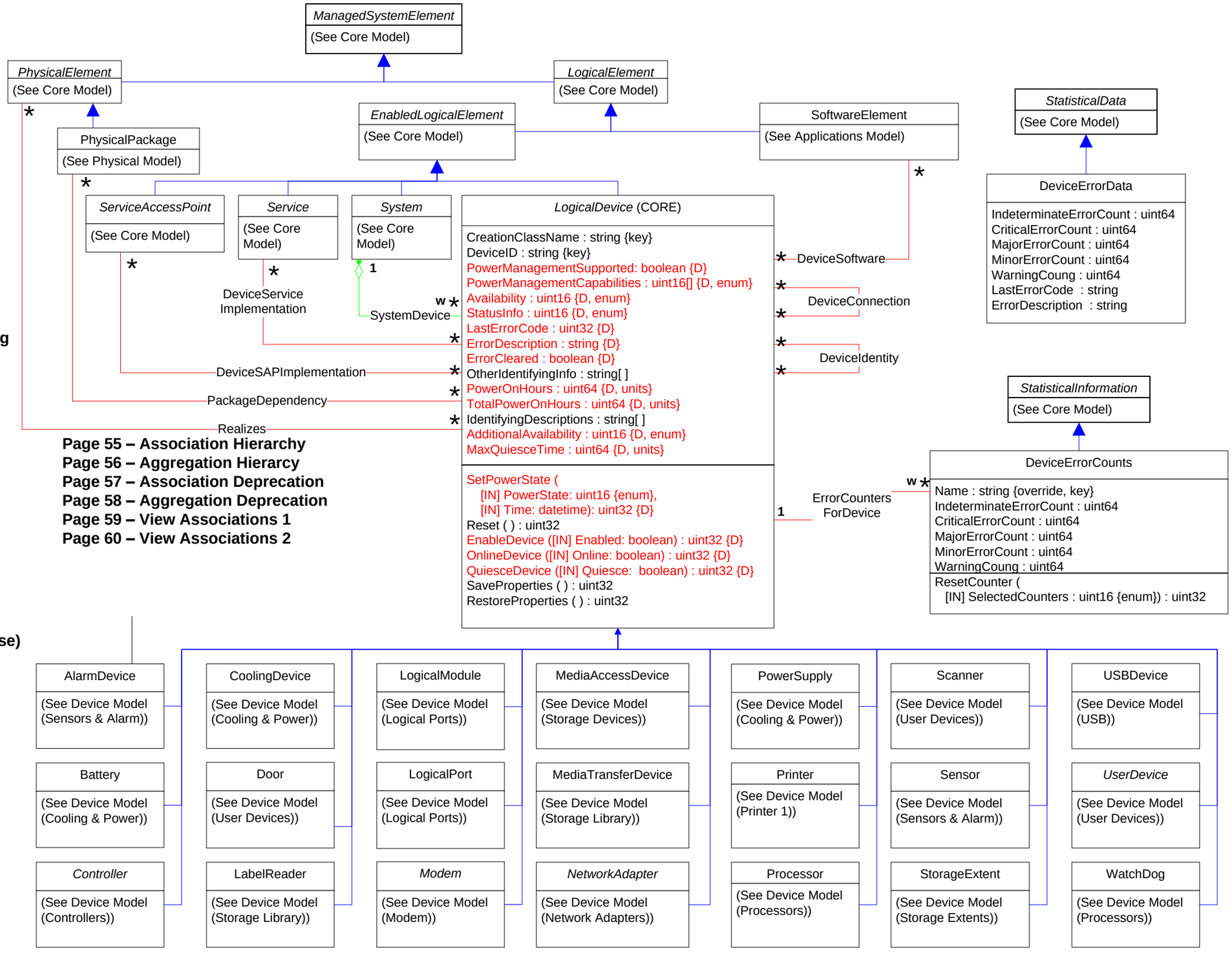
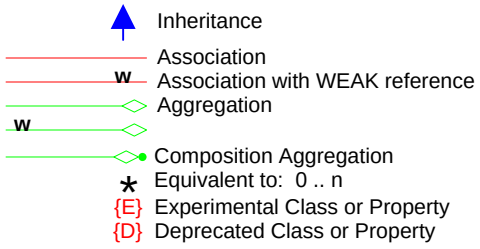
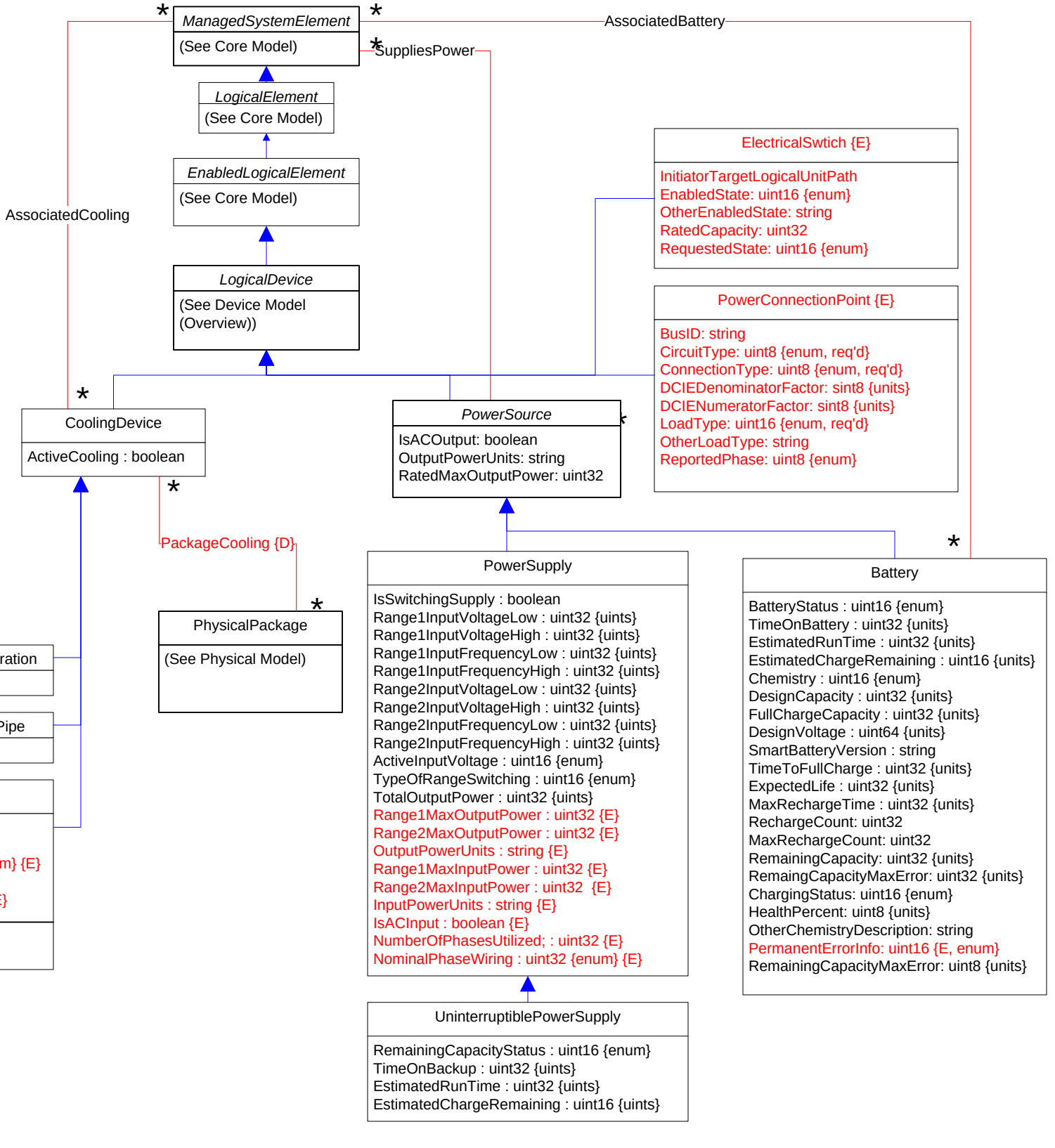
Title : Device Specification 2.31.0
Filename : CIM_Device.vsd
Author : DMTF Core Schema WG
Date : 15 November 2011

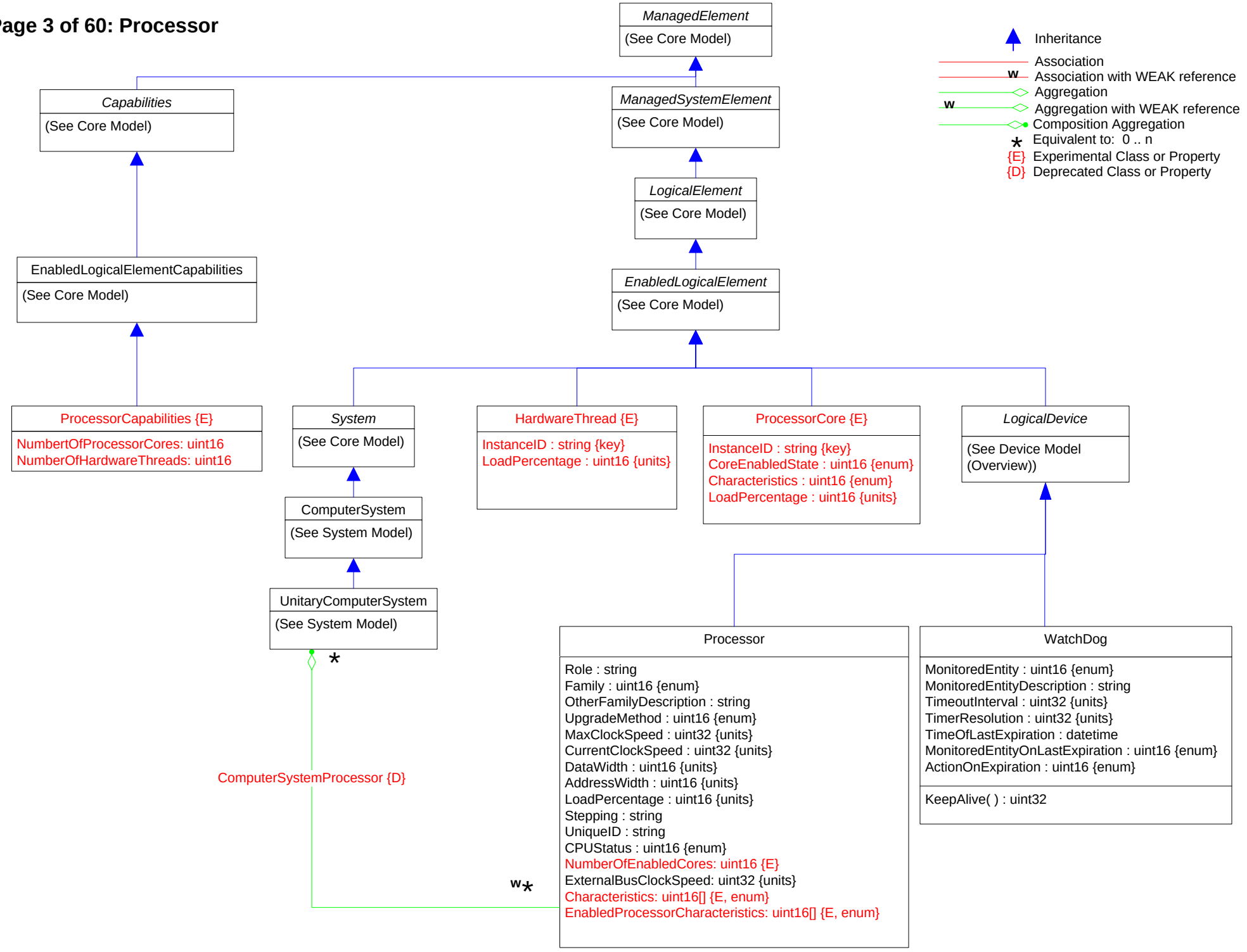


Page 2 of 60: Cooling & Power

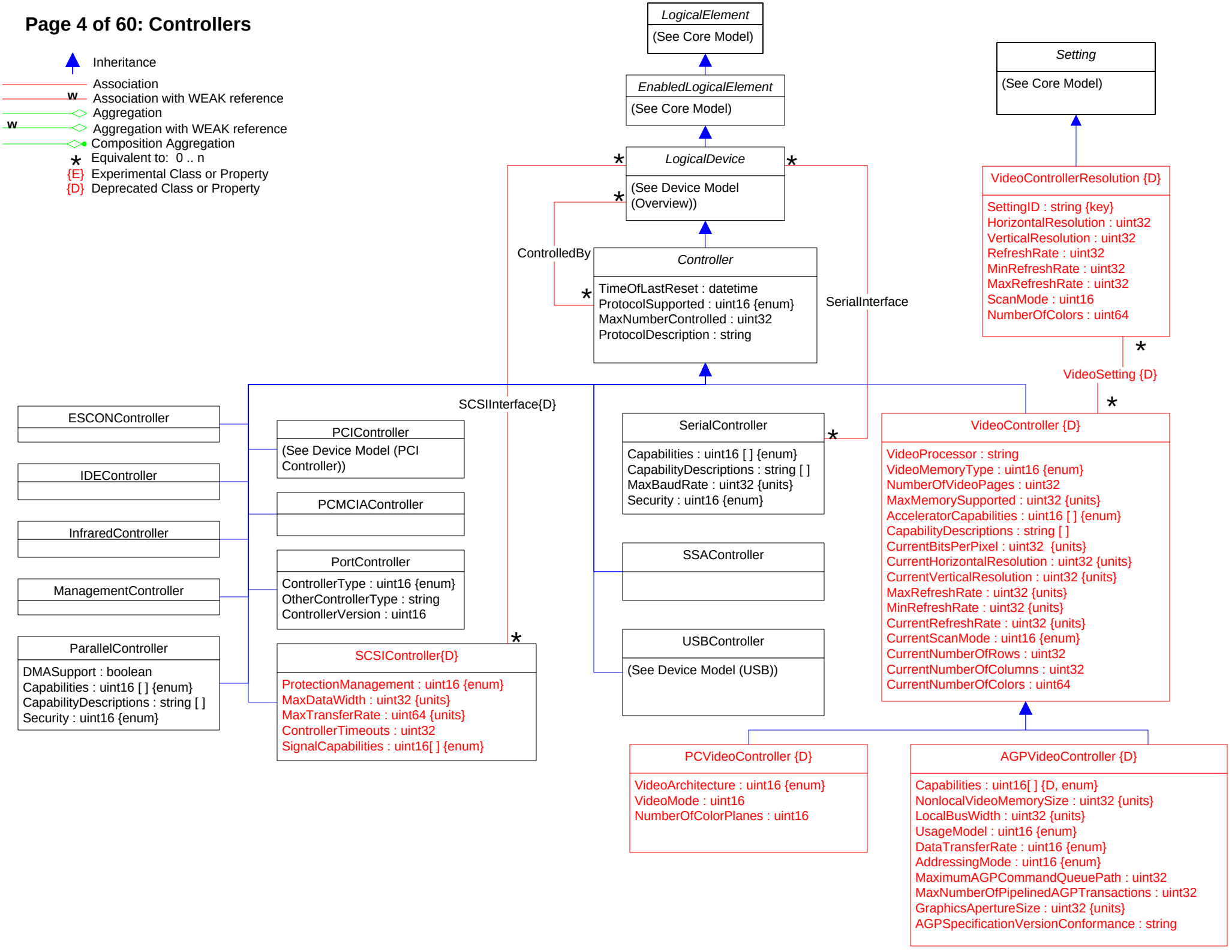




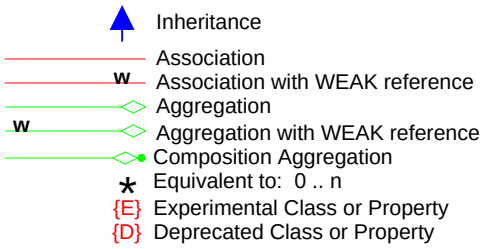
Page 3 of 60: Processor



Page 4 of 60: Controllers



Page 5 of 60: Video Controllers



LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

LogicalDevice
(See Device Model (Overview))

Controller
TimeOfLastReset : datetime
ProtocolSupported : uint16 {enum}
MaxNumberControlled : uint32
ProtocolDescription : string

Setting
(See Core Model)

VideoHead {E}
CurrentBitsPerPixel : uint32
CurrentHorizontalResolution : uint32
CurrentVerticalResolution : uint32
CurrentRefreshRate : uint32
MinRefreshRate : uint32
MaxRefreshRate : uint32
CurrentScanMode : uint16
OtherScanMode : string
CurrentNumberOfRows : uint32
CurrentNumberOfColumns : uint32
CurrentNumberOfColors : uint64

VideoHeadResolution {E}
HorizontalResolution : uint32
VerticalResolution : uint32
RefreshRate : uint32
MinRefreshRate : uint32
MaxRefreshRate : uint32
ScanMode : uint16
OtherScanMode : string
CurrentNumberOfColors : uint64

VideoControllerResolution {D}
SettingID : string {key}
HorizontalResolution : uint32
VerticalResolution : uint32
RefreshRate : uint32
MinRefreshRate : uint32
MaxRefreshRate : uint32
ScanMode : uint16
NumberOfColors : uint64

VideoHeadOn Controller {E}

DisplayController {E}
VideoProcessor : string
VideoMemoryType : uint16 {enum}
OtherVideoMemoryType : string
NumberOfVideoPages : uint32
MaxMemorySupported : uint32 {units}
AcceleratorCapabilities : uint16 [ ] {enum}
CapabilityDescriptions : string [ ]
Description: string
OtherVideoArchitecture: string
VideoArchitecture: uint16 {enum}

VideoSetting {D}
*
*

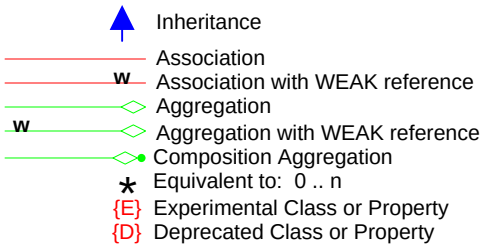
VideoController {D}
VideoProcessor : string
VideoMemoryType : uint16 {enum}
NumberOfVideoPages : uint32
MaxMemorySupported : uint32 {units}
AcceleratorCapabilities : uint16 [ ] {enum}
CapabilityDescriptions : string [ ]
CurrentBitsPerPixel : uint32 {units}
CurrentHorizontalResolution : uint32 {units}
CurrentVerticalResolution : uint32 {units}
MaxRefreshRate : uint32 {units}
MinRefreshRate : uint32 {units}
CurrentRefreshRate : uint32 {units}
CurrentScanMode : uint16 {enum}
CurrentNumberOfRows : uint32
CurrentNumberOfColumns : uint32
CurrentNumberOfColors : uint64

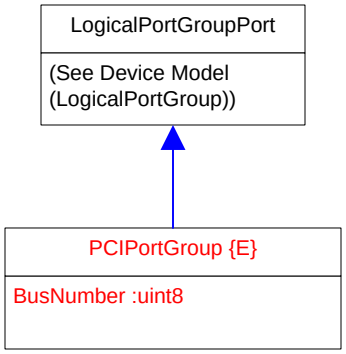
AGPVideoDisplayController {E}
NonlocalVideoMemorySize : uint32 {units}
LocalBusWidth : uint32 {units}
UsageModel : uint16 {enum}
OtherUsageModel : string
DataTransferRate : uint16 {enum}
OtherDataTransferRate : string
AddressingMode : uint16 {enum}
OtherAddressingMode : string
MaximumAGPCommandQueuePath : uint32
MaxNumberOfPipelinedAGPTransactions : uint32
GraphicsApertureSize : uint32 {units}
AGPSpecificationVersionConformance : string

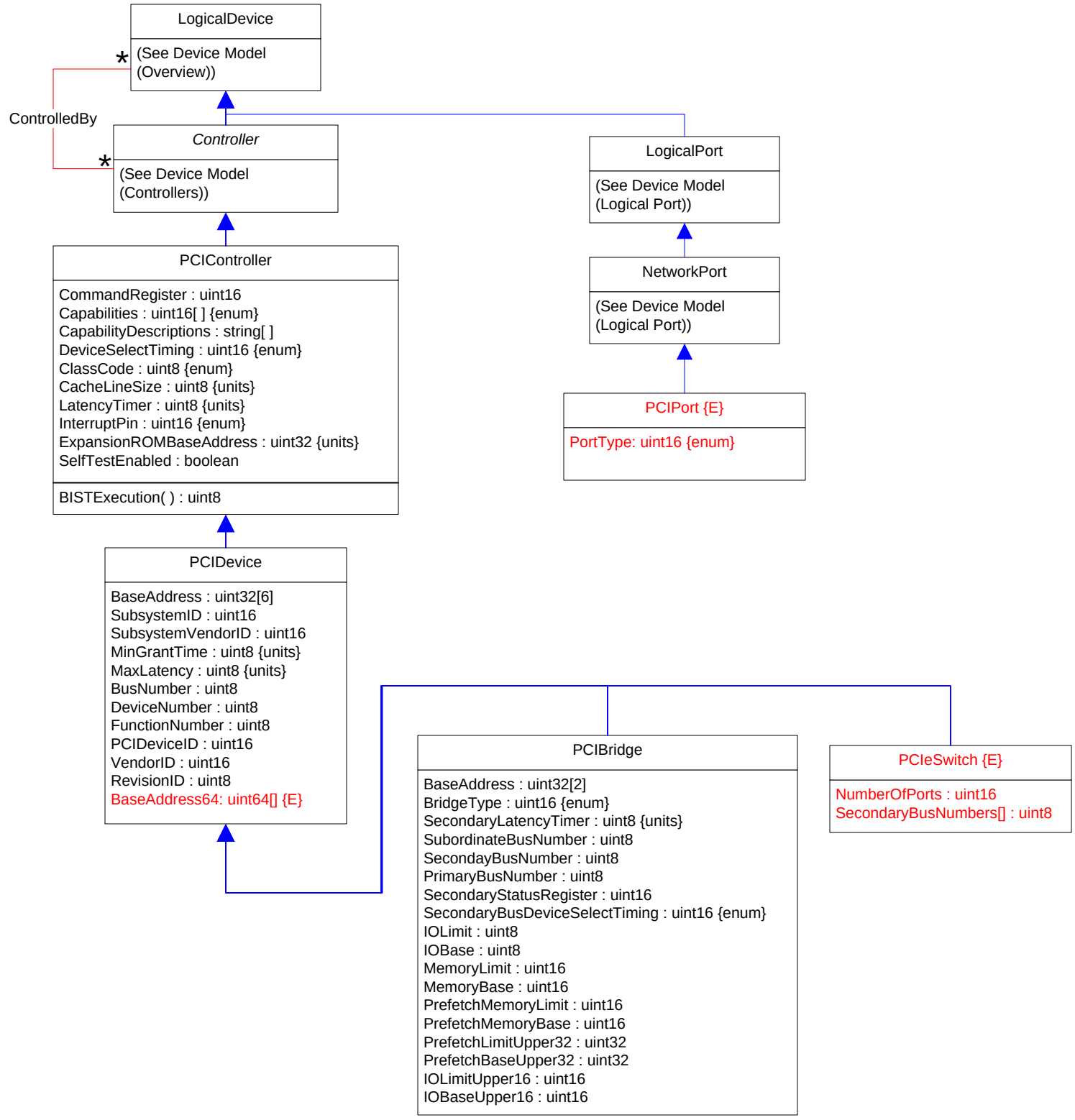
PCVideoController {D}
VideoArchitecture : uint16 {enum}
VideoMode : uint16
NumberOfColorPlanes : uint16

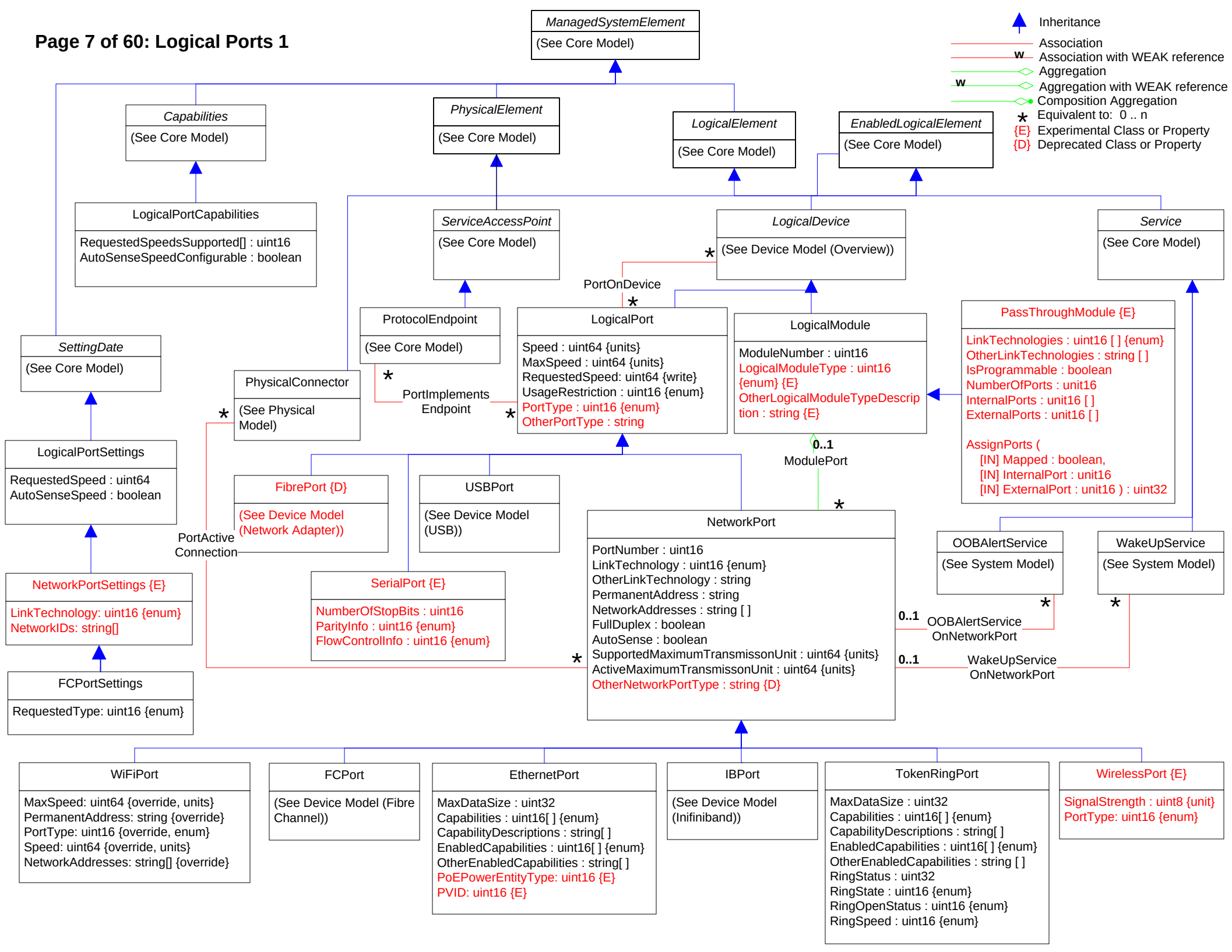
AGPVideoController {D}
Capabilities : uint16[ ] {D, enum}
NonlocalVideoMemorySize : uint32 {units}
LocalBusWidth : uint32 {units}
UsageModel : uint16 {enum}
DataTransferRate : uint16 {enum}
AddressingMode : uint16 {enum}
MaximumAGPCommandQueuePath : uint32
MaxNumberOfPipelinedAGPTransactions : uint32
GraphicsApertureSize : uint32 {units}
AGPSpecificationVersionConformance : string

