

# INTERNET AND PC WORKSTATION POLICIES AND PROCEDURES

---

A HANDIGUIDE<sup>®</sup>

*by*

***M. Victor Janulaitis***  
***Janco Associates, Inc.***  
***Park City, UT 84060***  
***(435) 940-9300 / FAX (435) 615-9302***  
***e-mail victor@e-janco.com***

---

## TABLE OF CONTENTS

---

<b>INTRODUCTION .....</b>	<b>3</b>
<b>ABOUT THE AUTHOR .....</b>	<b>5</b>
<b>ACKNOWLEDGMENTS .....</b>	<b>6</b>
<b>FOREWORD.....</b>	<b>7</b>
Scope And Applicability .....	11
Book Structure.....	11
Administrative Management.....	12
Technology Management.....	12
Asset Protection .....	13
Appendix.....	13
<b>ADMINISTRATIVE MANAGEMENT.....</b>	<b>15</b>
<b>MANAGEMENT OVERVIEW .....</b>	<b>17</b>
Base Assumptions And Objectives .....	18
<b>MANAGEMENT PROCESS.....</b>	<b>23</b>
Executive Management .....	23
General Operations Management .....	24
Individual Managers And Staff Members.....	24
Information Technology Resource Group.....	24
Technology Support Staff.....	25
Technology Resources and Information.....	26
Risk Analysis Program Components.....	27
Software Control and Security.....	28
Hardware Control and Security .....	28
Internet / Intranet Control and Security .....	28
Network Control and Security .....	29
Logical Access Controls .....	29
Software Development Controls.....	29

---

<b>RESPONSIBILITIES .....</b>	<b>31</b>
Manager, IT Support Resource Group .....	32
Manager, Enterprise Operational Group .....	33
Steering Committee .....	33
Manager Internet and PC Control and Security .....	33
All Enterprise Managers (Enterprise Groups, Departments and Divisions) .....	34
Asset Owners .....	35
Support Managers .....	38
Users .....	38
Help Desk .....	38
Outside Information Technology Services .....	40
Applicability .....	40
Responsibilities When Using Information Technology Services .....	41
Outside Information Technology Services - Basic Policies .....	43
Summary .....	45

---

<b>RISK ASSESSMENT PROGRAM .....</b>	<b>47</b>
Objective .....	48
Roles And Responsibilities .....	49
Executive Management and Steering Committee .....	49
Technology Support Group .....	50
Managers, All Enterprise User/Support Departments .....	51
IT Resource Group .....	51
Risk Analysis Scope And Frequency .....	52
Work Plan Basic Elements .....	53
Asset Inventory .....	53
Value Analysis .....	54
Threat/Vulnerability Analysis .....	54
Exposure Analysis .....	56
Calculation of Annual Loss Expectancy .....	56
Countermeasure Evaluation And Selection .....	57
Management Decision .....	58
Control Implementation .....	58
Effectiveness Review .....	59

---

<b>PERSONEL PRACTICES .....</b>	<b>61</b>
Job Description .....	61
Job Title .....	61
Hiring .....	66
Termination .....	67
Voluntary Termination .....	67
Job Abandonment .....	68
Involuntary Termination .....	68
Termination Actions .....	68
Training .....	69
Hardware Training .....	70
Operating System Training .....	71
Application Software Training .....	71
Sources of Training .....	72
Supplier Training .....	72

---

---

Local Experts .....	73
Third Party Training Organizations .....	73
User Support Center .....	73
Special Training .....	74
Enterprise Staff .....	74
Contractor Personnel .....	75

---

**INSURANCE ..... 76**

Objectives Of The Technology Insurance Program .....	77
Responsibilities .....	77
Risk Manager .....	78
Contracts/Hardware Services .....	79
Managers, All Departments .....	79
Risk Analysis Program .....	79
Purchased Equipment .....	80
Coverage .....	80
Power Fluctuations .....	80
Amount Of Insurance .....	81
Filing A Proof Of Loss .....	81
Leased Equipment .....	82
Amount Of Coverage .....	82
Review Of Lease Arrangements .....	82
Media Insurance .....	83
Media to Insure .....	83
Valuation Of Media .....	83
Business Interruption Insurance .....	84
Level Of Insurance .....	84
Blanket Property Insurance .....	85
Limits .....	85
Staff Member Dishonesty .....	85
Blanket Bond Coverage .....	85
Insurance For Errors And Omissions .....	86

