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| Briefing | Response to Goolhi, NSW incident | For: DITRDCA |
| Date | 20 Jan 2025 | |
| Version: | V1.0 | |

1 Purpose

The purpose of this document is to respond to a request from the Department of Infrastructure, Transport, Regional Development, Communications & the Arts (DITRDCA) for a report on a farm accident that occurred on Saturday 14 December near Goolhi, New South Wales. The report includes technical information on mobile coverage as well as details about attempts to call Triple Zero. This report was provided to the DITRDCA on 20 January 2025 on a Commercial-in-Confidence basis.

2 Background

On Saturday, December 14, 2024, a fire broke out on a farm located on McEvoys Rd in Goolhi, NSW, resulting in a fatality. Telstra was informed of claims that attempts to call Triple Zero were made during the incident but experienced drop-outs.

3 Summary

During the event, eight calls were made from three unique Telstra callers and one Optus caller to contact emergency services via Triple Zero (000). The area is not wholly within the published Telstra and Optus mobile coverage maps. TPG does not have coverage in the area. Calls made to Triple Zero were successfully connected and there is no evidence of delay in the dispatch of emergency services. Three of the eight calls experienced an issue with call quality due to poor signal. A technical investigation confirmed that no Telstra system or network outages contributed to the event.

- Eight calls were connected to emergency services during the event.
- Calls were made from an area with no to low Telstra coverage (Appendix A). Optus also has no to low coverage. There is no TPG / Vodafone coverage in the area.
- One Telstra customer used an emergency camp-on to the Optus network, consistent with the Telecommunications (Emergency Call Service) Determination 2019 and (3GPP) technical standards where the primary network has no signal. The caller then experienced poor signal on Optus.
- Of the three calls with poor signal, two calls had silence and one call experienced a degradation of signal during the call.
- Telstra coverage in the area has marginally improved since the introduction of 4G, shown in Appendix A.

An emergency call that is made outside of Telstra, Optus and TPG coverage will receive a response from the handset that the call could not be connected. Based on claims, it is likely that one or more call attempts were made outside of mobile coverage. We do not have visibility of these calls as they do not reach the network.

4 Media Response

NSW Farmers Association President, Xavier Martin made a range of claims about Triple Zero calls and network coverage in the area impacting the ability for emergency workers and first responders to provide assistance.

██████████ (Telstra Executive) answered questions during an interview aired on "ABC Country Hour" on Monday 16th December 2024. He extended our condolences to the family following the incident and covered a range of areas under question including network performance, the fact Triple Zero was working normally with no system issues or interruptions during the period of the incident, 4G network coverage in the area and addressed the speculation around the 3G closure.



5 Internal Response

The Telstra Crisis Management Team (CMT) was activated to investigate the incident and manage communications with the government, regulatory bodies, and media immediately after being made aware on Monday 16th December 2024. Telstra's technical teams investigated all emergency calls during the period and requests were sent to Optus and TPG for call analysis. Meetings were held with stakeholders including regulatory bodies and emergency services to gather more information and provide an update.

During the Goolhi, NSW incident a total of eight emergency calls were made to Triple Zero. According to external sources, the fire started at 16:20. The first call to Triple Zero was made at 16:31 by a Telstra customer (██████████). The caller requested for the fire brigade to attend to McEvoy's Rd, and the call was successfully connected to NSW Fire. The caller hung up¹ before the call was passed to NSW Fire and NSW Fire successfully called the customer back at 16:33.

At 16:38, a Telstra customer (██████████) successfully called Triple Zero and requested the fire brigade. At 16:42, another Telstra customer (██████████) called Triple Zero and requested an ambulance; the call was successfully connected to NSW Ambulance. At 16:49, the same Telstra customer made an emergency camp-on call via Optus, requesting an ambulance but did not speak further, leading to a transfer to NSW Ambulance. When Triple Zero is dialled, the device will try the home network first. If the connection could not be established or coverage is non-existent, the phone will then camp on to the next strongest signal.

At 16:51, two Telstra customers (██████████) called Triple Zero and successfully requested an ambulance. Finally, at 17:12, an Optus customer (██████████) called Triple Zero and requested an ambulance for McEvoy's Rd; the call was connected successfully to NSW Ambulance.

Advanced Mobile Location (AML) retrieved from the emergency call shows that the customer reporting an issue moved from a coverage area to a no coverage area according to our published outage maps (Appendix A). In moving to a no coverage area, or "fortuitous coverage", we are unable to maintain a reliable connection with the handset.

