

INTERNATIONAL STANDARD

**ISO/IEC
24775**

First edition
2007-06

**Information technology –
Storage management**

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[ISO/IEC 24775:2007](https://standards.iteh.ai/catalog/standards/iec/7ed15195-51d6-4f20-92b9-2f0b3be79a76/iso-iec-24775-2007)

<https://standards.iteh.ai/catalog/standards/iec/7ed15195-51d6-4f20-92b9-2f0b3be79a76/iso-iec-24775-2007>



Reference number
ISO/IEC 24775:2007(E)



THIS PUBLICATION IS COPYRIGHT PROTECTED

Copyright © 2007 ISO/IEC, Geneva, Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester.

If you have any questions about ISO/IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Central Office
3, rue de Varembe
CH-1211 Geneva 20
Switzerland
Email: inmail@iec.ch
Web: www.iec.ch

About the IEC

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

About IEC publications

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigenda or an amendment might have been published.

- Catalogue of IEC publications: www.iec.ch/searchpub

The IEC on-line Catalogue enables you to search by a variety of criteria (reference number, text, technical committee,...). It also gives information on projects, withdrawn and replaced publications.

- IEC Just Published: www.iec.ch/online_news/justpub

Stay up to date on all new IEC publications. Just Published details twice a month all new publications released. Available on-line and also by email.

- Customer Service Centre: www.iec.ch/webstore/custserv

If you wish to give us your feedback on this publication or need further assistance, please visit the Customer Service Centre FAQ or contact us:

Email: csc@iec.ch
Tel.: +41 22 919 02 11
Fax: +41 22 919 03 00

ISO/IEC 24775:2007

<https://standards.iteh.ai/catalog/standards/iec/78415195-51d6-4f20-92b9-2f0b3be79a76/iso-iec-24775-2007>

INTERNATIONAL STANDARD

ISO/IEC 24775

First edition
2007-06

Information technology – Storage management

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

[ISO/IEC 24775:2007](https://standards.itih.ai/catalog/standards/iec/7ed15195-51d6-4f20-92b9-2f0b3be79a76/iso-iec-24775-2007)

<https://standards.itih.ai/catalog/standards/iec/7ed15195-51d6-4f20-92b9-2f0b3be79a76/iso-iec-24775-2007>



PRICE CODE **XC**

For price, see current catalogue

FOREWORD.....	22
INTRODUCTION	23
1 Scope	24
2 Normative References	25
2.1 International standards	25
2.2 Other specifications	25
3 Definitions, symbols, abbreviations, and conventions	26
3.1 Definitions	26
3.1.1	34
3.2 Symbols and abbreviations.....	40
3.3 Keywords	40
3.4 Conventions	41
4 Introduction	43
4.1 Preamble	43
4.2 Business rationale	43
4.3 Interface definition	43
4.4 Technology trends	45
4.5 Management environment.....	47
4.6 Architectural objectives	48
5 Overview	50
5.1 Base capabilities	50
5.1.1 General	50
5.1.2 Object Oriented	50
5.1.3 Messaging-based interface	52
5.2 Capabilities of this version	54
5.2.1 Overview.....	54
5.2.2 Determine and monitor the configuration of a SAN	54
5.2.3 Monitoring the health of key resources in a SAN	55
5.2.4 Monitoring the available performance of interconnections in a SAN	55
5.2.5 Monitoring and controlling the zones in a SAN.....	55
5.2.6 Discovering/monitoring/controlling the storage volumes in a SAN	55
5.2.7 Requiring authenticated clients in a SAN	55
5.3 Operational environment	56
5.4 Using this standard	57
5.5 Language bindings	57
6 Transport and reference model	58
6.1 Introduction	58
6.1.1 Overview.....	58
6.1.2 Language requirements.....	58
6.1.3 Communications requirements	58
6.1.4 XML Message Syntax and Semantics	58
6.2 Transport stack	59

