The European Data Act
Regulation of data access / Interoperability

Presented by Joachim Koss   for oneM2M Technical Plenary #66
JK Consulting & Projects   on 11 September 2024

About me

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Professional positions

- Various management positions in HW/SW Engineering, International Project and Process Management, Conformity Testing and Approval, IPR Management and Standardization
- Founder of *JK Consulting & Projects*, a consulting firm that supports companies in the area of Machine-to-machine (M2M), Internet of Things (IoT) technologies, product approvals, project management and in the area of Quality Management Systems

Work in standardisation

- ETSI Board member for six years
- Vice Chairman of ETSI Technical Committee SmartM2M for four years
- Vice Chairman of oneM2M's Technical Plenary for two years
- Leader of several ETSI Specialist Task Forces on IoT standards
- Expert in ETSI TC SmartM2M, currently with a focus on Semantic Interoperability

The European Data Act

https://www.eu-data-act.com/

Official Journal
of the European Union

EN
L series

2023/2854

22.12.2023

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)

(Text with EEA relevance)

The European Data Act makes more data available for use, and sets up rules on who can use and access what data for which purposes across all economic sectors in the EU

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Introduction

➢ On **22 December 2023** the European Data Act has been published in the Official Journal of the European Union

➢ The Regulation has got into force on **11 January 2024** and, after a transition phase, will be European wide law after **12 September 2025**

➢ The Data Act gives individuals and businesses more control over their data through a reinforced data portability right, copying or transferring data easily from across different services, where the data are generated through smart objects, machines and devices.

➢ It will be easier to transfer data to and between service providers and this will encourage more actors, including SMEs, to participate in the data economy

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Introduction

This Regulation applies to:

a. manufacturers of connected products placed on the market in the Union and providers of related services, irrespective of the place of establishment of those manufacturers and providers;

b. users in the Union of connected products or related services as referred to in point (a)

c. data holders, irrespective of their place of establishment, that make data available to data recipients in the Union;

d. data recipients in the Union to whom data are made available;

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Ruled Data Access

Today

➢ When a factory machine breaks down, only its manufacturer can access the data, leaving no alternative for the company but to call them for repairing

➢ A coffeemaker wants to improve his quality. He has no access to the coffee machine information (quantity and temperature of the water or coffee strength), because only the manufacturer uses its data for improving his machine
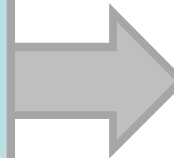
Tomorrow

➢ The user could request that a repair service, that me be cheaper, also gets access to the data

➢ The Data Act clarifies, that both parties can access all data collected by the machine

Source: https://www.eu-data-act.com/ by Cyber Risk GmbH

The Data Act requires interoperability for data exchange

Highlights of Articles with technical relevance

Chapter I – General Provisions

Article 1 – Subject matter and scope

➢ Rules on

- making available of product data and related service data to the user and
of data by data holders to data recipients, public sector bodies, the Commission, the European Central Bank and Union bodies
- facilitating switching between data processing services
- introducing safeguards against unlawful third-party access to non-personal data
- the development of interoperability standards for data to be accessed, transferred and used

➢ Covers personal and non-personal data

➢ Regulation refers to connected products or related services, such references are also understood to include virtual assistants (SW) insofar as they interact with them

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Chapter II – Business to consumer and business to business data sharing

Article 3 – Obligation to make product data and related service data accessible to user

- Connected products shall be designed and manufactured,
  and related services shall be designed and provided, in such a manner that
  product data and related service data,
  including the relevant metadata necessary to interpret and use those data,
  are, by default, easily, securely, free of charge, in a comprehensive, structured, commonly used and machine-readable format, and,
  where relevant and technically feasible, directly accessible to the user

- Purchase, rent or lease of a connected product
  Seller, rentor or lessor, which may be the manufacturer, shall provide at least the following information to the user, in a clear and comprehensible manner:

  - the type, format and estimated volume of product data which the connected product is capable of generating
  - whether the connected product is capable of generating data continuously and in real-time
  - whether the connected product is capable of storing data on-device or on a remote server, including, where applicable, the intended duration of retention
  - how the user may access, retrieve or, where relevant, erase the data, including the technical means to do so, as well as their terms of use and quality of service

Chapter II - High Lights

Chapter II – Business to consumer and business to business data sharing

Article 5 – Right of the user to share data with third parties

➢ Upon request, the data holder shall make available readily available data,
as well as the relevant metadata necessary to interpret and use those data,
to a third party without undue delay, of the same quality as is available to the data holder, easily,
securely, free of charge to the user, in a comprehensive, structured, commonly used and machine-
readable format and, where relevant and technically feasible, continuously and in real-time

Chapter III – Obligations for the data holders obliged to make data available pursuant to Union law

Article 11 – Technical protection measures on the unauthorised use or disclosure of data

➢ A data holder may apply appropriate technical protection measures,
including smart contracts and encryption,
to prevent unauthorised access to data, including metadata.
Such technical protection measures shall not discriminate between data recipients or hinder a user's right to obtain a copy of, retrieve, use or access data, to provide data to third parties pursuant to Article 5.

