



Industry Specification Group 'City Digital Profile' (ISG CDP)

Terms of Reference

(Approved by the ETSI Director-General on **11 October 2017** following ETSI Board consultation)

1. Scope

Vision: To accelerate the delivery of integrated citizen services and provide a technology road map for city leaders, by promoting the use of standards in a replicable solution stack.

To enable cities to procure smart solutions with confidence that they will be extendable, configurable and interoperable with similar services from other cities.

To lay out a smart city standards roadmap across the whole technology stack, that may be used by city and national leaders to accelerate the deployment of innovative city services.

ISG CDP will develop a standards-based framework and corresponding technology roadmap that will enable city administrators to be able to deliver advanced services to their citizens, whilst respecting essential environmental factors, sustainability objectives and reducing overall complexity and therefore also reducing costs.

Those city services are intended to improve the overall quality of living in the city and make them increasing attractive to citizens, investors, business, innovators and visitors / tourists. Indeed an important part of the work of ISG CDP is to ensure the citizen representation, either directly, via city members or relevant partner groups (e.g. TC HF, Eurocities, and City Protocol Society).

By adopting a standards-based approach, it is expected that cities will be able to ensure improved levels of quality and experience to the users, ensure the sustainability of the deployments as well as maintaining a certain level of provider independence.

In order to enable this, ISG CDP will provide Cities with a focal point within a recognized standards body where they may share, collect and develop their various technology requirements based on common use cases, with a focus on those that have cross domain aspects.

In clearly documenting scenarios, use cases and technology requirements that are based on a shared City-view, ISG CDP intends to identify and document the standards-based technical solutions that are recommended to enable a wide range of city services.

In providing this framework and roadmap for technology investment and deployment, it is expected to significantly increase market confidence level in city infrastructure investments, as well ensuring the interoperability of technical solutions and the ability to replicate those solutions across domains, between cities and at scale.

ISG CDP will also collect initial feedback on the results from early trials and pilot projects and seek to identify best practice recommendations for city service deployments to be made available to the ISG community and beyond.

Initial cross domain city applications will include:

- health/social care (disability entitlement; housing benefit and rent payment; housing condition, assisted living and vulnerability)
- building management / connected homes
- urban lighting
- water / waste management and energy
- transportation and mobility
- environmental issues such as pollution and resource optimization

Horizontal issues such as citizen related data retention and privacy protection will also be considered (in cooperation with the appropriate ETSI groups as EPP oneM2M and TC Cyber)

ISG CDP intends to re-use work from existing standards bodies and not re-invent or duplicate any existing standards-based solutions. However, if clear gaps are identified ISG CDP will endeavour to fill these in the most appropriate way, either by drafting the required deliverables or working with other standards groups as necessary.

In providing a city-centric focus on standards development, and strong cooperation with existing standards groups, it is intended that the work of ISG CDP will significantly increase the city focus on existing standards



initiatives within ETSI (e.g. TC smartM2M, TC ATTM, EPP oneM2M, ISG CIM) and provide a coordinated city input to the ongoing work of those groups.

2. Planned deliverables and timescales for delivery

Deliverables:

From the outset, ISG CDP plans to develop a whitepaper clearly describing the vision of the group, proposing some initial solutions, and issuing a call for action / contribution to all relevant parties.

The set of ISG CDP deliverables will include informative Group Reports (GRs) and part-normative Group Specifications (GSs) as required to fill essential standards gaps that need to be addressed.

A detailed review of the plan of work will be made at the first meeting when Work Items and delivery schedule will be discussed.

Meetings:

ISG CDP intends to hold three or four face to face plenary meetings per year in order to discuss, review, draft and approve the various deliverables.

ISG CDP intends to hold such meetings in varying locations, both in Europe and internationally and where possible hosted by city administrations or alongside major city related events/workshops.

In addition, ISG CDP will hold intermediate online meetings as required in order to discuss specific topics and progress the drafting of the deliverables.

ISG CDP would also participate in joint meetings and/or workshops with key organizations and initiatives in order to discuss and progress topics of mutual interest.

The ISG CDP will make a full review of its work before the end the second year and make proposals to ETSI on how to evolve the ISG's activities:

- terminate the ISG, or
- continue the activity and transfer work to a (existing or new) ETSI Technical Body or other group, or
- Continue the ISG for an additional period with a revised Terms of Reference.

3. Collaboration with other bodies (both inside and outside ETSI):

The ISG intends to establish a liaison relationship with at least the following ETSI TC(s)/ISG(s) and EPP(s)

- ISG CIM
- ISG OEU
- TC ATTM
- TC HF
- TC ITS
- TC SmartM2M
- EPP oneM2M

and others as identified during the progression of the work

The ISG also intends to cooperate with a number of external organizations including:

- TM Forum
- GSMA
- CEN/CENELEC/ETSI SF-SSCC
- ITU-T SG20, FG-DPM
- AIOTI WG3 and WG8
- City Protocol Society
- OASC - Open and Agile Smart Cities
- Eurocities
- H2020 EIP-SCC and its Lighthouse projects
- ESPRESSO
- SynchroniCity



and others as identified during the progression of the work

4. Initial work plan

An initial plan for work includes the following milestones:

- (T0+01 month) Liaisons to major organisations informing of the work and requesting comment/input. Invite participation / membership.
- (T0+03 months) call for participation for PoC projects to participate in future benchmarking exercises.
- (T0+03 months) Initial draft of Group Report (GR) describing the overall high level architecture and identifying principal standardization gaps, to be circulated to relevant stakeholders in order to collect feedback.
- (T0+03 months) Joint f2f-workshop (with webinar attendance possible) with SmartM2M, oneM2M, ATTM SDMC and possibly other organisations.
- (T0+06 months) Publication of Group Report (GR) on initial set of service scenarios and use cases including a description of the relevant "technology stack" choices that may enable those scenarios
- (T0+06 months) Publication of Group Report (GR) describing the overall architecture and identifying principle standardization gaps
- (T0+09 months) Publication of Group Specification (GS) on Requirements for smart city solutions including (informative) examples of relevant technology stacks
- (T0+10 months) Focus on a PoC for City Solution#01 (to be identified by the group) to be benchmarked to previously agreed criteria and requirements
- (T0+12 months) Validation event (Plugtest) on selected City Solution
- (T0+24 months) Review of Work and proposal to ETSI for next period

** benchmarking = comparison of features, performance and interoperability of solutions compared with agreed city requirements

