



**International
Standard**

ISO/IEC 23955

**Information technology —
3D printing and scanning —
Technical requirements for
product data protection of an
additive manufacturing service
platform (AMSP)**

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Foreword

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This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html and www.iec.ch/national-committees.

Introduction

Additive manufacturing (AM) has been used for rapid prototyping for many years and is increasingly being applied to volume production, mass customization and spare parts production, among other use cases. In recent years, the additive manufacturing service platform (AMSP) has developed rapidly. Especially with the integration of the internet, AMSP makes AM technology accessible to ordinary customers and helps to realize the development model from traditional mass production to personalized customization.

Meanwhile, it is noted that AM technology has brought many challenges to intellectual property protection. As the foundation of AM technology, 3D models are subject to both deliberate and accidental threats, including being stolen illegally during the transmission process on the internet or being distributed and printed without permission after they are sent to AM centres, which can cause a financial loss to the model provider and is also harmful to the healthy development of AMSPs. Currently, AMSPs lack the protection mechanism for product data information, especially for 3D models.

The purpose of this document is to provide requirements to effectively protect the intellectual property of 3D models, stimulate the innovative enthusiasm of designers and accelerate the adoption of AM technologies in the manufacturing ecosystem at large, thus better meeting the growing needs for personalized customization.

Information technology — 3D printing and scanning — Technical requirements for product data protection of an additive manufacturing service platform (AMSP)

1 Scope

This document specifies the technical requirements for product data protection of an additive manufacturing service platform (AMSP). The following elements are within the scope of this document.

- Classification of product data information of an AMSP and the protection levels.
- Product data protection at four data-processing stages, i.e. data collection, data display, data transfer and data deletion.
- Responsibilities and obligations of different entities.

This document is applicable when individuals or organizations (e.g. commercial enterprises, government agencies and non-profit organizations) build an AMSP or improve existing ones to provide additive manufacturing (AM) and other services specific to the submission, design, and creation of AM parts.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 23510, *Information technology — 3D printing and scanning — Framework for an Additive Manufacturing Service Platform (AMSP)*

ISO/IEC 27017, *Information technology — Security techniques — Code of practice for information security controls based on ISO/IEC 27002 for cloud services*

ISO/IEC 29151, *Information technology — Security techniques — Code of practice for personally identifiable information protection*