Page 6 of 60: PCI Controllers

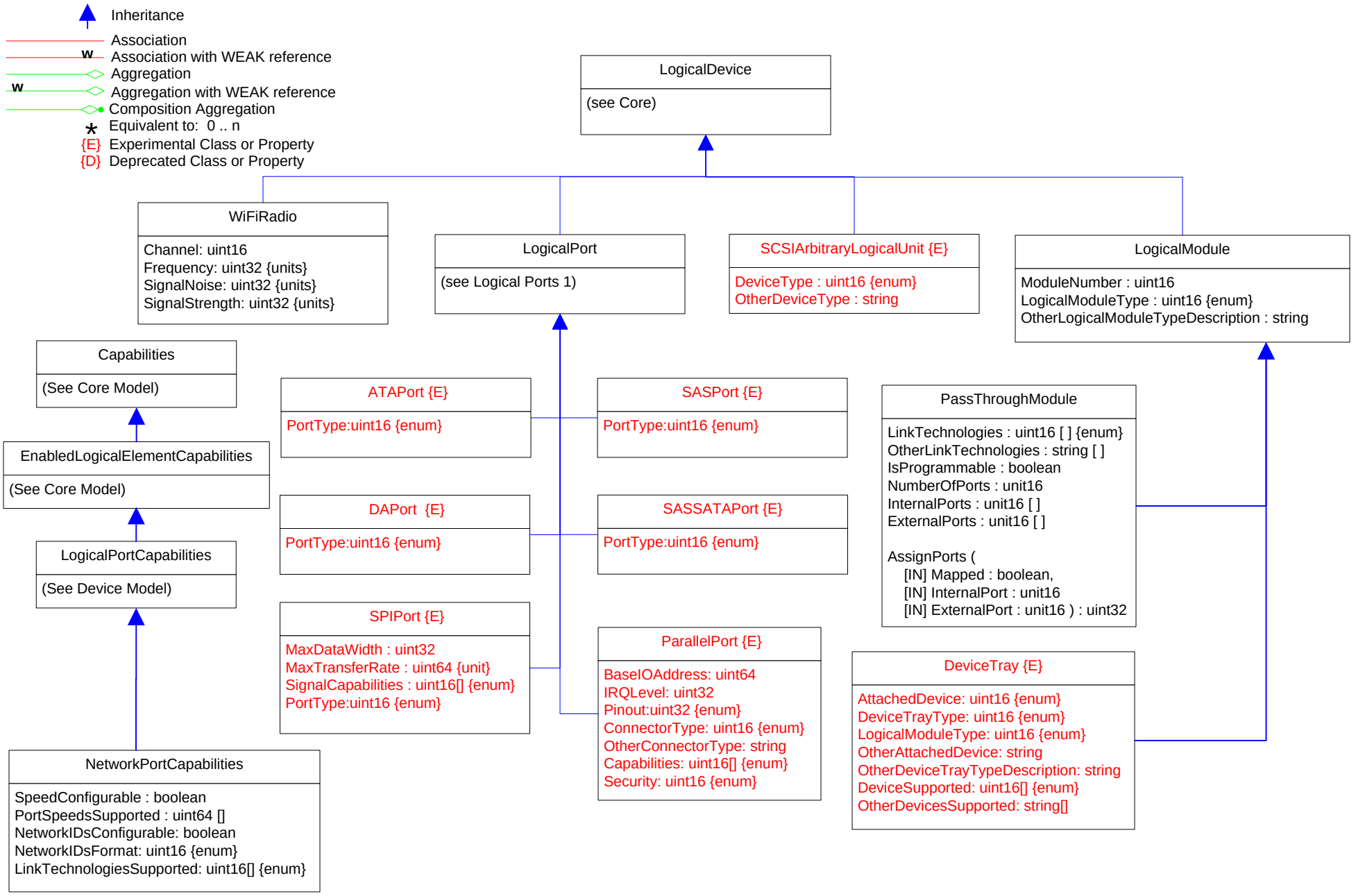




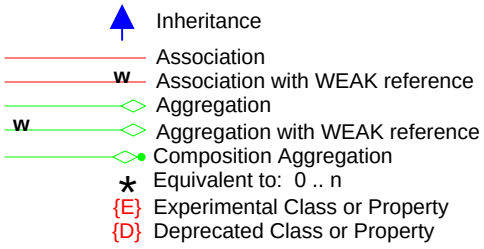



ManagedSystemElement
(See Core Model)
Inheritance
Association
Association with WEAK reference
Aggregation
Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property
Capabilities
(See Core Model)
PhysicalElement
(See Core Model)
LogicalElement
(See Core Model)
EnabledLogicalElement
(See Core Model)
LogicalPortCapabilities
RequestedSpeedsSupported[] : uint16
AutoSenseSpeedConfigurable : boolean
ServiceAccessPoint
(See Core Model)
LogicalDevice
(See Device Model (Overview))
Service
(See Core Model)
PortOnDevice
ProtocolEndpoint
(See Core Model)
LogicalPort
Speed : uint64 {units}
MaxSpeed : uint64 {units}
RequestedSpeed: uint64 {write}
UsageRestriction : uint16 {enum}
PortType : uint16 {enum}
OtherPortType : string
LogicalModule
ModuleNumber : uint16
LogicalModuleType : uint16 {enum} {E}
OtherLogicalModuleTypeDescription : string {E}
PassThroughModule {E}
LinkTechnologies : uint16 [ ] {enum}
OtherLinkTechnologies : string [ ]
IsProgrammable : boolean
NumberOfPorts : unit16
InternalPorts : unit16 [ ]
ExternalPorts : unit16 [ ]
AssignPorts (
[IN] Mapped : boolean,
[IN] InternalPort : unit16
[IN] ExternalPort : unit16) : uint32
SettingDate
(See Core Model)
PhysicalConnector
(See Physical Model)
PortImplements Endpoint
0..1
ModulePort
LogicalPortSettings
RequestedSpeed : uint64
AutoSenseSpeed : boolean
FibrePort {D}
(See Device Model (Network Adapter))
USBPort
(See Device Model (USB))
PortActive Connection
NetworkPort
PortNumber : uint16
LinkTechnology : uint16 {enum}
OtherLinkTechnology : string
PermanentAddress : string
NetworkAddresses : string [ ]
FullDuplex : boolean
AutoSense : boolean
SupportedMaximumTransmissonUnit : uint64 {units}
ActiveMaximumTransmissonUnit : uint64 {units}
OtherNetworkPortType : string {D}
OOBAlertService
(See System Model)
WakeUpService
(See System Model)
0..1
OOBAlertService OnNetworkPort
0..1
WakeUpService OnNetworkPort
NetworkPortSettings {E}
LinkTechnology: uint16 {enum}
NetworkIDs: string[]
SerialPort {E}
NumberOfStopBits : uint16
ParityInfo : uint16 {enum}
FlowControlInfo : uint16 {enum}
FCPortSettings
RequestedType: uint16 {enum}
WiFiPort
MaxSpeed: uint64 {override, units}
PermanentAddress: string {override}
PortType: uint16 {override, enum}
Speed: uint64 {override, units}
NetworkAddresses: string[] {override}
FCPort
(See Device Model (Fibre Channel))
EthernetPort
MaxDataSize : uint32
Capabilities : uint16[ ] {enum}
CapabilityDescriptions : string[ ]
EnabledCapabilities : uint16[ ] {enum}
OtherEnabledCapabilities : string[ ]
PoEPowerEntityType: uint16 {E}
PVID: uint16 {E}
IBPort
(See Device Model (Inifiniband))
TokenRingPort
MaxDataSize : uint32
Capabilities : uint16[ ] {enum}
CapabilityDescriptions : string[ ]
EnabledCapabilities : uint16[ ] {enum}
OtherEnabledCapabilities : string [ ]
RingStatus : uint32
RingState : uint16 {enum}
RingOpenStatus : uint16 {enum}
RingSpeed : uint16 {enum}
WirelessPort {E}
SignalStrength : uint8 {unit}
PortType: uint16 {enum}

Page 8 of 60: Logical Ports 2



Page 9 of 60: Logical Ports 3



EthernetPort

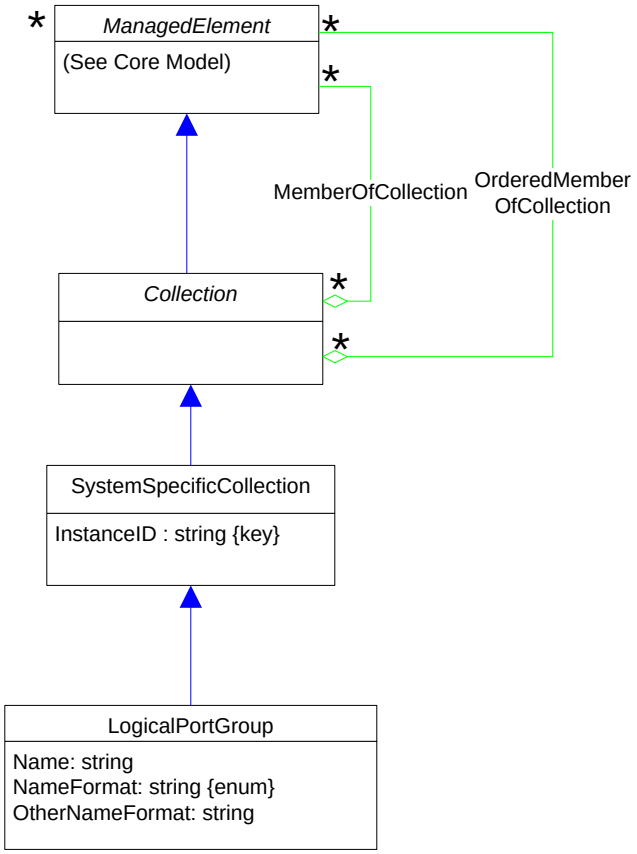
(See Logical Ports 1)

LLDPEthernetPort {E}

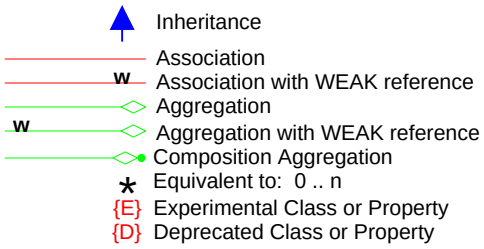
ConfigPortVlanTxEnable: boolean; ConfigManVidTxEnable: boolean;
MessageTxInterval=30: uint16; MessageTxHoldMultiplier=4: uint8; ReinitDelay=2: uint8
NotificationInterval=30: uint16; TxCreditMax=5: uint8; DestMacAddress: string[]
PortConfigAdminStatus: uint8[] {enum}; PortConfigNotificationEnable: boolean[]
PortConfigPortDescriptionTLVTxEnable: boolean[];
PortConfigSystemNameTLVTxEnable: boolean[]
PortConfigSystemDescriptionTLVTxEnable: boolean[]
PortConfigSystemCapabilitiesTLVTxEnable: boolean[]
ManAddrConfigDestAddress: string[]; ManAddrConfigLocManAddrSubtype: uint16[] {enum}
ManAddrConfigLocManAddr: string[]; ManAddrConfigTxEnable: boolean[]
LocChassisIdSubtype: uint8 {enmum}; LocChassisId: string; LocSysName: string
LocSysDesc: string; LocSysCapSupported: uint8[]; LocSysCapEnabled: boolean[]
LocPortIdSubtype: uint8 {enmum}; LocPortID: string; LocPortDesc: string;
LocTxSystemValue: uint16; RemTxSystemValueEcho: uint16; LocRxSystemValue: uint16
RemRxSystemValueEcho: uint16; LocFbSystemValue: uint16; RemTxSystemValue: uint16
LocTxSystemValueEcho: uint16; RemRxSystemValue: uint16;
LocRxSystemValueEcho: uint16; LocResolvedTxSystemValue: uint16
LocResolvedRxSystemValue: uint16; MaximumFrameSizeTLVEnabled: boolean
LocManAddrSubType: uint16[]; LocManAddr: string[]; LocManAddrIfSubtype: uint16[];
LocManAddrIfId: uint32[]; RemLocalDestMacAddress: string[]; RemManAddrSubType: uint16[]
RemManAddr: string[]; RemManAddrSubType: uint16[]; RemManAddrIfId: uint32[]
RemChassisIdSubtype: uint8[]; RemChassisId: string[]; RemSysName: string[]
RemSysDesc: string[]; RemSysCapSupported: uint8[]; RemSysCapEnabled: boolean[]
RemPortIdSubtype: uint8[]; RemPortID: string[]; RemPortDesc: string[]

DataCenterEthernetPort {E}

PfcLinkDelayAllowance: uint32; ETSConfigurationTxEnable: boolean; ETSRecommendationTxEnable: boolean
PFCTxEnable: boolean; ApplicationPriorityTxEnable: boolean; LocETSConCreditBasedShaperSupport: boolean
LocETSConTrafficClassesSupported: uint8; LocETSConWilling: boolean; LocETSConPriority: uint8[]
LocETSConPriTrafficClass: uint8[]; LocETSConTrafficClass: uint8[]; LocETSConTrafficClassBandwidth: uint8[]
LocETSConTrafficSelectionAlgorithm: uint8[] {Enum}; LocETSRecoTrafficClass: uint8[]
LocETSRecoTrafficClassBandwidth: uint8[]; LocETSRecoTSATrafficClass: uint8[]
LocETSRecoTrafficSelectionAlgorithm: uint8[] {Enum}; LocPFCWilling: boolean
LocPFCMBC: boolean; LocPFCCap: uint8; LocPFCEnablePriority: uint8[]; LocPFCEnableEnabled: boolean[]
LocApplicationPriorityAESelector: uint16[] {Enum}; LocApplicationPriorityAEProtocol: uint16[]
LocApplicationPriorityAEPriority: uint8[]; RemETSConCreditBasedShaperSupport: boolean
RemETSConTrafficClassesSupported: uint8; RemETSConWilling: boolean; RemETSConPriority: uint8[]
RemETSConPriTrafficClass: uint8[]; RemETSConTrafficClass: uint8[];
RemETSConTrafficClassBandwidth: uint8[]; RemETSConTSATrafficClass: uint8[]
RemETSConTrafficSelectionAlgorithm: uint8[] {Enum}; RemETSRecoTrafficClass: uint8[]
RemETSRecoTrafficClassBandwidth: uint64[]; RemETSRecoTSATrafficClass: uint8[]
RemETSRecoTrafficSelectionAlgorithm: uint8[] {Enum}; RemPFCWilling: boolean
RemPFCMBC: boolean; RemPFCCap: uint8; RemPFCEnablePriority: uint8[]
RemPFCEnableEnabled: boolean[]; RemApplicationPriorityAESelector: uint16[] {Enum}
RemApplicationPriorityAEProtocol: uint16[]; RemApplicationPriorityAEPriority: uint8[]
AdminETSConCreditBasedShaperSupport: boolean; AdminETSConTrafficClassesSupported: uint8
AdminETSConWilling: boolean; AdminETSConPriority: uint8[]; AdminETSConPriTrafficClass: uint8[]
AdminETSConTrafficClass: uint8[]; AdminETSConTrafficClassBandwidth: uint8[]
AdminETSConTSATrafficClass: uint8[]; AdminETSConTrafficSelectionAlgorithm: uint8[] {Enum}
AdminETSRecoTrafficClass: uint8[]; AdminETSRecoTrafficClassBandwidth: uint64[]
AdminETSRecoTSATrafficClass: uint8[]; AdminETSRecoTrafficSelectionAlgorithm: uint8[] {Enum}
AdminPFCWilling: boolean; AdminPFCMBC: boolean; AdminPFCCap: uint8; AdminPFCEnablePriority: uint8[]
AdminPFCEnableEnabled: boolean[]; AdminApplicationPriorityAESelector: uint16[] {Enum}
AdminApplicationPriorityAEProtocol: uint16[]; AdminApplicationPriorityAEPriority: uint8[]


*
ManagedElement
(See Core Model)
*
*
MemberOfCollection
OrderedMember
OfCollection
Collection
*
*
SystemSpecificCollection
InstanceID : string {key}
LogicalPortGroup
Name: string
NameFormat: string {enum}
OtherNameFormat: string

Page 11 of 60: Protocol Controller



Service
(See Core Model)

EnabledLogicalElement
(See Core Model)

Capabilities
(See Core Model)

ProtocolControllerMaskingCapabilities

ValidHardwareIdTypes[] : uint16 {enum}
OtherValidHardwareIDTypes : string[]
PortsPerView:uint16
ClientSelectableDeviceNumbers : boolean
AttachDeviceSupported : boolean
OneHardwareIDPerView : boolean
UniqueUnitNumbersPerPort : boolean
PrivilegeDeniedSupported : boolean
ProtocolControllerRequiresAuthorizedIdentity : boolean
ExposePathsSupported : boolean
CreateProtocolControllerSupported : boolean
MaximumMapCount : uint16
SPCAllowsNoLUs : boolean
SPCAllowsNoTargets: boolean
SPCAllowsNoInitiators : boolean
SPCSupportsDefaultViews : boolean
ExposePathsWithNameAndHostTypeSupported : boolean {E}

LogicalDevice
(See Device Model (Overview))

LogicalPort
(See Device Model (Logical Ports))

ProtocolController ForUnit

ProtocolController AccessUnit

ProtocolController ForDevice

ProtocolController ForPort

ProtocolController

MaxUnitsControlled: uint32

Associated Protocol Controller

SCSIProtocolController

NameFormat: uint16 {enum}
OtherNameFormat: string

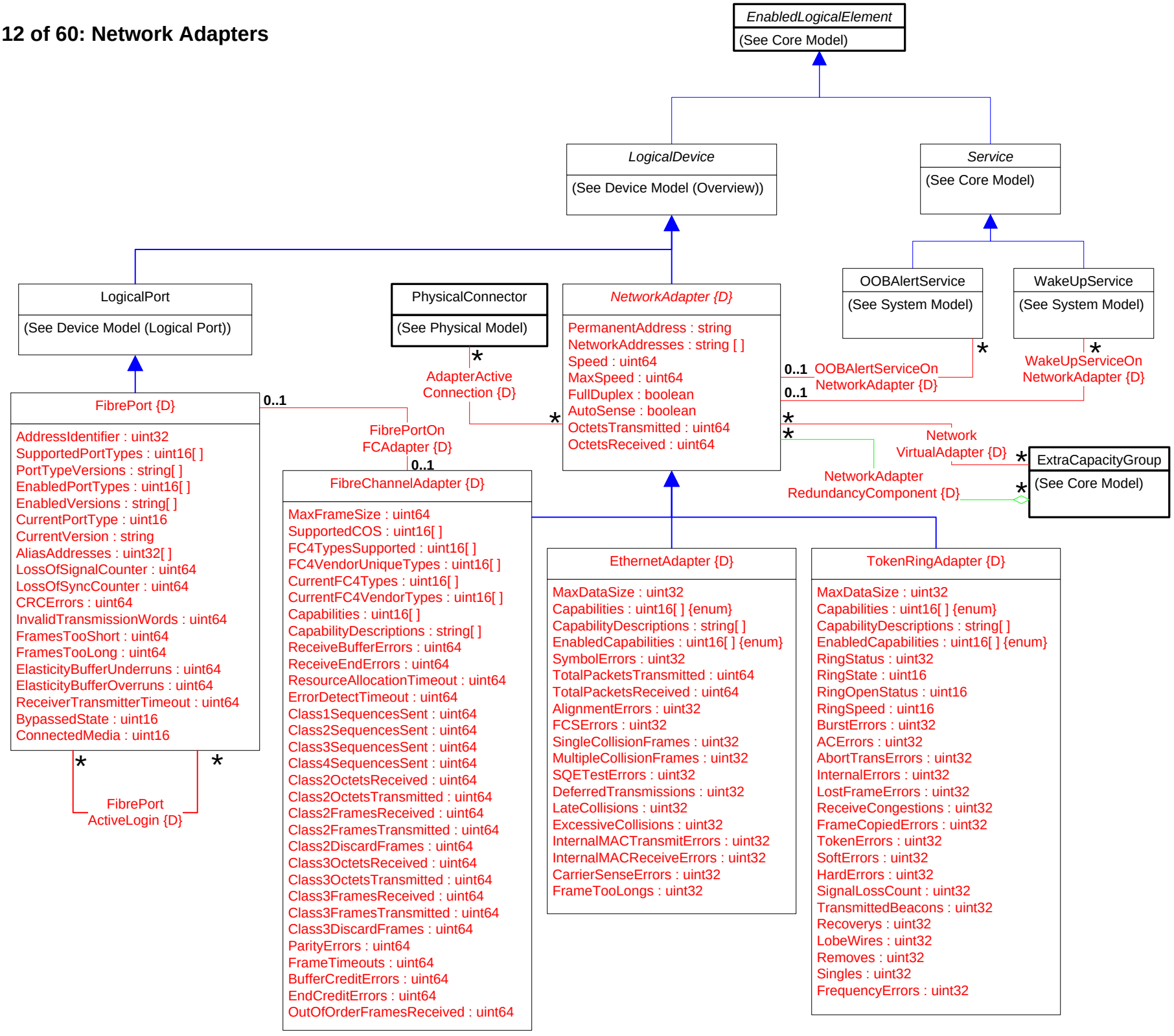
GroupMaskingMappingCapabilities {E}

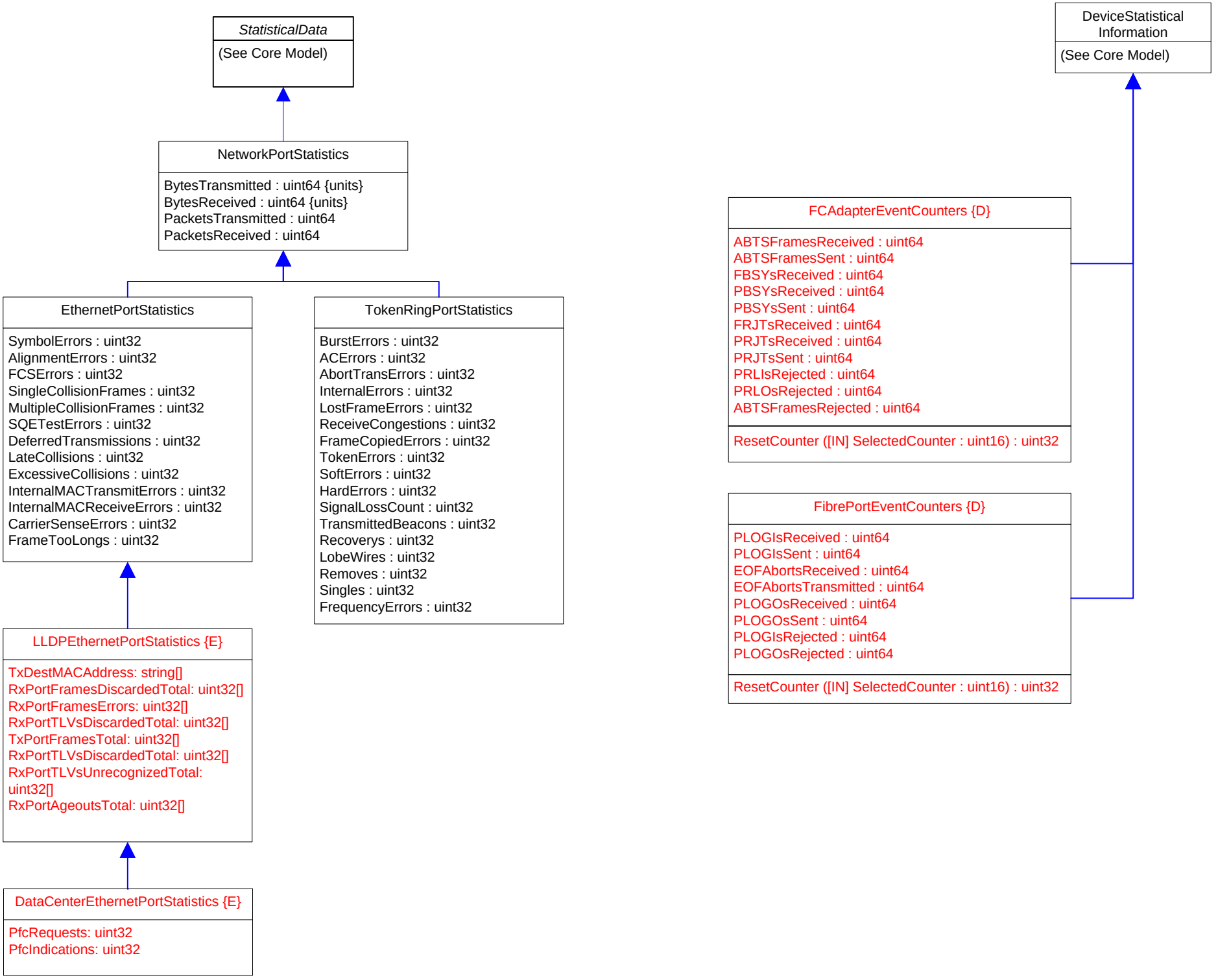
SupportedAsynchronousActions: uint16[] {enum}
SupportedDeviceGroupFeatures: uint16[] {enum}
SupportedFeatures: uint16[] {enum}
SupportedInitiatorGroupFeatures: uint16[] {enum}
SupportedSynchronousActions: uint16[] {enum}
SupportedTargetGroupFeatures: uint16[] {enum}

GroupMaskingMappingService {E}

ControllerConfigurationService

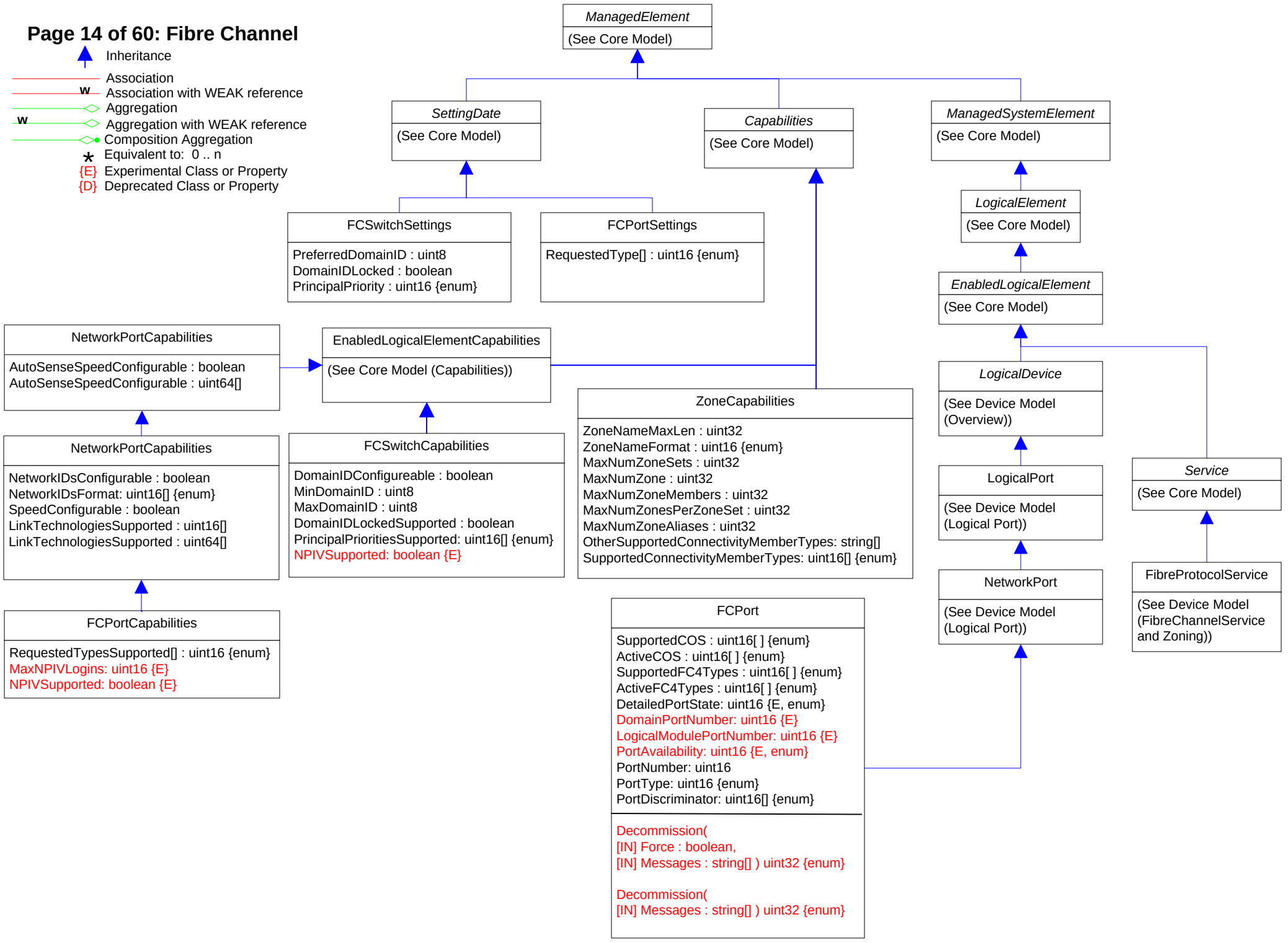
CreateProtocolControllerWithPorts (
[IN] ElementName:string,
[IN] Ports : string[],
[IN] Protocol : uint16 {enum},
[IN] Privilege : ref Privilege,
[IN] Identity : ref Identity,
[OUT] ProtocolController : ref ProtocolController) : uint32 {enum}
DeleteProtocolController (
[IN] ProtocolController : ref ProtocolController,
[IN] DeleteChildrenProtocolControllers : boolean,
[IN] DeleteUnits : boolean) : uint32 {enum}
AttachDevice (
[IN] ProtocolController : ref ProtocolController ,
[IN] Device : ref LogicalDevice,
[IN] DeviceNumber : string) : uint32 {enum}
DetachDevice (
[IN] ProtocolController : ref ProtocolController ,
[IN] Device : ref LogicalDevice) : uint32 {enum}
ExposePaths (
[OUT] Job: ref ConcreteJob
[IN] LUNames[] : string
[IN] InitiatorPortIDs[] : string
[IN] TargetPortIDs[] : string
[IN] DeviceNumbers[] : string
[IN] DeviceAccesses[] : uint16 {enum}
[OUT] ProtocolControllers[] : ref SCSIProtocolController
) uint32 {enum}
HidePaths (
[OUT] Job: ConcreteJob
[IN] LUNames[] : string
[IN] InitiatorPortIDs[] : string
[IN] TargetPortIDs[] : string
[IN,OUT] ProtocolControllers[] : ref SCSIProtocolController
) uint32 {enum}
ExposeDefaultLUs (
[OUT] Job: ConcreteJob
[IN] LUNames[] : string
[IN] TargetPortIDs[] : string
[IN] DeviceNumbers[] : string
[IN] DeviceAccesses[] : uint16
[IN,OUT] ProtocolControllers[] : ref SCSIProtocolController
) uint32 {enum, E}
HideDefaultLUs (
[OUT] Job: ConcreteJob
[IN] LUNames[] : string
[IN] TargetPortIDs[] : string
[IN,OUT] ProtocolControllers[] : ref SCSIProtocolController
) uint32 {enum, E}
ExposePathsWithNameAndHostType(
[OUT] Job : ref ConcreteJob,
[IN] LUNames : string[],
[IN] InitiatorPortIDs : string[],
[IN] TargetPortIDs : string[],
[IN] DeviceNumbers : string[],
[IN] DeviceAccesses : string[],
[IN] ElementName : string,
[IN] ClientSettingData : ref StorageClientSettingData,
[OUT,IN] CIM_SCSIProtocolController REF ProtocolControllers[])
uint32 {enum.E}