6.3	Reference model	60
6.3.1	Overview.....	60
6.3.2	Roles for Interface Constituents	60
6.3.2.1	Client	60
6.3.2.2	Agent	60
6.3.2.3	CIM Server	61
6.3.2.4	Provider	61
6.3.2.5	Lock Manager	61
6.3.2.6	Directory Server.....	61
6.3.3	Cascaded Agents	61
7	Object model	62
7.1	Model overview (key resources)	62
7.1.1	Overview.....	62
7.1.2	Introduction to CIM UML Notation	62
7.2	Techniques	63
7.2.1	CIM fundamentals	63
7.2.2	Modelling profiles.....	66
7.2.3	Naming	67
7.2.4	Correlatable and Durable Names	68
7.2.4.1	Overview.....	68
7.2.4.2	Correlatable Names Formation.....	70
7.2.4.3	Testing equality of Correlatable Names.....	70
7.2.4.4	Standard Formats for Correlatable Names.....	70
7.2.4.5	Case Sensitivity	72
7.2.4.6	Preferred Correlatable Names.....	72
7.2.4.7	Concatenation	72
7.2.5	Events – CIM indications	73
7.2.5.1	Background	73
7.2.5.2	Using indications	73
7.2.5.3	Indication hierarchy	75
7.2.5.4	Agent/Provider Considerations.....	76
7.2.5.5	Client Considerations	77
7.2.5.6	Requirements	78
7.2.5.7	Implementation Considerations	78
7.2.6	Device Credentials	78
7.2.7	Recipe Conventions	79
7.2.7.1	Recipe Definition	79
7.2.7.2	Recipe Pseudo Code Conventions.....	79
7.2.7.3	Common Recipes	84
7.3	Profiles.....	85
7.3.1	Profile content.....	85
7.3.1.1	Profile and subprofile definition	85
7.3.1.2	Format for Profile Specifications.....	85
7.3.1.3	Registry of Profiles and Subprofiles	87
7.3.2	Common CIM Packages.....	89
7.3.2.1	Description.....	89
7.3.2.2	Physical Package “package”	89

7.3.2.3	Software Package	95
7.3.3	Common subprofiles.....	99
7.3.3.1	Overview.....	99
7.3.3.2	Access Points subprofile	99
7.3.3.3	Cluster Subprofile	103
7.3.3.4	Disk Drive subprofile.....	108
7.3.3.5	Extent Mapping subprofile	120
7.3.3.6	Location subprofile	124
7.3.3.7	Software Subprofile	127
7.3.3.8	Copy Services Subprofile	128
7.3.3.9	Job Control Subprofile	154
7.3.3.10	Pool Manipulation Capabilities and Settings Subprofile	160
7.3.3.11	LUN Creation Subprofile.....	183
7.3.3.12	Device Credentials subprofile.....	203
7.3.3.13	Backend Ports subprofile.....	208
7.3.3.14	LUN Masking and Mapping	215
7.3.4	Fabric.....	248
7.3.4.1	Fabric Profile	248
7.3.4.2	Switch Profile.....	297
7.3.5	Hosts	311
7.3.5.1	FC HBA Profile	311
7.3.6	Storage.....	325
7.3.6.1	Array Profile	325
7.3.6.2	In-Band Virtualization Profile	347
7.3.6.3	Storage Library Profile.....	362
7.3.7	Server Profile.....	384
7.3.7.1	Description.....	384
7.3.7.2	Standard dependencies	384
7.3.7.3	Profile dependencies.....	384
7.3.7.4	CIM Server requirements	385
7.3.7.5	Instance Diagram	386
7.3.7.6	Durable names and other correlatable IDs.....	387
7.3.7.7	Methods.....	387
7.3.7.8	Client considerations	388
7.3.7.9	Recipes.....	388
7.3.7.10	Instrumentation requirements.....	397
7.3.7.11	Required CIM Elements	399
7.3.7.12	Required properties for CIM Elements	399
7.3.7.13	Optional Subprofiles and Profiles.	406
7.3.7.14	ObjectManagerAdapter Subprofile	406
7.4	Cross Client considerations	410
7.4.1	Overview.....	410
7.4.1.1	HBA model	410
7.4.1.2	Switch model	411
7.4.1.3	Array model	411
7.4.1.4	Out of band virtualization model	413
7.4.1.5	Durable names	413

