Indian Standard

BANKING — SECURE CRYPTOGRAPHIC DEVICES (RETAIL)

PART 1 CONCEPTS, REQUIREMENTS AND EVALUATION METHODS

1 Scope

This part of ISO 13491 specifies the requirements for secure cryptographic devices (SCDs) based on the cryptographic processes defined in ISO 9564, ISO 16609 and ISO 11568.

This part of ISO 13491 has two primary purposes:

- to state the requirements concerning both the operational characteristics of SCDs and the management of such devices throughout all stages of their life cycle, and
- to standardize the methodology for verifying compliance with those requirements.

Appropriate device characteristics are necessary to ensure that the device has the proper operational capabilities and provides adequate protection for the data it contains. Appropriate device management is necessary to ensure that the device is legitimate, that it has not been modified in an unauthorized manner (e.g. by “bugging”) and that any sensitive data placed within the device (e.g. cryptographic keys) has not been subject to disclosure or change.

Absolute security is not achievable in practical terms. Cryptographic security depends upon each life cycle phase of the SCD and the complementary combination of appropriate management procedures and secure cryptographic characteristics. These management procedures implement preventive measures to reduce the opportunity for a breach of SCD security. These aim for a high probability of detection of any unauthorized access to sensitive or confidential data, should device characteristics fail to prevent or detect the security compromise.

Annex A provides an informative illustration of the concepts of security levels described in this part of ISO 13491 as being applicable to SCDs.

This part of ISO 13491 does not address issues arising from the denial of service of an SCD.

Specific requirements for the characteristics and management of specific types of SCD functionality used in the retail financial services environment are contained in ISO 13491-2.

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.

ISO 11568-1, *Banking — Key management (retail) — Part 1: Principles*

ISO 11568-2:2005, *Banking — Key management (retail) — Part 2: Symmetric ciphers, their key management and life cycle*

ISO 11568-4, *Banking — Key management (retail) — Part 4: Key management techniques using public key cryptosystems*

ISO 13491-2, *Banking — Secure cryptographic devices (retail) — Part 2: Security compliance checklists for devices used in financial transactions*