Bluetooth Low Energy – passenger counting

FAQs

transport.nsw.gov.au

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Passenger counts help Transport for NSW make informed decisions about planning and service delivery to meet our passengers' needs.

Transport for NSW is using Bluetooth technology on fare-free Southwest Link buses to count passengers.

This technology helps us better understand passenger demand and travel patterns to improve the way we plan services.

About the technology

What is Bluetooth Low Energy (BLE) technology and how does it work?

BLE technology counts the number of passengers on a bus by recognising and counting the number of nearby Bluetooth signals.

The technology does not collect or record personal data - only the number of nearby Bluetooth signals.

The Bluetooth signals are captured every 15 seconds and converted to a 'digital headcount'. The count is then collected for processing. The signals cannot be used to identify individuals or their device.

Why is Transport using the BLE technology on Southwest Link buses?

Southwest Link services are fare-free, so the Opal system is not in use. This means we have limited information about passenger demand and travel patterns.

Improved planning across the bus network is a key recommendation of the Bus Industry Taskforce.



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A trial of the BLE technology on Southwest Link buses in June and July 2025 confirmed the technology provides useful insights that help improve the way we plan services.

What other benefits does the technology aim to deliver?

Knowing passenger numbers helps Transport:

- Understand the demand for services
- Provide information to refine service times when people need them most
- Reduce wait times for passengers by allocating services according to demand
- Enhances service reliability and convenience, encouraging more people to use public transport

How will I know if a bus is using the BLE technology?

From Thursday 4 December 2025, all Southwest Link buses will use the BLE technology.

Does Transport plan to use the BLE technology on other buses?

Transport may use the technology for trackwork buses or other services where the Opal system is not enabled, or where tap-on / tap-off rates are low.

Use of the technology on other services, beyond Southwest Link, will be determined subject to further consideration.

If you don't want your device detected

Can I stop my device being detected?

Passengers can prevent their device from being detected by turning off Bluetooth connections from their phone, tablet, laptop, or other electronic device during their trip.

Please note: the technology does not collect or record personal data-only the number of nearby Bluetooth signals.

Do I need to keep my Bluetooth off for the duration of my trip? Can I still listen to music using Bluetooth headphones, for example?

Devices that use a Bluetooth connection need to remain off during the bus trip to avoid being counted. Headphones that connect via a cable, instead of Bluetooth, can still be used.

Why are passengers automatically opted-in to have their Bluetooth signal counted? Don't you need my permission to collect my data?

The BLE technology does not collect or record personal data-only the number of nearby Bluetooth signals.

Transport is committed to protecting your privacy and ensuring that your personal information is managed according to law.

Further information, including a copy of Transport for NSW's privacy policy can be found at: transport.nsw.gov.au/about-us/transport-privacy/privacy-statement.

Data safety and security

What data does BLE technology collect?

BLE technology creates a 'digital headcount' by recognising and counting the number of Bluetooth signals within the bus.

No personal or phone data is collected using the BLE technology - only the presence of a Bluetooth signal.

Once the BLE technology registers a Bluetooth signal, it converts the signal into a sequentially assigned number that is sent to an Australian-based back-end server for processing. The sequence numbers reset at the end of each trip and cannot be used to identify individuals or devices.

Why is access to a passenger's Bluetooth signal required? Why can't Opal readers or a simple sensor be used to count people getting on and off the bus?

Southwest Link buses are fare-free, so the Opal machines are not in use.

Using a sensor would require new technology and introduce additional security concerns. The BLE technology works from a tablet using a mobile app, which is simple and easy to install and maintain.

Who holds the data that is captured, and how long is the data held?

A third-party vendor will initially capture the passenger counts, then share the data with Transport overnight for processing.

The data will be retained for 90 days.

Will the data be publicly available?

No.

How will Transport ensure the data is collected, held and used safely and not accessible to others?

Transport is committed to protecting the privacy of your personal information in accordance with the Privacy and Personal Information Protection Act 1998 (NSW) (PPIP Act).

Please note: the technology does not collect or record personal data; only the number of nearby Bluetooth signals.

Can I request that my data be deleted?

No personal data is captured or stored.

Who reviewed and approved the technology and the trial to ensure it meets all necessary security and legal requirements?

Transport for NSW is responsible for the trial in line with the Transport for NSW's privacy policy: transport.nsw.gov.au/about-us/transport-privacy/privacy-statement

About the 2025 trial

What was the Bluetooth Low Energy (BLE) trial?

The BLE technology was used to count the number of passengers travelling on Southwest Link buses during a trial from 26 June to 24 July 2025.

The trial's aim was to determine if the technology could enable Transport for NSW to better understand passenger demand levels, and in turn, allocate services more efficiently, by optimising timetables to reduce crowded or underutilised services.

How did Transport assess the results?

To validate the passenger numbers recorded by the BLE technology, a third-party person rode the bus and manually counted the number of passengers getting on and off. The BLE counts were shown to be consistent with the manual counts.

Has Transport done any other trials of the BLE technology?

Prior to the trial on Southwest Link, Transport tested the BLE technology on Opal-enabled buses operated by Transit Systems.

The technology has also been trialled on a select school service, where Opal tap-on / tap-off rates are low.

Engagement

Who can I speak with about this trial if I have questions or concerns?

For any concerns or questions, please contact 131 500.