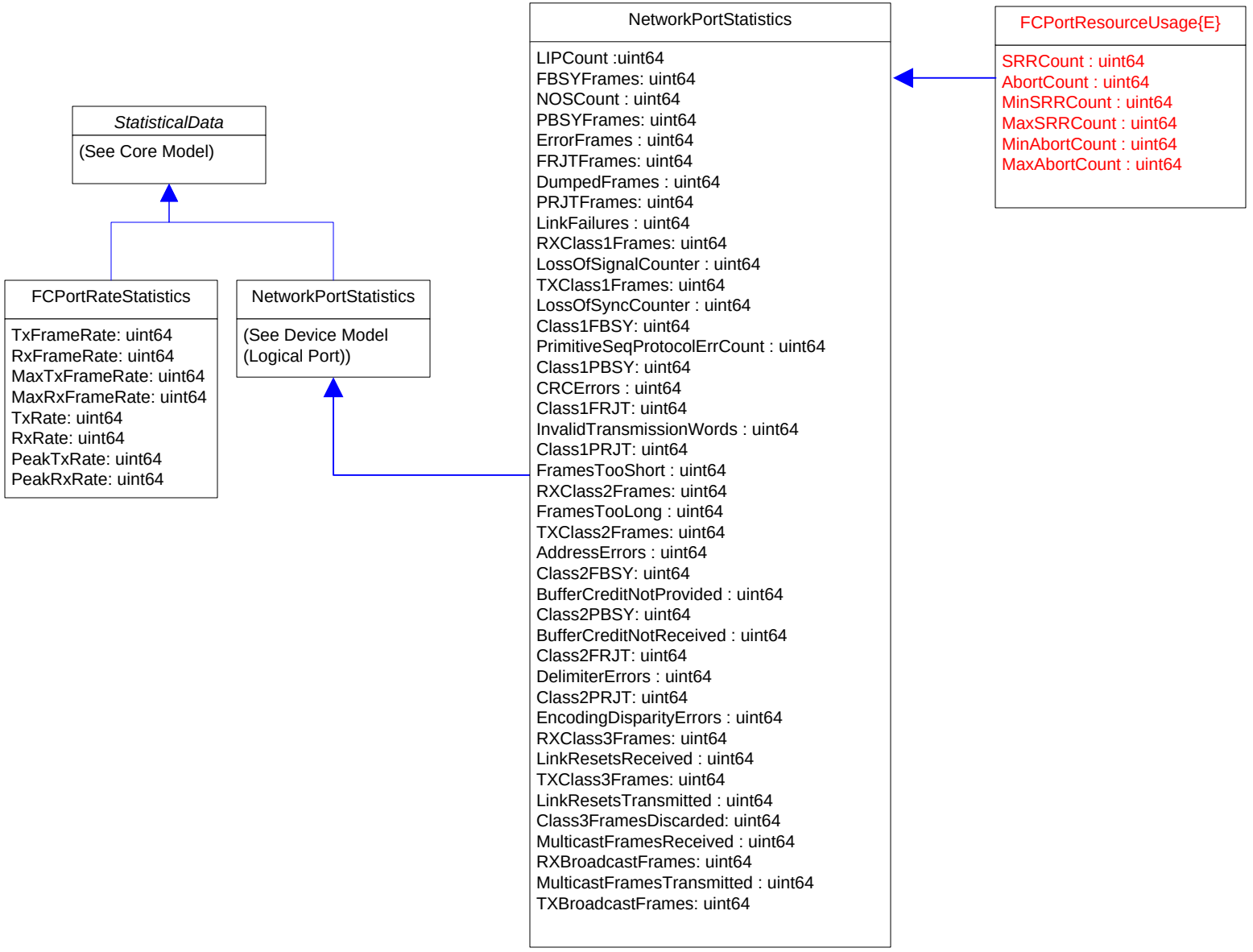

EnabledLogicalElement
(See Core Model)
LogicalDevice
(See Device Model (Overview))
Service
(See Core Model)
LogicalPort
(See Device Model (Logical Port))
PhysicalConnector
(See Physical Model)
NetworkAdapter {D}
PermanentAddress : string
NetworkAddresses : string [ ]
Speed : uint64
MaxSpeed : uint64
FullDuplex : boolean
AutoSense : boolean
OctetsTransmitted : uint64
OctetsReceived : uint64
OOBAlertService
(See System Model)
WakeUpService
(See System Model)
FibrePort {D}
AddressIdentifier : uint32
SupportedPortTypes : uint16[ ]
PortTypeVersions : string[ ]
EnabledPortTypes : uint16[ ]
EnabledVersions : string[ ]
CurrentPortType : uint16
CurrentVersion : string
AliasAddresses : uint32[ ]
LossOfSignalCounter : uint64
LossOfSyncCounter : uint64
CRCErrors : uint64
InvalidTransmissionWords : uint64
FramesTooShort : uint64
FramesTooLong : uint64
ElasticityBufferUnderruns : uint64
ElasticityBufferOverruns : uint64
ReceiverTransmitterTimeout : uint64
BypassedState : uint16
ConnectedMedia : uint16
FibrePort
ActiveLogin {D}
AdapterActive
Connection {D}
FibrePortOn
FCAdapter {D}
FibreChannelAdapter {D}
MaxFrameSize : uint64
SupportedCOS : uint16[ ]
FC4TypesSupported : uint16[ ]
FC4VendorUniqueTypes : uint16[ ]
CurrentFC4Types : uint16[ ]
CurrentFC4VendorTypes : uint16[ ]
Capabilities : uint16[ ]
CapabilityDescriptions : string[ ]
ReceiveBufferErrors : uint64
ReceiveEndErrors : uint64
ResourceAllocationTimeout : uint64
ErrorDetectTimeout : uint64
Class1SequencesSent : uint64
Class2SequencesSent : uint64
Class3SequencesSent : uint64
Class4SequencesSent : uint64
Class2OctetsReceived : uint64
Class2OctetsTransmitted : uint64
Class2FramesReceived : uint64
Class2FramesTransmitted : uint64
Class2DiscardFrames : uint64
Class3OctetsReceived : uint64
Class3OctetsTransmitted : uint64
Class3FramesReceived : uint64
Class3FramesTransmitted : uint64
Class3DiscardFrames : uint64
ParityErrors : uint64
FrameTimeouts : uint64
BufferCreditErrors : uint64
EndCreditErrors : uint64
OutOfOrderFramesReceived : uint64
EthernetAdapter {D}
MaxDataSize : uint32
Capabilities : uint16[ ] {enum}
CapabilityDescriptions : string[ ]
EnabledCapabilities : uint16[ ] {enum}
SymbolErrors : uint32
TotalPacketsTransmitted : uint64
TotalPacketsReceived : uint64
AlignmentErrors : uint32
FCSErrors : uint32
SingleCollisionFrames : uint32
MultipleCollisionFrames : uint32
SQETestErrors : uint32
DeferredTransmissions : uint32
LateCollisions : uint32
ExcessiveCollisions : uint32
InternalMACTransmitErrors : uint32
InternalMACReceiveErrors : uint32
CarrierSenseErrors : uint32
FrameTooLongs : uint32
TokenRingAdapter {D}
MaxDataSize : uint32
Capabilities : uint16[ ] {enum}
CapabilityDescriptions : string[ ]
EnabledCapabilities : uint16[ ] {enum}
RingStatus : uint32
RingState : uint16
RingOpenStatus : uint16
RingSpeed : uint16
BurstErrors : uint32
ACErrors : uint32
AbortTransErrors : uint32
InternalErrors : uint32
LostFrameErrors : uint32
ReceiveCongestions : uint32
FrameCopiedErrors : uint32
TokenErrors : uint32
SoftErrors : uint32
HardErrors : uint32
SignalLossCount : uint32
TransmittedBeacons : uint32
Recoverys : uint32
LobeWires : uint32
Removes : uint32
Singles : uint32
FrequencyErrors : uint32
0..1
OOBAlertServiceOn
NetworkAdapter {D}
WakeUpServiceOn
NetworkAdapter {D}
Network
VirtualAdapter {D}
NetworkAdapter
RedundancyComponent {D}
ExtraCapacityGroup
(See Core Model)


StatisticalData
(See Core Model)
NetworkPortStatistics
BytesTransmitted : uint64 {units}
BytesReceived : uint64 {units}
PacketsTransmitted : uint64
PacketsReceived : uint64
EthernetPortStatistics
SymbolErrors : uint32
AlignmentErrors : uint32
FCSErrors : uint32
SingleCollisionFrames : uint32
MultipleCollisionFrames : uint32
SQETestErrors : uint32
DeferredTransmissions : uint32
LateCollisions : uint32
ExcessiveCollisions : uint32
InternalMACTransmitErrors : uint32
InternalMACReceiveErrors : uint32
CarrierSenseErrors : uint32
FrameTooLongs : uint32
TokenRingPortStatistics
BurstErrors : uint32
ACErrors : uint32
AbortTransErrors : uint32
InternalErrors : uint32
LostFrameErrors : uint32
ReceiveCongestions : uint32
FrameCopiedErrors : uint32
TokenErrors : uint32
SoftErrors : uint32
HardErrors : uint32
SignalLossCount : uint32
TransmittedBeacons : uint32
Recoverys : uint32
LobeWires : uint32
Removes : uint32
Singles : uint32
FrequencyErrors : uint32
LLDPEthernetPortStatistics {E}
TxDestMACAddress: string[]
RxPortFramesDiscardedTotal: uint32[]
RxPortFramesErrors: uint32[]
RxPortTLVsDiscardedTotal: uint32[]
TxPortFramesTotal: uint32[]
RxPortTLVsDiscardedTotal: uint32[]
RxPortTLVsUnrecognizedTotal: uint32[]
RxPortAgeoutsTotal: uint32[]
DataCenterEthernetPortStatistics {E}
PfcRequests: uint32
PfcIndications: uint32
DeviceStatistical Information
(See Core Model)
FCAdapterEventCounters {D}
ABTSFramesReceived : uint64
ABTSFramesSent : uint64
FBSYsReceived : uint64
PBSYsReceived : uint64
PBSYsSent : uint64
FRJTsReceived : uint64
PRJTsReceived : uint64
PRJTsSent : uint64
PRLIsRejected : uint64
PRLOsRejected : uint64
ABTSFramesRejected : uint64
ResetCounter ([IN] SelectedCounter : uint16) : uint32
FibrePortEventCounters {D}
PLOGIsReceived : uint64
PLOGIsSent : uint64
EOFAbortsReceived : uint64
EOFAbortsTransmitted : uint64
PLOGOsReceived : uint64
PLOGOsSent : uint64
PLOGIsRejected : uint64
PLOGOsRejected : uint64
ResetCounter ([IN] SelectedCounter : uint16) : uint32

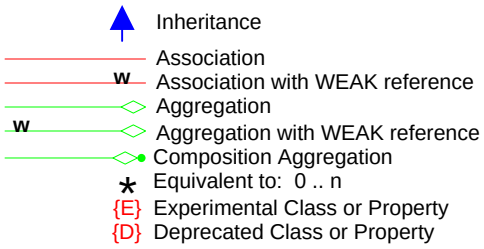
Page 14 of 60: Fibre Channel

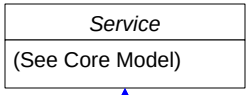
Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property

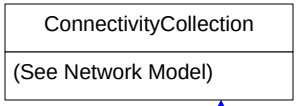


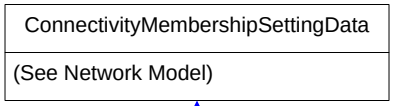

NetworkPortStatistics
LIPCount :uint64
FBSYFrames: uint64
NOSCount : uint64
PBSYFrames: uint64
ErrorFrames : uint64
FRJTFrames: uint64
DumpedFrames : uint64
PRJTFrames: uint64
LinkFailures : uint64
RXClass1Frames: uint64
LossOfSignalCounter : uint64
TXClass1Frames: uint64
LossOfSyncCounter : uint64
Class1FBSY: uint64
PrimitiveSeqProtocolErrCount : uint64
Class1PBSY: uint64
CRCErrors : uint64
Class1FRJT: uint64
InvalidTransmissionWords : uint64
Class1PRJT: uint64
FramesTooShort : uint64
RXClass2Frames: uint64
FramesTooLong : uint64
TXClass2Frames: uint64
AddressErrors : uint64
Class2FBSY: uint64
BufferCreditNotProvided : uint64
Class2PBSY: uint64
BufferCreditNotReceived : uint64
Class2FRJT: uint64
DelimiterErrors : uint64
Class2PRJT: uint64
EncodingDisparityErrors : uint64
RXClass3Frames: uint64
LinkResetsReceived : uint64
TXClass3Frames: uint64
LinkResetsTransmitted : uint64
Class3FramesDiscarded: uint64
MulticastFramesReceived : uint64
RXBroadcastFrames: uint64
MulticastFramesTransmitted : uint64
TXBroadcastFrames: uint64
FCPortResourceUsage{E}
SRRCount : uint64
AbortCount : uint64
MinSRRCount : uint64
MaxSRRCount : uint64
MinAbortCount : uint64
MaxAbortCount : uint64
StatisticalData
(See Core Model)
FCPortRateStatistics
TxFrameRate: uint64
RxFrameRate: uint64
MaxTxFrameRate: uint64
MaxRxFrameRate: uint64
TxRate: uint64
RxRate: uint64
PeakTxRate: uint64
PeakRxRate: uint64
NetworkPortStatistics
(See Device Model
(Logical Port))

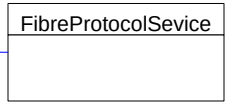
Page 16 of 60: Fibre Channel Service & Zoning

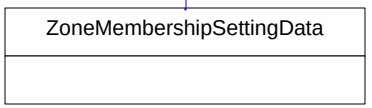


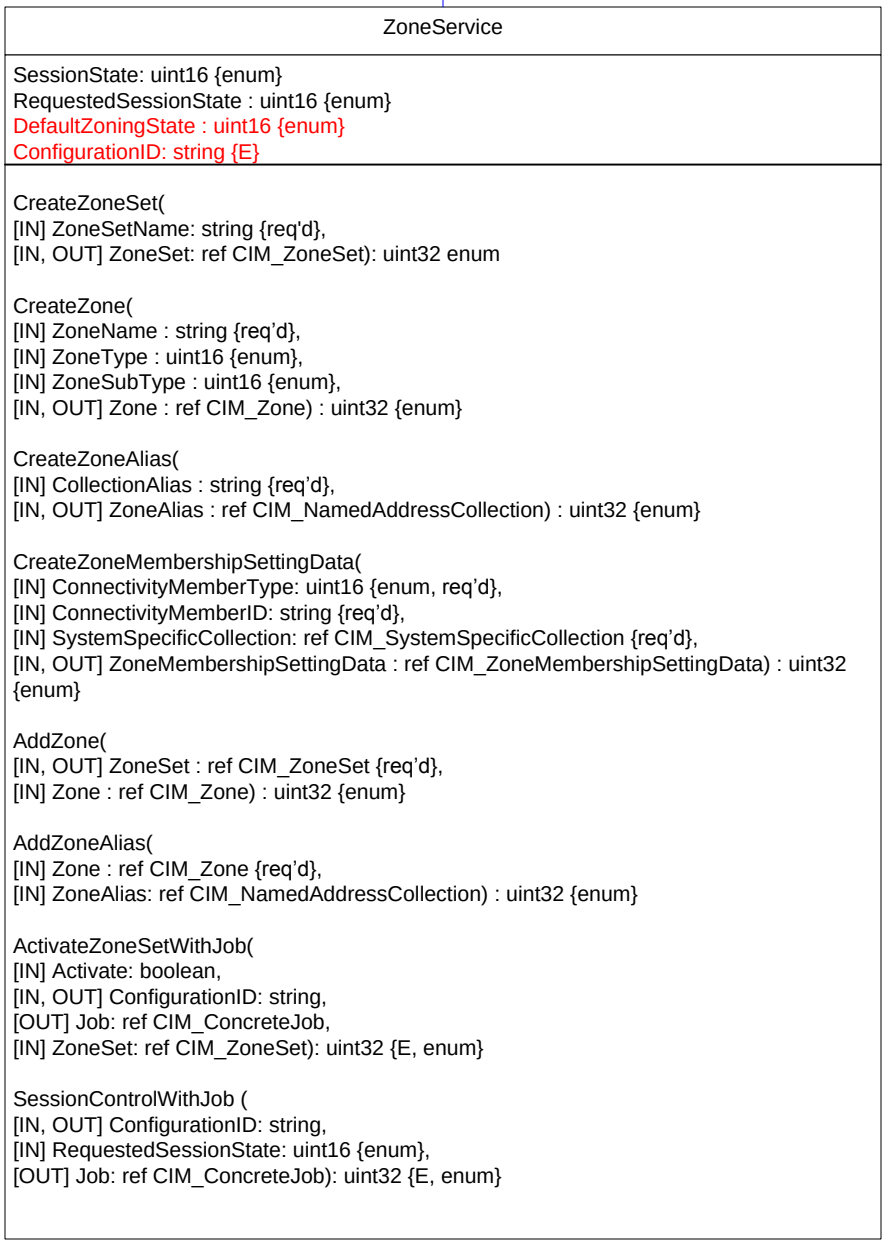


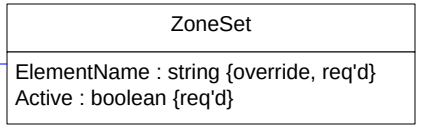


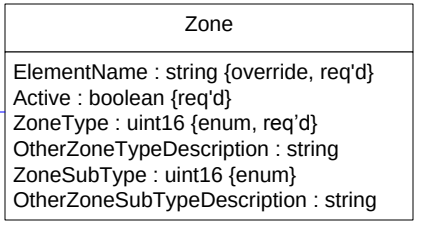






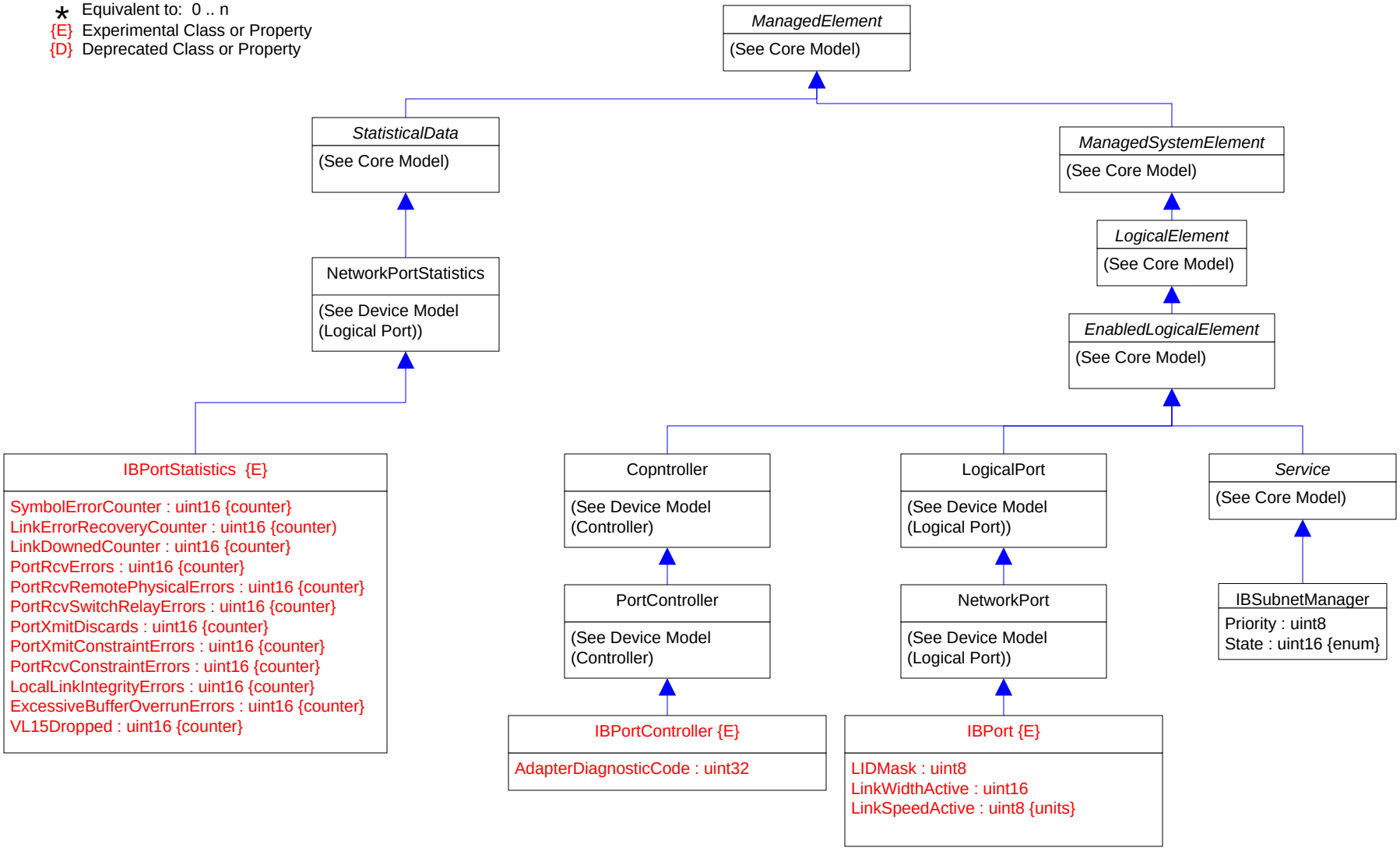


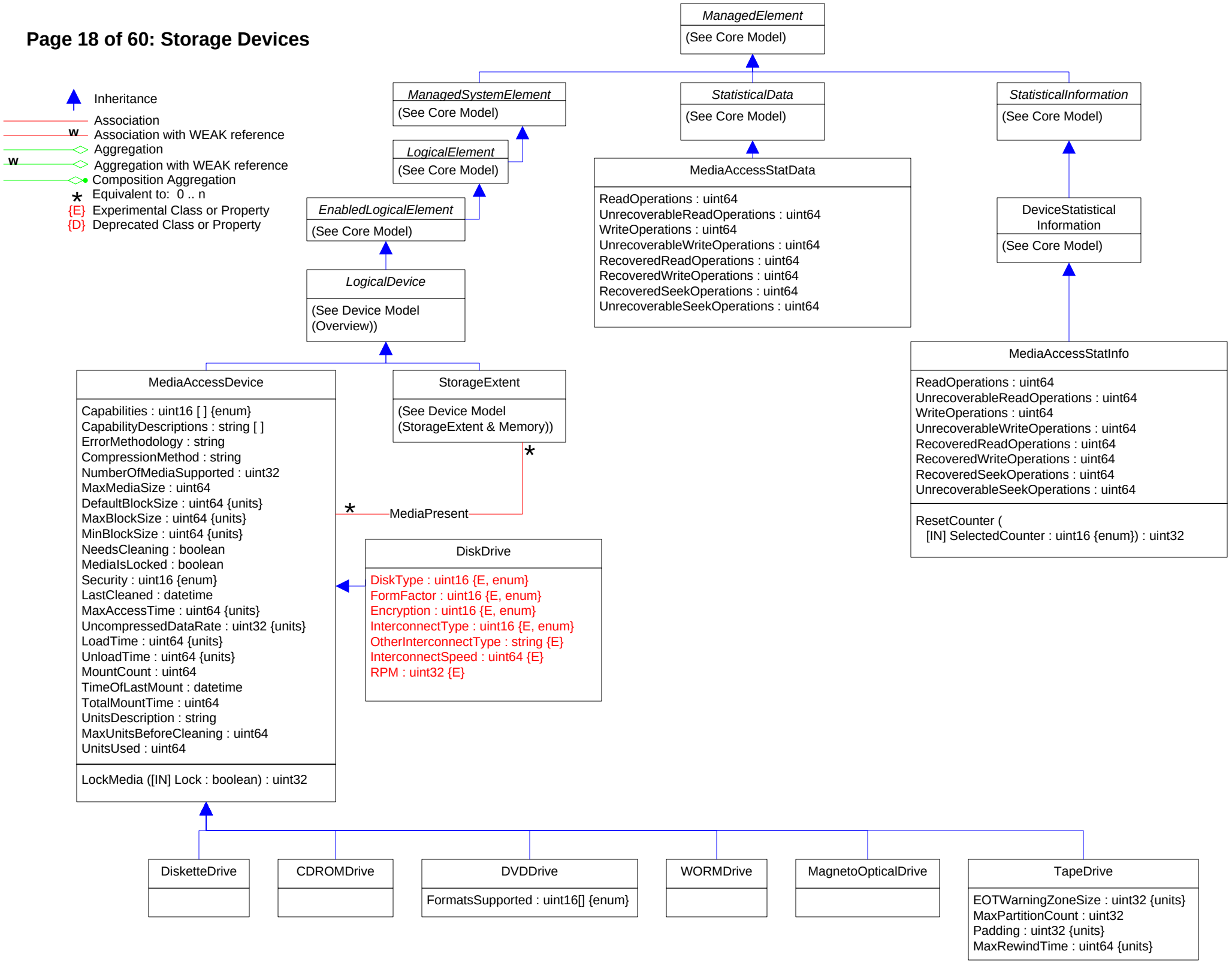




Page 17 of 60: InfiniBand

Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property




Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property
ManagedElement
(See Core Model)
ManagedSystemElement
(See Core Model)
StatisticalData
(See Core Model)
StatisticalInformation
(See Core Model)
LogicalElement
(See Core Model)
MediaAccessStatData
ReadOperations : uint64
UnrecoverableReadOperations : uint64
WriteOperations : uint64
UnrecoverableWriteOperations : uint64
RecoveredReadOperations : uint64
RecoveredWriteOperations : uint64
RecoveredSeekOperations : uint64
UnrecoverableSeekOperations : uint64
DeviceStatistical Information
(See Core Model)
EnabledLogicalElement
(See Core Model)
LogicalDevice
(See Device Model (Overview))
MediaAccessStatInfo
ReadOperations : uint64
UnrecoverableReadOperations : uint64
WriteOperations : uint64
UnrecoverableWriteOperations : uint64
RecoveredReadOperations : uint64
RecoveredWriteOperations : uint64
RecoveredSeekOperations : uint64
UnrecoverableSeekOperations : uint64
ResetCounter (
[IN] SelectedCounter : uint16 {enum}) : uint32
MediaAccessDevice
Capabilities : uint16 [ ] {enum}
CapabilityDescriptions : string [ ]
ErrorMethodology : string
CompressionMethod : string
NumberOfMediaSupported : uint32
MaxMediaSize : uint64
DefaultBlockSize : uint64 {units}
MaxBlockSize : uint64 {units}
MinBlockSize : uint64 {units}
NeedsCleaning : boolean
MediaIsLocked : boolean
Security : uint16 {enum}
LastCleaned : datetime
MaxAccessTime : uint64 {units}
UncompressedDataRate : uint32 {units}
LoadTime : uint64 {units}
UnloadTime : uint64 {units}
MountCount : uint64
TimeOfLastMount : datetime
TotalMountTime : uint64
UnitsDescription : string
MaxUnitsBeforeCleaning : uint64
UnitsUsed : uint64
LockMedia ([IN] Lock : boolean) : uint32
StorageExtent
(See Device Model (StorageExtent & Memory))
*
*
MediaPresent
DiskDrive
DiskType : uint16 {E, enum}
FormFactor : uint16 {E, enum}
Encryption : uint16 {E, enum}
InterconnectType : uint16 {E, enum}
OtherInterconnectType : string {E}
InterconnectSpeed : uint64 {E}
RPM : uint32 {E}
DisketteDrive
CDROMDrive
DVDDrive
FormatsSupported : uint16[] {enum}
WORMDrive
MagnetoOpticalDrive
TapeDrive
EOTWarningZoneSize : uint32 {units}
MaxPartitionCount : uint32
Padding : uint32 {units}
MaxRewindTime : uint64 {units}

Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property

SystemSpecificCollection
(See Core Model)

Service
(See Core Model)

Capabilities
(See Core Model)

SCSITargetPortGroup

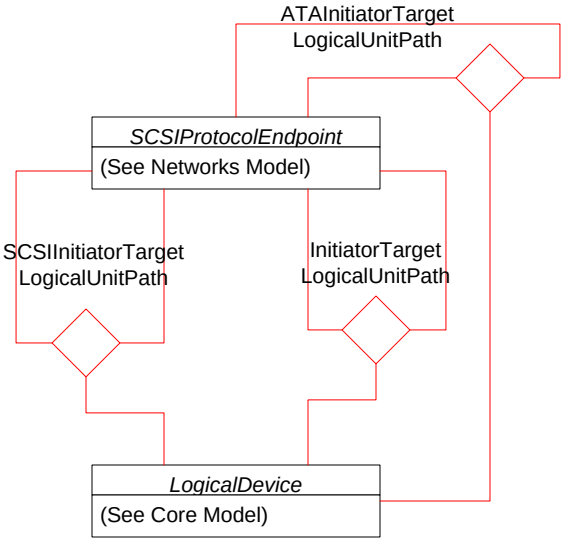
AccessState : uint16 {enum}
SupportsLuAssignment : boolean
ExplicitFailover : boolean
Preferred : boolean
Identifier : uint16

SCSIPathConfigurationService

SetTPGAccess (
  [IN] LogicalUnit : ref LogicalDevice
  [IN] TargetPortGroups : ref SCSITargetPortGroup []
  [IN] AccessStates {enum}
) : uint32 {enum}
SetLoadBalanceAlgorithm (
  [IN] LogicaDevice : ref LogicalDevice
  [IN] LoadBalanceAlgorithm : uint16 {enum}
  [IN] OtherLoadBalanceAlgorithmDescription : string
) : uint32 {enum}
AssignLogicalUnitToPortGroup (
  [IN] LogicalUnit : ref LogicalDevice
  [IN] TargetPortGroup : ref SCSITargetPortGroup
) : uint32 {enum}
SetOverridePath (
  [IN] Path : ref SCSIInitiatorTargetLogicalUnitPatH
) : uint32 {enum}
CancelOverridePath (
  [IN] LogicalUnit: ref LogicalDevice
) : uint32 {enum}

SCSIMultipathConfigurationCapabilities

SupportedLoadBalanceTypes : uint16 {enum}
OtherSupportedLoadBalanceAlgorithmNames : string []
OtherSupportedLoadBalanceVendorNames : string[]
CanSetTPGAccess : boolean
CanOverridePaths : boolean
ExposesPathDeviceFiles : boolean
DeviceNameFilespace : string
OnlySupportsSpecifiedProducts : boolean
MaximumWeight : uint32
PollingRateMax : uint32
CurrentPollingRate: uint32
AutoFailbackSupport : uint16 {Enum}
AutoFailbackEnabled : boolean
DefaultLoadBalanceType : uint16 {enum}

