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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 42450-2023

Information technology - Big data - Planning of data resource

信息技术 大数据 数据资源规划

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Foreword

This document was issued on 17 March 2023 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 October 2023.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

1 Scope

GB/T 42450-2023 covers data resource planning: the work an organization does to decide what data it needs to hold, and in what shape, before it builds the systems that will hold it. Clause 4 places data alongside the other resources a business plans for and ties the exercise to the objectives already written into the business plan rather than to whatever technology is at hand. Clause 5 lays out the planning process as two kinds of activity - preconfiguration, which prepares the ground the plan will stand on, and the planning activities proper - and clauses 6 and 7 describe each in turn, clause 7 reaching down into the data processing activities, collection among them, that the plan has to account for. Organizations tend to accumulate data one system at a time, each project storing what it happened to need, and the result is the same customer recorded five ways with nobody answerable for any of the five; planning the resource first is what makes a later analytics programme a piece of work rather than an excavation. Written for data managers and chief data officers, enterprise architects, and the consultants who draft data strategies.

This document describes the planning process of data resource required by an organization to support the achievement of its business planning objectives, and

specifies activities related to data resource preconfiguration and data resource planning. This document is suitable for guiding organizations to establish data resource planning related documents and activities that meet their business needs.

2 Normative references

The following referenced documents are indispensable for the application 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.

GB/T 26816 Information resource core metadata

GB/T 35273 Information security technology - Personal information security specification

GB/T 37722 Information technology - Technical requirements for big data storage and processing systems

GB/T 38667 Information technology - Big data - Guide for data classification

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

3.1

data resource

Data that is viewed as a resource, used to support the achievement of an organization's business objectives.

NOTE: The term "business objectives" in this document refers to the objectives explicitly or implicitly set by an organization around its business and business development areas. To achieve

4 General

Data resources are similar to other types of resources that support an organization's business activities. Data resource planning revolves around the objectives set in the organization's business plan and the characteristics of the data itself. The final product produced by data resource planning activities is a data resource preconfiguration plan

that meets business target data requirements, that is, a data resource planning document.

The goal of data resource planning is to support organizations in realizing business plans and objectives, taking determined business plans and objectives as input, systematically design and carry out planning and description of each element of data resources, and proposing normative requirements.

5 Data resource planning process

The data resource planning process within an organization is shown in Figure 1, which mainly involves two types of activities.

a) Activities related to data resource preconfiguration:

- 1) Such activities include but are not limited to: inventory of the current status of data resources, determination of data resource planning goals, and preparation of data resource planning documents, etc.;
- 2) Such activities are performed to carry out data resource planning, and the goal is to complete the data resource planning document;
- 3) Such activities are sequential. For a specific data resource planning task, some activities in the process may be performed multiple times or repeatedly. For example, the process from data resource planning goals to data resource configuration solutions may be iterated and repeated multiple times depending on the actual situation.

b) Data activities related to data resource planning:

- 1) Data processing related activities, such as data collection, data storage, data processing, data exchange, data application, data deletion and long-term storage;
- 2) Data management related activities, such as grading and classification management, data model management, data standard management, metadata management, master data management, data catalog management, data quality management, data security protection and data assurance, etc.;
- 3) Such activities are independent. For the sequence of activities and whether to

perform all activities, this document only gives and describes the activities that Based on the stage goals and tasks determined in the data resource planning goal activities, combined with the current status and needs of various data resources, conduct a data resource preconfiguration plan, that is, the preparation of data resource planning documents. The data resource planning document includes data processing and data management related content as well as other related factors that affect data resource configuration, such as data architecture, technology platform, business digital transformation, etc.

The specific writing form and content of data resource planning documents depend on the organization's business, technical and other management requirements.

7 Data activities related to data resource planning

7.1 Data processing related activities

7.1.1 Data collection

Data collection activities mainly include but are not limited to the following:

- a) Conduct data collection based on factors such as data source, data magnitude, data format, update method, and frequency;
- b) Conduct data collection according to the characteristics of the data to be collected during the collection activities.

7.1.2 Data storage

Data storage activities mainly include but are not limited to the following:

- a) Select an appropriate storage method based on factors such as data structure characteristics, data magnitude, timeliness requirements, read and write performance requirements, concurrency requirements, access frequency, and data application requirements;
- b) Build a data resource library, to conduct multi-level and classification storage of various types of data resources and data resources in the data transfer process;
- c) Data storage activities shall be carried out in accordance with the relevant contents specified in GB/T 37722.