

SINGAPORE STANDARD

Management of end-of-life ICT equipment



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Foreword

This Singapore Standard was prepared by the Recycling Working Group under the purview of the Technical Committee on Green IT and approved by the Information Technology Standards Committee.

This standard specifies the requirements of a certifiable management system for organisations to responsibly handle ICT equipment no longer in use. It provides organisations with a recognised framework to manage end-of-life ICT equipment so as to reduce environmental impact. The framework is aligned with established international management system standards, and is based on the Plan-Do-Check-Act continual improvement approach.

Acknowledgement is made to the individuals and organisations that provided feedback and comments during the development of this standard.

Attention is drawn to the possibility that some of the elements of this Singapore Standard may be the subject of patent rights. Enterprise Singapore shall not be held responsible for identifying any or all of such patent rights.

NOTE

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Singapore Standard for management of end-of-life ICT equipment

0 Introduction

0.1 General

This certifiable Singapore Standard for management of end-of-life ICT equipment enables all organisations, regardless of their size, location and the nature of their business, to manage Information and Communication Technology (ICT) equipment no longer in use in a socially and environmentally responsible manner. This standard emphasises the management of end-of-life ICT equipment, which encompasses reuse, repair, remanufacturing, salvage, material recovery and responsible disposal.

Common issues with ICT equipment irresponsibly disposed of by an organisation include the following (refer to Annex B for more details including material characteristics and risk factors of various types of ICT equipment):

- Environmental, health and safety issues, such as, but not limited to:
 - Land, water and air pollution;
 - Impact to human health and safety; and
 - Loss of valuable raw material, resulting in natural resource depletion and environmental degradation from additional raw material exploitation;
- Illegal import and export violates international environmental regulations; and
- Personal and business information security is threatened by potential leakage/loss of data stored in the equipment.

The successful implementation of this standard in an organisation starts with management commitment towards the adoption of the standard, which entails:

- Establishing policies and adopting best practices (see Annex C for some examples) to responsibly manage ICT equipment no longer in use;
- Driving awareness and training programmes within the organisation; and
- Demonstrating compliance and conformance with the requirements of this standard.

0.2 Process approach

This standard is based on a Plan-Do-Check-Act (PDCA) approach which enables organisations to plan, develop, implement, monitor, review and continuously improve their activities associated with end-of-life ICT equipment management.

Figure 1 illustrates the key components of this approach.

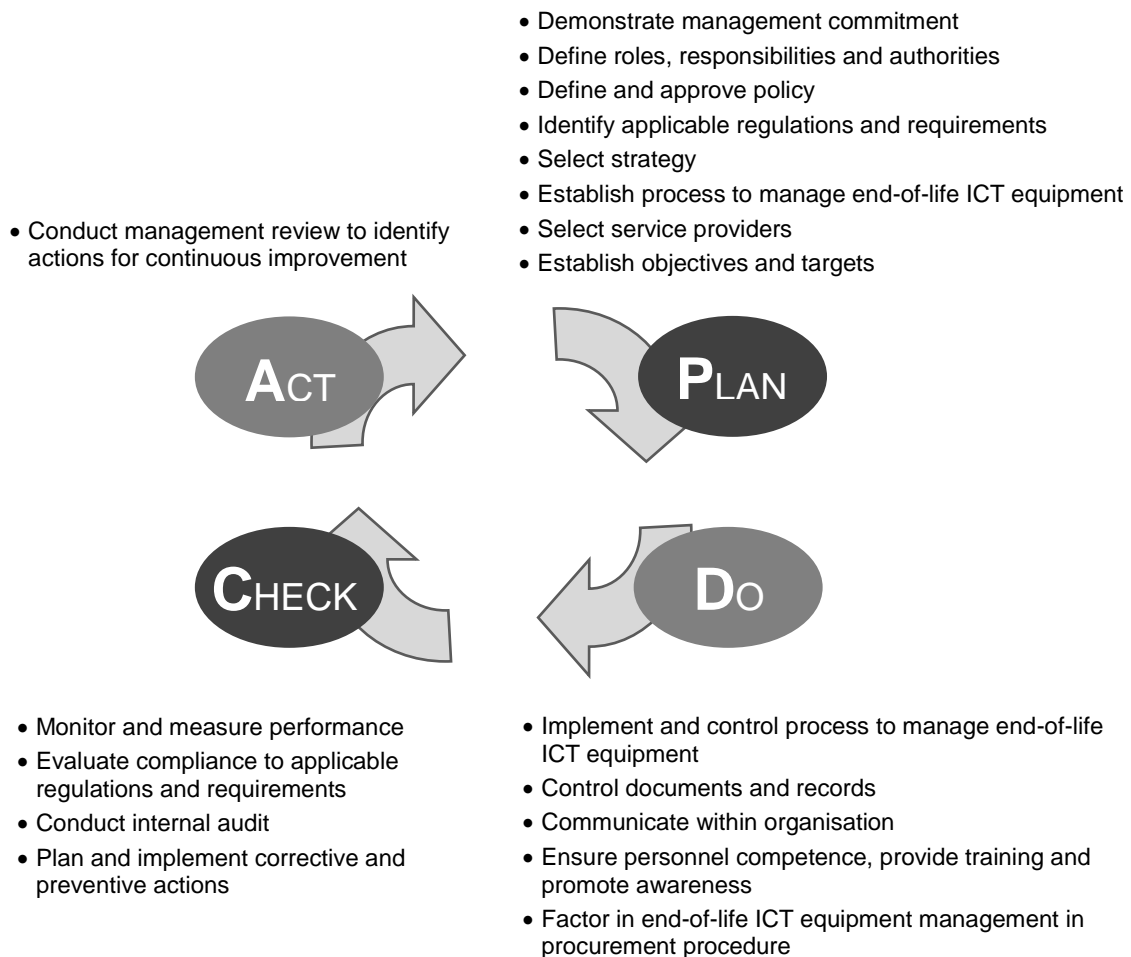


Figure 1 – End-of-life ICT equipment management PDCA approach

1 Scope

This standard specifies the requirements of a certifiable management system for organisations to responsibly handle ICT equipment no longer in use. It emphasises the following methods of managing end-of-life ICT equipment: reuse, repair, remanufacturing, salvage, material recovery, and responsible disposal.

The scope of ICT equipment covered by this standard includes personal computers (PCs) and associated displays, mobile phones and devices, printers and peripherals, and other accessories. This encompasses desktop computers, notebook / laptop computers and computer monitors, including cathode ray tube (CRT) monitors, liquid crystal display (LCD) monitors, and light-emitting diode (LED) monitors, etc.

This standard applies to all organisations, including small and medium size enterprises (SME), as well as large and multi-national enterprises.

2 Normative references

No normative references are cited.