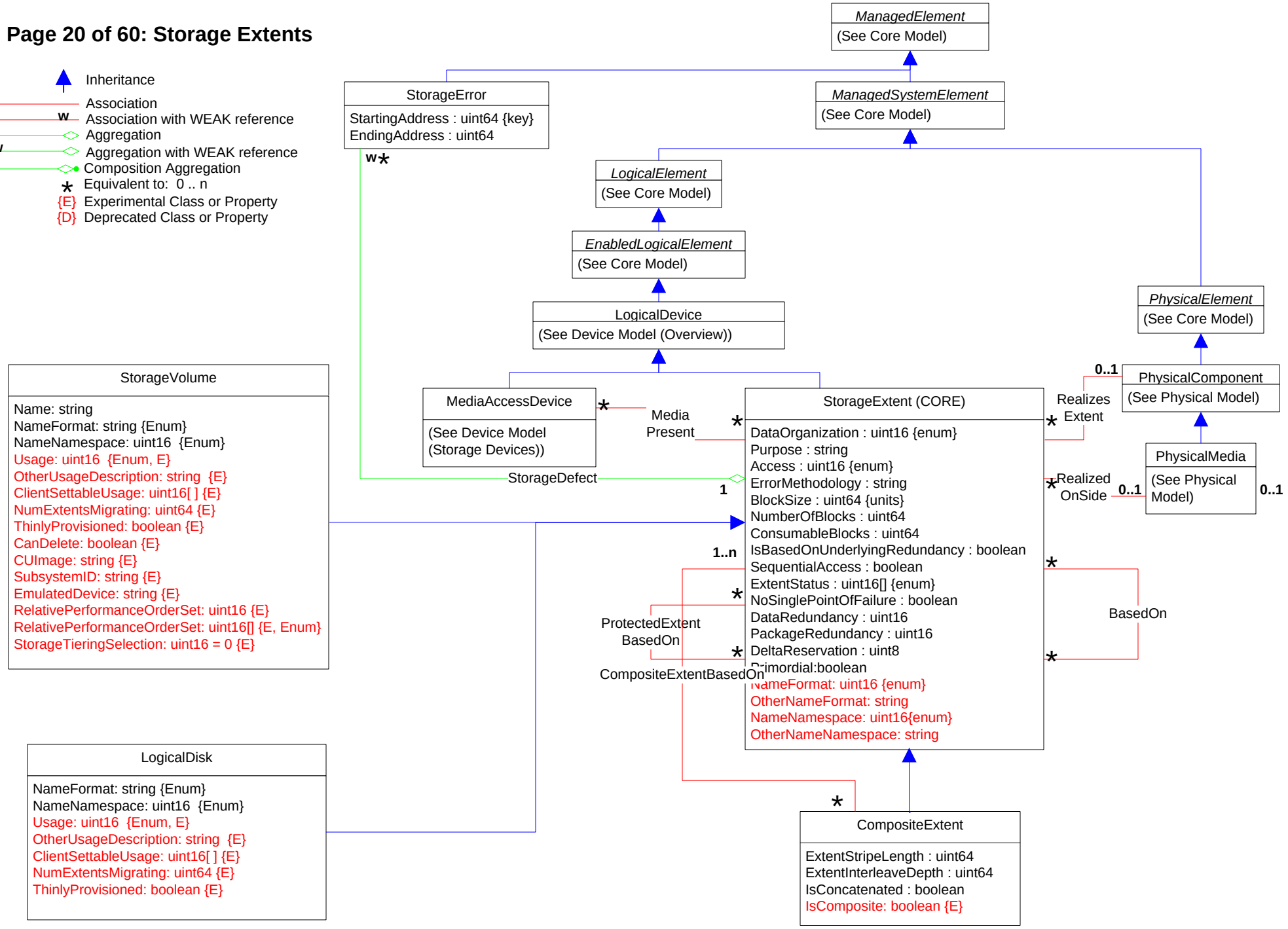


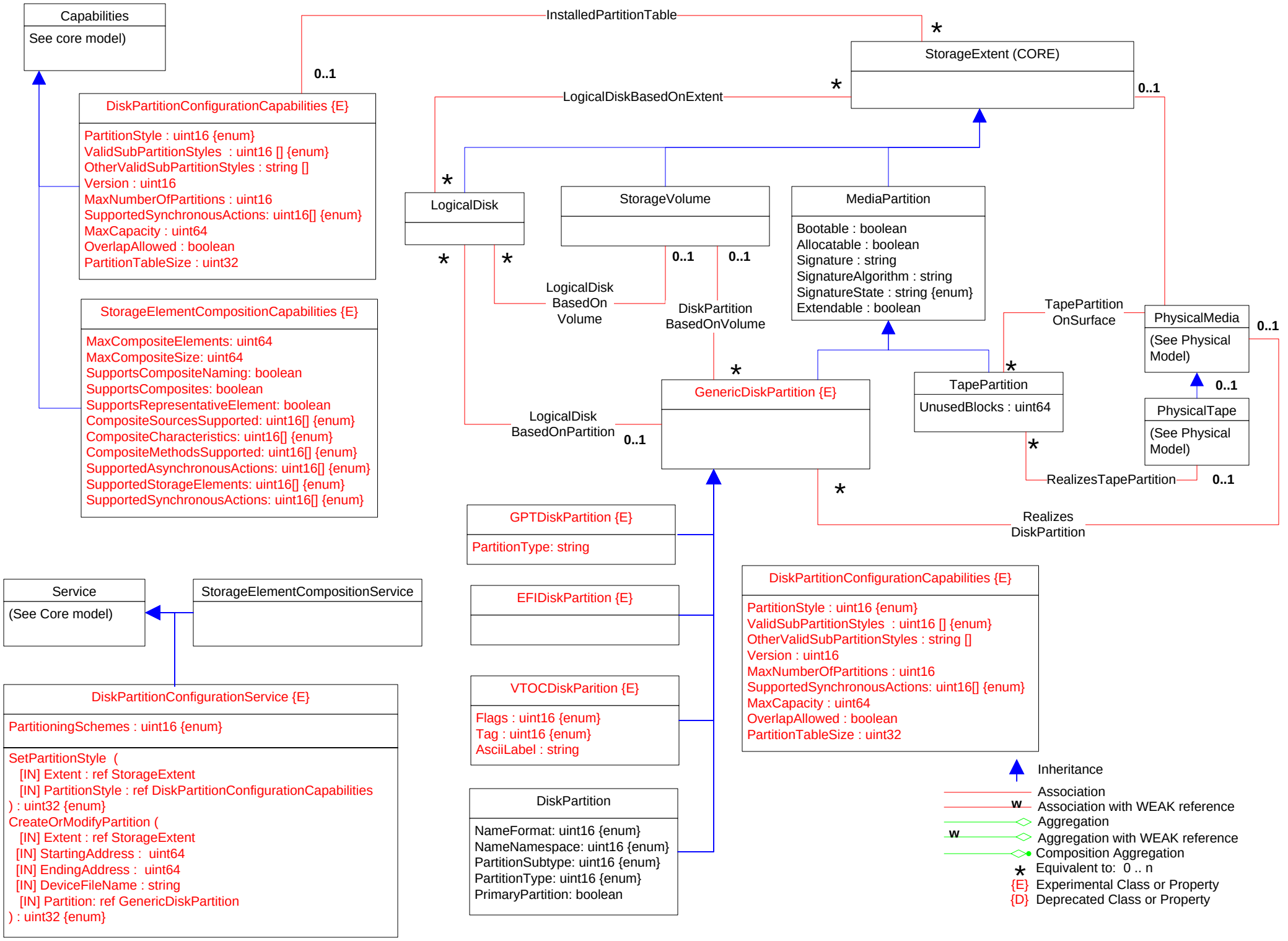
SettingData
(See Core Model)

SCSIMultipathSettings

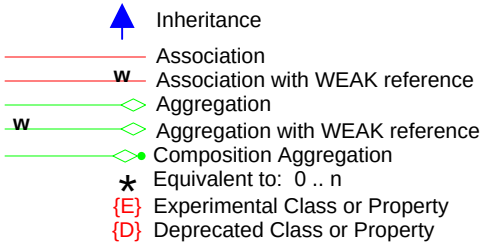
Asymmetric: boolean
AutoFailbackEnabled: uint16 {enum}
CurrentLoadBalanceType: uint16 {enum}
CurrentPollingRate: uint32
OtherCurrentLoadBalanceType: string
PollingRateMax: uint32

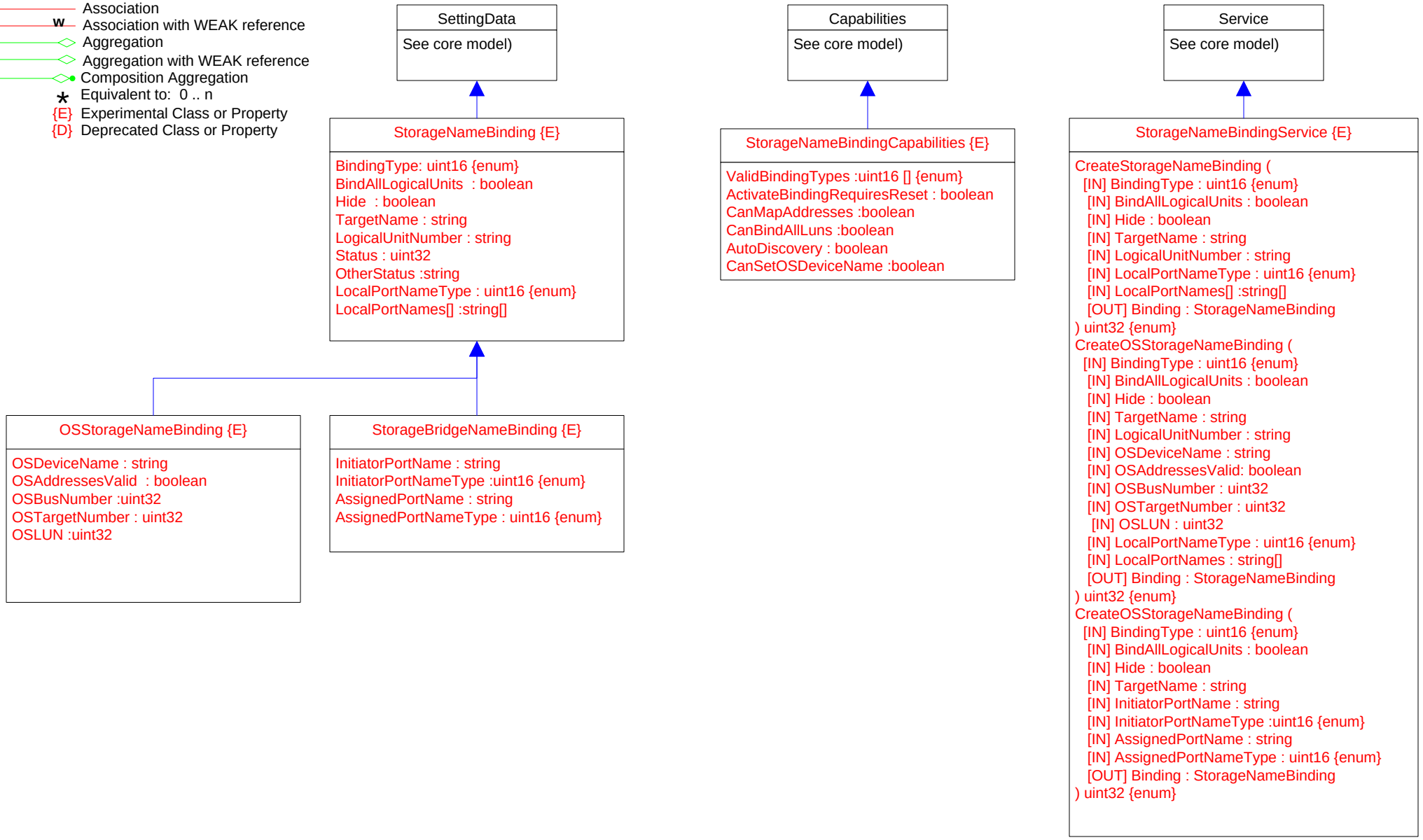
Page 20 of 60: Storage Extents



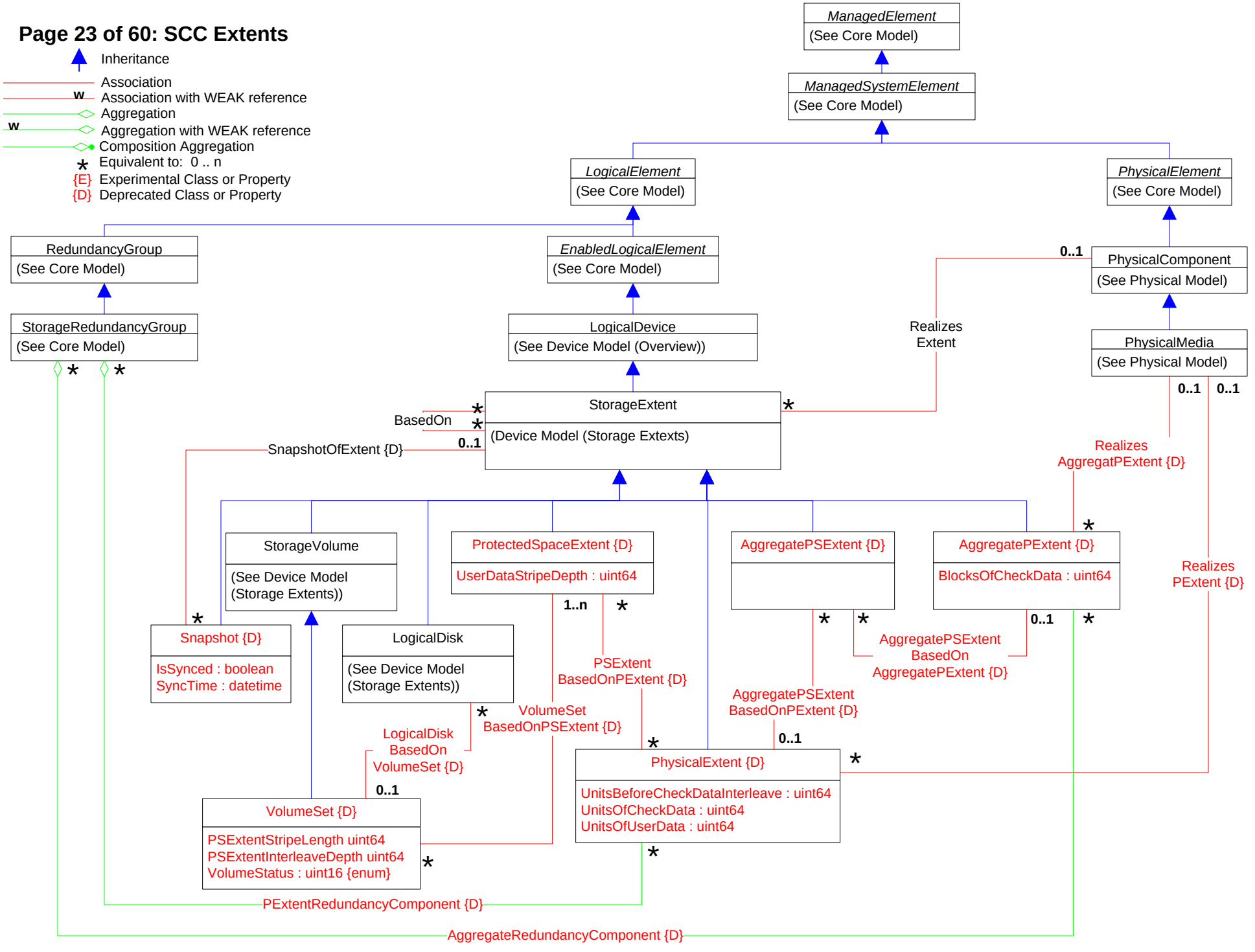

Capabilities
See core model)
InstalledPartitionTable
0..1
*
StorageExtent (CORE)
0..1
DiskPartitionConfigurationCapabilities {E}
PartitionStyle : uint16 {enum}
ValidSubPartitionStyles : uint16 [] {enum}
OtherValidSubPartitionStyles : string []
Version : uint16
MaxNumberOfPartitions : uint16
SupportedSynchronousActions: uint16[] {enum}
MaxCapacity : uint64
OverlapAllowed : boolean
PartitionTableSize : uint32
LogicalDiskBasedOnExtent
LogicalDisk
StorageVolume
MediaPartition
Bootable : boolean
Allocatable : boolean
Signature : string
SignatureAlgorithm : string
SignatureState : string {enum}
Extendable : boolean
StorageElementCompositionCapabilities {E}
MaxCompositeElements: uint64
MaxCompositeSize: uint64
SupportsCompositeNaming: boolean
SupportsComposites: boolean
SupportsRepresentativeElement: boolean
CompositeSourcesSupported: uint16[] {enum}
CompositeCharacteristics: uint16[] {enum}
CompositeMethodsSupported: uint16[] {enum}
SupportedAsynchronousActions: uint16[] {enum}
SupportedStorageElements: uint16[] {enum}
SupportedSynchronousActions: uint16[] {enum}
LogicalDisk BasedOn Volume
DiskPartition BasedOnVolume
TapePartition OnSurface
PhysicalMedia
(See Physical Model)
GenericDiskPartition {E}
TapePartition
UnusedBlocks : uint64
PhysicalTape
(See Physical Model)
LogicalDisk BasedOnPartition
RealizesTapePartition
Realizes DiskPartition
GPTDiskPartition {E}
PartitionType: string
Service
(See Core model)
StorageElementCompositionService
EFIDiskPartition {E}
DiskPartitionConfigurationCapabilities {E}
PartitionStyle : uint16 {enum}
ValidSubPartitionStyles : uint16 [] {enum}
OtherValidSubPartitionStyles : string []
Version : uint16
MaxNumberOfPartitions : uint16
SupportedSynchronousActions: uint16[] {enum}
MaxCapacity : uint64
OverlapAllowed : boolean
PartitionTableSize : uint32
VTOCDiskParition {E}
Flags : uint16 {enum}
Tag : uint16 {enum}
AsciiLabel : string
DiskPartitionConfigurationService {E}
PartitioningSchemes : uint16 {enum}
SetPartitionStyle (
[IN] Extent : ref StorageExtent
[IN] PartitionStyle : ref DiskPartitionConfigurationCapabilities
) : uint32 {enum}
CreateOrModifyPartition (
[IN] Extent : ref StorageExtent
[IN] StartingAddress : uint64
[IN] EndingAddress : uint64
[IN] DeviceFileName : string
[IN] Partition: ref GenericDiskPartition
) : uint32 {enum}
DiskPartition
NameFormat: uint16 {enum}
NameNamespace: uint16 {enum}
PartitionSubtype: uint16 {enum}
PartitionType: uint16 {enum}
PrimaryPartition: boolean
Inheritance
Association
Association with WEAK reference
Aggregation
Aggregation with WEAK reference
Composition Aggregation
Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property

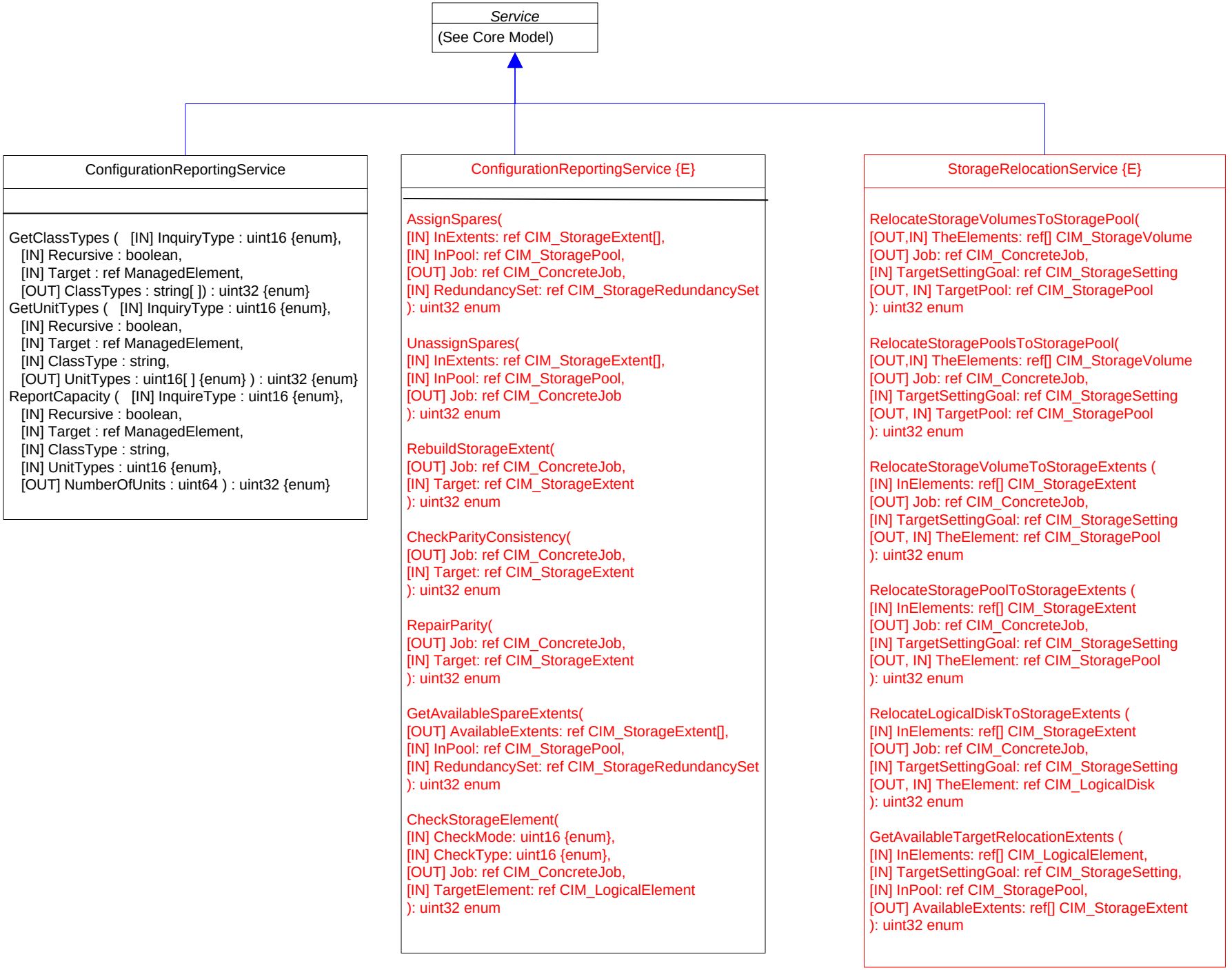
Page 22 of 60: StorageNameBinding

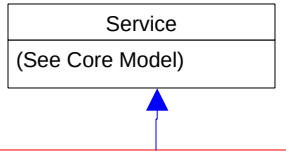




Page 23 of 60: SCC Extents

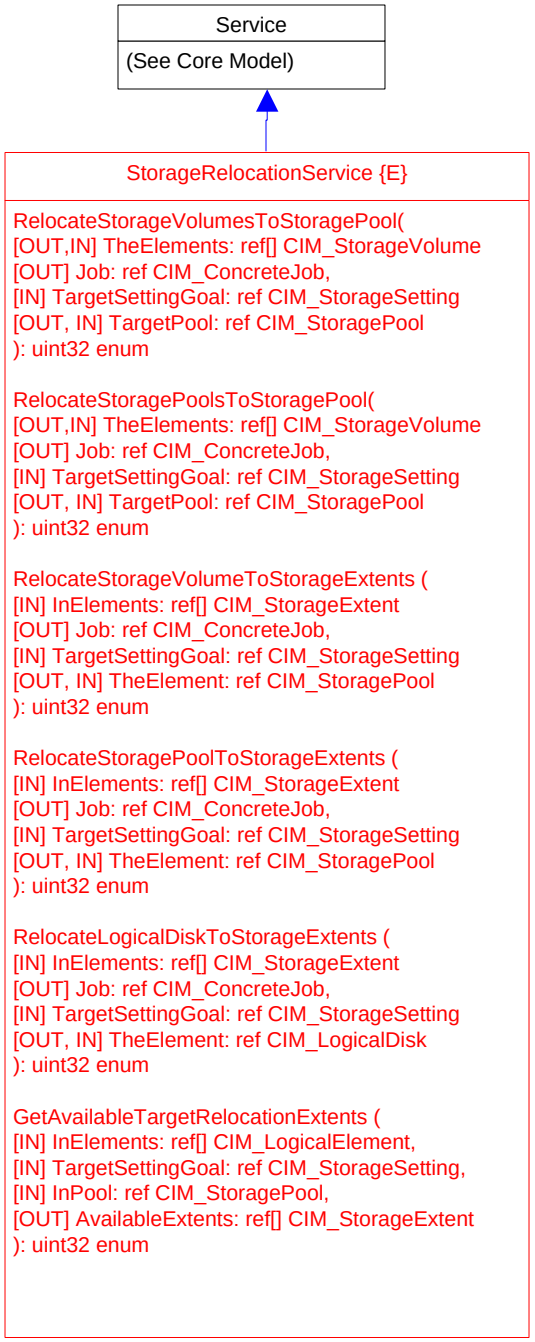


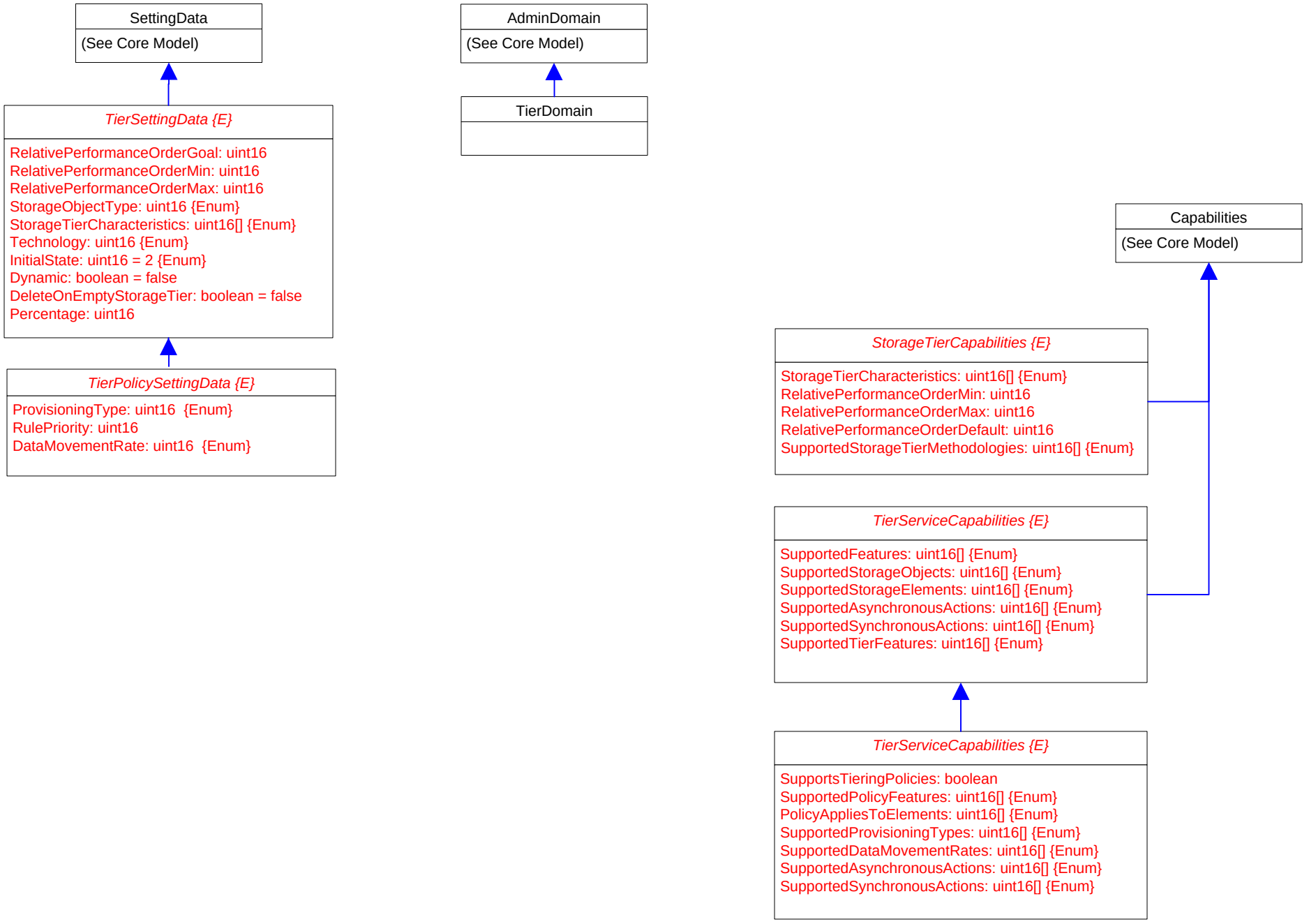

Service
(See Core Model)
ConfigurationReportingService
GetClassTypes ([IN] InquiryType : uint16 {enum},
[IN] Recursive : boolean,
[IN] Target : ref ManagedElement,
[OUT] ClassTypes : string[ ]) : uint32 {enum}
GetUnitTypes ([IN] InquiryType : uint16 {enum},
[IN] Recursive : boolean,
[IN] Target : ref ManagedElement,
[IN] ClassType : string,
[OUT] UnitTypes : uint16[ ] {enum}) : uint32 {enum}
ReportCapacity ([IN] InquireType : uint16 {enum},
[IN] Recursive : boolean,
[IN] Target : ref ManagedElement,
[IN] ClassType : string,
[IN] UnitTypes : uint16 {enum},
[OUT] NumberOfUnits : uint64) : uint32 {enum}
ConfigurationReportingService {E}
AssignSpares(
[IN] InExtents: ref CIM_StorageExtent[],
[IN] InPool: ref CIM_StoragePool,
[OUT] Job: ref CIM_ConcreteJob,
[IN] RedundancySet: ref CIM_StorageRedundancySet
): uint32 enum
UnassignSpares(
[IN] InExtents: ref CIM_StorageExtent[],
[IN] InPool: ref CIM_StoragePool,
[OUT] Job: ref CIM_ConcreteJob
): uint32 enum
RebuildStorageExtent(
[OUT] Job: ref CIM_ConcreteJob,
[IN] Target: ref CIM_StorageExtent
): uint32 enum
CheckParityConsistency(
[OUT] Job: ref CIM_ConcreteJob,
[IN] Target: ref CIM_StorageExtent
): uint32 enum
RepairParity(
[OUT] Job: ref CIM_ConcreteJob,
[IN] Target: ref CIM_StorageExtent
): uint32 enum
GetAvailableSpareExtents(
[OUT] AvailableExtents: ref CIM_StorageExtent[],
[IN] InPool: ref CIM_StoragePool,
[IN] RedundancySet: ref CIM_StorageRedundancySet
): uint32 enum
CheckStorageElement(
[IN] CheckMode: uint16 {enum},
[IN] CheckType: uint16 {enum},
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetElement: ref CIM_LogicalElement
): uint32 enum
StorageRelocationService {E}
RelocateStorageVolumesToStoragePool(
[OUT,IN] TheElements: ref[] CIM_StorageVolume
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TargetPool: ref CIM_StoragePool
): uint32 enum
RelocateStoragePoolsToStoragePool(
[OUT,IN] TheElements: ref[] CIM_StorageVolume
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TargetPool: ref CIM_StoragePool
): uint32 enum
RelocateStorageVolumeToStorageExtents (
[IN] InElements: ref[] CIM_StorageExtent
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TheElement: ref CIM_StoragePool
): uint32 enum
RelocateStoragePoolToStorageExtents (
[IN] InElements: ref[] CIM_StorageExtent
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TheElement: ref CIM_StoragePool
): uint32 enum
RelocateLogicalDiskToStorageExtents (
[IN] InElements: ref[] CIM_StorageExtent
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TheElement: ref CIM_LogicalDisk
): uint32 enum
GetAvailableTargetRelocationExtents (
[IN] InElements: ref[] CIM_LogicalElement,
[IN] TargetSettingGoal: ref CIM_StorageSetting,
[IN] InPool: ref CIM_StoragePool,
[OUT] AvailableExtents: ref[] CIM_StorageExtent
): uint32 enum