---

**TECHNOLOGY MANAGEMENT ..... 87**

**JUSTIFICATION, ACQUISITION, AND SUPPORT ..... 89**

Guidelines .....	89
Functional Needs .....	90
Software Needs .....	91
Hardware Configuration .....	92
Back-up/Recovery .....	96
LAN Back-ups .....	96
Documentation .....	96
Supported Configurations .....	99
Support Organization .....	99
Registration .....	99
Hardware .....	100
Software .....	102
Connectivity .....	102
Hardware and Software Inventory .....	104
Adoption of Non-Standard Hardware or Software .....	104

---

<b>APPLICATION DEVELOPMENT .....</b>	<b>107</b>
What is an Application? .....	110
Relation to Support Groups .....	111
Project Conceptualization and Justification.....	112
Notifying the Information Technology Department .....	114
Technical Assistance.....	114
Project Approval .....	114
Selecting the Best Alternative.....	115
Development Assistance .....	116
Development .....	116
Monitoring .....	117
Testing .....	117
Final Certification.....	117
Installation .....	118
Implementation.....	118
Conversion.....	118
Training.....	119
Documentation.....	119
Support.....	119
Application Development - Small Development .....	120
Reasons for Documentation .....	120
Standards.....	121
Special Items.....	122
Application Development - Typical Development .....	123
Documentation.....	125
Departmental Reports .....	125
Typical Work Plan - Two Month Effort .....	126

---

<b>INTERNET, E-MAIL AND ELECTRONIC COMMUNICATION .....</b>	<b>129</b>
Electronic Mail .....	130
Bulletin Boards .....	130
Appropriate use of Equipment .....	131
Internet Access .....	131
Electronic Mail.....	132
Retention of E-Mail.....	133
Copyrighted Materials.....	133
Ownership of Information.....	133
Security.....	134

---

<b>LOCAL AREA NETWORKS (LANs) .....</b>	<b>135</b>
Features .....	135
Physical Components .....	137
Workstations .....	138
Network Cables .....	138
Network Adapters .....	138
File Servers .....	139
Network Peripherals .....	139
Network Operating System .....	139
Configuration .....	140
Users.....	140

---

---

Network Supervisors.....	140
Regular Network Users.....	140
Network Operators.....	141
Security.....	141
Directory Rights.....	142
Back-up.....	145

---

**BACK-UP & RECOVERY ..... 147**

Data Storage And Media Protection.....	149
Labeling.....	150
Storage.....	150
Retention Schedule.....	150
Disposal Of Sensitive Information.....	150
Back-up Program and Schedule.....	152
Creating a Back-up Program.....	153
Monitoring the Back-up Program.....	154
LAN/Wide Area Local Area Networks (WANs).....	155
Recovering From Back-up Media.....	156
Diskette Back-up.....	157
Hard Disk Back-up.....	157
Application Software Back-up.....	158
PC File Back-ups.....	159
Back-up Software.....	159
Documentation.....	159
Storage of Back-up.....	160
Naming Conventions.....	160

---

**SERVICE REQUESTS ..... 163**

Policies.....	165
Process.....	166
Opening A Service Request.....	167
Identify Need and Prepare Service Request.....	168
Log and Assess SR.....	169
Prioritize and Approve SR.....	169
Analyze SR and Design Solution.....	169
Review and Approve Design Solution.....	170
Modify Programs and Test.....	170
Conduct User Acceptance Testing.....	171
Move New/Modified Programs into Production.....	172
Implement Changes in User Environment.....	172
Close Service Request.....	172
Priority Setting.....	173
Service Request.....	173
Status Reporting.....	174

---

**SERVICE LEVEL AGREEMENT - TEMPLATE ..... 175**

Overview.....	175
SLA.....	176
Internal IT SLAs.....	176
External SLA.....	178
IT Obligations.....	178
End User Obligations.....	180

---

Sample Metrics .....	181
<hr/>	
<b>INTERNET .....</b>	<b>183</b>
Internet Characteristics.....	185
Electronic Mail (e-mail) .....	185
File Transfer Protocol (FTP) .....	185
Gopher .....	186
Home Page.....	186
TCP/IP Network Protocol.....	186
Telenet .....	187
USENET Newsgroups.....	187
World Wide Web (WWW).....	187
Security Concerns .....	188
Firewalls.....	189
Screening Router .....	190
Dual-Homed Gateway .....	191
Screening Router and Bastion Host.....	192
Encryption.....	192
Policy and Procedures .....	193
Pitfalls.....	194
Service Installation .....	194
Hardware .....	195
Software .....	195
<hr/>	
<b>ASSET PROTECTION .....</b>	<b>197</b>
<hr/>	
<b>CONTROLS.....</b>	<b>199</b>
Acceptable Uses for PCs and Controls.....	200
Risks Due to Lack of Controls.....	201
Types of Controls.....	203
Logging And Audit Trails.....	208
Accountability.....	208
Reconstruction of Events.....	208
Information to Be Recorded .....	209
Tracing Transactions .....	209
Support Information .....	210
Retention Period of Documentation and Audit Trail Data.....	210
Need for Source Documents.....	210
Audit Logs In The Mainframe Environment.....	210
Satisfactory Compliance .....	215
<hr/>	
<b>BUSINESS RESUMPTION PROGRAM .....</b>	<b>217</b>
Critical Function Analysis .....	219
BRP Procedures for Critical Data .....	219
Back-up Criteria .....	220
Back-up Procedures .....	220
Storage Criteria .....	221
Business Recovery Procedures .....	221
Requirements for Recovery.....	222