7.4.1.6	Fabric Topology (HBA, Switch, Array)	414
7.4.1.7	Storage Connections (FC HBA, Array)	420
7.4.1.8	Zoning	420
7.4.1.9	Fabric Route Discovery	421
7.4.1.10	Durable names	421
7.4.2	General recipes	421
7.4.2.1	Indications' Status	421
7.4.2.2	Listenable Instance Notification	422
7.4.2.3	Life Cycle Event Subscription description	422
7.4.2.4	Subscription for alert indications	423
7.4.2.5	Listenable Interface Modification Notification	423
7.4.2.6	Subscribe for Lifecycle Events where Operational Status Changes	423
7.4.2.7	Subscription for alert indications	424
8	Security	425
8.1	Introduction	425
8.2	Background	425
8.3	Requirements	426
8.3.1	General	426
8.3.2	Certificate usage with SSL 3.0 and TLS	426
8.3.2.1	Functional goals	426
8.3.2.2	Requirements	427
8.4	Modelling device credentials	428
8.4.1	General requirements	428
8.4.2	Instrumentation requirements	428
9	Service Discovery	429
9.1	Objectives	429
9.2	Overview	429
9.3	SLP messages	430
9.4	Scopes	431
9.5	Services definition	432
9.5.1	General	432
9.5.2	Service Type	432
9.5.3	Service Attributes	432
9.6	User Agents (UA)	434
9.7	Service Agents (SAs)	434
9.8	Directory Agents (DAs)	434
9.9	Service Agent Server (SA Server)	435
9.9.1	General Information	435
9.9.2	SA Server (SAS) Implementation	435
9.9.3	SA Server (SAS) Clients	435
9.9.3.1	Description	435
9.9.3.2	SAS Client Requests – SA Server Responses	436
9.9.4	SA Server configuration	436
9.9.4.1	Overview	436
9.9.4.2	SLP Configuration File	436
9.9.4.3	Programmatic configuration	436

9.9.4.4	DHCP configuration	437
9.9.4.5	Scope	437
9.9.5	SA Server discovery	437
9.9.6	SAS Client registration	437
9.10	'Standard WBEM' Service Type Templates.....	438
10	SMI-S Roles	442
10.1	Introduction	442
10.2	SMI-S Client.....	443
10.2.1	Overview.....	443
10.2.2	SLP functions	443
10.2.3	CIM-XML protocol functions	443
10.2.4	Security considerations	443
10.2.5	Lock management functions.....	443
10.3	Dedicated SMI-S Server	443
10.3.1	Overview.....	443
10.3.2	SLP functions	444
10.3.3	CIM-XML Protocol Functions.....	444
10.3.3.1	General.....	444
10.3.3.2	Required intrinsic methods	444
10.3.3.3	Required model support	445
10.3.4	Security considerations	445
10.3.5	Lock management functions.....	445
10.4	General Purpose SMI-S Server	445
10.4.1	Overview.....	445
10.4.2	SLP functions	445
10.4.3	CIM-XML Protocol functions.....	445
10.4.3.1	General.....	445
10.4.3.2	Required intrinsic methods	445
10.4.3.3	Required model support	446
10.4.3.4	Security considerations	446
10.4.4	Lock management functions.....	446
10.4.5	Provider Subrole.....	446
10.4.5.1	Overview.....	446
10.4.5.2	Required model support	446
10.5	Directory Server	446
10.5.1	General.....	446
10.5.2	SLP functions	446
10.5.3	CIM-XML Protocol functions.....	446
10.5.4	Security considerations	446
10.5.5	Lock management functions.....	446
10.6	Combined Roles on a Single System	446
10.6.1	Overview.....	446
10.6.2	General Purpose SMI-S Server as a Profile Aggregator	447
10.6.2.1	SLP functions	447
10.6.2.2	CIM-XML Protocol functions.....	447
10.6.2.3	Security considerations	447
10.6.2.4	Lock management functions.....	447