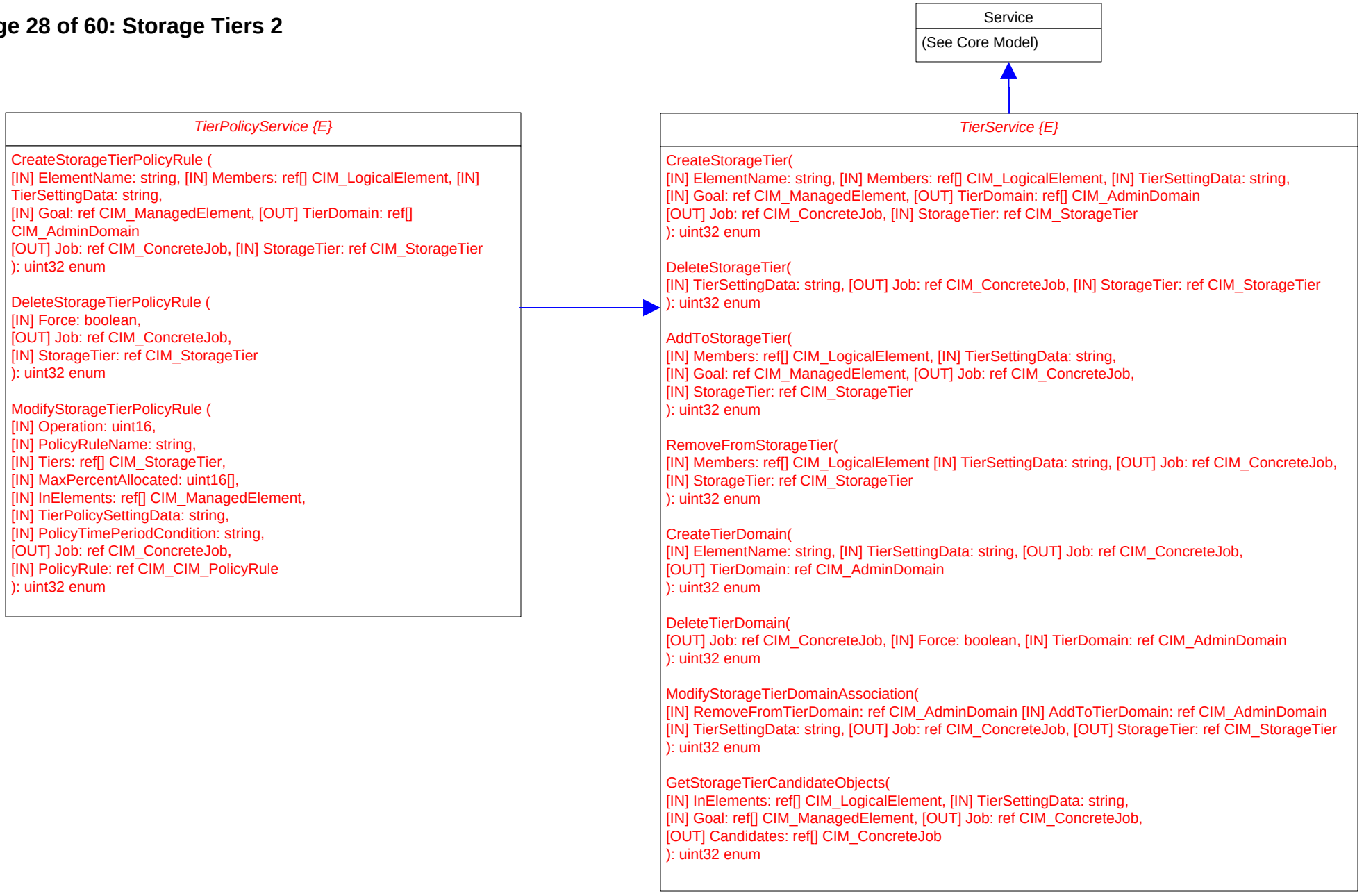


StorageConfigurationService {E}

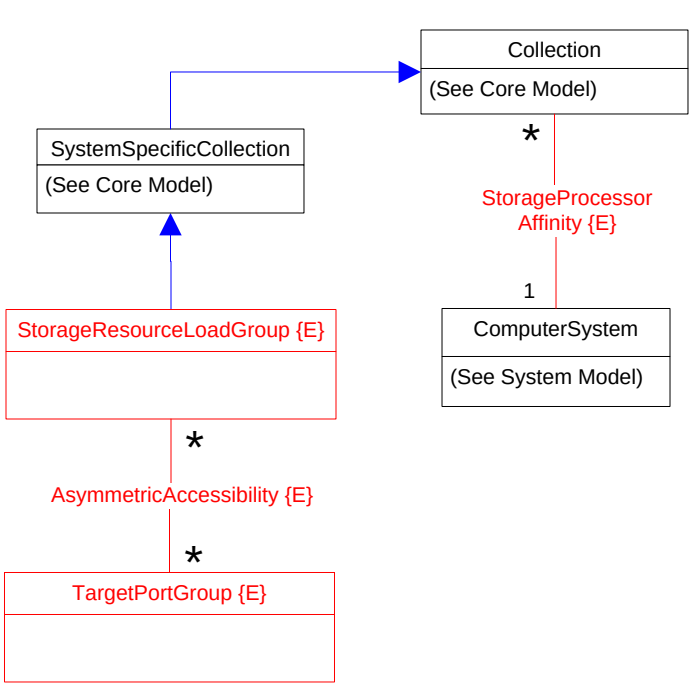
CreateOrModifyStoragePool{
[IN] string ElementName, [OUT] CIM_ConcreteJob ref Job, [IN] CIM_StorageSetting ref Goal, [IN] uint64 Size, [IN] string InPools[], [IN] string InExtents[], [OUT, IN] Pool: ref CIM_StoragePool); uint32 (enum)
CreateOrModifyElementFromStoragePool(
[IN] string ElementName, [IN] uint16 ElementType, [IN] Job: ref CIM_ConcreteJob, [IN] Goal: ref CIM_ManagedElement, [IN] uint64 Size, [IN] InPool: refCIM_StoragePool, [OUT, IN] TheElement: ref CIM_LogicalElement); uint32 (enum)
DeleteStoragePool(
[IN] Job: ref CIM_ConcreteJob, [IN] Pool: ref CIM_StoragePool); uint32 (enum)
ReturnToStoragePool(
[IN] Job: ref CIM_ConcreteJob, [IN] TheElement: ref CIM_LogicalElement); uint32 (enum)
CreateReplica(
[IN] string ElementName, [IN] Job: ref CIM_ConcreteJob, [IN] SourceElement: ref CIM_LogicalElement, [IN] TargetElement: ref CIM_LogicalElement, [IN] TargetSettingGoal" ref CIM_StorageSetting,
[IN] TargetPool: ref CIM_StoragePool, [IN] uint16 CopyType (enum)); uint32 (enum)
ModifySynchronization(
[IN] uint16 Operation, enum}, [IN] Job: ref CIM_ConcreteJob, [IN] Synchronization: ref CIM_StorageSynchronized); uint32 (enum)
AttachReplica(
[IN] Job: ref CIM_ConcreteJob, [IN] SourceElement: ref CIM_ManagedElement, [IN] TargetElement: ref CIM_ManagedElement, [IN] uint16 CopyType {enum}); uint32 (enum)
AttachOrModifyReplica(
[IN] Job: ref CIM_ConcreteJob, [IN] SourceElement: ref CIM_ManagedElement, [IN] TargetElement: ref CIM_ManagedElement, [IN] uint16 CopyType, {enum} [IN] string Goal, [IN] ReplicationPipe: ref CIM_NetworkPipe); uint32 (enum)
CreateOrModifyReplicationPipe(
[IN] string PipeElementName, [IN] SourceSystem: ref CIM_ComputerSystem, [IN] TargetSystem: ref CIM_ComputerSystem, [IN] SourceEndpoint: ref CIM_ProtocolEndpoint[],
[[IN] TargetEndpoint: ref CIM_ProtocolEndpoint[], [IN] string Goal, [OUT, IN] ReplicationPipe: ref CIM_NetworkPipe); uint32 (enum)
CreateReplicationBuffer(
[IN] Job: ref CIM_ConcreteJob, [IN] Host: ref CIM_ManagedElement, [IN] TargetElement: ref CIM_StorageExtent, [IN] TargetPool: ref CIM_StoragePool, [IN] ReplicaBuffer: ref CIM_Memory); uint32 (enum)
CreateOrModifyElementFromElements(
[IN] string ElementName, [IN] uint16 ElementType, {enum}, [IN] Job: ref CIM_ConcreteJob, [IN] Goal: ref CIM_ManagedElement, [IN] uint64 Size, [IN] InElements: ref CIM_StorageExtent[],
[OUT, IN] TheElement: ref CIM_LogicalElement); uint32 (enum)
ScsiScan(
[OUT, IN] CIM_ConcreteJob ref Job, [IN] uint16 ConnectionType, {enum}, [IN] string OtherConnectionType, [IN] Initiators: ref CIM_SCSIProtocolEndpoint[], [IN] string Targets[], [IN] string LogicalUnits[]
); uint32 (enum)
RequestUsageChange(
[IN] uint16 Operation, {enum}, [IN] uint16 UsageValue, [IN] string OtherUsageDescription, [IN] Job: ref CIM_ConcreteJob, [IN] TheElement: ref CIM_LogicalElement); uint32 (enum)
GetElementsBasedOnUsage(
[IN] uint16 ElementType, {enum}, [IN] uint16 Usage, [IN] uint16 Criteria, {enum}, [IN] ThePool: ref CIM_StoragePool, [IN] TheElements: ref CIM_ManagedSystemElement[]); uint32 (enum)
AssignStorageResourceAffinity(
[IN] uint16 ResourceType, [IN] Job: ref CIM_ConcreteJob, [IN] StorageProcessor: ref CIM_ComputerSystem, [IN] StorageResources: ref CIM_LogicalElement[]); uint32 (enum)
CreateElementsFromStoragePool(
[IN] string ElementNames[], [IN] uint16 ElementType, {enum}, [IN] uint64 ElementCount, [IN] Job: ref CIM_ConcreteJob, [IN] Goal: ref CIM_ManagedElement, [IN] uint64 Size, [IN] InPool: ref CIM_StoragePool, [IN] TheElements: ref CIM_LogicalElement[]); uint32 (enum)
ReturnElementsToStoragePool(
[IN] uint16 Options, {enum}, [IN] Job: ref CIM_ConcreteJob, [IN] TheElements: ref CIM_LogicalElement[]); uint32 (enum)

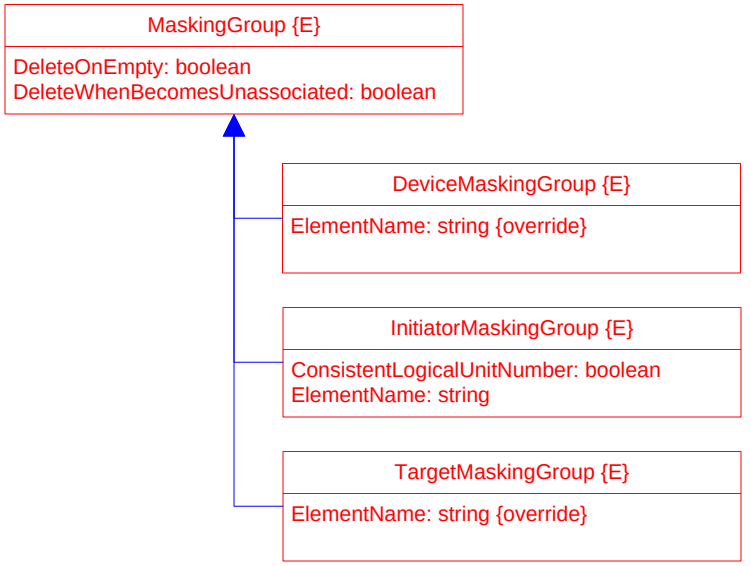

Service
(See Core Model)
StorageRelocationService {E}
RelocateStorageVolumesToStoragePool(
[OUT,IN] TheElements: ref[] CIM_StorageVolume
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TargetPool: ref CIM_StoragePool
): uint32 enum
RelocateStoragePoolsToStoragePool(
[OUT,IN] TheElements: ref[] CIM_StorageVolume
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TargetPool: ref CIM_StoragePool
): uint32 enum
RelocateStorageVolumeToStorageExtents (
[IN] InElements: ref[] CIM_StorageExtent
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TheElement: ref CIM_StoragePool
): uint32 enum
RelocateStoragePoolToStorageExtents (
[IN] InElements: ref[] CIM_StorageExtent
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TheElement: ref CIM_StoragePool
): uint32 enum
RelocateLogicalDiskToStorageExtents (
[IN] InElements: ref[] CIM_StorageExtent
[OUT] Job: ref CIM_ConcreteJob,
[IN] TargetSettingGoal: ref CIM_StorageSetting
[OUT, IN] TheElement: ref CIM_LogicalDisk
): uint32 enum
GetAvailableTargetRelocationExtents (
[IN] InElements: ref[] CIM_LogicalElement,
[IN] TargetSettingGoal: ref CIM_StorageSetting,
[IN] InPool: ref CIM_StoragePool,
[OUT] AvailableExtents: ref[] CIM_StorageExtent
): uint32 enum

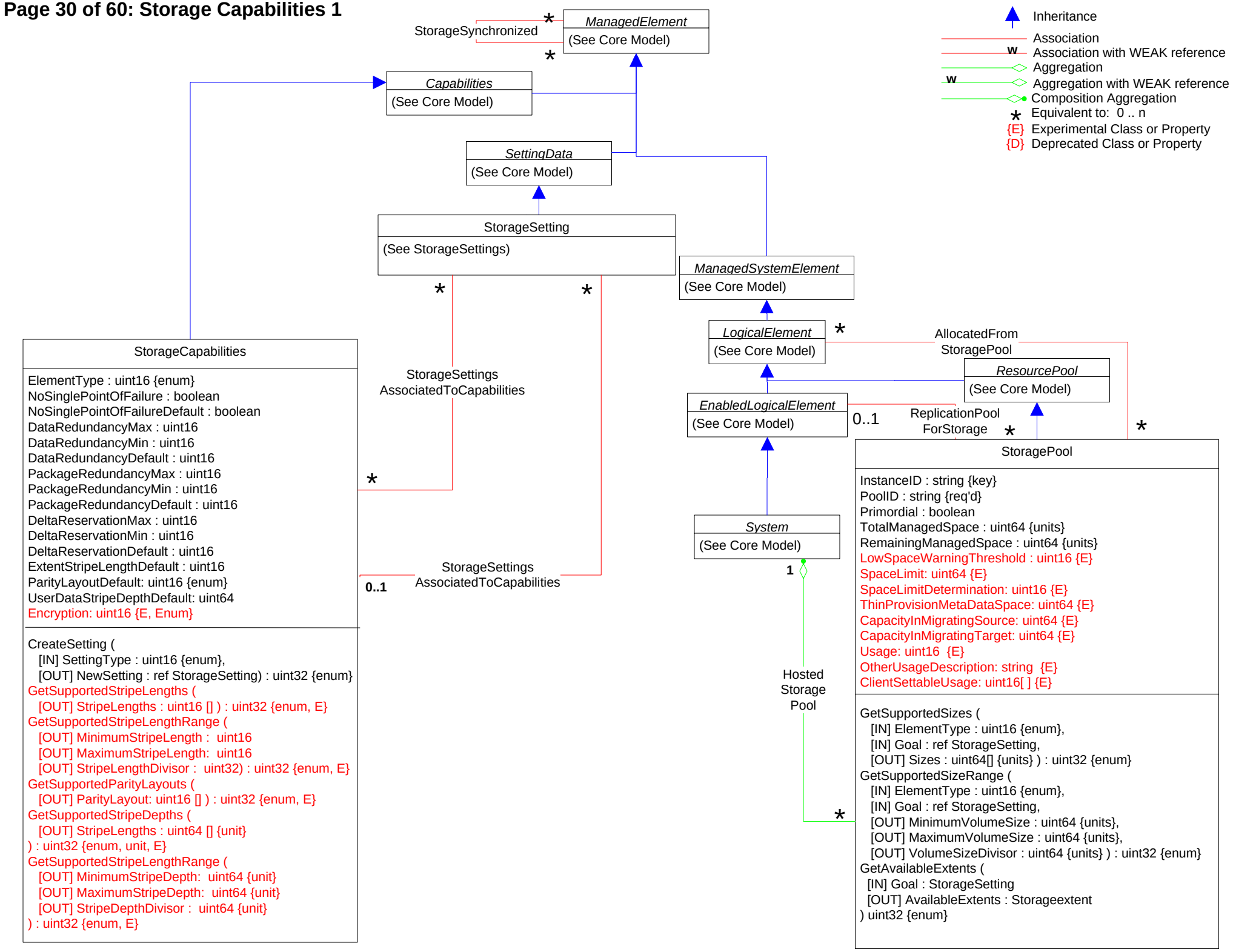

SettingData
(See Core Model)
AdminDomain
(See Core Model)
TierDomain
TierSettingData {E}
RelativePerformanceOrderGoal: uint16
RelativePerformanceOrderMin: uint16
RelativePerformanceOrderMax: uint16
StorageObjectType: uint16 {Enum}
StorageTierCharacteristics: uint16[] {Enum}
Technology: uint16 {Enum}
InitialState: uint16 = 2 {Enum}
Dynamic: boolean = false
DeleteOnEmptyStorageTier: boolean = false
Percentage: uint16
TierPolicySettingData {E}
ProvisioningType: uint16 {Enum}
RulePriority: uint16
DataMovementRate: uint16 {Enum}
Capabilities
(See Core Model)
StorageTierCapabilities {E}
StorageTierCharacteristics: uint16[] {Enum}
RelativePerformanceOrderMin: uint16
RelativePerformanceOrderMax: uint16
RelativePerformanceOrderDefault: uint16
SupportedStorageTierMethodologies: uint16[] {Enum}
TierServiceCapabilities {E}
SupportedFeatures: uint16[] {Enum}
SupportedStorageObjects: uint16[] {Enum}
SupportedStorageElements: uint16[] {Enum}
SupportedAsynchronousActions: uint16[] {Enum}
SupportedSynchronousActions: uint16[] {Enum}
SupportedTierFeatures: uint16[] {Enum}
TierServiceCapabilities {E}
SupportsTieringPolicies: boolean
SupportedPolicyFeatures: uint16[] {Enum}
PolicyAppliesToElements: uint16[] {Enum}
SupportedProvisioningTypes: uint16[] {Enum}
SupportedDataMovementRates: uint16[] {Enum}
SupportedAsynchronousActions: uint16[] {Enum}
SupportedSynchronousActions: uint16[] {Enum}

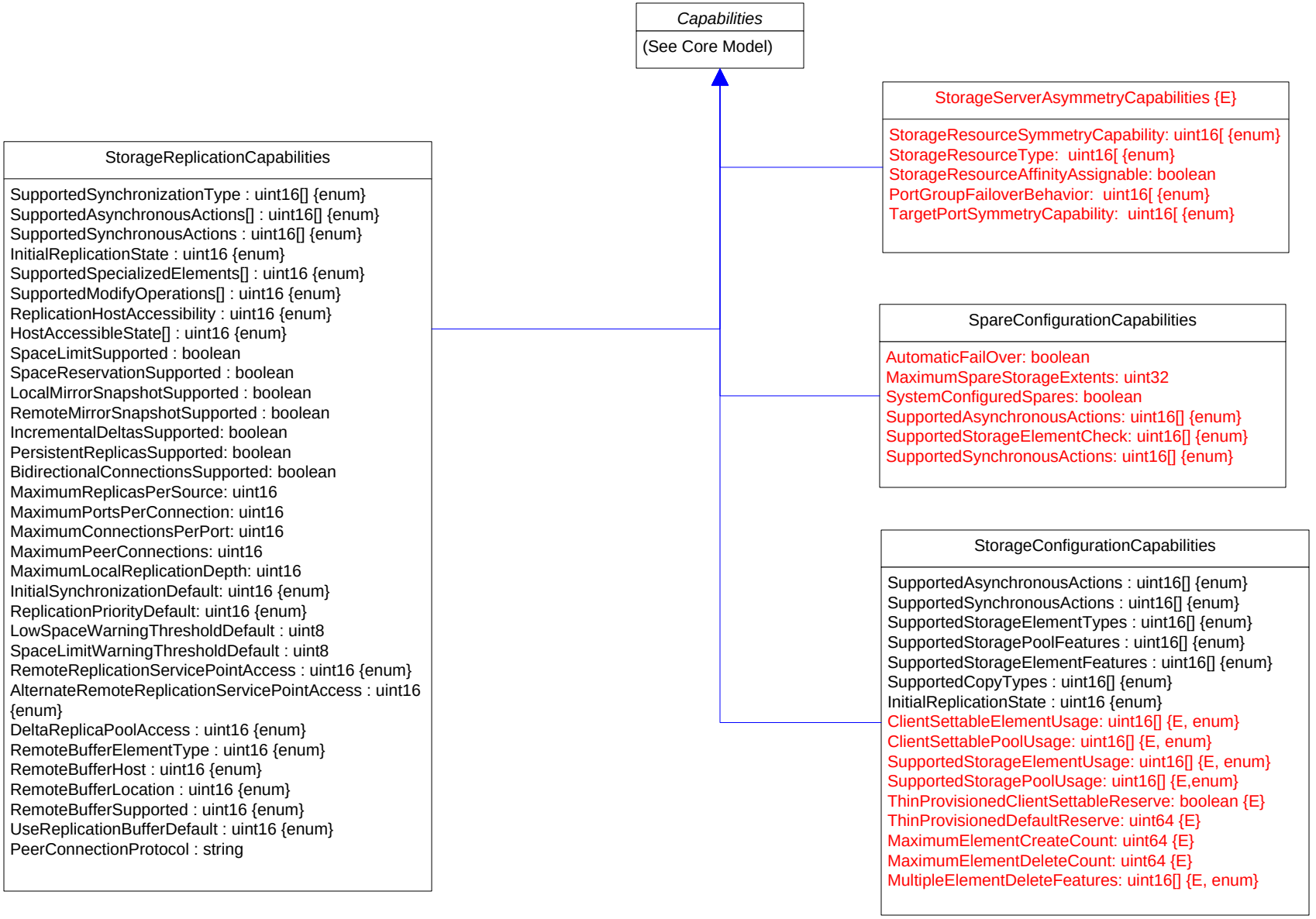

Service
(See Core Model)
TierPolicyService {E}
CreateStorageTierPolicyRule (
[IN] ElementName: string, [IN] Members: ref[] CIM_LogicalElement, [IN] TierSettingData: string,
[IN] Goal: ref CIM_ManagedElement, [OUT] TierDomain: ref[] CIM_AdminDomain
[OUT] Job: ref CIM_ConcreteJob, [IN] StorageTier: ref CIM_StorageTier
): uint32 enum
DeleteStorageTierPolicyRule (
[IN] Force: boolean,
[OUT] Job: ref CIM_ConcreteJob,
[IN] StorageTier: ref CIM_StorageTier
): uint32 enum
ModifyStorageTierPolicyRule (
[IN] Operation: uint16,
[IN] PolicyRuleName: string,
[IN] Tiers: ref[] CIM_StorageTier,
[IN] MaxPercentAllocated: uint16[],
[IN] InElements: ref[] CIM_ManagedElement,
[IN] TierPolicySettingData: string,
[IN] PolicyTimePeriodCondition: string,
[OUT] Job: ref CIM_ConcreteJob,
[IN] PolicyRule: ref CIM_CIM_PolicyRule
): uint32 enum
TierService {E}
CreateStorageTier(
[IN] ElementName: string, [IN] Members: ref[] CIM_LogicalElement, [IN] TierSettingData: string,
[IN] Goal: ref CIM_ManagedElement, [OUT] TierDomain: ref[] CIM_AdminDomain
[OUT] Job: ref CIM_ConcreteJob, [IN] StorageTier: ref CIM_StorageTier
): uint32 enum
DeleteStorageTier(
[IN] TierSettingData: string, [OUT] Job: ref CIM_ConcreteJob, [IN] StorageTier: ref CIM_StorageTier
): uint32 enum
AddToStorageTier(
[IN] Members: ref[] CIM_LogicalElement, [IN] TierSettingData: string,
[IN] Goal: ref CIM_ManagedElement, [OUT] Job: ref CIM_ConcreteJob,
[IN] StorageTier: ref CIM_StorageTier
): uint32 enum
RemoveFromStorageTier(
[IN] Members: ref[] CIM_LogicalElement [IN] TierSettingData: string, [OUT] Job: ref CIM_ConcreteJob,
[IN] StorageTier: ref CIM_StorageTier
): uint32 enum
CreateTierDomain(
[IN] ElementName: string, [IN] TierSettingData: string, [OUT] Job: ref CIM_ConcreteJob,
[OUT] TierDomain: ref CIM_AdminDomain
): uint32 enum
DeleteTierDomain(
[OUT] Job: ref CIM_ConcreteJob, [IN] Force: boolean, [IN] TierDomain: ref CIM_AdminDomain
): uint32 enum
ModifyStorageTierDomainAssociation(
[IN] RemoveFromTierDomain: ref CIM_AdminDomain [IN] AddToTierDomain: ref CIM_AdminDomain
[IN] TierSettingData: string, [OUT] Job: ref CIM_ConcreteJob, [OUT] StorageTier: ref CIM_StorageTier
): uint32 enum
GetStorageTierCandidateObjects(
[IN] InElements: ref[] CIM_LogicalElement, [IN] TierSettingData: string,
[IN] Goal: ref[] CIM_ManagedElement, [OUT] Job: ref CIM_ConcreteJob,
[OUT] Candidates: ref[] CIM_ConcreteJob
): uint32 enum

