

The History of Telecommunications in Australia



What do we mean by the term telecommunications and how is it different from communications?

The history of telecommunications in Australia is very recent.

When you communicate with someone, you share your thoughts, messages, news and information with each other.

The term 'telecommunications' refers to ways of communicating with others using different technologies such as telephones, television, radio, mobile devices and the internet. Telecommunications allows you to communicate over large distances.

People have been living in Australia for over 60,000 years. Before telecommunications, people communicated in a variety of non-technological ways such as through word of mouth, art and meetings such as celebrations and corroborees, and later using horses, trains and ships to send messages.



Before telecommunications

Australia's indigenous people have a very long history in this country, spanning over **60,000 years**. Throughout this time, they had many different ways of communicating. Aboriginal stories such as Dreaming and Creation stories were shared around the campfire and through artwork. These used symbols which had significance in conveying a message, whether it be telling about an event or just passing on information, such as the location of waterholes. Celebrations and meetings such as corroborees, which included song, dance and music, were also used as a means of communicating.



60,000
years ago

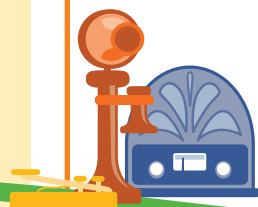
Permanent European settlers began arriving in **1788**. But until the mid-1800s, Australia had a communication system that relied on horses and, later on, trains to deliver messages and letters around the country. To communicate with friends and family in another country, a letter was sent by ship and could take up to 8 months to reach its destination!



1800

The First telecommunications in Australia – the telegraph, the telephone and the wireless radio

The telegraph is a communications system that transmits and receives simple electric signals from a sending instrument and a receiving instrument using a conducting wire. It was adopted in Australia and the rest of the world in the **mid-1800s**. Morse code – written as dots and dashes – was used to translate the signals to messages by representing letters of the alphabet and numbers with combinations of short and long electric signals.



1860

By **1859**, telegraph cables linked Melbourne, Adelaide, Sydney and Tasmania.

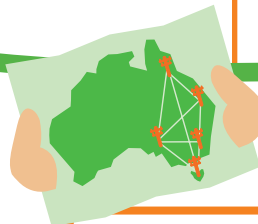
By the **mid-1860s**, all regional centres in the south east of Australia were part of this new communications network.

In **1872**, Sturt's crossing of the Northern Territory was followed by the establishment of Australia's first international telecommunications system. This was a telegraph link to Asia which helped to connect Australia with the rest of the world. Australia soon became very dependent on this new telecommunications industry. In the final years of the nineteenth century (the late 1890s), Australia sent more telegraphs per person than any other nation in the world.



1880

Telephones quickly followed the telegraph. In **1882**, the first public telephone exchange was based in Sydney. This made personal communication available to the average Australian. People would line up for hours at times to use the public phones. As demand grew, more and more local telephone exchanges were built and by **1900**, 30,000 exchanges were located around the country.



1900

In **1901**, the first Post Master General (PMG) was appointed to oversee communications throughout Australia. The main focus was on modernisation, including the introduction of automatic telephone exchanges to replace cumbersome manual systems and the establishment of long-line 'trunk call' services that allowed people to more easily and quickly make personal interstate calls.

The introduction of the Marconi wireless radio system to Australia in **1905**, just 10 years after its invention, marked the beginning of Australia's radio broadcasting industry, and the first time instant communication to the public at large was possible. The potential for wireless communication in a country as large and sparsely populated as Australia was obvious, and by the end of World War I, government wireless stations were established along the entire Australian coastline.



1920

In **1922**, Prime Minister Hughes made the first publicly available radio broadcast from a small hall in Bendigo, and by November **1923** the first radio services were broadcasting out of capital cities.

Telecommunications after World War II

The PMG's Department started the large scale rollout of their copper telecommunications network designed to connect Australians to telephone services.

People living in regional and rural areas were often left with poor and patchy connections. Many farmers constructed the lines themselves under a "part privately erected" deal that frequently involved using substandard components; like iron rather than copper, and poor layouts such as stringing the lines from trees which led to poor connections and little privacy on shared lines.

Leading up to and immediately following World War II, the communications industry worldwide entered a period of extreme activity and technological development. Microwave radio, transistors, the first rockets and even early computers began to make an appearance. True to form, Australia eagerly adopted these new developments.



By **1987**, all areas in Australia – no matter how remote – had basic telephone services.

1960

The first television broadcast was made from Sydney in **1956**, and just six years later television was available in all capital cities except Darwin.

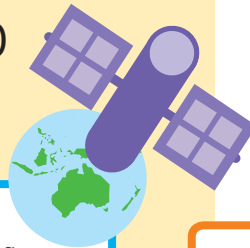
In the meantime, Australia was also developing its international telecommunications networks, taking advantage of all available technology to improve communications links with the rest of the world.

It was becoming increasingly clear that traditional ground-based technology was not sufficient to bridge the great distances that separated Australia from the rest of the world.

1980

In **1966**, INTELSAT II was launched, providing the first satellite link between Australia and the international telecommunications network.

By **1968**, the entire Australian telecommunications system was plugged into this network.



The internet, mobile and digital technology

An early form of the Internet has been in existence since the early 1970s. However, it was not until **1990** that the international computer network began to attract popular attention, with the establishment of the World Wide Web by a server in Switzerland. This new information network was instantly linked via satellite to Australia's own new Internet system.

In the last decade of the 20th century, most Australians had basic access to the internet using the copper network and satellite system that had been built to deliver telephone services. Telecommunications had become the fastest growing industry in Australia. Australia has one of the highest levels of mobile telephone ownership in the world, and is second in Internet take-up rate after the United States.

With the introduction of the internet, the way we did different tasks was modernised.

For instance how we learnt and did our assignments - not that long ago we were reading through encyclopaedias to find out information, whereas now we are able to go online and have all that information at the click of a mouse. Or instead of looking through the yellow pages to find a number of a business, we can go online and find out the contact details that we need – you can even get directions and a map! Or instead of writing a letter to your grandmother and dropping it into the post box you were able to send her a quick email to say hello.

Then came the age of gamers and small hand held devices used to play computer games. More and more people were buying their own personal computers as they became more affordable so students were using these for assignments as well as playing online games. As usage grew, so did all the resources we could access on the Internet.

1990



2000

Around **2005**, the Internet also began to change as people started to use it as a means for uploading and sharing content they had developed themselves. People started to post their own videos on YouTube and digital photos and then their opinions and stories on social networking sites like Facebook.

All this usage and growing demand for bandwidth calls for a newer, more advanced network to ensure that people from now until many years after us can use the Internet in the ways we are using it now, and ways we haven't even thought of yet.

2010



In **2009**, the Government realised it was important to develop Australia's telecommunications system for the future, making it a world leader. The NBN will help to meet this challenge.

For more information

<http://transition.fcc.gov/cgb/kidszone>

<http://www.nbn.gov.au>

http://www.dbcde.gov.au/digital_economy

