ISG CIM Terms of Reference

(approved by the ETSI Director-General on **31 January 2025** following Board#151 consultation)

Scope

The main objective of ISG CIM continues to be to create technical specifications and reports to enable multiple organisations to develop interoperable software implementations of a cross-cutting Context Information Management (CIM) Layer. The standards work is designed to bridge the gap between abstract standards and concrete implementations.

The ISG CIM has developed an API called NGSI-LD to enable applications to update, manage, and access context information from many different sources, as well as publishing that information through interoperable data publication platforms. The API is designed to be agnostic to the architecture (central, distributed, federated or combinations thereof) of the applications which share information. The NGSI-LD API continues to be the focus of the ISG CIM, but in the next year(s) of work the intention is particularly to collaborate with other groups and technical communities, including a potential new TC Data, to encourage interworking and use of the API, as well as to respond to critique with improvements and guidelines for the API.

Areas of activity

- Evolving the NGSI-LD API and related information model.
- Analysing need for one or more additional bindings to expand interworking using the Core Information Model based on property graphs and the NGSI-LD API.
- Specification, if required, for additional binding(s) of NGSI-LD API for interworking with other systems
- Development of NGSI-LD test specification through finalisation of TTF039 and launch of the agreed new TTF.
- Maintain the openAPI description of NGSI-LD specification to aid developers, using ETSI Forge and Gitlab resources.
- Reports (Whitepapers, tutorials and/or open-sessions) to build a real dialogue with a number of "communities" interested in data exchange so as to validate and expand acceptance of the NGSI-LD API.
- Report providing guidelines for improved interoperability by encouraging reuse of ontologies e.g.: (a) very general NGSI-LD Cross Domain Model and (b) SAREF (domain-specific) ontologies.
- Reports showing validation of the NGSI-LD API and information model for interacting with a number of externally-defined models, e.g. DCAT, YANG, BIM, LDES, XAPI, SCORM.
- Report considering how NGSI-LD API could be integrated into oneM2M, evolving CIM GR022 into oneM2M WI0119.
- Report to define the handling of service execution in an NGSI-LD context and e.g. manage digital twin capabilities as defined in CIM GR017. Develop a liaison with W3C WoT (Web of Things) and IOWN committees.
- Report and specification of the API requirements for handling the rising priority on GDPR and ePrivacy compliance. ISG CIM collaborates with other groups (e.g. TC CYBER) and SDOs (e.g. W3C Credentials Community Group) regarding the CyberSecurity, Privacy and Identity Management trends and consider additional requirements on NGSI-LD API facilitating users to exercise their rights. There are already open Work Items WI007 and WI019 for the study.
- Defining and proposing a merge of ISG CIM activities within the proposed TC Data currently under discussion. Focus would be in the short term to pursue NGSI-LD development and support, ideally through a dedicated WG within TC-Data while collaboration with other WG would allow synergies and innovation in the medium term.

Organization

ISG CIM has organized itself according to the following method, which is likely to continue unchanged:

- There is a single Working Group which handles all work items and holds regular "Ordinary Meetings" with decision-making approximately weekly
- Work Item rapporteurs hold additional RG calls as needed, however the consensus found during the RG meeting is carried back into the main ISG group for approval
- The physical Plenary Meetings are used for f2f discussion and whiteboarding of new or controversial topics, to aid reaching consensus.

Annex (informative): collaboration with other bodies

ISG CIM has or will set-up the appropriate communication channels to the following groups both within and outside of ETSI.

ETSI groups
EPP oneM2M
TC SmartM2M
ISG ARF
TC ESI
TC SmartBAN
TC CYBER

External groups
OASC
OMA
European Data Portal
FIWARE
W3C
OGC
GSMA
IOWN
EC H2020 Projects

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