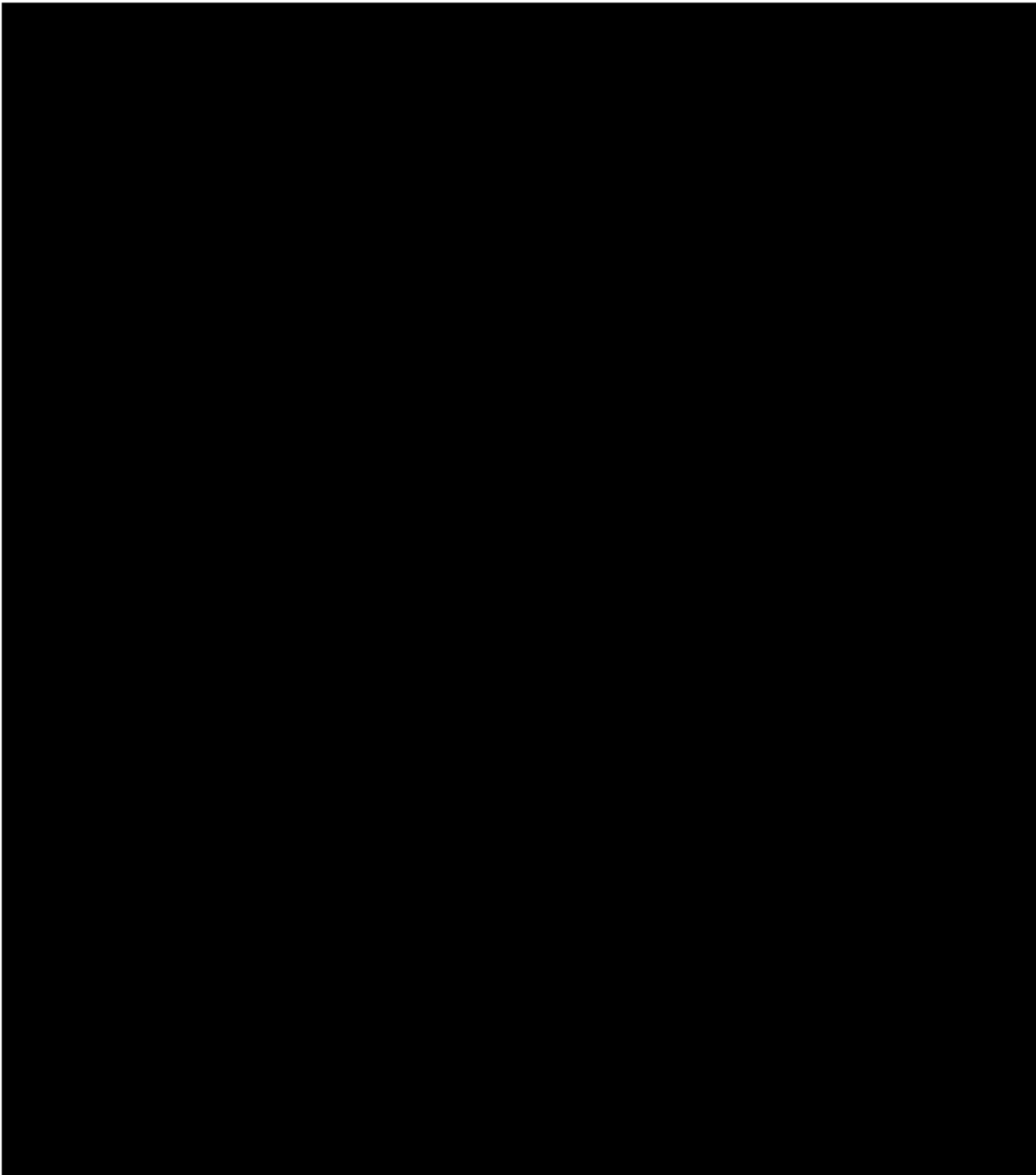
NSW Ambulance has conducted a preliminary review which identified that it received four Triple Zero (000) calls in relation to the incident. Three of the calls connected with callers, and one call was passed to NSW Ambulance with default CLI and no callback information (see Appendix B). The three calls have been audited and were all compliant with NSW Ambulance protocol, policies and procedures.

TPG advised they do not have coverage in the area.

¹The reviewed call recordings confirmed that the caller disconnected the call.



