

Security Policy Guidelines

CSH5 Chapter 44

“Security Policy Guidelines”

M. E. Kabay & Bridgett Robertson

1

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Selected Topics in CSH5 Ch 44

- Terminology
- Resources for Policy Writers
- Writing the Policies
- Organizing the Policies
- Presenting the Policies
- Maintaining the Policies



2

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Terminology

- Policy
- Controls
- Standards
- Procedures



3

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Terminology (1)

- Policy
 - Rules and regulations set by the organization
 - Laid down by management
 - Mandatory, require compliance
 - Failure to follow policy results in disciplinary action
 - Policies focus on desired results, not on means for achieving them
- Controls – measures used to protect systems against specific threats

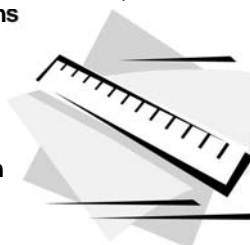


4

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Terminology (2)

- Standards
 - Accepted specification for hardware, software, or human actions
 - De facto* or *de jure*
 - Technical choices for implementing particular policies
 - Change more rapidly than policies
- Procedures
 - Prescribe how people are to behave in implementation policies

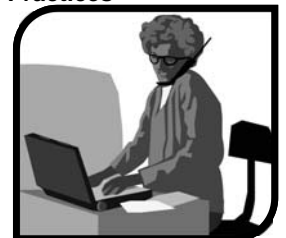


5

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Resources for Policy Writers

- ISO/IEC 27000
- COBIT
- Informal Security Standards
 - CERT-CC® Documentation
 - NSA Security Guidelines
 - US Federal Best Security Practices
 - RFC 2196
 - German Federal IT Baseline Protection Manual
- Commercially Available Policy Guides



6

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ISO 27000 (1)

➤ History

☐BS7799:

- ✓UK Dept. of Trade and Industry Feb 1995
- ✓Proprietary and expensive

☐BS7799 v2: May 1999

- ISO 17799 built on BS7799 – published 1999
- ISO 17799:2005 revised & published 2005 (duhhh)
- ISO/IEC 27000 replaced 17799:2005 in 2009
 - ☐Popular worldwide
 - ☐Costs of individual components ~100CHF (~€2, US\$109)
 - ☐Overview 27000 available free < <http://tinyurl.com/ye3rwro> >

7

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ISO 27000 (2)

Control objectives & controls for information security management

- ISO/IEC 27000 — Overview and Vocabulary
- ISO/IEC 27001 — Requirements
- ISO/IEC 27002 — Code of Practice
- ISO/IEC 27003 — Implementation Guidance
- ISO/IEC 27004 — Measurement
- ISO/IEC 27005 — Risk Management
- ISO/IEC 27006 — Certification Body Requirements
- ISO/IEC 27007 — Audit Guidelines
- ISO/IEC 27011 — Telecommunications Organizations
- ISO 27799 — Health Organizations

8

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The screenshot shows the IEC Webstore interface. At the top, there's a navigation bar with 'Webstore' and the URL 'http://webstore.iec.ch/'. Below that, there are search and login options. The main content area features a 'Welcome to the IEC Webstore' message and a list of products, including 'Electrical apparatus for explosive atmospheres', 'Energy and heat transfer engineering', 'Safety', 'Switchgear and controlgear', 'Household', 'Medical Equipment', 'Testing', 'Electromagnetic compatibility', 'Electrical wires and cables', and 'Audio, video and audiovisual engineering'. There's also a 'Webstore news' section with information about new releases and discounts.

COBIT (1)



- Control Objectives for Information and Related Technology (ISACA)
- Business-oriented set of standards for guiding management in sound use of IT
- COBIT Overview
 - ☐Executive summary
 - ☐Framework
 - ✓IT objectives
 - ✓Control functions in IT
 - ☐Business requirements for information

10

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COBIT (2)



- Control objectives
 - ☐Planning and organization
 - ☐Acquisition and implementation
 - ☐Delivery and support
 - ☐Monitoring
- Audit guidelines
- Implementation tool set
 - ☐Executive overview
 - ☐Guide to implementation
 - ☐Case studies describing COBIT implementation
 - ☐FAQs
 - ☐Slide presentations for implementing/selling COBIT
- Management guidelines

11

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The screenshot shows the ISACA website's 'Obtain COBIT' page. The top navigation bar includes 'ABOUT ISACA', 'MEMBERSHIP', 'CERTIFICATION', 'EDUCATION', 'KNOWLEDGE CENTER', 'JOURNAL', and 'BOOKS'. The main content area features a search bar and a list of COBIT products. There are sections for 'COBIT Publications and Products', 'COBIT Online', 'Training', 'Development', 'COBIT FAQs', 'Case Studies', 'Articles and Recognition', 'Accolades', 'COBIT Acknowledgements', 'COBIT Feedback', and 'COBIT Focus'. There are also sections for 'COBIT Brochures' and 'COBIT-Related Publications'. The page is designed to provide users with information on how to obtain COBIT standards and related resources.

