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# Information technology — Security techniques — Selection, deployment and operations of intrusion detection systems

Technologies de l'information — Techniques de sécurité — Sélection, déploiement et opérations des systèmes de détection d'intrusion



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## Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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## Introduction

Organizations should not only know when, if, and how an intrusion of their network, system or application occurs, they also should know what vulnerability was exploited and what safeguards or appropriate risk treatment options (i.e. risk transfer, risk acceptance, risk avoidance) should be implemented to prevent similar intrusions in the future. Organizations should also recognize and deflect cyber-based intrusions. This requires an analysis of host and network traffic and/or audit trails for attack signatures or specific patterns that usually indicate malicious or suspicious intent. In the mid-1990s, organizations began to use Intrusion Detection Systems (IDS) to fulfil these needs. The general use of IDS continues to expand with a wider range of IDS products being made available to satisfy an increasing level of organizational demands for advanced intrusion detection capability.

In order for an organization to derive the maximum benefits from IDS, the process of IDS selection, deployment, and operations should be carefully planned and implemented by properly trained and experienced personnel. In the case where this process is achieved, then IDS products can assist an organization in obtaining intrusion information and can serve as an important security device within the overall information and communications technology (ICT) infrastructure.

This International Standard provides guidelines for effective IDS selection, deployment and operation, as well as fundamental knowledge about IDS. It is also applicable to those organizations that are considering outsourcing their intrusion detection capabilities. Information about outsourcing service level agreements can be found in the IT Service Management (ITSM) processes based on ISO/IEC 20000.