Appendix A – [REDACTED]





Optus Coverage

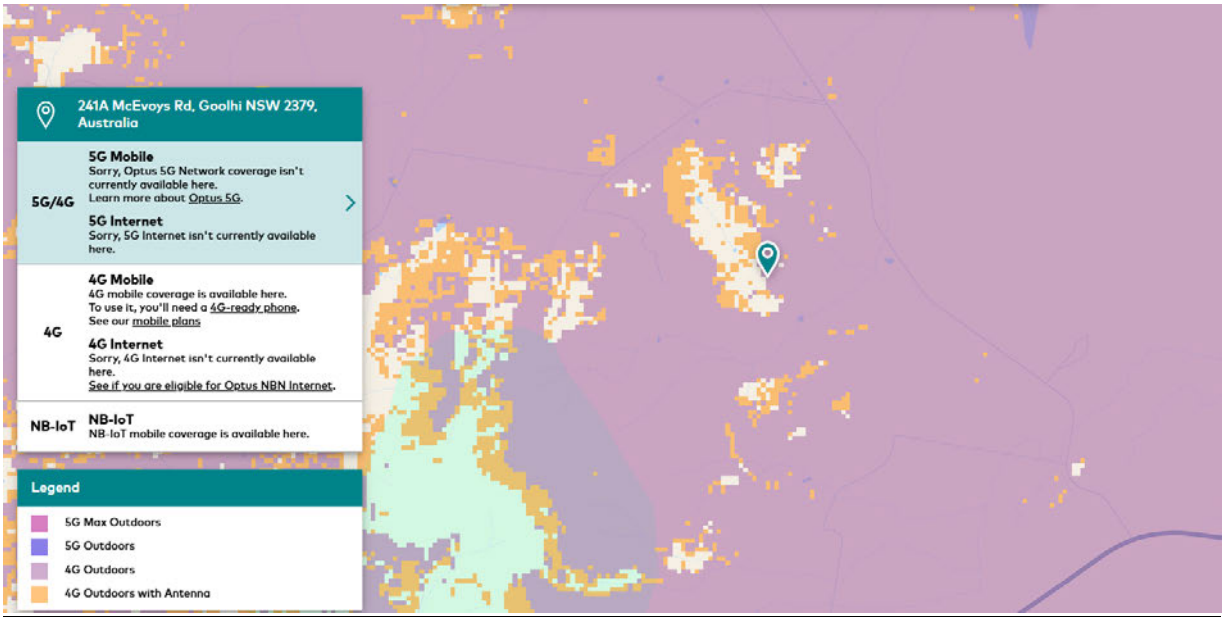


Figure 3 – Optus Mobile Coverage (Retrieved 19/12 from <https://www.optus.com.au/living-network/coverage>)

