

A nighttime photograph of a city skyline with several illuminated skyscrapers. In the foreground, a multi-lane highway shows long-exposure light trails from vehicles, with a bridge crossing over it. The scene is lit with a cool blue tone.

C-ITS Industry Consultation

Draft Principles for a National Approach to C-ITS



1 Are principles for a national approach to C-ITS in Australia necessary? And if so, are the draft principles, as articulated, sufficient to inform investment by industry in C-ITS?

Yes, SAGE agree with the approach. We believe the draft principles are sufficient to inform investment by industry in C-ITS.

2 Over the next 5 years, to what extent does your organisation anticipate moving into a C-ITS role or increasing its involvement in C-ITS?

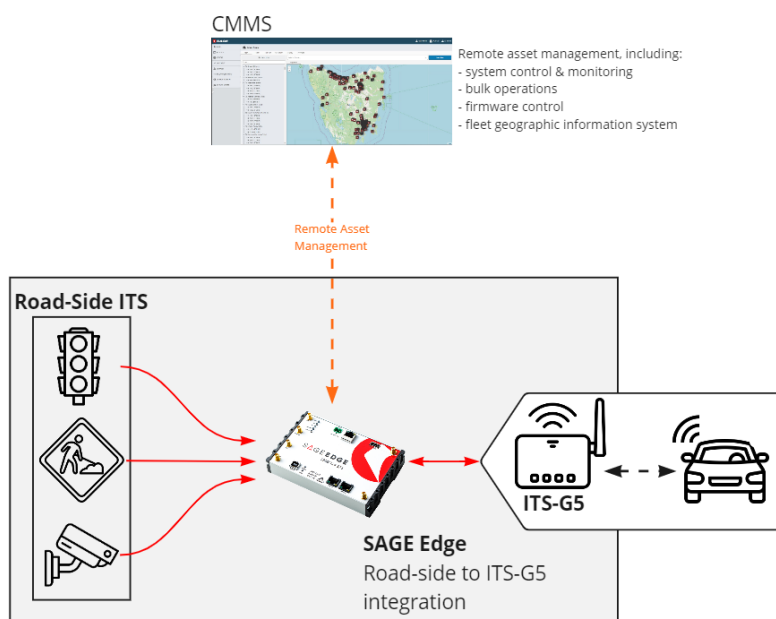
Over the last five years, SAGE has invested in connecting C-ITS to roadside infrastructure and built a sophisticated management system to accommodate C-ITS communications. SAGE have developed a multi-disciplined engineering team, with a vast knowledge of emerging technologies (including C-ITS) for delivering a national approach.