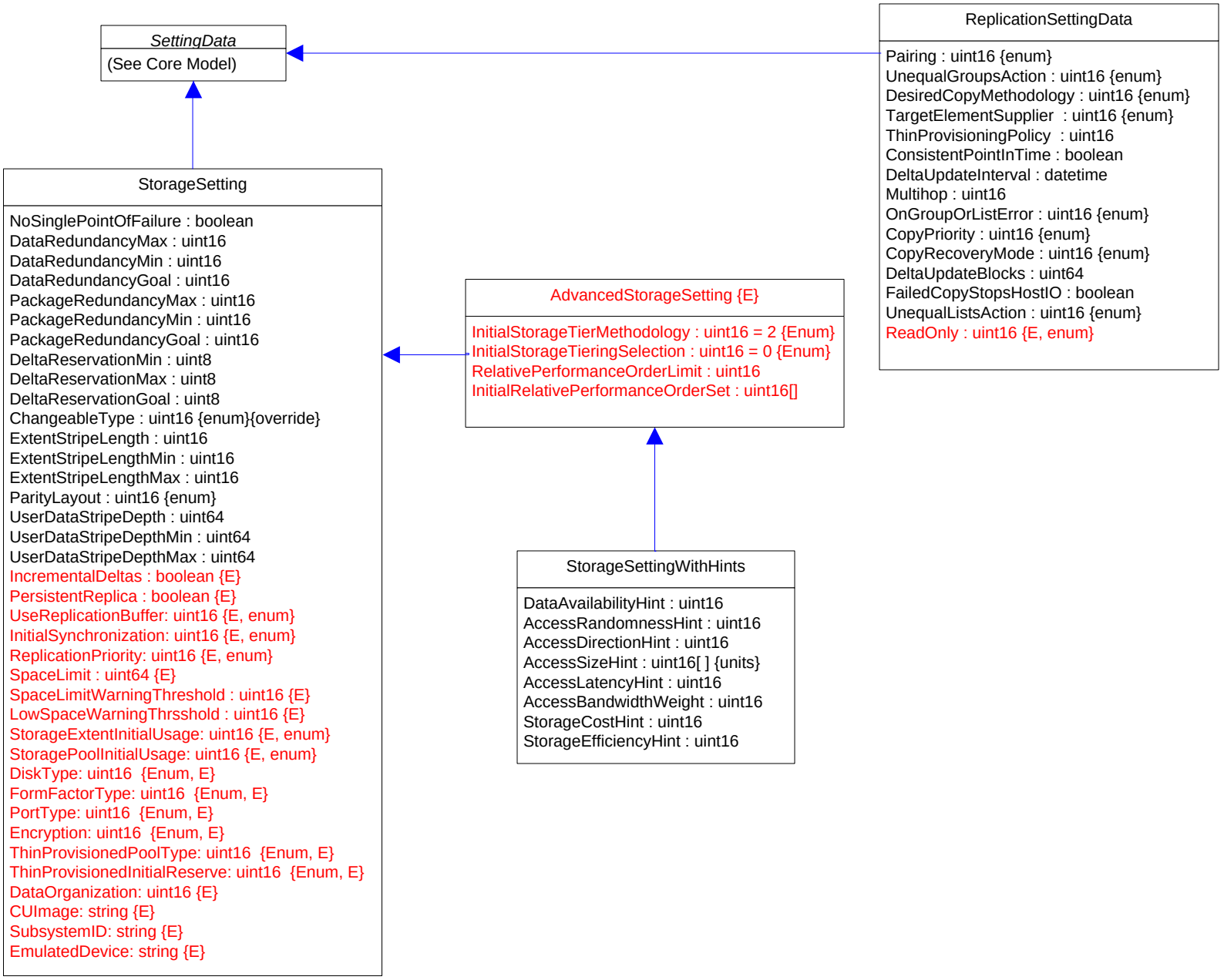
Page 29 of 60: Storage Groups

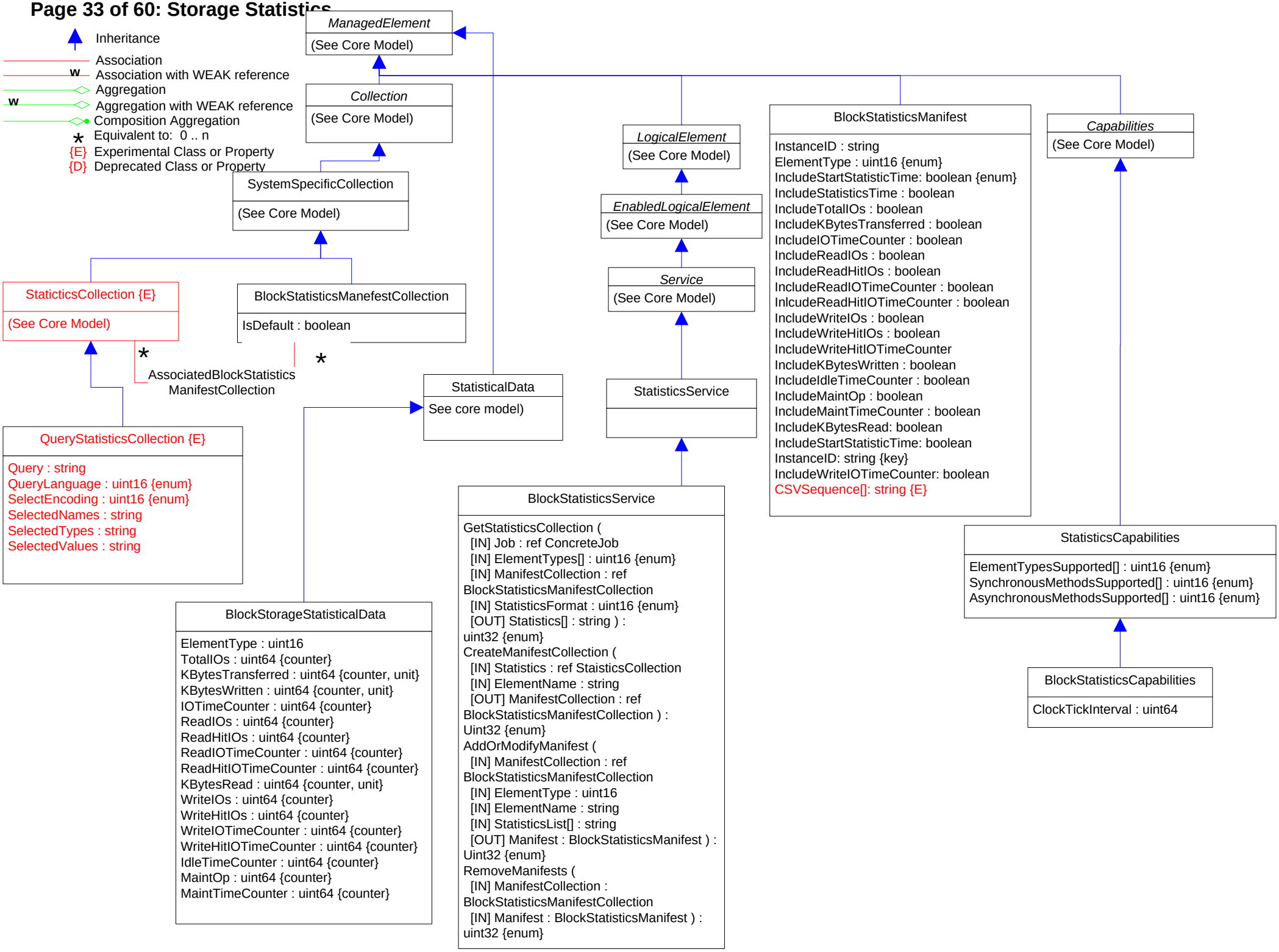





Inheritance
Association
Association with WEAK reference
Aggregation
Aggregation with WEAK reference
Composition Aggregation
Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property
StorageSynchronized
ManagedElement
(See Core Model)
Capabilities
(See Core Model)
SettingData
(See Core Model)
StorageSetting
(See StorageSettings)
ManagedSystemElement
(See Core Model)
LogicalElement
(See Core Model)
AllocatedFrom
StoragePool
ResourcePool
(See Core Model)
EnabledLogicalElement
(See Core Model)
0..1
ReplicationPool
ForStorage
StorageCapabilities
ElementType : uint16 {enum}
NoSinglePointOfFailure : boolean
NoSinglePointOfFailureDefault : boolean
DataRedundancyMax : uint16
DataRedundancyMin : uint16
DataRedundancyDefault : uint16
PackageRedundancyMax : uint16
PackageRedundancyMin : uint16
PackageRedundancyDefault : uint16
DeltaReservationMax : uint16
DeltaReservationMin : uint16
DeltaReservationDefault : uint16
ExtentStripeLengthDefault : uint16
ParityLayoutDefault: uint16 {enum}
UserDataStripeDepthDefault: uint64
Encryption: uint16 {E, Enum}
CreateSetting (
[IN] SettingType : uint16 {enum},
[OUT] NewSetting : ref StorageSetting) : uint32 {enum}
GetSupportedStripeLengths (
[OUT] StripeLengths : uint16 []) : uint32 {enum, E}
GetSupportedStripeLengthRange (
[OUT] MinimumStripeLength : uint16
[OUT] MaximumStripeLength: uint16
[OUT] StripeLengthDivisor : uint32) : uint32 {enum, E}
GetSupportedParityLayouts (
[OUT] ParityLayout: uint16 []) : uint32 {enum, E}
GetSupportedStripeDepths (
[OUT] StripeLengths : uint64 [] {unit}
) : uint32 {enum, unit, E}
GetSupportedStripeLengthRange (
[OUT] MinimumStripeDepth: uint64 {unit}
[OUT] MaximumStripeDepth: uint64 {unit}
[OUT] StripeDepthDivisor : uint64 {unit}
) : uint32 {enum, E}
StorageSettings
AssociatedToCapabilities
StorageSettings
AssociatedToCapabilities
0..1
System
(See Core Model)
1
Hosted
Storage
Pool
StoragePool
InstanceID : string {key}
PoolID : string {req'd}
Primordial : boolean
TotalManagedSpace : uint64 {units}
RemainingManagedSpace : uint64 {units}
LowSpaceWarningThreshold : uint16 {E}
SpaceLimit: uint64 {E}
SpaceLimitDetermination: uint16 {E}
ThinProvisionMetaDataSpace: uint64 {E}
CapacityInMigratingSource: uint64 {E}
CapacityInMigratingTarget: uint64 {E}
Usage: uint16 {E}
OtherUsageDescription: string {E}
ClientSettableUsage: uint16[ ] {E}
GetSupportedSizes (
[IN] ElementType : uint16 {enum},
[IN] Goal : ref StorageSetting,
[OUT] Sizes : uint64[] {units}) : uint32 {enum}
GetSupportedSizeRange (
[IN] ElementType : uint16 {enum},
[IN] Goal : ref StorageSetting,
[OUT] MinimumVolumeSize : uint64 {units},
[OUT] MaximumVolumeSize : uint64 {units},
[OUT] VolumeSizeDivisor : uint64 {units}) : uint32 {enum}
GetAvailableExtents (
[IN] Goal : StorageSetting
[OUT] AvailableExtents : Storageextent
) uint32 {enum}

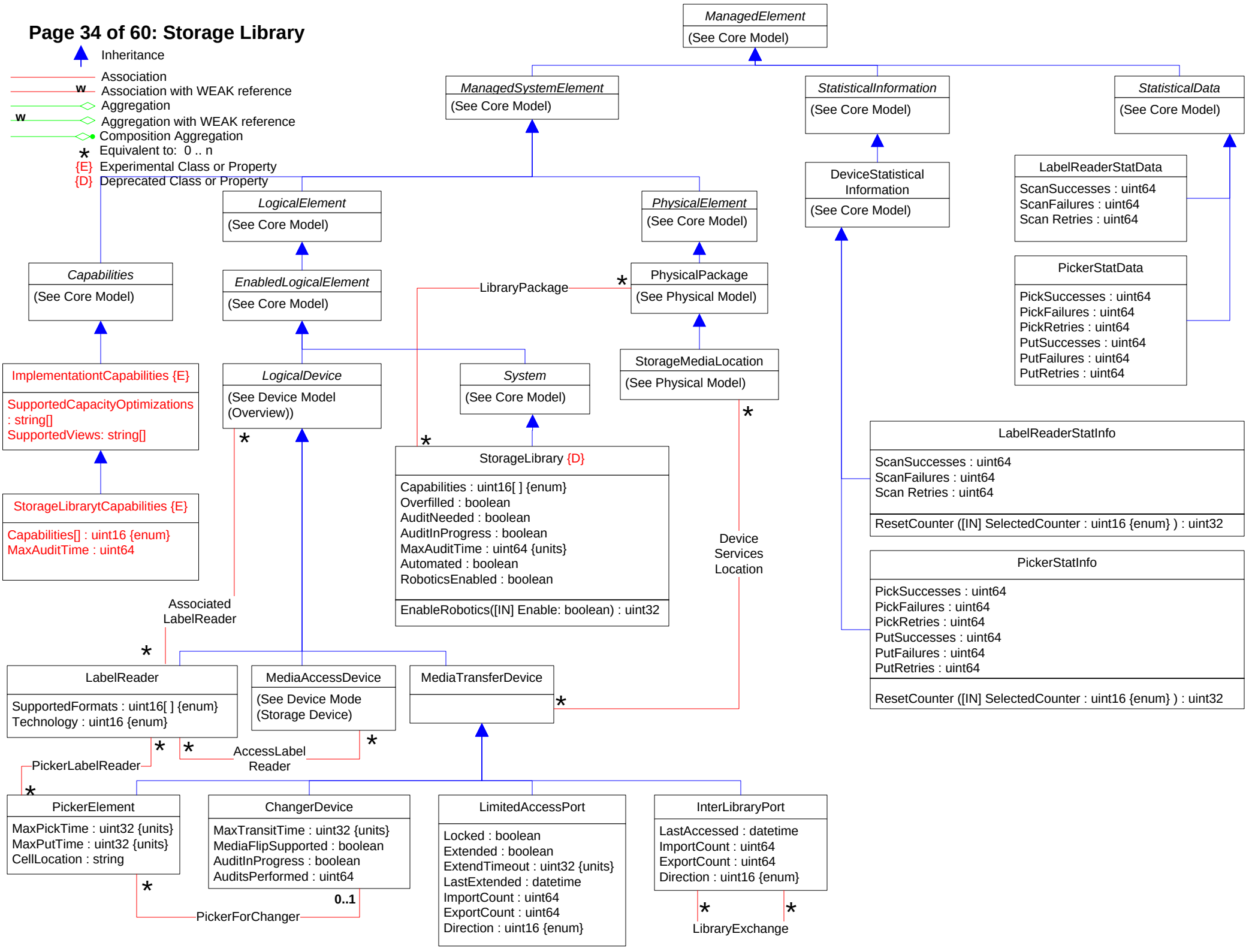

Capabilities
(See Core Model)
StorageServerAsymmetryCapabilities {E}
StorageResourceSymmetryCapability: uint16[{enum}
StorageResourceType: uint16[{enum}
StorageResourceAffinityAssignable: boolean
PortGroupFailoverBehavior: uint16[{enum}
TargetPortSymmetryCapability: uint16[{enum}
StorageReplicationCapabilities
SupportedSynchronizationType : uint16[] {enum}
SupportedAsynchronousActions[] : uint16[] {enum}
SupportedSynchronousActions : uint16[] {enum}
InitialReplicationState : uint16 {enum}
SupportedSpecializedElements[] : uint16 {enum}
SupportedModifyOperations[] : uint16 {enum}
ReplicationHostAccessibility : uint16 {enum}
HostAccessibleState[] : uint16 {enum}
SpaceLimitSupported : boolean
SpaceReservationSupported : boolean
LocalMirrorSnapshotSupported : boolean
RemoteMirrorSnapshotSupported : boolean
IncrementalDeltasSupported: boolean
PersistentReplicasSupported: boolean
BidirectionalConnectionsSupported: boolean
MaximumReplicasPerSource: uint16
MaximumPortsPerConnection: uint16
MaximumConnectionsPerPort: uint16
MaximumPeerConnections: uint16
MaximumLocalReplicationDepth: uint16
InitialSynchronizationDefault: uint16 {enum}
ReplicationPriorityDefault: uint16 {enum}
LowSpaceWarningThresholdDefault : uint8
SpaceLimitWarningThresholdDefault : uint8
RemoteReplicationServicePointAccess : uint16 {enum}
AlternateRemoteReplicationServicePointAccess : uint16 {enum}
DeltaReplicaPoolAccess : uint16 {enum}
RemoteBufferElementType : uint16 {enum}
RemoteBufferHost : uint16 {enum}
RemoteBufferLocation : uint16 {enum}
RemoteBufferSupported : uint16 {enum}
UseReplicationBufferDefault : uint16 {enum}
PeerConnectionProtocol : string
SpareConfigurationCapabilities
AutomaticFailOver: boolean
MaximumSpareStorageExtents: uint32
SystemConfiguredSpares: boolean
SupportedAsynchronousActions: uint16[] {enum}
SupportedStorageElementCheck: uint16[] {enum}
SupportedSynchronousActions: uint16[] {enum}
StorageConfigurationCapabilities
SupportedAsynchronousActions : uint16[] {enum}
SupportedSynchronousActions : uint16[] {enum}
SupportedStorageElementTypes : uint16[] {enum}
SupportedStoragePoolFeatures : uint16[] {enum}
SupportedStorageElementFeatures : uint16[] {enum}
SupportedCopyTypes : uint16[] {enum}
InitialReplicationState : uint16 {enum}
ClientSettableElementUsage: uint16[] {E, enum}
ClientSettablePoolUsage: uint16[] {E, enum}
SupportedStorageElementUsage: uint16[] {E, enum}
SupportedStoragePoolUsage: uint16[] {E,enum}
ThinProvisionedClientSettableReserve: boolean {E}
ThinProvisionedDefaultReserve: uint64 {E}
MaximumElementCreateCount: uint64 {E}
MaximumElementDeleteCount: uint64 {E}
MultipleElementDeleteFeatures: uint16[] {E, enum}

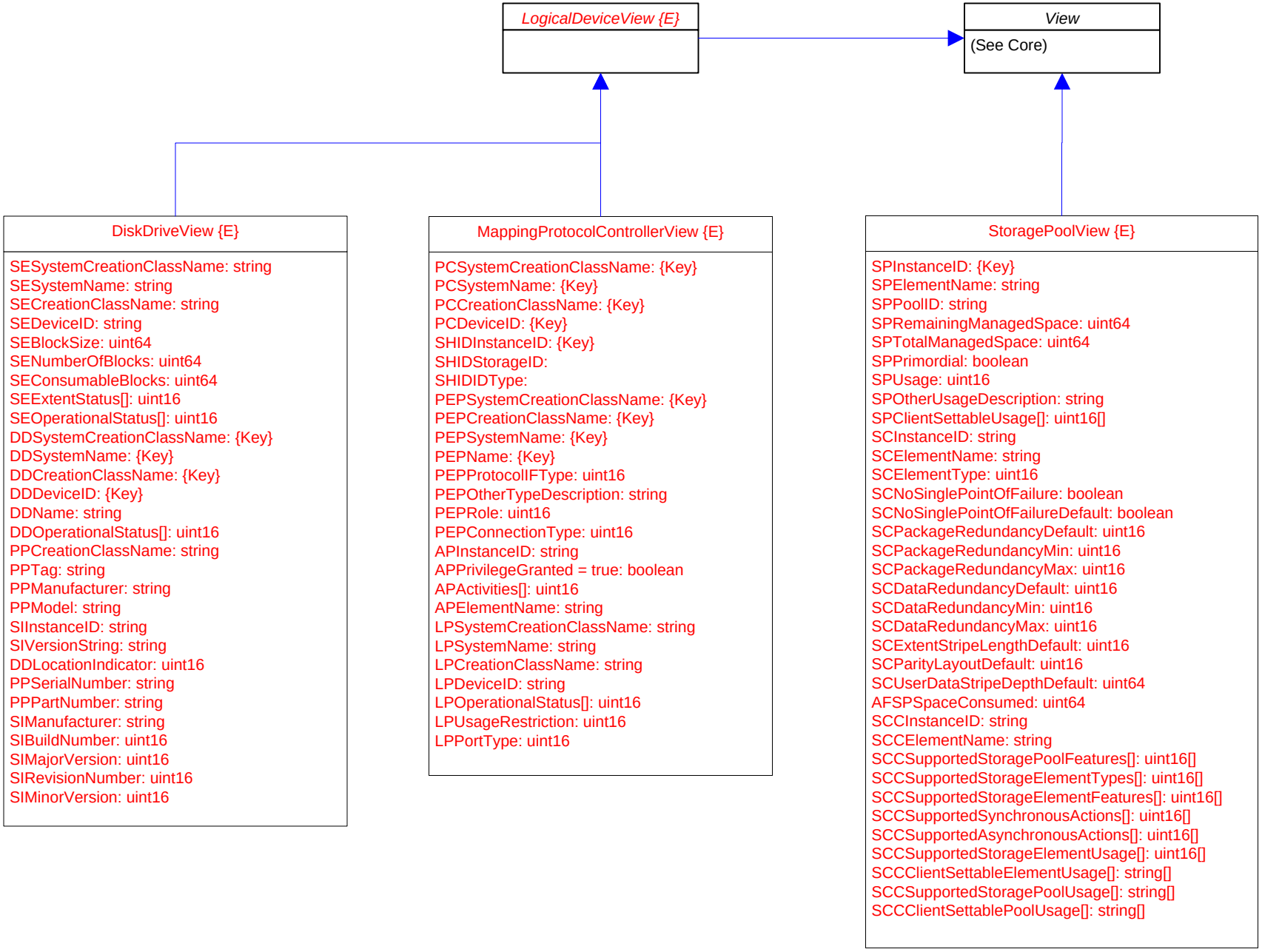

SettingData
(See Core Model)
ReplicationSettingData
Pairing : uint16 {enum}
UnequalGroupsAction : uint16 {enum}
DesiredCopyMethodology : uint16 {enum}
TargetElementSupplier : uint16 {enum}
ThinProvisioningPolicy : uint16
ConsistentPointInTime : boolean
DeltaUpdateInterval : datetime
Multihop : uint16
OnGroupOrListError : uint16 {enum}
CopyPriority : uint16 {enum}
CopyRecoveryMode : uint16 {enum}
DeltaUpdateBlocks : uint64
FailedCopyStopsHostIO : boolean
UnequalListsAction : uint16 {enum}
ReadOnly : uint16 {E, enum}
StorageSetting
NoSinglePointOfFailure : boolean
DataRedundancyMax : uint16
DataRedundancyMin : uint16
DataRedundancyGoal : uint16
PackageRedundancyMax : uint16
PackageRedundancyMin : uint16
PackageRedundancyGoal : uint16
DeltaReservationMin : uint8
DeltaReservationMax : uint8
DeltaReservationGoal : uint8
ChangeableType : uint16 {enum}{override}
ExtentStripeLength : uint16
ExtentStripeLengthMin : uint16
ExtentStripeLengthMax : uint16
ParityLayout : uint16 {enum}
UserDataStripeDepth : uint64
UserDataStripeDepthMin : uint64
UserDataStripeDepthMax : uint64
IncrementalDeltas : boolean {E}
PersistentReplica : boolean {E}
UseReplicationBuffer: uint16 {E, enum}
InitialSynchronization: uint16 {E, enum}
ReplicationPriority: uint16 {E, enum}
SpaceLimit : uint64 {E}
SpaceLimitWarningThreshold : uint16 {E}
LowSpaceWarningThrsshold : uint16 {E}
StorageExtentInitialUsage: uint16 {E, enum}
StoragePoolInitialUsage: uint16 {E, enum}
DiskType: uint16 {Enum, E}
FormFactorType: uint16 {Enum, E}
PortType: uint16 {Enum, E}
Encryption: uint16 {Enum, E}
ThinProvisionedPoolType: uint16 {Enum, E}
ThinProvisionedInitialReserve: uint16 {Enum, E}
DataOrganization: uint16 {E}
CUImage: string {E}
SubsystemID: string {E}
EmulatedDevice: string {E}
AdvancedStorageSetting {E}
InitialStorageTierMethodology : uint16 = 2 {Enum}
InitialStorageTieringSelection : uint16 = 0 {Enum}
RelativePerformanceOrderLimit : uint16
InitialRelativePerformanceOrderSet : uint16[]
StorageSettingWithHints
DataAvailabilityHint : uint16
AccessRandomnessHint : uint16
AccessDirectionHint : uint16
AccessSizeHint : uint16[ ] {units}
AccessLatencyHint : uint16
AccessBandwidthWeight : uint16
StorageCostHint : uint16
StorageEfficiencyHint : uint16

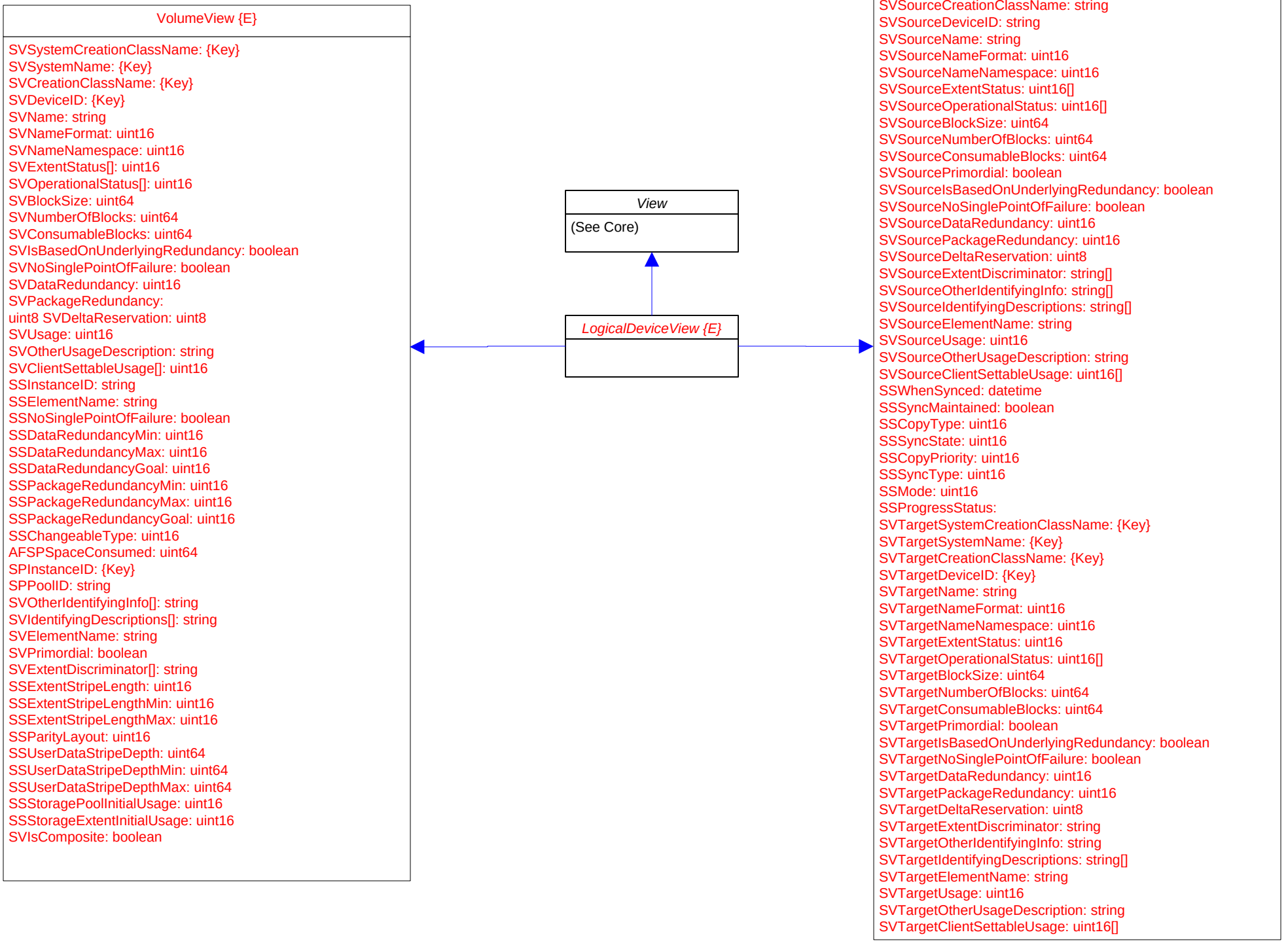

Inheritance
Association
W
Association with WEAK reference
Aggregation
W
Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property
ManagedElement
(See Core Model)
Collection
(See Core Model)
SystemSpecificCollection
(See Core Model)
StaticticsCollection {E}
(See Core Model)
BlockStatisticsManefestCollection
IsDefault : boolean
*
*
AssociatedBlockStatistics ManifestCollection
QueryStatisticsCollection {E}
Query : string
QueryLanguage : uint16 {enum}
SelectEncoding : uint16 {enum}
SelectedNames : string
SelectedTypes : string
SelectedValues : string
StatisticalData
See core model)
BlockStorageStatisticalData
ElementType : uint16
TotalIOs : uint64 {counter}
KBytesTransferred : uint64 {counter, unit}
KBytesWritten : uint64 {counter, unit}
IOTimeCounter : uint64 {counter}
ReadIOs : uint64 {counter}
ReadHitIOs : uint64 {counter}
ReadIOTimeCounter : uint64 {counter}
ReadHitIOTimeCounter : uint64 {counter}
KBytesRead : uint64 {counter, unit}
WriteIOs : uint64 {counter}
WriteHitIOs : uint64 {counter}
WriteIOTimeCounter : uint64 {counter}
WriteHitIOTimeCounter : uint64 {counter}
IdleTimeCounter : uint64 {counter}
MaintOp : uint64 {counter}
MaintTimeCounter : uint64 {counter}
LogicalElement
(See Core Model)
EnabledLogicalElement
(See Core Model)
Service
(See Core Model)
StatisticsService
BlockStatisticsService
GetStatisticsCollection (
[IN] Job : ref ConcreteJob
[IN] ElementTypes[] : uint16 {enum}
[IN] ManifestCollection : ref BlockStatisticsManifestCollection
[IN] StatisticsFormat : uint16 {enum}
[OUT] Statistics[] : string) : uint32 {enum}
CreateManifestCollection (
[IN] Statistics : ref StaisticsCollection
[IN] ElementName : string
[OUT] ManifestCollection : ref BlockStatisticsManifestCollection) : Uint32 {enum}
AddOrModifyManifest (
[IN] ManifestCollection : ref BlockStatisticsManifestCollection
[IN] ElementType : uint16
[IN] ElementName : string
[IN] StatisticsList[] : string
[OUT] Manifest : BlockStatisticsManifest) : Uint32 {enum}
RemoveManifests (
[IN] ManifestCollection : BlockStatisticsManifestCollection
[IN] Manifest : BlockStatisticsManifest) : uint32 {enum}
BlockStatisticsManifest
InstanceID : string
ElementType : uint16 {enum}
IncludeStartStatisticTime: boolean {enum}
IncludeStatisticsTime : boolean
IncludeTotalIOs : boolean
IncludeKBytesTransferred : boolean
IncludeIOTimeCounter : boolean
IncludeReadIOs : boolean
IncludeReadHitIOs : boolean
IncludeReadIOTimeCounter : boolean
InlcudeReadHitIOTimeCounter : boolean
IncludeWriteIOs : boolean
IncludeWriteHitIOs : boolean
IncludeWriteHitIOTimeCounter
IncludeKBytesWritten : boolean
IncludeIdleTimeCounter : boolean
IncludeMaintOp : boolean
IncludeMaintTimeCounter : boolean
IncludeKBytesRead: boolean
IncludeStartStatisticTime: boolean
InstanceID: string {key}
IncludeWriteIOTimeCounter: boolean
CSVSequence[]: string {E}
Capabilities
(See Core Model)
StatisticsCapabilities
ElementTypesSupported[] : uint16 {enum}
SynchronousMethodsSupported[] : uint16 {enum}
AsynchronousMethodsSupported[] : uint16 {enum}
BlockStatisticsCapabilities
ClockTickInterval : uint64