**TABLE OF CONTENTS**

---

Recovery Guidelines.....	223
Restoring Damaged Equipment.....	223
Recovery Management.....	224
Contingency Planning.....	224
Responsibilities.....	225
Planning Activities.....	228
Function Of Planning Activities.....	228
Development Activities.....	229
Planning Manual.....	229
Maintenance Activities.....	230
Plan Activation And Recovery.....	231

---

**SECURITY.....233**

PC Processing Area Classification.....	234
Criteria.....	235
Classification Categories.....	236
Workstations and Remote Terminals.....	237
Attended terminals.....	238
Unattended terminals.....	238
Management Control Tools.....	239
Staff Member Security.....	240
Review.....	240
Risky Practices.....	240
Violations.....	241
Management Action.....	241
Responsibilities.....	242
Sensitive Positions.....	243
Network Security.....	244
Vulnerabilities.....	244
Exploitation Techniques.....	245
Reasons for Security.....	245
Responsibilities.....	246

---

**FACILITY REQUIREMENTS .....249**

Physical Plan Considerations.....	249
Processing Location.....	250
Construction Standards.....	252
Protection From Water Damage.....	252
Air Conditioning.....	253
Entrances And Exits.....	254
Interior Furnishings.....	254
Fire Protection.....	255

---

**ACCESS CONTROL .....259**

Separation of Duties.....	259
Least Privilege.....	260
Individual Accountability.....	261
Category I - Processing Areas.....	262
Category II - Processing Areas.....	262
Category III - Processing Areas.....	262
Category IV - Processing Areas.....	262
Definitions Of PC Access Control Zones.....	263

Public Areas.....	263
Controlled Areas.....	263
Responsibilities.....	264
Levels Of Access Authority.....	264
Permanent Access.....	264
Temporary Access.....	264
Implementation Requirements.....	265
Protection Of Supporting Utilities.....	266
Resource Protection.....	267
Network Components.....	267
Wire Closets.....	267
Terminal And Remote Job Entry Devices.....	267
Dial-Up Controls.....	268
Message Authentication.....	269
Encryption.....	269
Exceptions.....	272
Software and Data.....	272
Resources To Be Protected.....	273
Basic Standards.....	275
Controllability.....	278
Integrity.....	278
<b>PASSWORDS.....</b>	<b>281</b>
Identification.....	281
Authentication.....	282
Standards for Passwords.....	282
Authorization Verification.....	283
<b>APPENDIX.....</b>	<b>285</b>
<b>GLOSSARY.....</b>	<b>287</b>
<b>ACQUISITION CHECKLIST.....</b>	<b>333</b>
<b>HARDWARE/SOFTWARE SUPPORTED FORMS.....</b>	<b>335</b>
Supported Software.....	336
Supported PCs - Standalone.....	337
Supported PCs - Networked.....	338
Supported Add-On Devices.....	339
Unsupported Hardware.....	340
Unsupported Software.....	341
<b>MICROSOFT OUTLOOK QUICK REFERENCE.....</b>	<b>343</b>
Overview.....	343
Getting Started With Outlook.....	343
Opening a Folder.....	343
Selecting and Reading a Message.....	344
Writing and Sending a Message.....	344

---

Creating a Group Mailing List.....	344
Creating a Private Folder .....	345
Using Message Finder.....	345
Sorting Messages .....	345
Selecting Multiple Messages .....	345
Changing a Password.....	346
Utilizing Your Tool Bar.....	347
Printing a Message.....	347
Getting Help.....	347

---

**LOTUS NOTES QUICK REFERENCE .....349**

---

**NETWARE.....361**

NetWare Basics .....	361
File Storage.....	362
Network Users .....	362
Network Security.....	363
Login/Logout.....	364
Passwords .....	365
Other NetWare Functions.....	366
Login Scripts.....	366
View or Create Mapped Drives .....	369
Send Messages to Others.....	370
Manage Files and Directories.....	372
Printing .....	378

---

**OTHER JANCO OFFERINGS.....383**

---

**INDEX.....385**