11	Installation and upgrade	448
11.1	Introduction	448
11.2	Role of the Administrator	448
11.3	Goals	448
11.3.1	Non-Disruptive Installation and De-installation	448
11.3.2	Plug-and-Play	448
11.4	Installing device support	449
11.4.1	General	449
11.4.2	Installation	449
11.4.3	Discovery and initialization of Device support	449
11.4.4	Removal/Update	450
11.4.5	Reconfiguration	450
11.4.6	Failure	451
11.5	Object manager	451
11.5.1	Installation	451
11.5.2	Multiple CIMOMs on a Single Server	451
11.5.3	Removal, reconfiguration and upgrade	452
11.5.4	Failure	452
11.6	Client	452
11.6.1	Removal	452
11.6.2	Reconfiguration	452
11.6.3	Failure	452
11.7	Directory Server	452
11.7.1	Installation	452
11.7.2	Removal/Failure	452
11.8	Management domains	452
11.8.1	General	452
11.8.2	Initial configuration	452
11.8.3	Reconfiguration	453
11.9	Lock manager	453
Annex A	(informative) Futures	454
A.1	Overview	454
A.2	HBA LUN masking and persistent binding	454
A.3	Managed Hub Section	454
A.4	IP Storage	454
A.5	Multi-Path Modelling	454
A.6	Provider Modelling	454
A.7	Non-Fibre Fabrics	454
A.8	Compliance notification	454
A.9	Cascaded Agents	455
A.10	Network Storage	455
A.11	Synchronization of file system elements through copy services	455
A.12	Model size distinctions in Disk Drive	455
A.13	Expanded extent mapping	455
A.14	Locking	455
A.15	Policy management	456
Annex B	(informative) Experimental Profiles	459

B.1	Overview	459
B.2	Common Profiles and Subprofiles.....	459
B.3	SML Subprofiles	462
B.4	Extender profile	498
B.5	Management Appliance profile.....	513
B.6	Out of Band Virtualizer Profile	521
B.7	JBOD Profile	546
B.8	Extra Capacity Set Subprofile	557
B.9	Host Discovered Resources Profile (EXPERIMENTAL)	563
B.10	Router Profile	584
Annex C	(informative) Mapping CIM Objects to SNMP MIB Structures.....	601
C.1	Purpose of this Annex	601
C.2	CIM-to-MIB Mapping Overview	601
C.3	CIM-to-MIB mapping methodology	601
C.4	Example mapping	604
Annex D	(normative) Compliance with this standard	622
D.1	Compliance statement	622
D.2	Compliance declaration.....	622
D.3	Server Profile and compliance	622
D.4	Example	622
Annex E	(informative) Optional Profiles and Subprofiles	624
E.1	Introduction	624
E.2	Provider Subprofile.....	624
Bibliography		631

(<https://standards.iteh.ai>)
Document Preview

ISO/IEC 24775:2007

<https://standards.iteh.ai/catalog/standards/iec/78/415195-51d6-4f20-92b9-2f0b3be79a76/iso-iec-24775-2007>

Table 1 – Standard dependencies for SMI-S.....	25
Table 2 – SLP properties	66
Table 3 – Standardized Name Formats	71
Table 4 – Profile components	86
Table 5 – Registry of profiles and subprofiles.....	88
Table 6 – Required CIM Elements.....	92
Table 7 – Required Properties for SystemPackaging.....	93
Table 8 – Required Properties for PhysicalPackage	93
Table 9 – Required Properties for Product	94
Table 10 – Required Properties for ProductPhysicalComponent.....	94
Table 11 – Required Properties for Container	95
Table 12 – Required Properties for ProductParentChild.....	95
Table 13 – Required Properties for Realizes	95
Table 14 – Required CIM Elements.....	98
Table 15 – Required Properties for InstalledSoftwareIdentity.....	98
Table 16 – Required Properties for SoftwareIdentity	99
Table 17 – RemoteAccessPoint.InfoFormat and AccessInfo Properties.....	101
Table 18 – Required CIM Elements.....	102
Table 19 – Required Properties for HostedAccessPoint.....	102
Table 20 – Required Properties for SAPAvailableForElement.....	103
Table 21 – Required Properties for RemoteServiceAccessPoint.....	103
Table 22 – Optional Profiles or Subprofiles	103
Table 23 – OperationStatus for Component ComputerSystem.....	106
Table 24 – Required CIM Elements.....	107
Table 25 – Required Properties for ComponentCS.....	107
Table 26 – Required Properties for ComputerSystem	108
Table 27 – Optional Profiles or Subprofiles	108
Table 28 – Required Functional Profiles.....	109
Table 29 – DiskDrive Status	111
Table 30 – Required CIM Elements.....	114
Table 31 – Required Properties for BasedOn.....	115
Table 32 – Required Properties for ConcreteComponent.....	115
Table 33 – Required Properties for Container	116
Table 34 – Required Properties for ProductParentChild.....	116
Table 35 – Required Properties for ElementSoftwareIdentity	116
Table 36 – Required Properties for DiskDrive.....	117
Table 37 – Required Properties for MediaPresent.....	117
Table 38 – Required Properties for PhysicalMedia.....	118
Table 39 – Required Properties for Realizes	118
Table 40 – Required Properties for RealizesExtent.....	119
Table 41 – Required Properties for SoftwareIdentity	119
Table 42 – Required properties for StorageExtent	120
Table 43 – Optional profiles or subprofiles	120
Table 44 – Required Functional Profiles.....	121
Table 45 – Required CIM Elements.....	123