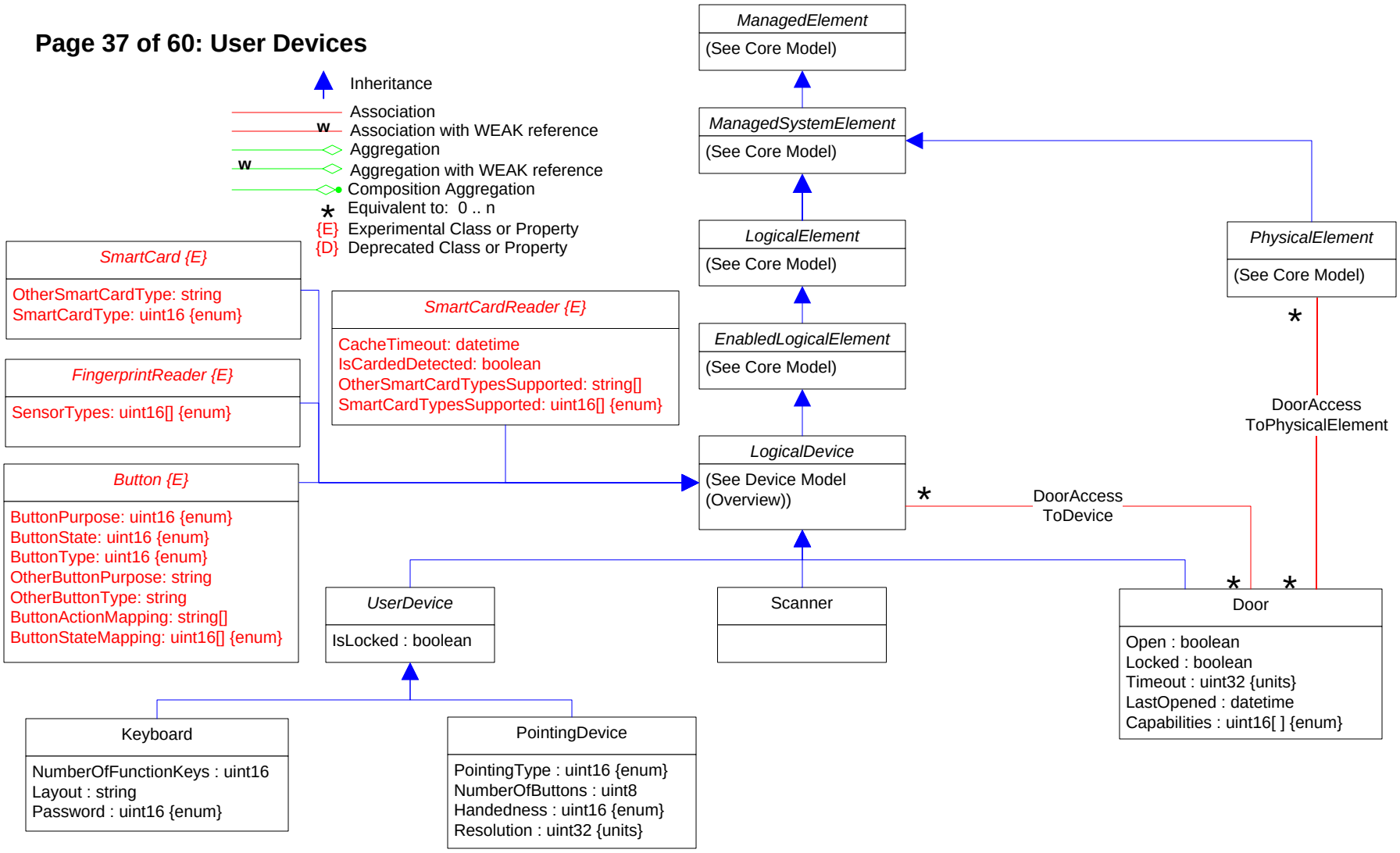
Page 34 of 60: Storage Library

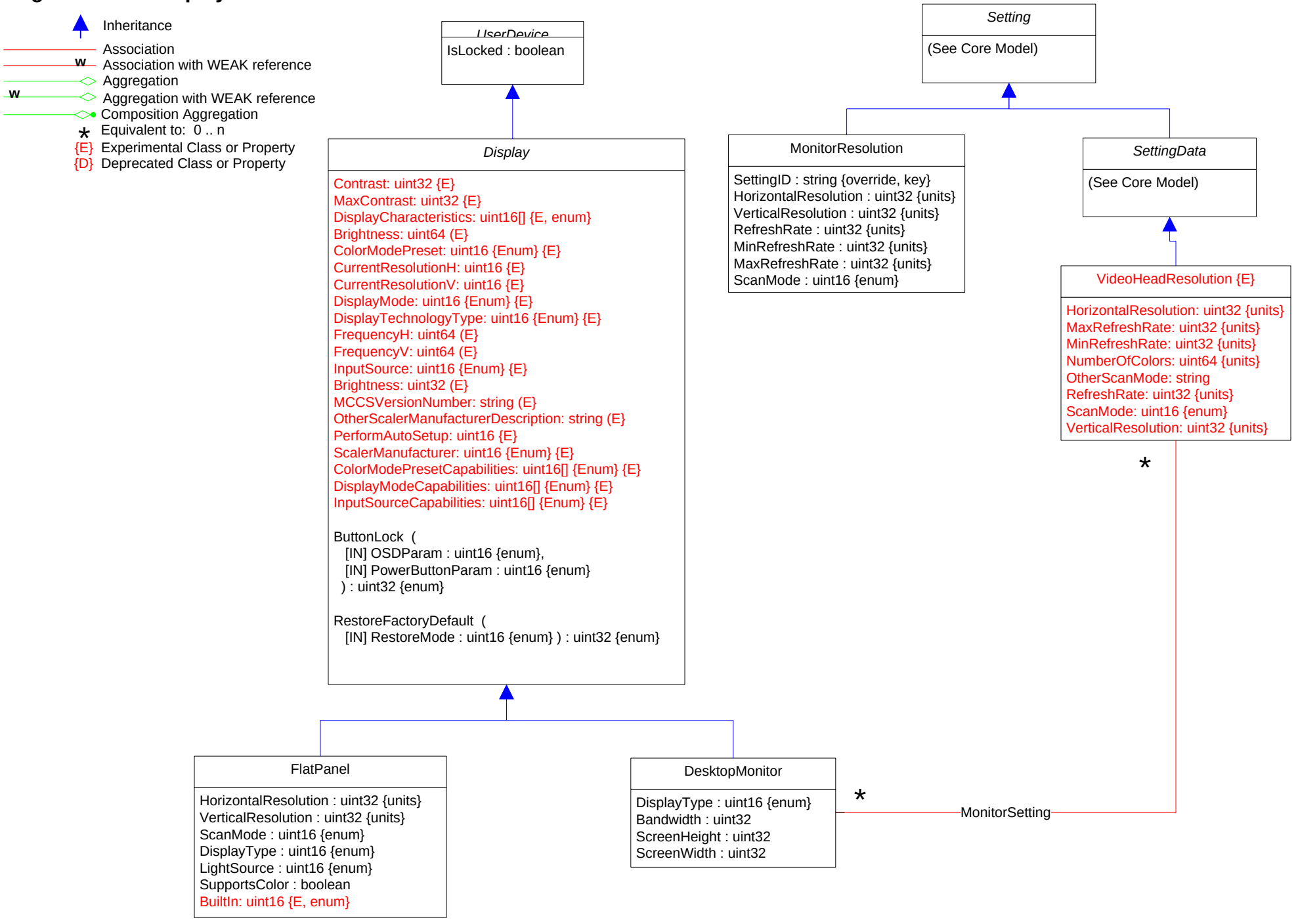
Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property

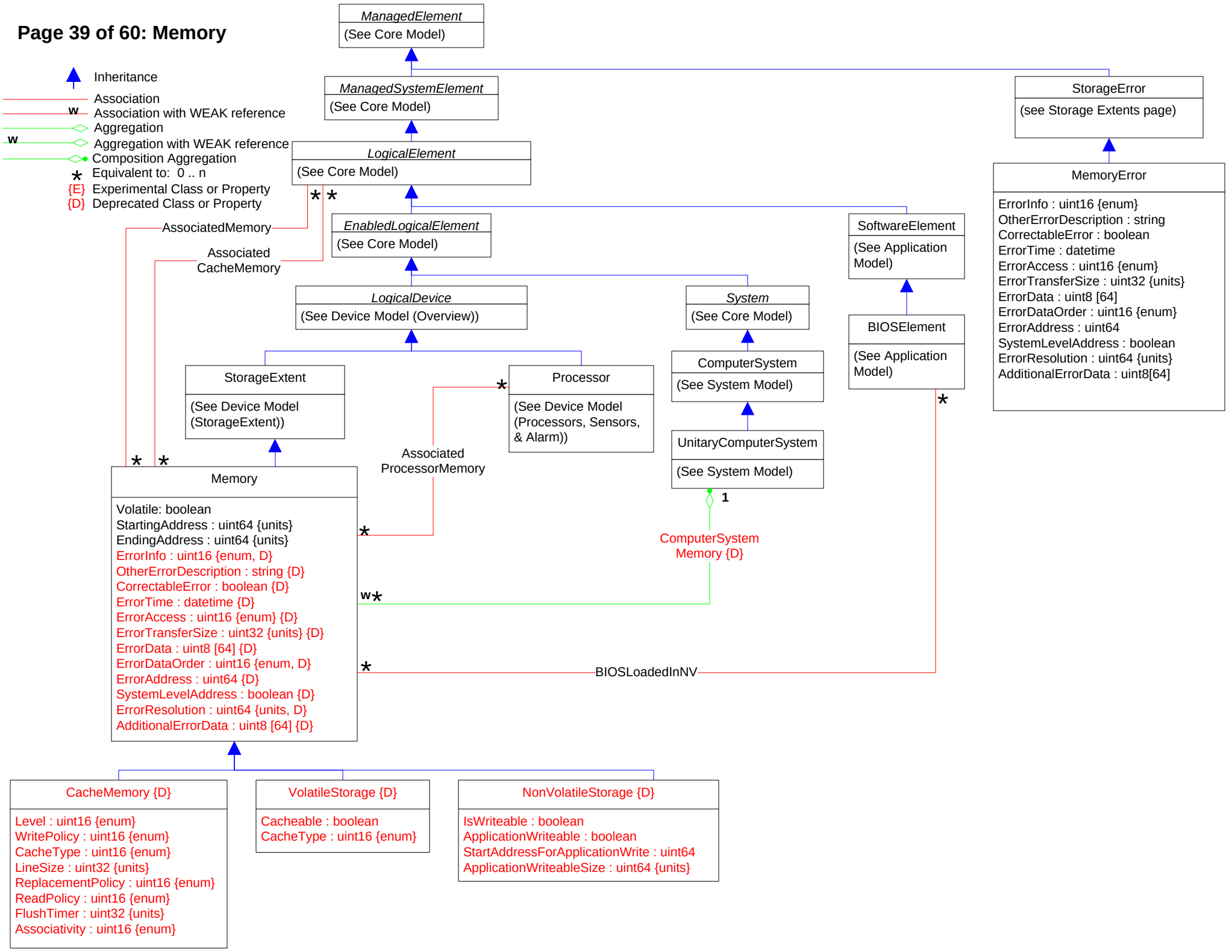



LogicalDeviceView {E}
View
(See Core)
DiskDriveView {E}
SESystemCreationClassName: string
SESystemName: string
SECreationClassName: string
SEDeviceID: string
SEBlockSize: uint64
SENumberOfBlocks: uint64
SEConsumableBlocks: uint64
SEExtentStatus[]: uint16
SEOperationalStatus[]: uint16
DDSystemCreationClassName: {Key}
DDSystemName: {Key}
DDCreationClassName: {Key}
DDDeviceID: {Key}
DDName: string
DDOperationalStatus[]: uint16
PPCreationClassName: string
PPTag: string
PPManufacturer: string
PPModel: string
SIInstanceID: string
SIVersionString: string
DDLocationIndicator: uint16
PPSerialNumber: string
PPPartNumber: string
SIManufacturer: string
SIBuildNumber: uint16
SIMajorVersion: uint16
SIRevisionNumber: uint16
SIMinorVersion: uint16
MappingProtocolControllerView {E}
PCSystemCreationClassName: {Key}
PCSystemName: {Key}
PCCreationClassName: {Key}
PCDeviceID: {Key}
SHIDInstanceID: {Key}
SHIDStorageID:
SHIDIDType:
PEPSystemCreationClassName: {Key}
PEPCreationClassName: {Key}
PEPSystemName: {Key}
PEPName: {Key}
PEPProtocolIFType: uint16
PEPOtherTypeDescription: string
PEPRole: uint16
PEPConnectionType: uint16
APInstanceID: string
APPrivilegeGranted = true: boolean
APActivities[]: uint16
APElementName: string
LPSystemCreationClassName: string
LPSystemName: string
LPCreationClassName: string
LPDeviceID: string
LPOperationalStatus[]: uint16
LPUsageRestriction: uint16
LPPortType: uint16
StoragePoolView {E}
SPInstanceID: {Key}
SPElementName: string
SPPoolID: string
SPRemainingManagedSpace: uint64
SPTotalManagedSpace: uint64
SPPrimordial: boolean
SPUsage: uint16
SPOtherUsageDescription: string
SPClientSettableUsage[]: uint16[]
SCInstanceID: string
SCElementName: string
SCElementType: uint16
SCNoSinglePointOfFailure: boolean
SCNoSinglePointOfFailureDefault: boolean
SCPackageRedundancyDefault: uint16
SCPackageRedundancyMin: uint16
SCPackageRedundancyMax: uint16
SCDataRedundancyDefault: uint16
SCDataRedundancyMin: uint16
SCDataRedundancyMax: uint16
SCExtentStripeLengthDefault: uint16
SCParityLayoutDefault: uint16
SCUserDataStripeDepthDefault: uint64
AFSPSpaceConsumed: uint64
SCCInstanceID: string
SCCElementName: string
SCCSupportedStoragePoolFeatures[]: uint16[]
SCCSupportedStorageElementTypes[]: uint16[]
SCCSupportedStorageElementFeatures[]: uint16[]
SCCSupportedSynchronousActions[]: uint16[]
SCCSupportedAsynchronousActions[]: uint16[]
SCCSupportedStorageElementUsage[]: uint16[]
SCCClientSettableElementUsage[]: string[]
SCCSupportedStoragePoolUsage[]: string[]
SCCClientSettablePoolUsage[]: string[]

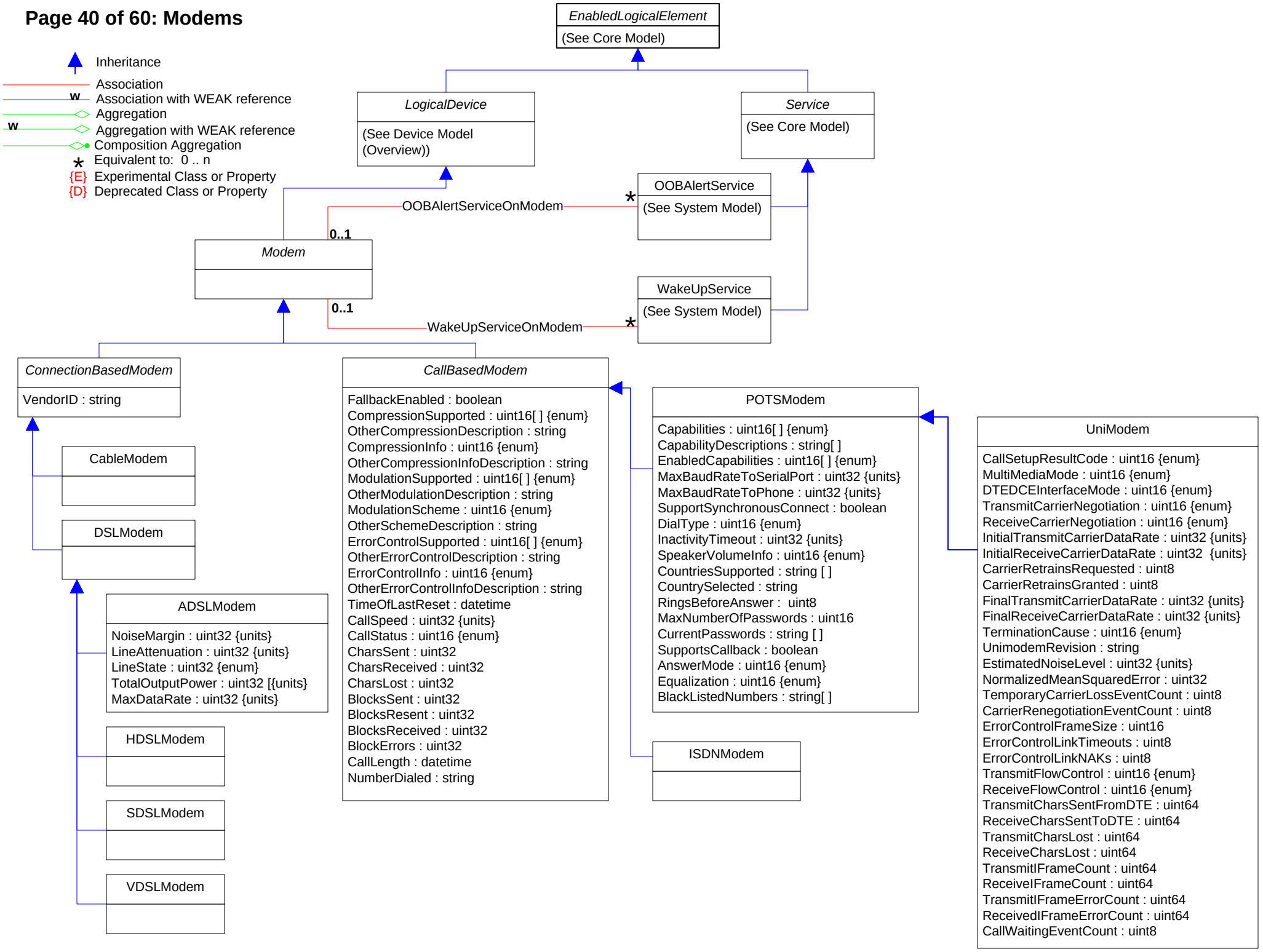

VolumeView {E}
SVSystemCreationClassName: {Key}
SVSystemName: {Key}
SVCreationClassName: {Key}
SVDeviceID: {Key}
SVName: string
SVNameFormat: uint16
SVNameNamespace: uint16
SVExtentStatus[]: uint16
SVOperationalStatus[]: uint16
SVBlockSize: uint64
SVNumberOfBlocks: uint64
SVConsumableBlocks: uint64
SVIsBasedOnUnderlyingRedundancy: boolean
SVNoSinglePointOfFailure: boolean
SVDataRedundancy: uint16
SVPackageRedundancy:
uint8 SVDeltaReservation: uint8
SVUsage: uint16
SVOtherUsageDescription: string
SVClientSettableUsage[]: uint16
SSInstanceID: string
SSElementName: string
SSNoSinglePointOfFailure: boolean
SSDataRedundancyMin: uint16
SSDataRedundancyMax: uint16
SSDataRedundancyGoal: uint16
SSPackageRedundancyMin: uint16
SSPackageRedundancyMax: uint16
SSPackageRedundancyGoal: uint16
SSChangeableType: uint16
AFSPSpaceConsumed: uint64
SPInstanceID: {Key}
SPPoolID: string
SVOtherIdentifyingInfo[]: string
SVIdentifyingDescriptions[]: string
SVElementName: string
SVPrimordial: boolean
SVExtentDiscriminator[]: string
SSExtentStripeLength: uint16
SSExtentStripeLengthMin: uint16
SSExtentStripeLengthMax: uint16
SSParityLayout: uint16
SSUserDataStripeDepth: uint64
SSUserDataStripeDepthMin: uint64
SSUserDataStripeDepthMax: uint64
SSStoragePoolInitialUsage: uint16
SSStorageExtentInitialUsage: uint16
SVIsComposite: boolean
View
(See Core)
LogicalDeviceView {E}
ReplicaPairView {E}
SVSourceSystemCreationClassName: string
SVSourceSystemName: string
SVSourceCreationClassName: string
SVSourceDeviceID: string
SVSourceName: string
SVSourceNameFormat: uint16
SVSourceNameNamespace: uint16
SVSourceExtentStatus: uint16[]
SVSourceOperationalStatus: uint16[]
SVSourceBlockSize: uint64
SVSourceNumberOfBlocks: uint64
SVSourceConsumableBlocks: uint64
SVSourcePrimordial: boolean
SVSourceIsBasedOnUnderlyingRedundancy: boolean
SVSourceNoSinglePointOfFailure: boolean
SVSourceDataRedundancy: uint16
SVSourcePackageRedundancy: uint16
SVSourceDeltaReservation: uint8
SVSourceExtentDiscriminator: string[]
SVSourceOtherIdentifyingInfo: string[]
SVSourceIdentifyingDescriptions: string[]
SVSourceElementName: string
SVSourceUsage: uint16
SVSourceOtherUsageDescription: string
SVSourceClientSettableUsage: uint16[]
SSWhenSynced: datetime
SSSyncMaintained: boolean
SSCopyType: uint16
SSSyncState: uint16
SSCopyPriority: uint16
SSSyncType: uint16
SSMode: uint16
SSProgressStatus:
SVTargetSystemCreationClassName: {Key}
SVTargetSystemName: {Key}
SVTargetCreationClassName: {Key}
SVTargetDeviceID: {Key}
SVTargetName: string
SVTargetNameFormat: uint16
SVTargetNameNamespace: uint16
SVTargetExtentStatus: uint16
SVTargetOperationalStatus: uint16[]
SVTargetBlockSize: uint64
SVTargetNumberOfBlocks: uint64
SVTargetConsumableBlocks: uint64
SVTargetPrimordial: boolean
SVTargetIsBasedOnUnderlyingRedundancy: boolean
SVTargetNoSinglePointOfFailure: boolean
SVTargetDataRedundancy: uint16
SVTargetPackageRedundancy: uint16
SVTargetDeltaReservation: uint8
SVTargetExtentDiscriminator: string
SVTargetOtherIdentifyingInfo: string
SVTargetIdentifyingDescriptions: string[]
SVTargetElementName: string
SVTargetUsage: uint16
SVTargetOtherUsageDescription: string
SVTargetClientSettableUsage: uint16[]

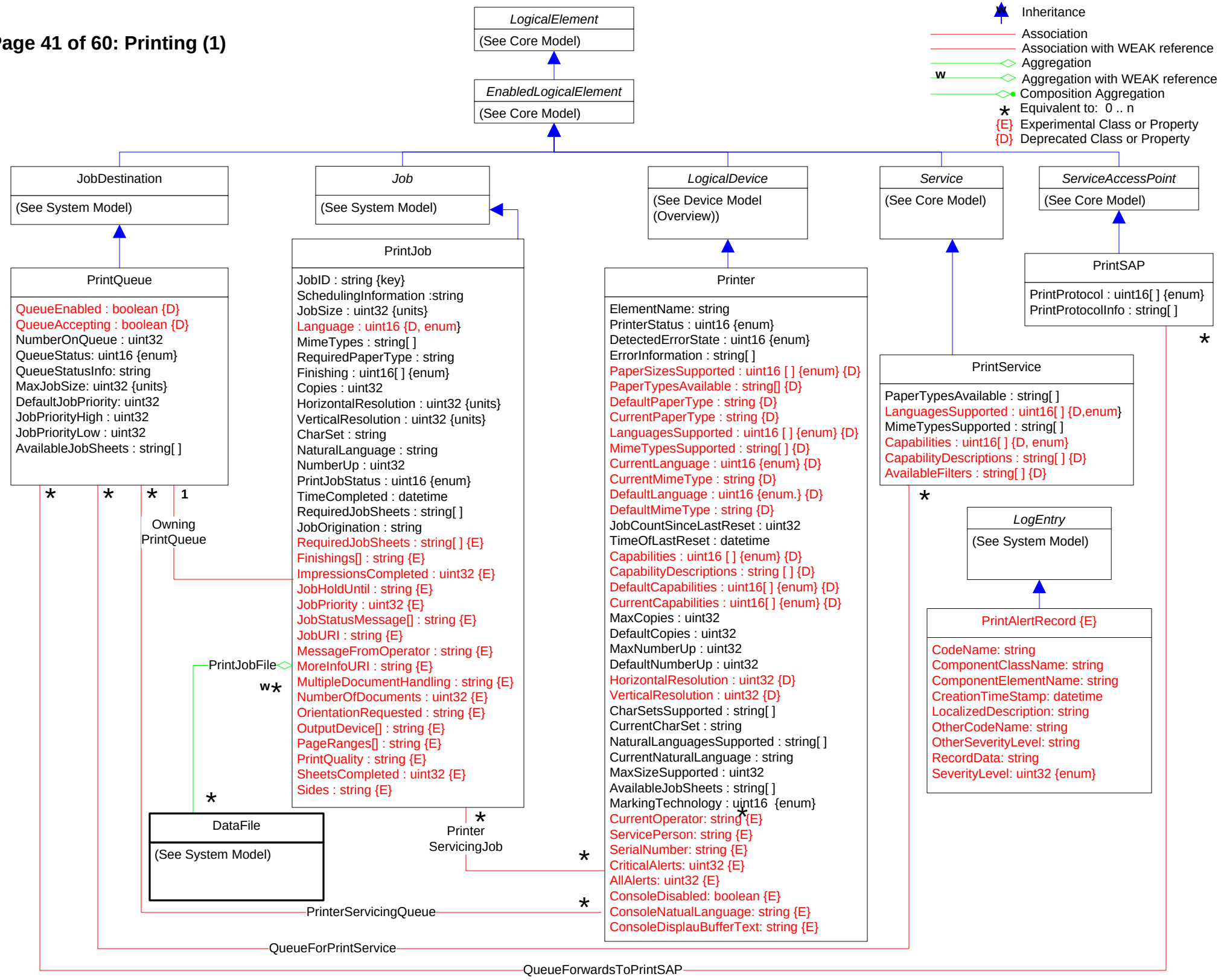

Inheritance
Association
W
Association with WEAK reference
Aggregation
W
Aggregation with WEAK reference
Composition Aggregation
*
Equivalent to: 0 .. n
{E}
Experimental Class or Property
{D}
Deprecated Class or Property
ManagedElement
(See Core Model)
ManagedSystemElement
(See Core Model)
LogicalElement
(See Core Model)
EnabledLogicalElement
(See Core Model)
LogicalDevice
(See Device Model (Overview))
PhysicalElement
(See Core Model)
SmartCard {E}
OtherSmartCardType: string
SmartCardType: uint16 {enum}
SmartCardReader {E}
CacheTimeout: datetime
IsCardedDetected: boolean
OtherSmartCardTypesSupported: string[]
SmartCardTypesSupported: uint16[] {enum}
FingerprintReader {E}
SensorTypes: uint16[] {enum}
Button {E}
ButtonPurpose: uint16 {enum}
ButtonState: uint16 {enum}
ButtonType: uint16 {enum}
OtherButtonPurpose: string
OtherButtonType: string
ButtonActionMapping: string[]
ButtonStateMapping: uint16[] {enum}
DoorAccess ToDevice
DoorAccess ToPhysicalElement
UserDevice
IsLocked : boolean
Scanner
Door
Open : boolean
Locked : boolean
Timeout : uint32 {units}
LastOpened : datetime
Capabilities : uint16[ ] {enum}
Keyboard
NumberOfFunctionKeys : uint16
Layout : string
Password : uint16 {enum}
PointingDevice
PointingType : uint16 {enum}
NumberOfButtons : uint8
Handedness : uint16 {enum}
Resolution : uint32 {units}