CERT/CC® Documentation



Computer Emergency Response Team
Coordination Center® of the Software
Engineering Institute at Carnegie Mellon
University in Pittsburgh, PA

- Security for IT
- Service contracts
- Securing desktop workstations
- Responding to intrusions
- Securing network servers
- Deploying firewalls
- Securing public Web servers
- Detecting signs of intrusion



13

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US Government Documents



- NIST Special Publications
 - ❑ <http://csrc.nist.gov/publications/PubsSPs.html>
 - ❑ Or <http://tinyurl.com/23jst6>
- NSA Security Guidelines Handbook
 - ❑ <http://www.tscm.com/NSAsecmanual1.html>
 - ❑ Or <http://tinyurl.com/6q3q2ch>
 - ❑ Initial security responsibilities
 - ❑ General responsibilities
 - ❑ Helpful information
- Federal Information Processing Standards (FIPS)
 - ❑ <http://www.itl.nist.gov/fipspubs/index.htm>
 - ❑ Or <http://tinyurl.com/agmwvl>



15

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US Federal Best Security Practices (1)



- Federal Chief Information Security Officers (CISO) Council
 - ❑ Best Practices Committee (BPC)
 - ❑ Sharing best ideas/practical experiences
- Many useful PDF documents available free; e.g.,
 - ❑ Best Practices
 - ❑ Enterprise Architecture
 - ❑ IT Security/Privacy
 - ❑ GAO (Government Accountability Office) Reports
 - ❑ IT Related Laws & Regulations

16

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US Federal Best Security Practices (2)



<http://www.cio.gov/>

RFC 2196 – from IETF (1)



- Classic document (1997)
 - ❑ Replaced RFC 1244 (1991)
 - ❑ Still useful!
 - ❑ IETF: Internet Engineering Task Force
- Introduction
- Security Policies <http://www.ietf.org/rfc.html>
- Architecture
- Security services and procedures
 - ❑ Security incident handling
 - ❑ Ongoing activities
 - ❑ Tools and locations
 - ❑ Mailing lists and other resources
 - ❑ References

18

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[RFC Index | Usenet FAQs | Web FAQs | Documents | Cities]

Alternate Formats: rfc2196.txt.pdf

Comment on RFC 2196

RFC 2196 - Site Security Handbook

Search the Archives

Display RFC by number

Search RFCs

Display RFC By Number

RFC2196 - Site Security Handbook

<http://datatracker.ietf.org/doc/rfc2196/>

Network Working Group
Request for Comments: 2196
FYI: 8
Obsoletes: 1244
Category: Informational

B. Fraser
Editor
SEI/CMU
September 1997

Site Security Handbook



RFC 2196 (3)

Site Security Handbook

Status of this Memo

<http://www.fags.org/rfcs/rfc2196.html>
Also avail in PDF & plain text

This memo provides information for the Internet community. It does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

Abstract

This handbook is a guide to developing computer security policies and procedures for sites that have systems on the Internet. The purpose of this handbook is to provide practical guidance to administrators trying to secure their information and services. The subjects covered include policy content and formation, a broad range of technical system and network security topics, and security incident response.

IT Baseline Protection Manual (1)



German Information Security Agency
English version updated 2005

- Stand-alone systems
- Networked systems
- Communications
- Infrastructure
- Methodologies



Bundesamt für Sicherheit in der Informationstechnik



Federal Office for Information Security

21

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IT Baseline Protection Manual (2)



<http://tinyurl.com/6kyor15>

the BSI | topics | press | publications

IT-Grundschatz

IT-Grundschatz Home
BSI-Standards
IT-Grundschatz Catalogues
IT-Grundschatz GSTDOL
IT-Grundschatz Certification
IT-Grundschatz Profiles
IT-Security Guidelines
Source of supply
Contact

IT-Grundschatz

The aim of IT-Grundschatz is to achieve an appropriate security level for all types of information of an organisation. IT-Grundschatz uses a holistic approach to this process. Through proper application of well-proven technical, organisational, personnel, and infrastructural safeguards, a security level is reached that is suitable and adequate to protect business-related information having normal protection requirements. In many areas, IT-Grundschatz even provides advice for IT systems and applications requiring a high level of protection.

Note:

Since 2005 the "IT-Grundschatz Manual" is called "IT-Grundschatz Catalogues". You will find in the IT-Grundschatz Catalogues the modules, threats and safeguards. The IT-Grundschatz Methodology and the Risk analysis based on IT-Grundschatz you will find in the BSI-Standards.