Chapter VI – Switching between data processing services

Article 23 – Removing obstacles to effective switching

➢ Providers of data processing services shall enable customers to switch to a data processing service, covering the same service type, which is provided by a different provider of data processing services, or to on-premises ICT infrastructure, or, where relevant,
to use several providers of data processing services at the same time

Chapter VI – Switching between data processing services

Article 30 – Technical aspects of switching

➢ Providers of data processing services (exceptions specified in paragraph 1 of this article) shall make open interfaces available to an equal extent to all their customers and the concerned destination providers of data processing services to facilitate the switching process.
Those interfaces shall include sufficient information on the service concerned to enable the development of software to communicate with the services, for the purposes of data portability and interoperability.

➢ Providers of data processing services (exceptions specified in paragraph 1 of this article) shall ensure compatibility with common specifications based on open interoperability specifications or harmonised standards for interoperability at least 12 months after the references to those common specifications or harmonised standards for interoperability of data processing services were published in the central Union standards repository for the interoperability of data processing services following the publication of the underlying implementing acts in the Official Journal of the European Union in accordance with Article 35(8).

Chapter VIII – Interoperability

Article 33 – Essential requirements regarding interoperability of data, of data sharing mechanisms and services, as well as of common European data spaces

➢ Participants in data spaces that offer data or data services to other participants shall comply with the following essential requirements to facilitate the interoperability of data, of data sharing mechanisms and services, as well as of common European data spaces which are purpose- or sector-specific or cross-sectoral interoperable frameworks for common standards and practices to share:

- the dataset content, use restrictions, licences, data collection methodology, data quality and uncertainty shall be sufficiently described, where applicable, in a machine-readable format, to allow the recipient to find, access and use the data

- the data structures, data formats, vocabularies, classification schemes, taxonomies and code lists, where available, shall be described in a publicly available and consistent manner

- the technical means to access the data, such as application programming interfaces, and their terms of use and quality of service shall be sufficiently described to enable automatic access and transmission of data between parties, including continuously, in bulk download or in real-time in a machine-readable format where that is technically feasible and does not hamper the good functioning of the connected product

- where applicable, the means to enable the interoperability of tools for automating the execution of data sharing agreements, such as smart contracts shall be provided

Chapter VIII – Interoperability

Article 35 – Interoperability of data processing services

Open interoperability specifications and harmonised standards for the interoperability of data processing services

➢ shall (paragraph 1):

- achieve, where technically feasible, interoperability between different data processing services that cover the same service type
- enhance portability of digital assets between different data processing services that cover the same service type
- facilitate, where technically feasible, functional equivalence between different data processing services referred to in Article 30(1) that cover the same service type
- not have an adverse impact on the security and integrity of data processing services and data
- be designed in such a way so as to allow for technical advances and the inclusion of new functions and innovation in data processing services

➢ shall adequately address (paragraph 2):

- the cloud interoperability aspects of transport interoperability, syntactic interoperability, semantic data interoperability, behavioral interoperability and policy interoperability
- the cloud data portability aspects of data syntactic portability, data semantic portability and data policy portability
- the cloud application aspects of application syntactic portability, application instruction portability, application metadata portability, application behavior portability and application policy portability.

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Supporting the EU Data Act

The SAREF suite of ontologies
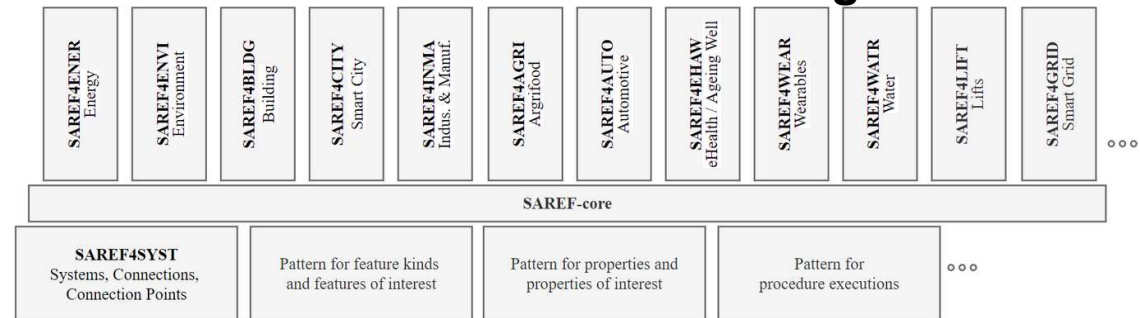
Applying these Standards on connected products and related services support manufacturers, providers, data holders, data recipients and users
to be compliant with the European Data Act

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