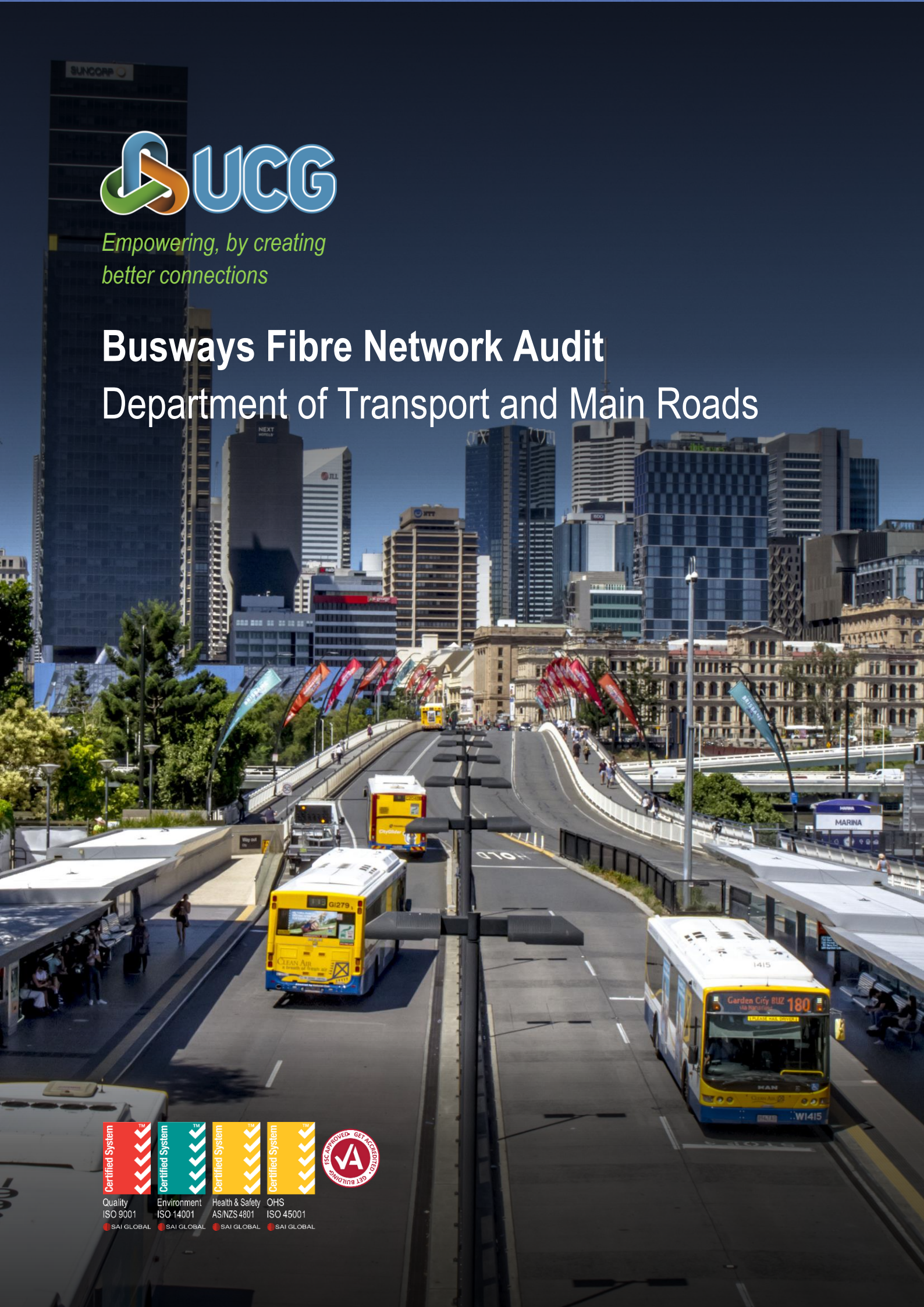




*Empowering, by creating
better connections*

Busways Fibre Network Audit

Department of Transport and Main Roads



 <p>Quality ISO 9001 SAI GLOBAL</p>	 <p>Environment ISO 14001 SAI GLOBAL</p>	 <p>Health & Safety AS/NZS 4801 SAI GLOBAL</p>	 <p>OHS ISO 45001 SAI GLOBAL</p>	 <p>ISO 27001 SAI GLOBAL</p>
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Busways Fibre Network Audit

Department of Transport and Main Roads

UCG is DTMR's dedicated contractor for all optical fibre asset management, construction, minor works and maintenance.

Scope of work

Queensland's Department of Transport and Main Roads (DTMR) provides a rapid transit service made up of 'bus only' corridors (busways), which offer faster, more efficient bus services to residents of South East Queensland. The facilities are supported by intelligent transport systems that require high-speed transmission of information through a network of optical fibre cables.

The fibre network was installed progressively as the busway infrastructure expanded over many years. DTMR recognised that the existing network records were inadequate which limited the ability to effectively operate and maintain the network. To rectify the situation, DTMR engaged UCG to develop a strategic approach to managing its fibre assets.

Field audit

In 2018, UCG was awarded a three-year contract to conduct an end-to-end field audit of the Brisbane busway's optical fibre network assets, establish a Geographic Information System (GIS) database for all assets and perform operation, maintenance and repair works for the network. The audit consisted of surveying, mapping, testing and recording:

- 80km of fibre
- 120 communication rooms
- 300 sub-racks; and
- 5,500 fibre cores.

DTMR's existing spatial datasets needed to be collated and loaded into a single GIS database. This data was used as the foundation for the field audit.

GIS database

Drawing on its extensive experience using GIS software for NBN in Australia, UCG worked collaboratively with Realworld Systems to configure and install a GE Smallworld Physical Network Inventory (PNI) database. All fibre assets (including roadside cabinets and buildings) were mapped and recorded live within the bespoke database using special field apps installed on UCG technicians' smart devices.

Procuring and configuring this GIS database creates many potential opportunities within governments and other entities for UCG. Utilities are beginning to recognise the power of visualising and analysing spatial information which can increase productivity and help achieve a higher return on investment. Completing the audit and establishing the GIS database enables the ability to make informed decisions for strategic planning and management of the assets, planned maintenance services and future works.

Maintenance and repair work

Under our contract, UCG performs proactive and reactive maintenance services and other additional minor works. UCG is DTMR's dedicated contractor for all optical fibre asset management, construction, minor works and maintenance for the Brisbane busways. We continue to manage and maintain the assets that support the busway's communications network along the 32km busway network.

Completing the audit and establishing the GIS database enables the ability to make informed decisions for strategic planning and management of the assets, planned maintenance services and future works.