Table 46 – Required Properties for BasedOn	123
Table 47 – Required Properties for ConcreteComponent	123
Table 48 – Required Properties for StorageExtent	124
Table 49 – Optional Profiles or Subprofiles	124
Table 50 – Required CIM Elements	126
Table 51 – Required Properties of Location	126
Table 52 – Required Properties for PhysicalElementLocation	127
Table 53 – Optional Profiles or Subprofiles	127
Table 54 – Required CIM Elements	128
Table 55 – Optional Profiles or Subprofiles	128
Table 56 – Copy Services Standard Dependencies	129
Table 57 – Required Functional Profiles	129
Table 58 – Name Formats	132
Table 59 – Subprofile Required Classes, Associations, Methods and Indications	146
Table 60 – Required Properties for ElementCapabilities	147
Table 61 – Required Properties for HostedService	147
Table 62 – Required Properties for StorageConfigurationService	148
Table 63 – Required Properties for StorageConfigurationCapabilities	148
Table 64 – Required Properties for StorageSynchronized	149
Table 65 – Required Properties for StorageCapabilities	150
Table 66 – Required Properties for ElementSettingData	153
Table 67 – Required Properties for StorageSetting	153
Table 68 – Copy Services Optional Subprofiles and Profiles	154
Table 69 – Job Control Services Standard Dependencies	155
Table 70 – Required Functional Profiles	155
Table 71 – Subprofile Required Classes, Associations, Methods and Indications	158
Table 72 – AffectedJobElement Required Properties	158
Table 73 – Required Properties for ConcreteJob	159
Table 74 – Required Properties for OwningJobElement	160
Table 75 – Optional Profiles or Subprofiles	160
Table 76 – Pool Manipulation Capabilities and Settings Standard Dependencies	161
Table 77 – Required Functional Profiles	162
Table 78 – Example RAID Mapping Table	169
Table 79 – Required CIM Elements	173
Table 80 – Required Properties for ElementCapabilities	174
Table 81 – Required Properties for StorageConfigurationService	174
Table 82 – Required Properties for StorageConfigurationCapabilities	174
Table 83 – Required Properties for StorageCapabilities	176
Table 84 – Required Properties for ElementSettingData	179
Table 85 – Required Properties for StorageSetting	179
Table 86 – Required Properties for StorageSettingWithHints	181
Table 87 – HostedService Required Properties	183
Table 88 – Optional Profiles or Subprofiles	183
Table 89 – LUN Creation Standard Dependencies	184

