

Mobile Coverage and Roaming in Australia

Mobile coverage in Australia

Coverage describes the geographic area where you can use your mobile phone.

When making a decision on which mobile carrier (or operator) you should use, it's important to consider where you need mobile coverage, and to check with the carrier whether it can provide coverage in that area.

Mobile carriers provide coverage for their customers in two ways. Traditionally, each carrier has built its own infrastructure in order to provide service to its customers. This has resulted in the availability of GSM mobile coverage to over 96 per cent of the population, and CDMA coverage to 99 per cent. In geographic terms, coverage reflects the distribution of the population, covering approximately 20 per cent of Australia's landmass[1].

Some carriers have also been extending their coverage through national 'roaming agreements'. National roaming has also been used by new entrants into the mobile market to allow them to establish a national network presence; and by current mobile carriers to facilitate an expansion of network coverage.

A number of carriers also have international roaming agreements. International roaming is a different service to national roaming, with its own unique technical and commercial issues.

What's a roaming agreement?

A roaming agreement is an arrangement between two mobile carriers which allows one carrier to extend its coverage by utilising the network infrastructure of the other mobile carrier. Roaming agreements are negotiated on a commercial basis and usually relate to a particular geographic area. That is, your carrier may have a roaming agreement with carrier X which allows you to access X's network in area A, where the roaming agreement applies. You will not be able to use carrier X's network in area B if the roaming agreement does not apply to area B.

How might roaming affect me?

National roaming allows you to transfer temporarily to another carrier's network in a geographic area covered by a roaming agreement between your mobile carrier and another mobile carrier. This allows you to make and receive calls in an area not directly serviced by your current mobile carrier. You will continue to be billed by your usual mobile provider, and will still use your normal mobile phone.

For example:

- **Hutchison** provides CDMA coverage (marketed under the brand name Orange) outside its licence area of Sydney and Melbourne, through a roaming agreement with Telstra's CDMA network.
- **Hutchison** increases coverage beyond Melbourne, Sydney, Adelaide, Brisbane and Perth for its 3G users (marketed as '3'), through a roaming agreement with Vodafone's GSM network.
- **Vodafone** increases its GSM coverage along selected highways in Victoria and Tasmania through a roaming agreement with Telstra's GSM network.

Under the *Mobile Phones on Highways Project*, the Federal Government supported Vodafone to improve GSM coverage along 16 major highways. Under the Agreement between Vodafone and the Government, Vodafone is required to offer national roaming to other mobile operators, where this is requested. Vodafone is involved in on-going dialogue with mobile operators regarding commercial roaming agreements associated with the project.

Contact your mobile carrier for further information about the coverage your carrier provides, and whether you could benefit from roaming. Coverage details are also available by clicking on the following links:

Hutchison
[Orange coverage](#)
["3" coverage](#)

Optus
[Optus coverage](#)

Telstra
[Telstra coverage](#)

Vodafone
[Vodafone coverage](#)

If roaming is available with my carrier, is access automatic?

Procedures for accessing national roaming vary from carrier to carrier. Your carrier can advise you whether access is automatic, or, if not, how to gain access.

Will national roaming cost me?

You may find a premium call charge rate applies for time spent on the other carrier's network, or that some of the 'special rates' you usually enjoy do not apply when roaming.

Talk to your carrier to find out what fees and charges you will incur.

What else should I know?

Continuous coverage, not seamless coverage

Roaming can provide continuous coverage as you move from one carrier's service area to another, but current technical limitations mean that the coverage may not be seamless. If you are not on the phone as you move from one coverage area to another, you will probably not notice that your service is being provided by a different carrier. If you are on a call when you move from one coverage area into another, your call will drop out. To connect again, you need to simply re-dial the number. You will connect onto the 'new' (the other carrier's) network – that is the network of another mobile carrier with whom your carrier has a roaming agreement.

Radio technology and coverage

It's worth remembering that mobile coverage is based on radio technology. Local conditions may prevent or interfere with your car radio coverage, and may similarly affect your mobile reception – whether roaming or not.

It's also worth noting that roaming typically provides you with coverage in a geographic area where your service provider does not have any network presence. It was not designed to provide 'infill' coverage (coverage through another carrier where, for example, local conditions briefly affect your reception) in a general area serviced by your usual carrier. Technical and commercial limitations currently prevent such coverage being possible.

Access to fewer services while on roaming

You may find that some of the services you enjoy with your normal carrier may not be available while roaming. Check with your carrier.