Experience Led

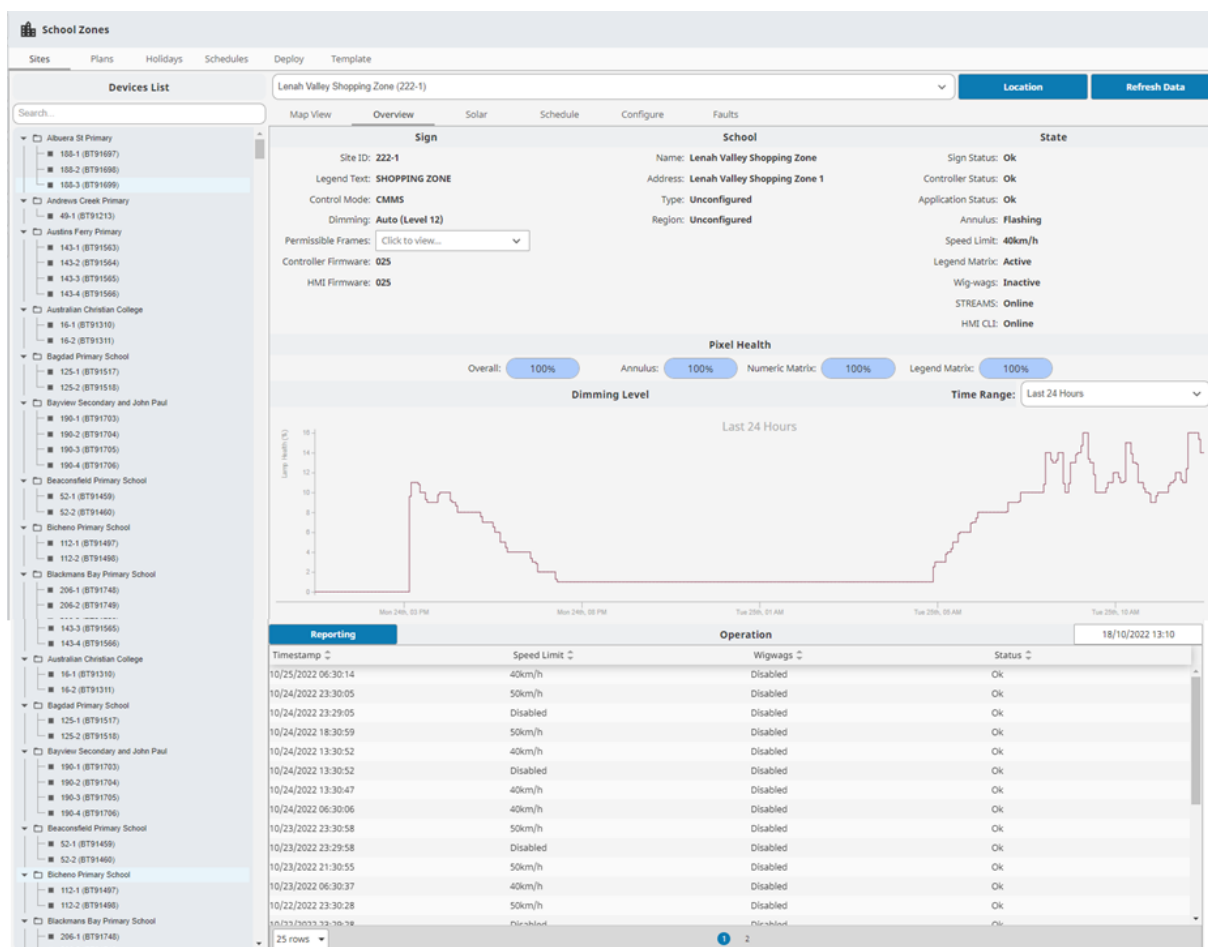
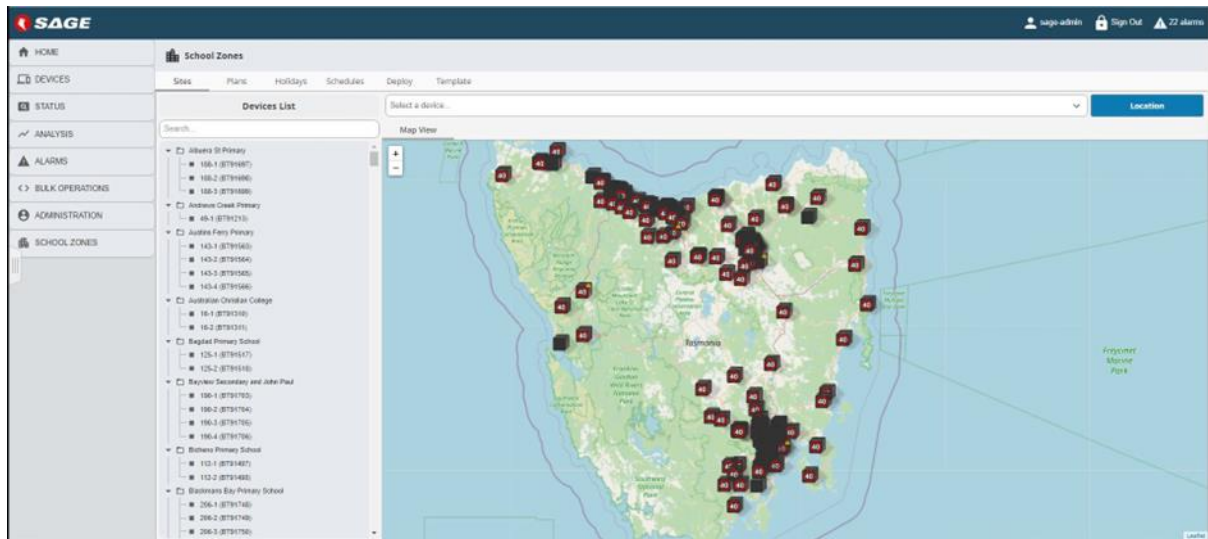
As an independent systems integrator, SAGE have been leveraging C-ITS technologies (C-V2X and DSRC) to achieve the following use-cases:

- Intersection Traffic Signal Phase and Timing Awareness
- Roadwork warning lane-closure and road-closure

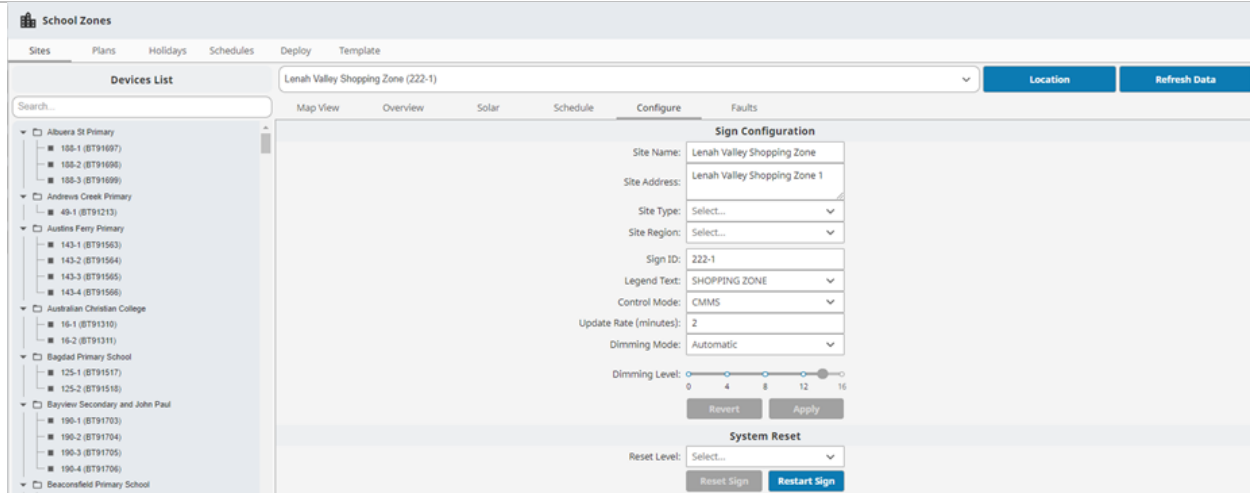
Over the next 5 years, SAGE have a mature roadmap aimed at furthering the development of C-ITS with the SAGE Edge device applied in a vendor agnostic approach. This will aim to streamline the C-ITS rollout by leveraging the existing road infrastructure to act as C-ITS enabled roadside stations, supporting government led initiatives. The Edge device is sold to every road authority and well positioned to support C-ITS connectivity, as shown below.