Table 90 – Required Functional Profiles	184
Table 91 – Required CIM Elements	202
Table 92 – Required Properties for StorageConfigurationService	202
Table 93 – Optional Profiles or Subprofiles	203
Table 94 – Device Credentials Standard Dependencies	203
Table 95 – Required Functional Profiles	204
Table 96 – Required CIM Elements	206
Table 97 – Required Properties for SharedSecretService	206
Table 98 – Required Properties for SharedSecret	206
Table 99 – SharedSecretIsShared Required Properties	207
Table 100 – HostedService Required Properties	207
Table 101 – Optional Profiles or Subprofiles	208
Table 102 – Device Credentials Standard Dependencies	208
Table 103 – Required Functional Profiles	209
Table 104 – Required CIM Elements	211
Table 105 – Required Properties for FCPort	211
Table 106 – Required Properties from ProtocolControllerForPort	213
Table 107 – Required Properties from ProtocolControllerAccessesUnit	213
Table 108 – Required Properties for SCSIProtocolController	213
Table 109 – Required Properties for StorageExtent	214
Table 110 – Required Properties for SystemDevice	214
Table 111 – Optional Profiles or Subprofiles	214
Table 112 – LUN Masking Standard Dependencies	215
Table 113 – Required Functional Profiles	216
Table 114 – Subprofile Required Classes, Associations, Methods and Indications	239
Table 115 – Required Properties for AuthorizedPrivilege	240
Table 116 – Required Properties for AuthorizedSubject	241
Table 117 – Required Properties for AuthorizedTarget	241
Table 118 – Required Properties for ConcreteDependency	241
Table 119 – Required Properties for ControllerConfigurationService	241
Table 120 – Required Properties for ElementSettingData	242
Table 121 – Required Properties for HostedCollection	242
Table 122 – Required Properties for HostedDependency	242
Table 123 – Required Properties for ProtocolControllerMaskingCapabilities	243
Table 124 – Required Properties for PrivilegeManagementService	245
Table 125 – Required Properties for StorageClientSettingData	246
Table 126 – Required Properties for StorageHardwareID	246
Table 127 – Required Properties for StorageHardwareIDManagementService	247
Table 128 – Required Properties for SystemSpecificCollection	247
Table 129 – Fabric Standard Dependencies	250
Table 130 – Required Functional Profiles	250
Table 131 – Durable Names Usage	254
Table 132 – Port OperationalStatus	254
Table 133 – OperationalStatus for ComputerSystem	254
Table 134 – Required CIM Elements	257
Table 135 – Required Properties for ActiveConnection	259

Table 136 – Required Properties for AdminDomain	259
Table 137 – Required Properties for Component	259
Table 138 – Required Properties for ComputerSystem	260
Table 139 – Required Properties for ContainedDomain	260
Table 140 – Required Properties for DeviceSAPImplementation	260
Table 141 – Required Properties for ElementCapabilities	261
Table 142 – Required Properties for ElementSettingData	261
Table 143 – Required Properties for FCPort	261
Table 144 – HostedAccessPoint	264
Table 145 – Required Properties for HostedCollection	264
Table 146 – Required Properties for ConnectivityCollection	264
Table 147 – Required Properties for LogicalPortGroup	264
Table 148 – Required Properties for MemberOfCollection	265
Table 149 – Required Properties for MemberOfCollection	265
Table 150 – Required Properties for ProtocolEndpoint	266
Table 151 – Required Properties for SystemDevice	266
Table 152 – Required Properties for Zone	266
Table 153 – Required Properties for ZoneCapabilities	267
Table 154 – Required Properties for ZoneMembershipSettingData	268
Table 155 – Required Properties for ZoneSet	268
Table 156 – Optional Profiles or Subprofiles	268
Table 157 – Required Functional Profiles	269
Table 158 – Required CIM Elements	283
Table 159 – Required Properties for HostedService	283
Table 160 – Required Properties for ZoneService	283
Table 161 – Optional Profiles or Subprofiles	284
Table 162 – Required CIM Elements	289
Table 163 – Required Properties for HostedCollection	289
Table 164 – Required Properties of MemberOfCollection	289
Table 165 – Required Properties for NamedAddressCollection	289
Table 166 – Required Properties for ZoneService	290
Table 167 – Optional Profiles or Subprofiles	290
Table 168 – Required CIM Elements	292
Table 169 – Required Properties for ControlledBy	292
Table 170 – Required Properties for ElementSoftwareIdentity	293
Table 171 – Required Properties for FCPort	293
Table 172 – Required Properties for LogicalPortGroup	295
Table 173 – Required Properties of MemberOfCollection	295
Table 174 – Required Properties for PortController	295
Table 175 – Required Properties of ProtocolControllerForPort	296
Table 176 – Required Properties for SCSIProtocolController	296
Table 177 – Switch Standard Dependencies	297
Table 178 – Required Functional Profiles	297
Table 179 – Required CIM Elements	300
Table 180 – Required Properties for ComputerSystem	300
Table 181 – Required Properties for ElementStatisticalData	302
Table 182 – Required Properties for FCPort	302