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

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**Security specification for grain information system
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard was proposed by the National Grain Administration.

This standard is under the jurisdiction of the National Grain and Oil Standardization Technical Committee (SAC/TC270).

This standard was drafted. Aerospace Information Co., Ltd., Hubei Grain Bureau, Beijing Tianrongxin Technology Co., Ltd.

1 Scope

This standard specifies the basic requirements for food information security protection, food information security technology and safety management. Deployed in e-government the relevant security construction of the extranet is guaranteed by the e-government external network, and the related security construction deployed in the e-government intranet is protected by the e-government intranet.

barrier. This standard focuses on the interaction of food administrative departments at all levels, food enterprises and other grain-related organizations in the internal network of the enterprise and the Internet.

Time security requirements.

This standard applies to the planning, design, construction, operation and maintenance and evaluation of food informatization projects.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 20518 Information Security Technology Public Key Infrastructure Digital Certificate Format
GB/T 22239 Information Security Technology Information System Security Level Protection Basic Requirements
GB/T 22240 Information Security Technology Information System Security Level Protection Rating Guide
GB/T 31167-2014 Information Security Technology Cloud Computing Service Security Guide
GB/T 31168-2014 Information security technology cloud computing service security capability requirements

3 Terms and definitions

The following terms and definitions apply to this document.

Security domain A network with the same security protection requirements, mutual trust, and the same security access control and border control policies in the same environment or system.

Grain cloud computing platform A collection of cloud computing infrastructure and food informatization software running on it.

Grain internet of things A sensor network system that monitors the quantity and quality of grain storage environment and food through dedicated sensors.

4 Abbreviations

The following abbreviations apply to this document.

VPN. Virtual Private Network (VirtualPrivateNetwork) PKI/CA. Public Key Infrastructure/Certificate Authority (PublicKeyInfrastructure/CertificateAuthority) 4A. Unified Security Management Identity Authentication, Authorization, Auditing, and Accounts (Authentication, Account, Authorization, Audit)

5 Information security protection objects

It mainly includes food information networks, information systems, food information and its physical environment, supporting infrastructure and safety equipment and facilities.

5.1 Information Network

The protected network objects include various information networks within the scope of food business management, which are respectively operated in the e-government intranet and e-government.

Network, intranet, and Internet are in four different networks.

5.2 Information System

The protected business object is the various food business application systems running in the food information system, and the food information system according to the business application type.

It is divided into food enterprise business management application system and food administrative management application system; it is divided into national grain management platform according to the structure (referred to as "National platform", provincial food management platform (referred to as "provincial platform"), enterprise food management platform. Food Business Management Application Department the system runs on the intranet and the Internet; the food administrative application system runs on the e-government intranet, the e-government extranet and each other.

networking.

5.3 Food Information

The protected information objects are all kinds of food business information, which can be divided into public information and non-public information. Non-public information includes various types of sensitive information.

Feeling information. Different information categories should be set with different levels of security protection.

For public information, it is mainly to prevent tampering and loss prevention; for sensitive information, in addition to tampering and loss prevention, it is necessary to increase the protection against unauthorized Disclosure, abuse and destruction.

5.3.1 Public information

including but not limited to.

Information on food production, food processing, grain and oil markets, food consumption, grain storage environment, and social economy.

5.3.2 Food sensitive information

including but not limited to.

- a) Information that should be made public but not suitable for disclosure before the official release, such as bidding, planning, statistics, budget, etc.;
- b) unsuitable records generated during the administrative enforcement of food;
- c) geographical location information of the grain enterprise;
- d) trade secrets of food enterprises;
- e) personnel planning and work charter of the food administrative department, personnel capacity evaluation and other information;
- f) information such as bank card, ID card, settlement funds, etc.
- g) Information on food stocks, quality, rotation plans, food emergency plans, etc.

6 General requirements

The safety requirements of food information systems are proposed from three aspects. safety management, safety technology and safety technology in the field of food specialties.

Figure 1 shows.

The food administrative department, food enterprises and other grain-related agencies shall, in accordance with the requirements of the national information security authorities, the Department of Food Information.

The system is graded and the corresponding safety requirements are met according to the rating. Food enterprise business management application system should comply with GB/T 22240 National information security protection level 2 or above standards, cross-province or covering the province's food administrative application system, should comply with security Level 3 of protection level.

Figure 1 Food Information Security Framework