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

GB/T 20277-2015

**Information security technology -- Testing and evaluation
approaches of network and terminal separation products**

信息安全技术 网络和终端隔离产品测试评价方法

(English Translation)

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1 Scope

This Standard specifies testing and evaluation approaches of network and terminal separation products according to technical requirements of GB/T 20279-2015.

This Standard is applicable to testing and evaluation of network and terminal separation products developed according to security class requirements of GB/T 20279-2015.

2 Normative References

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) are applicable to this standard.

GB 17859-1999 Classified Criteria for Security Protection of Computer Information System

GB/T 20279-2015 Information Security Technology - Security Technical Requirements of Network and Terminal Separation Products

GB/T 25069-2010 Information Security Technology - Glossary

3 Terms and Definitions

For the purpose of this Standard, terms and definitions established in GB 17859-1999, GB/T 25069-2010 and GB/T 20279-2015 apply.

4.1.1 Terminal separation products

Security function and environmental adaptation testing environment are shown in Figure 1.

4.1.2 Network separation products

Security function and environmental adaptation testing environment are shown in Figure 2.

4.2 Performance Testing Environment

Performance testing environment is shown in Figure 4. A special performance tester is adopted, whose interface directly connects business interface of network and terminal separation products via network cable.

5.1.1 Classification of testing and evaluation approaches

In this Standard, according to technical requirements of GB/T 20279-2015, requirements for testing and evaluation approaches of network and terminal separation products are classified into four categories.

5.2.1.1 Access control

5.2.1.1.3

Attribute query

Testing and evaluation approaches and expected results of attribute query of terminal separation products are as follows.

5.2.1.1.4

Access authorization and rejection

Testing and evaluation approaches and expected results of access authorization and rejection of terminal separation products are as follows.

5.2.1.1.5

Switching signal consistency

Testing and evaluation approaches and expected results of switching signal consistency of

terminal separation products are as follows.

5.2.1.1.6

Password protection

Testing and evaluation approaches and expected results of password protection of terminal separation products are as follows.

5.2.1.1.7

Physical isolation of memory and USB port

Testing and evaluation approaches and expected results of physical isolation of memory and USB port of terminal separation products are as follows.

5.2.2.1.6 Switching signal consistency

Testing and evaluation approaches and expected results of switching signal consistency of terminal separation products are as follows.

5.2.2.1.7 Illegal replacement of hard disk

Testing and evaluation approaches and expected results of illegal replacement of hard disk of terminal separation products are as follows.

5.3.1.4 Identification and authentication

5.3.1.4.1

Definition of basic security attribute

Testing and evaluation approaches and expected results of definition of basic security attribute of network separation products are as follows.

5.3.1.4.2

Attribute initialization

Testing and evaluation approaches and expected results of attribute initialization of network separation products are as follows.

5.3.1.5 Audit

5.3.1.5.1

Audit data generation

Testing and evaluation approaches and expected results of audit data generation of network separation products are as follows.

5.3.1.8 Data integrity

Testing and evaluation approaches and expected results of data integrity of network separation products are as follows.

5.3.1.9 Cryptographic support

Testing and evaluation approaches and expected results of cryptographic support of network separation products are as follows.

5.4.2.7 Fault tolerance

Testing and evaluation approaches and expected results of fault tolerance of network unilateral transmission products are as follows.

5.4.2.8 Configuration data protection

Testing and evaluation approaches and expected results of configuration data protection of network unilateral transmission products are as follows.

6.1.1.1 Version number

Testing and evaluation approaches and expected results of version number are as follows.

6.1.1.2 Configuration item

Testing and evaluation approaches and expected results of configuration item are as follows.

6.1.2.1 Delivery program

Testing and evaluation approaches and expected results of delivery program are as follows.

6.1.3.1 Non-formalized functional specification

Testing and evaluation approaches and expected results of non-formalized functional specification are as follows.

6.1.6.1 Product security function strength assessment

Testing and evaluation approaches and expected results of product security function strength assessment are as follows.