

INTERNATIONAL
STANDARD

ISO/IEC
27039

First edition
2015-02-15

Corrected version
2016-05-01

**Information technology — Security
techniques — Selection, deployment
and operations of intrusion detection
and prevention systems (IDPS)**

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



Reference number
ISO/IEC 27039:2015(E)

© ISO/IEC 2015



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2015, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Terms and definitions	1
3 Background	5
4 General	5
5 Selection	6
5.1 Introduction	6
5.2 Information security risk assessment	7
5.3 Host or Network IDPS	7
5.3.1 Overview	7
5.3.2 Host-based IDPS (HIDPS)	7
5.3.3 Network-based IDPS (NIDPS)	7
5.4 Considerations	8
5.4.1 System environment	8
5.4.2 Security protection mechanisms	8
5.4.3 IDPS security policy	8
5.4.4 Performance	9
5.4.5 Verification of capabilities	10
5.4.6 Cost	10
5.4.7 Updates	11
5.4.8 Alert strategies	12
5.4.9 Identity management	12
5.5 Tools that complement IDPS	13
5.5.1 Overview	13
5.5.2 File integrity checkers	14
5.5.3 Firewall	14
5.5.4 Honeypots	15
5.5.5 Network management tools	15
5.5.6 Security Information Event Management (SIEM) tools	15
5.5.7 Virus/Content protection tools	16
5.5.8 Vulnerability assessment tools	16
5.6 Scalability	17
5.7 Technical support	18
5.8 Training	18
6 Deployment	18
6.1 Overview	18
6.2 Staged deployment	19
6.3 NIDPS deployment	19
6.3.1 Overview	19
6.3.2 Location of NIDPS inside an Internet firewall	20
6.3.3 Location of NIDPS outside an Internet firewall	20
6.3.4 Location of NIDPS on a major network backbone	21
6.3.5 Location of NIDPS on critical subnets	21
6.4 HIDPS deployment	21
6.5 Safeguarding and protecting IDPS information security	22
7 Operations	22
7.1 Overview	22
7.2 IDPS tuning	23
7.3 IDPS vulnerabilities	23
7.4 Handling IDPS alerts	23
7.4.1 Overview	23