

# ASCA Industry Board Working Group

## Terms of Reference

### Working Group

#### Standards

(Reports to the ASCA Executive Committee)

#### Background

ASCA seeks to support customers of smart city related technologies and systems to make wise choices regarding the selection of standards that underpin the technologies.

Common standards enable interoperability between devices and systems of different vendors, reducing implementation costs.

A nationwide approach endorsed by ASCA places Australian smart city customers in a good position to leverage national expertise and builds strong foundations for future development.

ASCA is not in a position to enforce standards. In practice, smart city technology customers (eg councils) will specify standards they believe best meet their needs. We hope that such customers will refer to ASCA guidelines for standards.

#### Role / Purpose

The purpose of this document is to answer the following questions:

- Given a particular standard of interest, what process and criteria does ASCA use to make a decision whether to endorse the standard or not?
- Given limited resources, how will ASCA prioritise standards for assessment?

#### Term

The Term of Reference is effective from 1 March 2017 and will be reviewed on an ongoing basis as deemed warranted by the Executive Committee.

## Principles

### 1.1 Endorsement

ASCA endorsements are at best recommendations that carry no warranty that they are appropriate, fit for purpose, nor that its analysis is accurate. Nor will ASCA warrant that its recommendations won't change over time.

ASCA will seek to be impartial and make recommendations based on what is best for the nation (national interest or common good) as opposed to local or state interests. National interest encompasses both implementation benefits for Australian cities and regions, but also export benefits for Australian smart cities solutions. ASCA will encourage its membership to adopt the same view and be wary of other motivations.<sup>1</sup>

The ASCA Board will decide which standards it will endorse based on the recommendation from the Standards Working Group.

In some cases, ASCA may not be able to endorse just one standard for a given area. In such cases ASCA may have to say, "For Australia we prefer XXXX but viable alternatives are YYYY and ZZZZ" or "For this aspect of your business we recommend AAA or BBB, but for this other aspect we recommend CCC."

### 1.2 Risk Management

Particularly in cases where the technologies and solutions are relatively new, dominant standards with strong adoption and broad support in the marketplace may not have evolved. In the worst case, a 'good' standard endorsed by ASCA may ultimately 'fail' in the marketplace by not being adopted by key solution providers. ASCA's standards endorsement process needs to acknowledge and manage this risk on behalf of councils and others who may be taking the lead from ASCA's recommendations. In general, ASCA will advise councils not to mandate standards in tenders but use wording such as, "conformance to standard XXX is preferred". This allows non-conforming tenders to submit and argue why they choose not to conform to the standard.

### 1.3 Preference order

All things being equal, the following is the default preference order for competing standards. These are not the only factors to take into consideration (see also Section 4). Justifiable exceptions are acceptable.

1. Australian Standards (where available and it makes sense).
2. International standards (ISO and IEC) where it makes sense.<sup>2</sup>
3. Open international standards with strong, broad support and active working groups.
4. Well documented open de facto standards.<sup>3</sup>

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<sup>1</sup> For example, a desire to be different or empire building. We encourage cities to compete on outcomes but collaborate on standards, best practice, foundational technologies and capabilities.

<sup>2</sup> The policy of Standards Australia is to prefer ISO standards if an Australian Standard does not exist.

<sup>3</sup> An example could be a well-documented open API using JSON.

5. Proprietary<sup>4</sup> standards and proprietary de facto standards.

## 2 Conflict of interest

Individuals or companies with a potential conflict of interest can provide background information and advice. They should:

- Declare the potential conflict of interest.
- Abstain from voting on standards or recommendations.

## 3 Scope and priorities

For the purposes of this document standards could also include strategic frameworks, portfolios of standards, guidelines and systems of city indicators and metrics.

The Standards Working Group has mixed expertise and limited resources to assess all standards of interest. The group will attempt to take a pragmatic approach that will deliver maximum value to the national interest within the resource constraints of the group.

ASCA will seek feedback from smart city customers (eg councils) to prioritise which standards to assess.<sup>5</sup>

When setting priorities, the Standards Working Group will factor in impact and urgency for the proposed endorsement of a particular standard.

## 4 Selection criteria

These are the key questions we seek to answer when assessing a standard.

### 4.1 Preference criteria

See Section 1.3 above.

- Is there already an Australia Standard for this application?
- Is there already an ISO standard for this application?
- Is there an open standard with broad support and active working groups for this application?
- Do we have to resort to an open de facto standard, eg well documented API?

### 4.2 Fit for purpose

- Is the standard technically fit for purpose? Where we lack technical expertise, we may have to infer this by other means, eg Who endorses the standard? Where has it been applied to date?
- How future-proof is the standard? An old or rigid standard may lack the flexibility to embrace new technologies and approaches.

### 4.3 Openness, cost, backing and support

- Is the standard an open (not proprietary) standard?

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<sup>4</sup> That is, not open standards.

<sup>5</sup> Some known areas of interest to councils include: Free WiFi, smart lighting, smart parking, waste management.

- Are there special costs involved to use the standard?
- Is the standard supported by a broad and active community?

#### 4.4 Alignment implications

Selection of a standard may align a customer to one camp/city/region/innovation over another. Alignment is less a selection criteria than a useful lens to assess the impact and implications of endorsing a particular standard.

Thinking through the implications of these choices helps ASCA select what is best for Australia, and helps customers decide what best suits their purpose.

##### 4.4.1 Alignment by region

- With which region(s) is the standard most closely aligned?

Some countries and regions are closely related to specific standards. Alignment to a particular region by selecting a particular standard may hinder our engagement or export aspirations with other regions. Examples of regions include:

- Global (eg internet standards, W3C etc)
- European / ISO
- British
- USA
- Asian

When assessing or endorsing a given standard ASCA can assist customers by identifying the regions that already endorse the standard.

#### 4.5 Alignment by industry, sector or companies

- With which industry, sector or companies is the standard most closely aligned? Which key industries, sectors or companies have taken a different path?

Some companies have invested heavily in being compliant to particular standards and it is costly for them to change. Historically they lobby intensively to have their standard or approach being the basis of new standards.

Some standards are driven by the researcher community (or other sector) and may not be as suited to industry applications.

When assessing or endorsing a given standard ASCA can assist customers by identifying the industry groups that already endorse the standard (and key players who don't).

##### 4.5.1 Alignment by City

- Which cities already use the standard? Which key cities have taken a different path?

Many Australian customers have a view as to which Australian and overseas cities (or projects) they consider exemplars for their own. Some Australian cities have sister relationships with overseas cities. These become cities of interest.

When assessing or endorsing a given standard ASCA can assist customers by identifying the key cities of interest that already endorse or implement the standard.

ASCA can assist this process by canvassing its members for their favourite cities and projects and collecting information on the standards used by those cities.

## 5 Process

The intention of this process is to achieve basic due diligence without an excessive overhead.

1. ASCA member requests or Standards Working Group chooses a standard to assess.
2. Standards Working Group prioritises the standard for assessment based on impact and urgency. The group may choose to bypass the full process for standards that are deemed trivial.
3. The Standards Working Group will appoint a representative to work through the selection criteria questions (Section 4).
  - a. The Standards Working Group will canvas technical input from experts to comment on the standard or seek secondary sources.
4. The Standards Working Group seeks comment from the ASCA Industry Group, ASCA R&D Group, ASCA membership and extended contacts.
5. Standards Working Group collates responses and makes recommendations to ASCA Board.