TPG / Vodafone Coverage

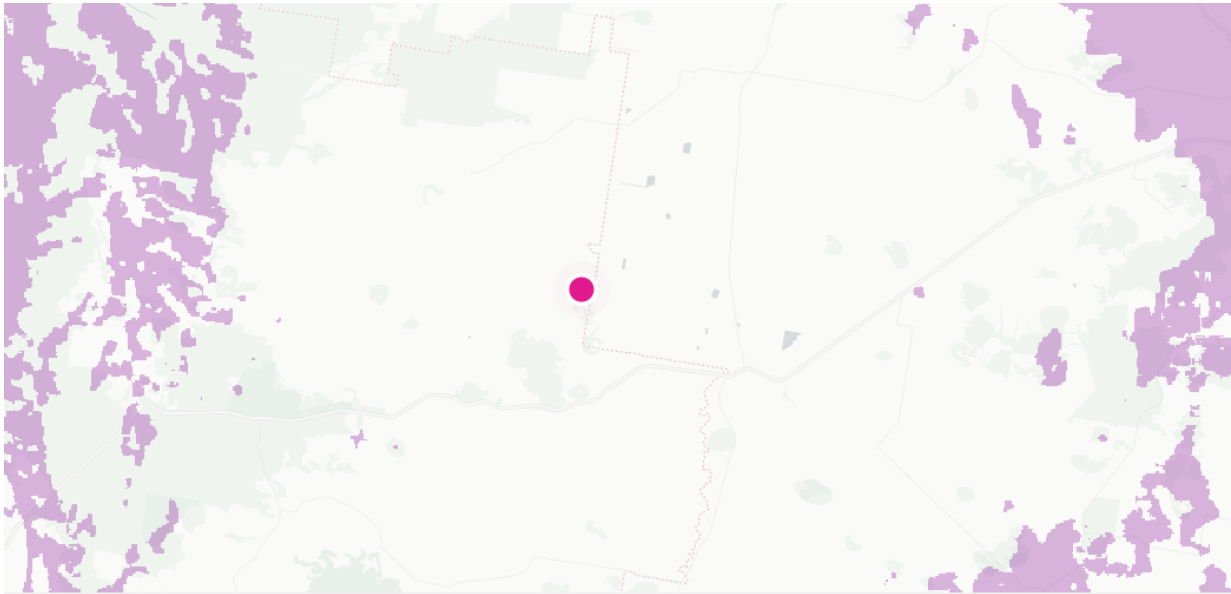


Figure 4 – TPG Mobile Coverage (Retrieved 19/12 from <https://www.tpg.com.au/coverage>)

Purple: 4G Coverage
No overlay colour: No coverage



Appendix B – Full list of Mobile calls

| Start | End | Duration | Caller | Network | Call Details |
|----------|----------|-------------|---|---------|---|
| 16:31:30 | 16:32:57 | 1min 27sec | ██████████ (Caller A) | Telstra | Requested Fire and was connected to Fire. Caller disconnected at 16:32:06 whilst the call was being transferred to the ESO. The Telstra Agent advised the ESO of the caller hang up, and that call between Telstra 000 Agent and the ESO concluded at 16:32:57 At 16:33, NSW Fire Bridge called the caller back. The call lasted for 45 seconds. The mobile ended the call. There were no issues reported with the call |
| 16:38:33 | 16:40:15 | 1min 42sec | ██████████ (Caller B) | Telstra | Requested Fire service and was connected to NSW Fire. There were no issues reported with the call |
| 16:42:11 | 16:46:55 | 4min 44sec | ██████████ (Caller C) | Telstra | Requested Ambulance and was connected to NSW Ambulance. Call started OK and coverage and quality deteriorated (no media sent in any direction) |
| 16:49:48 | 16:50:51 | 1min 3sec | ██████████ (Caller C) <i>*Default CLI for emergency camp-on</i> | Optus | Call was emergency camp-on to Optus network. Caller asked for NSW Ambulance, then there was silence. Call was transferred to NSW Ambulance. As CLI is Optus default ██████████ there is no advanced mobile location (AML), and ESO is unable to call the Caller back. From the Optus side, the call termination was normal. Optus confirmed that the call experienced poor radio (network coverage) between the mobile and the tower. |
| 16:51:31 | 16:51:55 | 0min 24sec | ██████████ (Caller C) | Telstra | The call was connected to the Triple Zero Contact Centre. The Agent asked for the requested service, and there was silence on the line. The network tracing indicates that there was no speech path set up. The error generated from the Policy Control Function Routing (PCRF) could possibly be due to a speech bearer being requested or established from the Radio Network Update (v1.2): The "Cause 223" (Policy Control and Charging System initiated release) error indicates that a speech path could not be established from the Radio Access Network (radio tower). Technical analysis indicates this is due to the customer being in poor radio reception (see Appendix A, Figure 1b). The request to set up a speech path fails, and the network initiates a release of the call path. |
| 16:51:43 | 17:14:19 | 22min 36sec | ██████████ (Caller A) | Telstra | Requested Ambulance. Call was connected successfully |
| 16:51:59 | 17:01:25 | 9min 26sec | ██████████ (Caller C) | Telstra | Requested Ambulance. Call was connected successfully |
| 17:12:05 | 17:13:19 | 1min 14sec | ██████████ (Caller D) | Optus | Requested Ambulance. Call was connected successfully |



References

3GPP. (2024). TS 22.101 V19.1.0 (2024-09) Service aspects; Service principles. 3rd Generation Partnership Project (3GPP). Retrieved from <https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=605>

Australia. Department of Infrastructure, Transport, Regional Development, Communications and the Arts. (2019). Telecommunications (Emergency Call Service) Determination 2019. Retrieved from <https://www.legislation.gov.au/F2019L01509/latest>

Mirage News. (2024). Man dies after fire on property near Gunnedah. Retrieved from <https://www.miragenews.com/man-dies-after-fire-on-property-near-gunnedah-1378680/>

Optus. (2024). Living Network Coverage. Retrieved from <https://www.optus.com.au/living-network/coverage>

TPG. (2024). Coverage. Retrieved from <https://www.tpg.com.au/coverage>