In addition to road-side integration, the SAGE CMMS will provide and accommodate remote centralised asset management of C-ITS enabled roadside stations and connected devices.



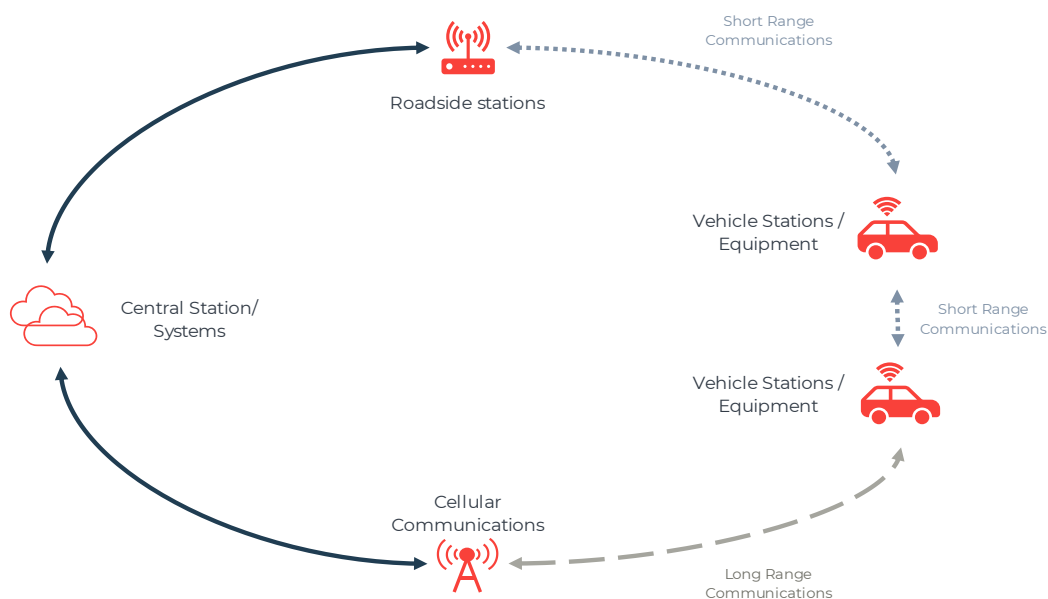
CMMS map view and status pages



CMMS Configuration page

3 How might C-ITS impact other vehicle connectivity systems in Australia, including vehicle/OEM connectivity, vehicle/cloud connectivity, heavy vehicle telematics systems, mapping systems, etc?

Existing vehicle connectivity systems will need to accommodate for knowledge transfer in a C-ITS network. At a road-side station, SAGE have been using their Edge device to ease this transition. The SAGE Edge will act as the cellular link between the roadside and the vendor-agnostic central system. For other vehicle connectivity systems, SAGE aim to incorporate these systems into the C-ITS network via the SAGE Edge at the roadside level.



4

The draft Principles include a focus on cooperation across industry, government, the research sector, and the community: what structures would be necessary to support the development of an Australian C-ITS system?

SAGE believe that we need to engage with a wide diversity of sectors to identify the strengths and weaknesses from all perspectives of C-ITS delivery. This will require Government led initiatives (ie PoC trials) to include all parts of sectors and industries, using learnt experiences to formulate a harmonised C-ITS national approach directed. Industry needs to be led by all bodies of government through a comprehensive investment roadmap (ie upcoming trials and opportunities), allowing industry to align their development with what government see value in. A significant tangible commitment by all governments in Australia to the infrastructure support and vehicle/OEM rollout of C-ITS.

5

After the Principles, what next steps do you think would be most productive?


SAGE believe the most productive next steps include:

- Active commitment by road authorities and government for path finding demonstrations that showcase the value to the community, wider industry and investors
- Harmonised and eased approval of C-ITS standards at all levels of C-ITS network communication (central, roadside, vehicle)
- Greater government and industry uptake of C-ITS vehicle and roadside stations, eg public transport, vehicle fleets (ie emergency vehicles)
- Informed whole-of-government (ie councils, local government) alignment on C-ITS opportunities (example fire warning signs)

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