IT-Grundschatz international:

You will find more IT-Grundschatz documents in other languages at the IT-Grundschatz International website. The IT-Grundschatz Catalogues are still available as "IT-Grundschatz-kataloge" in German on which this English version is based on.

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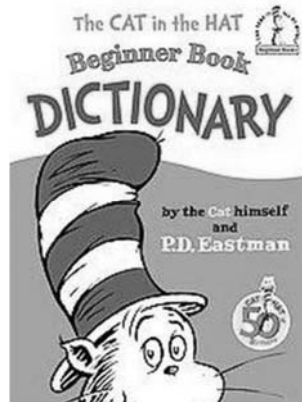
22

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Commercially Available Policy Guides



- ISPME
- Tom Peltier's Text
- SANS Resources



23

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ISPME (Charles Cresson Wood)



- <http://www.informationshield.com/ispmain.htm>
- Best in the field
- \$800 and worth every penny
- Given to every graduating MSIA student in 2004* at Norwich University as graduation gift!



Version 11

* First year that MSIA students graduated

24

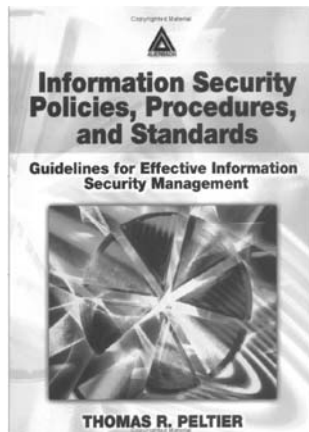
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Tom Peltier's Text

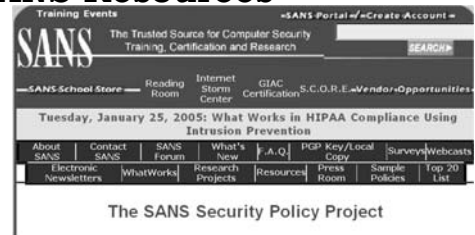
- Useful
- Inexpensive
- Well-respected industry expert
- Professor in NU MSIA



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SANS Resources



- <http://www.sans.org>
- Security Essentials courses
- Step-by-step guides
- SANS Security Policy Project (free)
 - ❑ <http://www.sans.org/resources/policies/>
 - ❑ Collaborative compilation of policies

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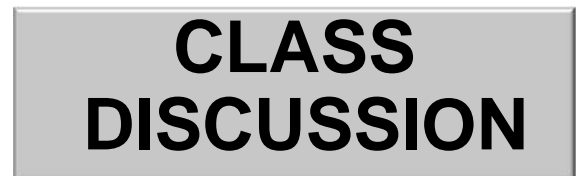
Policy Style

- Why Does Style Matter?
- Writing the Policies
- Organizing the Policies
- Presenting the Policies
- Maintaining the Policies



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Why Does Style Matter?



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Writing the Policies

- Orientation: *prescriptive* and *proscriptive*
 - ❑ Clear, definite, unambiguous
- Writing style
 - ❑ Short, simple declarative sentences
- Reasons
 - ❑ Explain why policies make sense
 - ❑ Optional explanations
- Indexing
 - ❑ Many different ways of locating specific policies



SCRIPTORIUM MONK AT WORK. (From Lacerte.)

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Organizing the Policies

- Topical organization
 - ❑ Sequence corresponding to model of perception of security; e.g., outside-in
- Organizational
 - ❑ Create special-purpose documents aimed at particular groups
- Hierarchical
 - ❑ Learn from military standards
 - ❑ Increasing detail at lower levels



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Presenting the Policies

- Printed text
 - ❑ Huge loose-leaf binders; or
 - ❑ Short paper documents; or
 - ❑ Reference cards, summary sheets, stickers, posters
 - ❑ Updating a headache
- Electronic one-dimensional text
 - ❑ E-mail updated versions periodically
- Hypertext
 - ❑ HTML and XML
 - ❑ RTF and word processor files
 - ❑ PDF, help files



31

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Maintaining the Policies

- Review process
 - ❑ Employees suggest improvement
 - ❑ Committees update policy
- Announcing changes
 - ❑ Circulate drafts for input – sense of policy ownership for employees
 - ❑ Major changes announced by high-level staff with explanations
 - ❑ Distribute changes automatically through electronic access



32

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Review Questions

1. Distinguish among *policies, controls, standards, procedures* and give an example of each.
2. What are the advantages and disadvantages of using *industry-standard guidelines* such as CobiT or RFCs in creating policies?
3. Why is the *writing-style* of policies important for effectiveness?
4. Why can it be useful to give *reasons* for policies?
5. What are the benefits and costs of providing *different views* of policy for different sectors of the organization?
6. What are the pros and cons of *electronic vs paper* distribution of policies?
7. *Who* should be involved in *reviewing and modifying* policies and policy documents? *Why?*

33

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DISCUSSION

34

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