ETSI TR 104 409 V1.1.1 (2025-06)



Data Solutions (DATA);
Data Act (art. 33) requirement and references analysis

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Foreword

This Technical Report (TR) has been produced by ETSI Technical Committee Data Solutions (DATA).

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Modal verbs terminology

In the present document "**should**", "**should not**", "**may**", "**need not**", "**will**", "**will not**", "**can**" and "**cannot**" are to be interpreted as described in clause 3.2 of the ETSI Drafting Rules (Verbal forms for the expression of provisions).

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Introduction

In recent years, the availability of Internet-connected products ("connected products") on the European market has increased rapidly. These products, which together form a network known as the Internet of Things (IoT), significantly increase the volume of data available for reuse in the EU. This holds enormous potential for innovation and competitiveness in the EU.

The EU Data Act [i.4] came into force in December 2023 and aims to create a new legal framework for handling data. It gives users of connected products (companies or individuals who own, lease or rent such a product) greater control over the data they generate, while maintaining incentives for those who invest in data technologies. It also sets out general conditions for situations where a company is legally obliged to share data with another company.

The EU Data Act [i.4] also includes measures to increase fairness and competition in the European cloud market and to protect companies from abusive contractual clauses related to data sharing imposed by stronger players. It also introduces a mechanism for public authorities to request data from a company when there is an exceptional need, for example in public emergency situations.

The EU Data Act [i.4] will have an impact on many companies that process data. Digitalization is progressing inexorably:

- A large proportion of society activities depend on IoT systems. They are influenced or even controlled by them.
- The users of these systems directly or indirectly generate an unprecedented amount of data.
- By storing and processing data, companies use this data to improve their services or for advertising.
- The data is often stored by providers in data silos that even users can only partially access, especially data that was generated by their activities but not directly entered by them.

The users/customers of providers are more or less tied to them. Even switching from one provider to another is difficult due to the "lock-ins". Because a lot of data is difficult to access, it is not possible to create new applications that link these data sources with each other to the desired extent and thus tap into the benefits of digitization.

Even public bodies such as administrations are unable to access the data. This makes it difficult for them to fulfil their mission. The consequences of this were demonstrated during the coronavirus pandemic. For example, it was and still is almost impossible to track the occupancy of hospital beds or the vaccination status of the population at the same time.

With the EU Data Act [i.4], the EU Commission wants to eliminate these difficulties and create the legal basis for the fair, efficient and effective use of data and thus for the digital transformation of European economic players.

Article 33 of the EU Data Act [i.4] sets out comprehensive rules on the interoperability of data, mechanisms and services for data sharing and use in shared European Data Spaces. Data Spaces include, for example, cloud environments. The EU Commission may issue implementing provisions and request standard-developing organizations (e.g. CEN, CENELEC, ETSI) to define uniform standards in this area in order to achieve this interoperability. The providers will then implement these accordingly.

Referring to article 33 of the EU Data Act [i.4], the European Commission made available the draft of the standardisation request SReq [i.3]. The SReq requests CEN, CENELEC and ETSI to draft new European standards and European standardisation deliverables as listed in the Annexes of the SReq [i.3] in support of article 33 of the EU Data Act [i.4]. For all deliverables requested by the SReq, CEN, CENELEC and ETSI are expected to co-operate in the Mode 4, which is specified in the Basic Co-operation Agreement between these three Standards Development Organizations (SDOs). According to this, one Party should take the lead of work and the other(s) may make written contributions during the progress of drafting the requested new European standards. This relation includes also full information sharing via nominated observers.

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1 Scope

The present document supports the preparation of the answer to the EU standardisation request "Standardisation request to the European standardisation organisations as regards a European Trusted Data Framework in support of Regulation (EU) 2023/2854 of the European Parliament and of the Council" [i.3] further on called "SReq" in the present document. The scope of the present document is to analyse the requirements contained in the "Regulation (EU) 2023/2854 of the European Parliament and of the Council of 13 December 2023 on harmonised rules on fair access to and use of data and amending Regulation (EU) 2017/2394 and Directive (EU) 2020/1828 (Data Act)" [i.4], further on called "EU Data Act" in the present document, with particular reference to its article 33, and those in the final version of the SReq [i.3] including their references (e.g. the "DSSC Blueprint V1.5" [i.5]). This analysis is conducted with reference to the existing ETSI applicable specifications and standards (e.g. oneM2M [i.6], SAREF [i.1], NGSI-LD [i.7], [i.8], etc.).

The present document provides the input for the ETSI Technical Report on "Data ACT (art. 33) standardization suggestions" ETSI TR 104 410 [i.2].

Both reports (the present document and ETSI TR 104 410 [i.2]) will prepare the normative work to satisfy the SReq.

The present document is structured as follows:

- **Clauses 1 to 3** set the scene and provide references as well as definitions of terms, symbols and abbreviations, which are used in the present document.
- **Clause 4** provides an introduction to the EU Data Act [i.4] with a focus on its structure and the technically relevant parts of it. Specifically, it establishes the reference to standardisation in the field of interoperability of data and services. Further on, it lists requirements derived from the EU Data Act [i.4] article 33 ("Essential requirements regarding interoperability of data, of data sharing mechanisms and services, as well as of common European data spaces)". The draft of the SReq [i.3] is addressing this article 33.
  Also, clause 4 provides a list of requirements derived from the EU Data Act [i.4] article 35 (Interoperability of data processing services). It addresses several items, which are related to, even if not being in the focus of, the SReq.
- **Clause 5** provides an introduction to the SReq to European Standards Organisations as regards to a European Trusted Data Framework [i.3]. The focus is on ontologies and data models as well as on approaches to manage them. It lists requirements derived from the SReq, which are additional to the published EU Data Act [i.4]. Clause 5 provides an overview of the "DSSC Blueprint, version 1.5" [i.5] and an overview of the "Data Catalog Vocabulary (DCAT) - Version 3" [i.9] within the context of potential application to SAREF [i.1].
- **Clause 6** provides an overview of which parts of the standardisation requirements derived from the documents EU Data Act [i.4] and SReq [i.3] can be satisfied by the oneM2M standards [i.6], the SAREF ecosystem [i.1] with the SAREF core and on all extensions and the NGSI-LD specifications [i.7], [i.8].
  Also it identifies the gaps which need to be filled. It also describes the relationship between oneM2M and SAREF, with special emphasis on how oneM2M standards [i.6] can be used as the means for practical SAREF deployment. Furthermore, clause 6 analyses the relation between DSSC Blueprint [i.5] and the oneM2M standards [i.6].
- **Clause 7** provides a summary of conclusions from the requirements and references analysis and gives an outlook to further potential activities.
- **Annex A** provides an overview of the EU Data Act structure.
- **Annex B** shows some highlights of articles with technical/standardisation relevance.

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2 References

2.1 Normative references

Normative references are not applicable in the present document.