in good order).
- Guests at a caravan park can access services by connecting a TV with an analog tuner to an outlet.
- Signal levels can be controlled to ensure good TV reception for every unit.

Disadvantages:

- The picture and sound are analog, not digital TV quality, and other features such as the Electronic Program Guide (EPG), high definition, closed captioning and choice of regional news are not able to be provided from VAST.
- At the hub, a separate set top box is required for each VAST TV channel to be distributed. This means that 16 or more receivers are needed to provide all of the VAST channels.
- Many analog MATV systems have limited channel carrying capacity and, depending on the number of video services being carried, it may not be able to carry all of the available VAST channels.
- After the switchover to digital is complete, it is uncertain whether TV manufacturers will continue to produce TVs with analog tuners. Given that the system relies on analog technology, this may make it difficult to upgrade or replace existing TVs at a later date.

For more information

To find out more about the switch to digital TV and the resources that can help you prepare your property, visit the 'For Industry, Property Managers' section on the digital ready website at: <http://industry.digitalready.gov.au/>

Digital TV Antenna Systems Handbooks

These handbooks provide advice for owners and residents of:

- units, apartment blocks and other buildings with a shared antenna system
- houses with a single antenna.

Handbooks can be downloaded from the website.

Antenna Systems eToolkit (ASeT)

ASeT provides detailed information about antenna equipment, cabling and installation, as well as cost estimates for a range of technical solutions to ensure your building can adequately receive and distribute TV signals.

This is available from the Property Managers section of the digital ready website:

www.digitalready.gov.au

VAST service and eligibility

To determine eligibility to access the VAST service and to make an application to receive the VAST services, viewers need to go to www.digitalready.gov.au and then enter their address details into the mySwitch application on the website.

mySwitch is a web-based tool which has been developed by the Digital Switchover Taskforce to provide the most up-to-date information about local terrestrial and satellite television services, the frequencies they are transmitted on, the expected coverage of the transmitter serving local areas and VAST service eligibility.

Viewers who wish to apply for the VAST service will be directed from mySwitch to a broadcaster managed website in order to fill out an application for the service.

Installation of cabling and antennas

Hotel, motel and caravan park operators should consult an antenna installer with experience in satellite master antenna TV (SMATV) systems and master antenna TV (MATV) systems for further and more detailed advice on systems capable of serving the needs of their guests.

Subscription TV services

Hotels, motels or caravan parks currently providing subscription TV services should only modify their SMATV systems to provide the VAST satellite service in accordance with the subscription TV provider's service level agreement. Where these systems are intended to be used or modified, consultation with the relevant subscription TV providers should be sought to ensure minimal interruption to services is incurred.

If an operator is considering installing subscription TV services at the same time as VAST, the cabling and other technical elements could be combined to achieve efficiencies in costs, access and services. Advice, standards and specifications for systems capable of receiving and distributing digital subscription TV services can be obtained by contacting the local subscription TV service provider.

Examples of implementation and costing

The following examples are a guide to how the three separate options may be implemented. Costs do not include travel to remote or regional areas. There are many options in designing a system for businesses and complex buildings so an experienced antenna installer should be consulted to discuss the best option for your situation.

Option one: Implemented for cabins

This example examines how satellite reception equipment would be installed for four individual cabins. It is assumed that a 65cm dish is appropriate for the area.

Each cabin will have a:

- 65cm satellite dish;
- roof mount;
- dual Low Noise Block converter (LNB);
- quantity of RG6-quad shielded cable;
- wall termination plate; and
- VAST set top box.

The total to install the system for four cabins would be around \$2,400 to \$3,000.

UNIT PRICE = \$600 - \$750

Set top box included

Option two: Implemented for a hotel

This example examines how a satellite master antenna TV (SMATV) system would be installed in a hotel with 10 rooms located at the back of the premises. It is in a high signal strength area with a recommended dish size of 65cm. As this is a medium sized distribution system, the Endorsed Antenna Installer has recommended an 85cm dish to optimise signal availability for each cabin. With the upsized dish and short cable runs, a single 10 way multiswitch in the roof is adequate.

The new installation would have a:

- 85cm satellite dish;
- roof mount;
- dual LNB;
- 10 way multiswitch;
- Quantity of RG6-quad shielded cable;
- wall termination plate in each cabin; and
- VAST set top box in each cabin.

The total to install the system for 10 units would be around \$5,000 to \$7,000.

UNIT PRICE = \$500 - \$700

Set top box included

Option three: Implemented for a motel

This example examines how an existing MATV system in small motel with 30 rooms could be upgraded. The existing system is designed to distribute five analog free-to-air channels and ten subscription TV services. As the existing system will provide all 16 VAST channels in addition to the existing video services additional converters, amplifiers and a rack will be required.

The existing cabling and analog televisions in each unit will continue to be used. A set top box will be purchased for each of the 16 VAST digital channels and located with the existing distribution equipment.

The motel installation will have:

- a 85cm satellite dish;
- a roof mount;
- a dual LNB;
- 16 VAST set top boxes (one per channel);
- additional converters and amplifiers;
- existing RG6-quad shielded cable; and
- a wall termination plate in each room.

The total to install the system for the 30 room motel would be around \$9,000 - \$15,000.

UNIT PRICE = \$300 - \$500