



Urban Traffic Management and Control

ARTSM position Statement on UTMC - 31/8/22

The original purpose of UTMC was to provide a unified open set of protocols that supported a range of traffic related services that sent data and commands between outstations and in-stations and also between different in-stations.

To this end it has been largely successful, however the world has moved forward.

There are now new applications and needs, as well as extensions to, and obsolescence within the existing protocols and services. Beyond that there are new protocols, that is, new ways to achieve the same results. These are sometimes more cognisant of data standards, cybersecurity and those contextual factors that are important to any ITS system.

As the market has moved on manufacturers have been obliged to supplement the standard UTMC content with bespoke facilities, thereby eroding the openness and standardisation. This erodes the interoperability and starts locking users into a single supplier. Examples of this include:

- Variable message Sign control, where customers now expect graphics (rather than just simple text) and for portable signs, the provision of location monitoring and power monitoring facilities.
- Urban Traffic Control outstations, which now provide extended monitoring and configuration functionality, outside of that documented by UTMC
- Air quality monitoring systems where outstations may be connected to a UTMC common data base using UTMS protocols, but where the outstations are configured and calibrated using proprietary (supplier specific) communications by another in-station. Pollution monitoring solutions in particular have evolved so far beyond the UTMC protocols that it is unlikely that there is currently a fully UTMC compliant pollution monitoring outstation the market!

Industry fully supports the principles of UTMC and the benefits that derive from interoperability. The current work on a detection protocol being overseen by ARTSM is a good example of this support.

To meet customer needs, manufacturers add these facilities (and others) within undocumented UTMC MIBS, or by additional parallel or alternative private protocols. This means that while UTMC still offers opportunities for interoperability and interchange of equipment, this now often only works at the lowest common denominator of functions.

Recognising both the evolution in the underlying technology and the big advances in the range of services and applications where UTMC could be relevant, then it is very clear that work needs to be done, and that there is a backing from industry to support this.

The increasing interest in, and deployment of, solutions for connected vehicles offers another area where some level of connection with UTMC would seem to offer a logical architecture for service delivery to vehicles. While many of the underlying standards for these solutions already exist, there are enough UK-specific areas of traffic control, messaging and ITS to warrant the stakeholders in UTMC giving this area consideration.

What industry alone cannot do is set the agenda for how these services are implemented published and maintained. As with TOPAS, BSI, CEN, and any other standards body, there has to be some central administrative function where all the stakeholders can meet and agree a roadmap for future work, decide how to resource it, how to manage the scope and terms of reference and stay joined up within the wider ITS and traffic.

If a UTMC secretariat can be re-established and funded then industry will back the activities and contribute to the standards, trials, and promotion of UTMC to the user base. Based on the work of TOPAS we know that a UK centred solution can be agile and very focussed on local needs.

If this doesn't happen the market will continue to fragment. Ultimately non-UK solutions that have widespread acceptance in other countries may be deployed and become de-facto standards. As these will have their origins outside the UK they are likely largely to be outside the influence of UK users and manufacturers, particularly since our role within CEN has changed.

That is, if we do nothing then other market forces will be imposed on the UK. This makes doing nothing a very unattractive option.