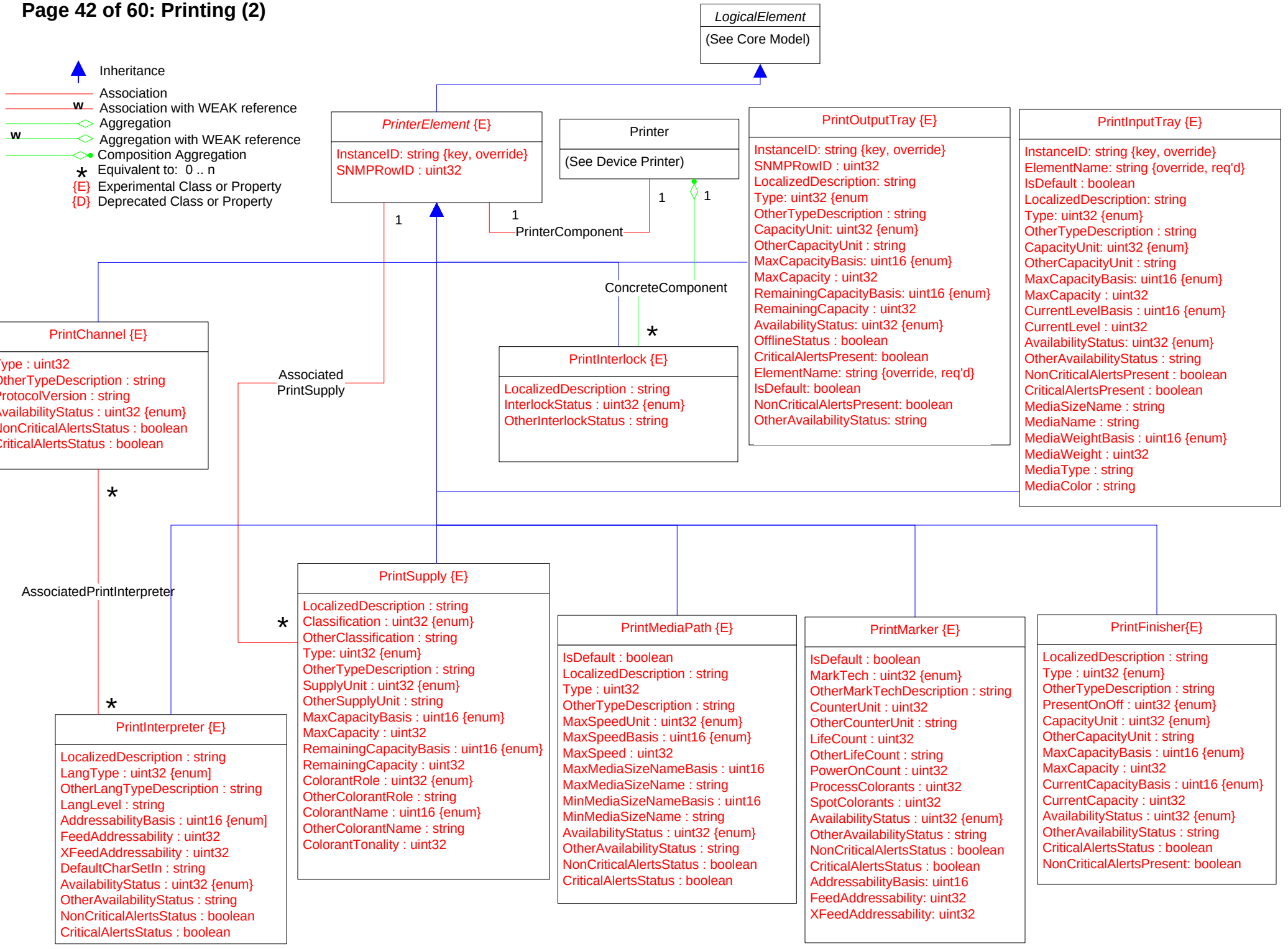

Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property
UserDevice
IsLocked : boolean
Setting
(See Core Model)
Display
Contrast: uint32 {E}
MaxContrast: uint32 {E}
DisplayCharacteristics: uint16[] {E, enum}
Brightness: uint64 (E}
ColorModePreset: uint16 {Enum} {E}
CurrentResolutionH: uint16 {E}
CurrentResolutionV: uint16 {E}
DisplayMode: uint16 {Enum} {E}
DisplayTechnologyType: uint16 {Enum} {E}
FrequencyH: uint64 (E}
FrequencyV: uint64 (E}
InputSource: uint16 {Enum} {E}
Brightness: uint32 (E}
MCCSVersionNumber: string (E}
OtherScalerManufacturerDescription: string (E}
PerformAutoSetup: uint16 {E}
ScalerManufacturer: uint16 {Enum} {E}
ColorModePresetCapabilities: uint16[] {Enum} {E}
DisplayModeCapabilities: uint16[] {Enum} {E}
InputSourceCapabilities: uint16[] {Enum} {E}
ButtonLock (
[IN] OSDParam : uint16 {enum},
[IN] PowerButtonParam : uint16 {enum}
) : uint32 {enum}
RestoreFactoryDefault (
[IN] RestoreMode : uint16 {enum}) : uint32 {enum}
MonitorResolution
SettingID : string {override, key}
HorizontalResolution : uint32 {units}
VerticalResolution : uint32 {units}
RefreshRate : uint32 {units}
MinRefreshRate : uint32 {units}
MaxRefreshRate : uint32 {units}
ScanMode : uint16 {enum}
SettingData
(See Core Model)
VideoHeadResolution {E}
HorizontalResolution: uint32 {units}
MaxRefreshRate: uint32 {units}
MinRefreshRate: uint32 {units}
NumberOfColors: uint64 {units}
OtherScanMode: string
RefreshRate: uint32 {units}
ScanMode: uint16 {enum}
VerticalResolution: uint32 {units}
*
FlatPanel
HorizontalResolution : uint32 {units}
VerticalResolution : uint32 {units}
ScanMode : uint16 {enum}
DisplayType : uint16 {enum}
LightSource : uint16 {enum}
SupportsColor : boolean
BuiltIn: uint16 {E, enum}
DesktopMonitor
DisplayType : uint16 {enum}
Bandwidth : uint32
ScreenHeight : uint32
ScreenWidth : uint32
*
MonitorSetting

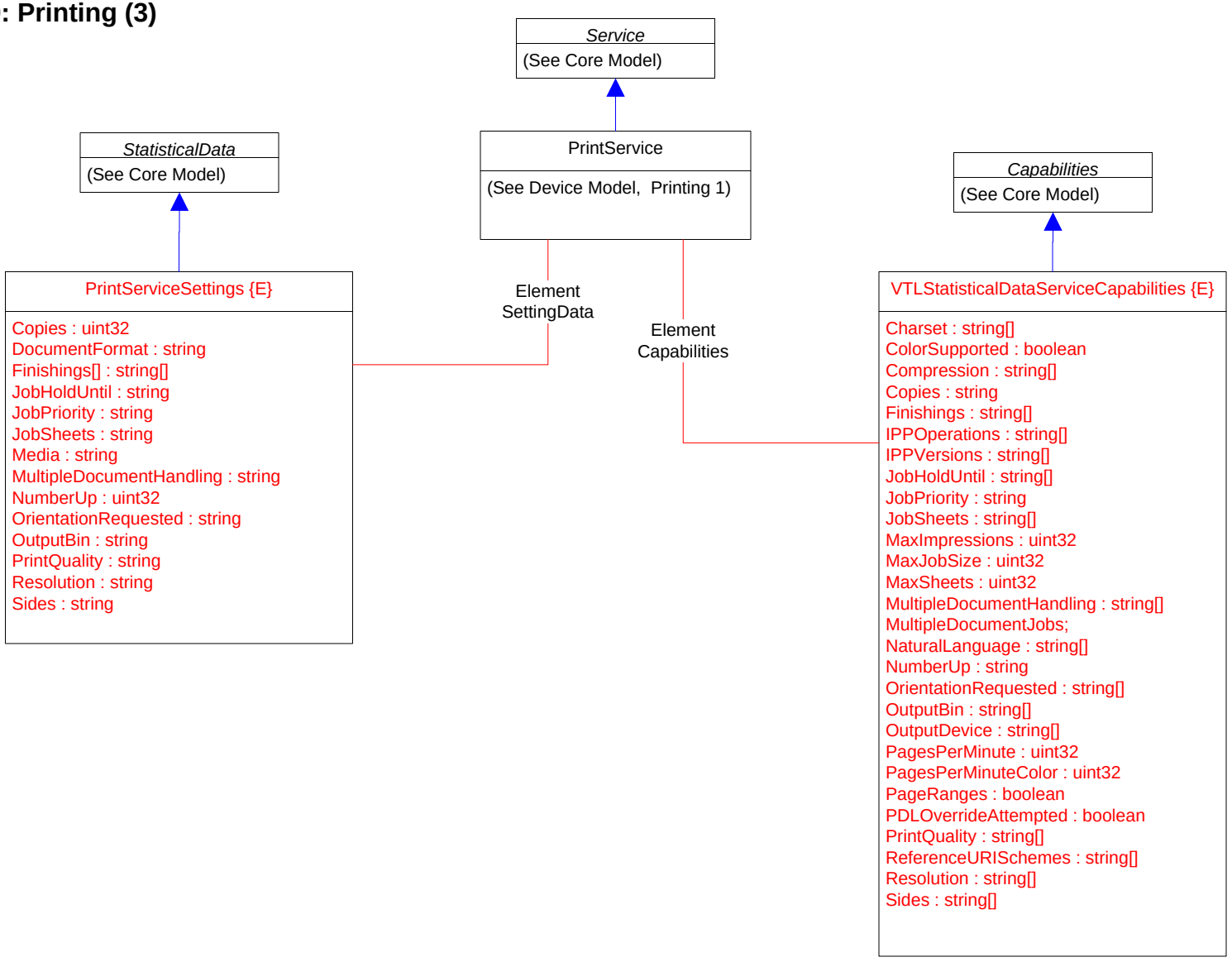

Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property
ManagedElement
(See Core Model)
ManagedSystemElement
(See Core Model)
LogicalElement
(See Core Model)
EnabledLogicalElement
(See Core Model)
LogicalDevice
(See Device Model (Overview))
StorageExtent
(See Device Model (StorageExtent))
Processor
(See Device Model (Processors, Sensors, & Alarm))
System
(See Core Model)
ComputerSystem
(See System Model)
UnitaryComputerSystem
(See System Model)
SoftwareElement
(See Application Model)
BIOSElement
(See Application Model)
StorageError
(see Storage Extents page)
MemoryError
ErrorInfo : uint16 {enum}
OtherErrorDescription : string
CorrectableError : boolean
ErrorTime : datetime
ErrorAccess : uint16 {enum}
ErrorTransferSize : uint32 {units}
ErrorData : uint8 [64]
ErrorDataOrder : uint16 {enum}
ErrorAddress : uint64
SystemLevelAddress : boolean
ErrorResolution : uint64 {units}
AdditionalErrorData : uint8[64]
AssociatedMemory
Associated CacheMemory
Associated ProcessorMemory
ComputerSystem Memory {D}
BIOSLoadedInNV
Memory
Volatile: boolean
StartingAddress : uint64 {units}
EndingAddress : uint64 {units}
ErrorInfo : uint16 {enum, D}
OtherErrorDescription : string {D}
CorrectableError : boolean {D}
ErrorTime : datetime {D}
ErrorAccess : uint16 {enum} {D}
ErrorTransferSize : uint32 {units} {D}
ErrorData : uint8 [64] {D}
ErrorDataOrder : uint16 {enum, D}
ErrorAddress : uint64 {D}
SystemLevelAddress : boolean {D}
ErrorResolution : uint64 {units, D}
AdditionalErrorData : uint8 [64] {D}
CacheMemory {D}
Level : uint16 {enum}
WritePolicy : uint16 {enum}
CacheType : uint16 {enum}
LineSize : uint32 {units}
ReplacementPolicy : uint16 {enum}
ReadPolicy : uint16 {enum}
FlushTimer : uint32 {units}
Associativity : uint16 {enum}
VolatileStorage {D}
Cacheable : boolean
CacheType : uint16 {enum}
NonVolatileStorage {D}
IsWriteable : boolean
ApplicationWriteable : boolean
StartAddressForApplicationWrite : uint64
ApplicationWriteableSize : uint64 {units}

Page 40 of 60: Modems

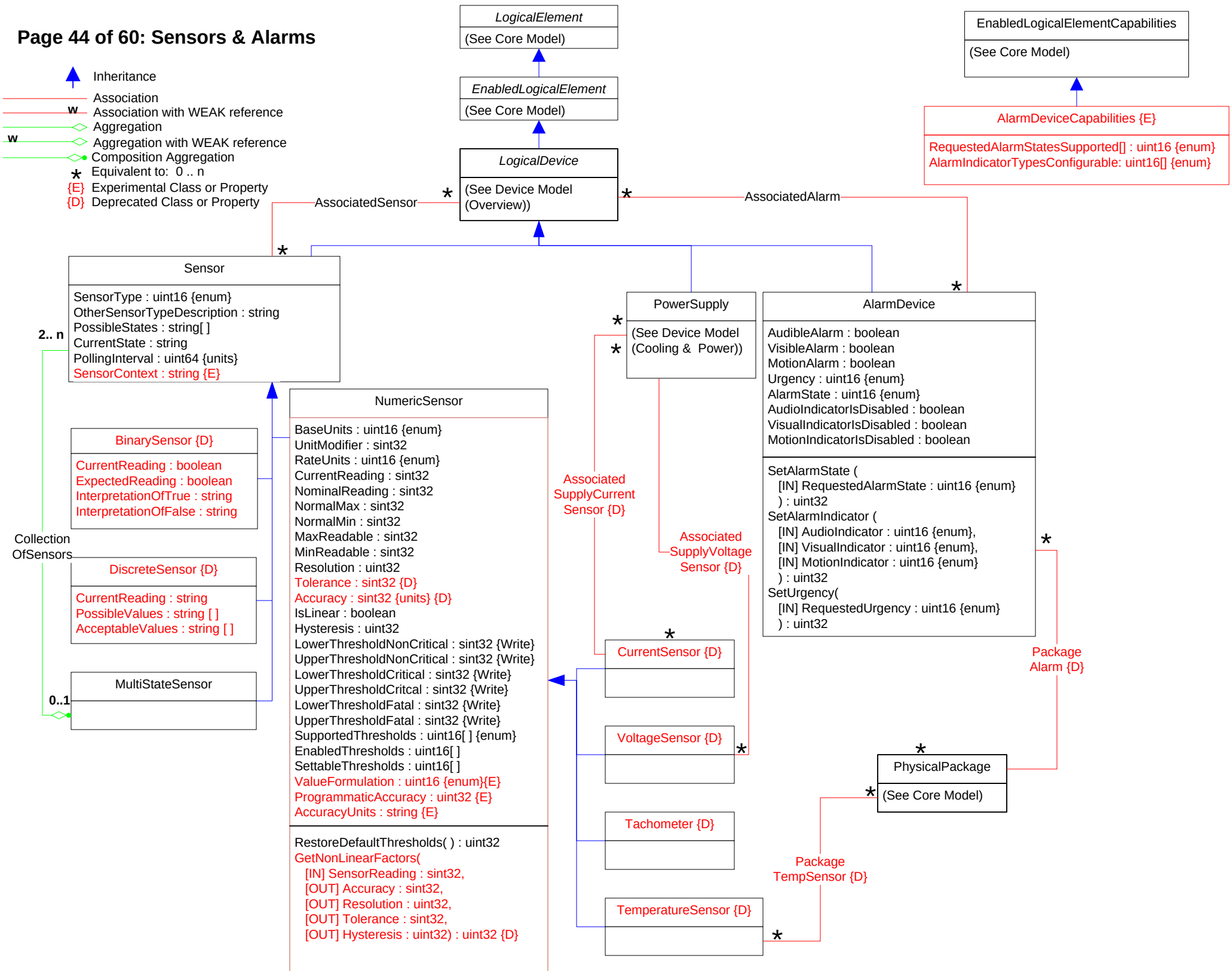



LogicalElement
(See Core Model)
EnabledLogicalElement
(See Core Model)
Inheritance
Association
Association with WEAK reference
Aggregation
w
Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property
JobDestination
(See System Model)
Job
(See System Model)
LogicalDevice
(See Device Model (Overview))
Service
(See Core Model)
ServiceAccessPoint
(See Core Model)
PrintQueue
QueueEnabled : boolean {D}
QueueAccepting : boolean {D}
NumberOnQueue : uint32
QueueStatus: uint16 {enum}
QueueStatusInfo: string
MaxJobSize: uint32 {units}
DefaultJobPriority: uint32
JobPriorityHigh : uint32
JobPriorityLow : uint32
AvailableJobSheets : string[ ]
PrintJob
JobID : string {key}
SchedulingInformation :string
JobSize : uint32 {units}
Language : uint16 {D, enum}
MimeTypes : string[ ]
RequiredPaperType : string
Finishing : uint16[ ] {enum}
Copies : uint32
HorizontalResolution : uint32 {units}
VerticalResolution : uint32 {units}
CharSet : string
NaturalLanguage : string
NumberUp : uint32
PrintJobStatus : uint16 {enum}
TimeCompleted : datetime
RequiredJobSheets : string[ ]
JobOrigination : string
RequiredJobSheets : string[ ] {E}
Finishings[] : string {E}
ImpressionsCompleted : uint32 {E}
JobHoldUntil : string {E}
JobPriority : uint32 {E}
JobStatusMessage[] : string {E}
JobURI : string {E}
MessageFromOperator : string {E}
MoreInfoURI : string {E}
MultipleDocumentHandling : string {E}
NumberOfDocuments : uint32 {E}
OrientationRequested : string {E}
OutputDevice[] : string {E}
PageRanges[] : string {E}
PrintQuality : string {E}
SheetsCompleted : uint32 {E}
Sides : string {E}
Printer
ElementName: string
PrinterStatus : uint16 {enum}
DetectedErrorState : uint16 {enum}
ErrorInformation : string[ ]
PaperSizesSupported : uint16 [ ] {enum} {D}
PaperTypesAvailable : string[] {D}
DefaultPaperType : string {D}
CurrentPaperType : string {D}
LanguagesSupported : uint16 [ ] {enum} {D}
MimeTypesSupported : string[ ] {D}
CurrentLanguage : uint16 {enum} {D}
CurrentMimeType : string {D}
DefaultLanguage : uint16 {enum.} {D}
DefaultMimeType : string {D}
JobCountSinceLastReset : uint32
TimeOfLastReset : datetime
Capabilities : uint16 [ ] {enum} {D}
CapabilityDescriptions : string [ ] {D}
DefaultCapabilities : uint16[ ] {enum} {D}
CurrentCapabilities : uint16[ ] {enum} {D}
MaxCopies : uint32
DefaultCopies : uint32
MaxNumberUp : uint32
DefaultNumberUp : uint32
HorizontalResolution : uint32 {D}
VerticalResolution : uint32 {D}
CharSetsSupported : string[ ]
CurrentCharSet : string
NaturalLanguagesSupported : string[ ]
CurrentNaturalLanguage : string
MaxSizeSupported : uint32
AvailableJobSheets : string[ ]
MarkingTechnology : uint16 {enum}
CurrentOperator: string {E}
ServicePerson: string {E}
SerialNumber: string {E}
CriticalAlerts: uint32 {E}
AllAlerts: uint32 {E}
ConsoleDisabled: boolean {E}
ConsoleNatualLanguage: string {E}
ConsoleDisplauBufferText: string {E}
PrintSAP
PrintProtocol : uint16[ ] {enum}
PrintProtocolInfo : string[ ]
PrintService
PaperTypesAvailable : string[ ]
LanguagesSupported : uint16[ ] {D,enum}
MimeTypesSupported : string[ ]
Capabilities : uint16[ ] {D, enum}
CapabilityDescriptions : string[ ] {D}
AvailableFilters : string[ ] {D}
LogEntry
(See System Model)
PrintAlertRecord {E}
CodeName: string
ComponentClassName: string
ComponentElementName: string
CreationTimeStamp: datetime
LocalizedDescription: string
OtherCodeName: string
OtherSeverityLevel: string
RecordData: string
SeverityLevel: uint32 {enum}
DataFile
(See System Model)
Owning PrintQueue
PrintJobFile
Printer ServicingJob
PrinterServicingQueue
QueueForPrintService
QueueForwardsToPrintSAP

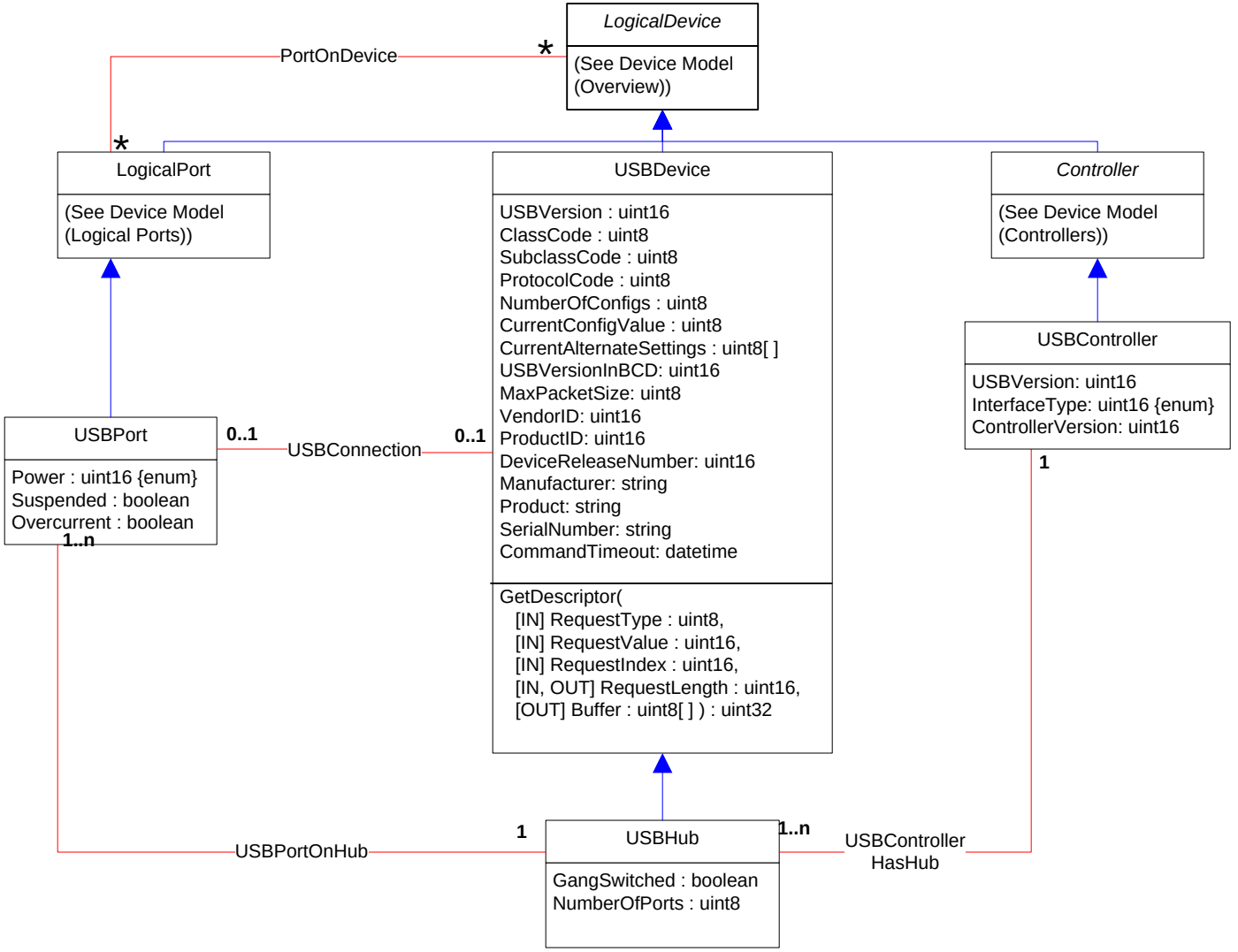

LogicalElement
(See Core Model)
Inheritance
Association
Association with WEAK reference
Aggregation
Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property
PrinterElement {E}
InstanceID: string {key, override}
SNMPRowID : uint32
Printer
(See Device Printer)
PrintOutputTray {E}
InstanceID: string {key, override}
SNMPRowID : uint32
LocalizedDescription: string
Type: uint32 {enum
OtherTypeDescription : string
CapacityUnit: uint32 {enum}
OtherCapacityUnit : string
MaxCapacityBasis: uint16 {enum}
MaxCapacity : uint32
RemainingCapacityBasis: uint16 {enum}
RemainingCapacity : uint32
AvailabilityStatus: uint32 {enum}
OfflineStatus : boolean
CriticalAlertsPresent: boolean
ElementName: string {override, req'd}
IsDefault: boolean
NonCriticalAlertsPresent: boolean
OtherAvailabilityStatus: string
PrintInputTray {E}
InstanceID: string {key, override}
ElementName: string {override, req'd}
IsDefault : boolean
LocalizedDescription: string
Type: uint32 {enum}
OtherTypeDescription : string
CapacityUnit: uint32 {enum}
OtherCapacityUnit : string
MaxCapacityBasis: uint16 {enum}
MaxCapacity : uint32
CurrentLevelBasis : uint16 {enum}
CurrentLevel : uint32
AvailabilityStatus: uint32 {enum}
OtherAvailabilityStatus : string
NonCriticalAlertsPresent : boolean
CriticalAlertsPresent : boolean
MediaSizeName : string
MediaName : string
MediaWeightBasis : uint16 {enum}
MediaWeight : uint32
MediaType : string
MediaColor : string
1
1
PrinterComponent
1
1
ConcreteComponent
*
PrintChannel {E}
Type : uint32
OtherTypeDescription : string
ProtocolVersion : string
AvailabilityStatus : uint32 {enum}
NonCriticalAlertsStatus : boolean
CriticalAlertsStatus : boolean
PrintInterlock {E}
LocalizedDescription : string
InterlockStatus : uint32 {enum}
OtherInterlockStatus : string
Associated
PrintSupply
*
*
AssociatedPrintInterpreter
*
PrintSupply {E}
LocalizedDescription : string
Classification : uint32 {enum}
OtherClassification : string
Type: uint32 {enum}
OtherTypeDescription : string
SupplyUnit : uint32 {enum}
OtherSupplyUnit : string
MaxCapacityBasis : uint16 {enum}
MaxCapacity : uint32
RemainingCapacityBasis : uint16 {enum}
RemainingCapacity : uint32
ColorantRole : uint32 {enum}
OtherColorantRole : string
ColorantName : uint16 {enum}
OtherColorantName : string
ColorantTonality : uint32
PrintMediaPath {E}
IsDefault : boolean
LocalizedDescription : string
Type : uint32
OtherTypeDescription : string
MaxSpeedUnit : uint32 {enum}
MaxSpeedBasis : uint16 {enum}
MaxSpeed : uint32
MaxMediaSizeNameBasis : uint16
MaxMediaSizeName : string
MinMediaSizeNameBasis : uint16
MinMediaSizeName : string
AvailabilityStatus : uint32 {enum}
OtherAvailabilityStatus : string
NonCriticalAlertsStatus : boolean
CriticalAlertsStatus : boolean
PrintMarker {E}
IsDefault : boolean
MarkTech : uint32 {enum}
OtherMarkTechDescription : string
CounterUnit : uint32
OtherCounterUnit : string
LifeCount : uint32
OtherLifeCount : string
PowerOnCount : uint32
ProcessColorants : uint32
SpotColorants : uint32
AvailabilityStatus : uint32 {enum}
OtherAvailabilityStatus : string
NonCriticalAlertsStatus : boolean
CriticalAlertsStatus : boolean
AddressabilityBasis: uint16
FeedAddressability: uint32
XFeedAddressability: uint32
PrintFinisher{E}
LocalizedDescription : string
Type : uint32 {enum}
OtherTypeDescription : string
PresentOnOff : uint32 {enum}
CapacityUnit : uint32 {enum}
OtherCapacityUnit : string
MaxCapacityBasis : uint16 {enum}
MaxCapacity : uint32
CurrentCapacityBasis : uint16 {enum}
CurrentCapacity : uint32
AvailabilityStatus : uint32 {enum}
OtherAvailabilityStatus : string
CriticalAlertsStatus : boolean
NonCriticalAlertsPresent: boolean
PrintInterpreter {E}
LocalizedDescription : string
LangType : uint32 {enum]
OtherLangTypeDescription : string
LangLevel : string
AddressabilityBasis : uint16 {enum]
FeedAddressability : uint32
XFeedAddressability : uint32
DefaultCharSetIn : string
AvailabilityStatus : uint32 {enum}
OtherAvailabilityStatus : string
NonCriticalAlertsStatus : boolean
CriticalAlertsStatus : boolean


Service
(See Core Model)
StatisticalData
(See Core Model)
PrintService
(See Device Model, Printing 1)
Capabilities
(See Core Model)
PrintServiceSettings {E}
Copies : uint32
DocumentFormat : string
Finishings[] : string[]
JobHoldUntil : string
JobPriority : string
JobSheets : string
Media : string
MultipleDocumentHandling : string
NumberUp : uint32
OrientationRequested : string
OutputBin : string
PrintQuality : string
Resolution : string
Sides : string
Element SettingData
Element Capabilities
VTLStatisticalDataServiceCapabilities {E}
Charset : string[]
ColorSupported : boolean
Compression : string[]
Copies : string
Finishings : string[]
IPPOperations : string[]
IPPVersions : string[]
JobHoldUntil : string[]
JobPriority : string
JobSheets : string[]
MaxImpressions : uint32
MaxJobSize : uint32
MaxSheets : uint32
MultipleDocumentHandling : string[]
MultipleDocumentJobs;
NaturalLanguage : string[]
NumberUp : string
OrientationRequested : string[]
OutputBin : string[]
OutputDevice : string[]
PagesPerMinute : uint32
PagesPerMinuteColor : uint32
PageRanges : boolean
PDLOverrideAttempted : boolean
PrintQuality : string[]
ReferenceURISchemes : string[]
Resolution : string[]
Sides : string[]

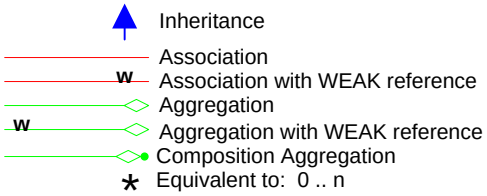
Page 44 of 60: Sensors & Alarms

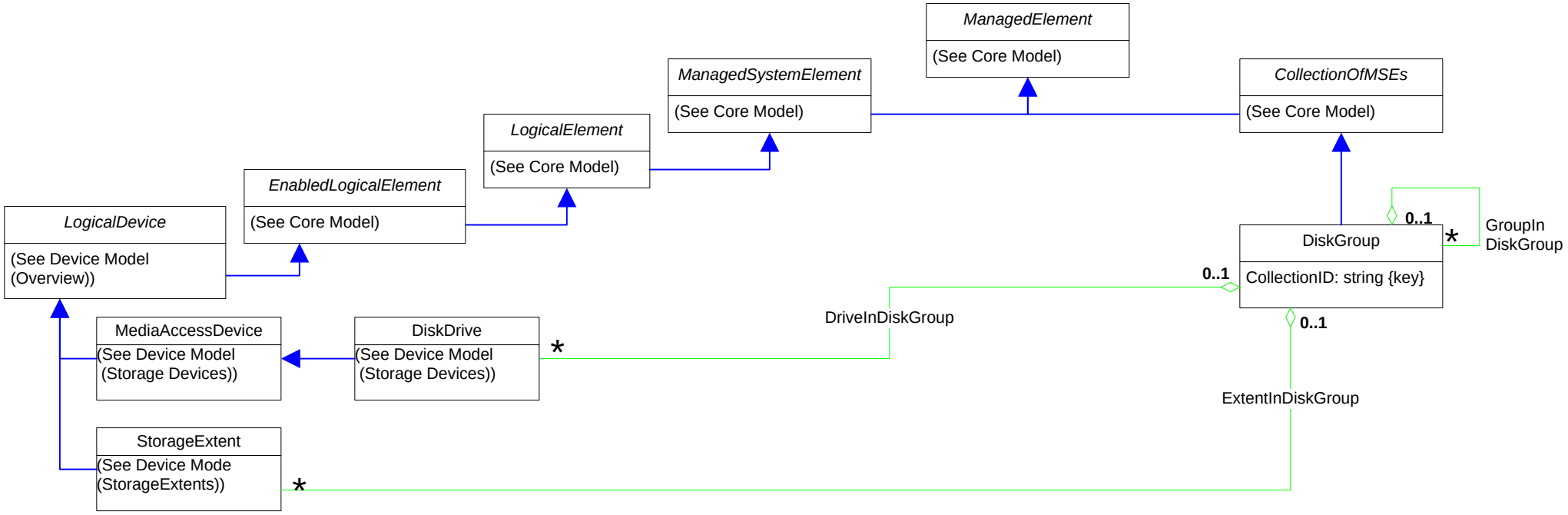


Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n

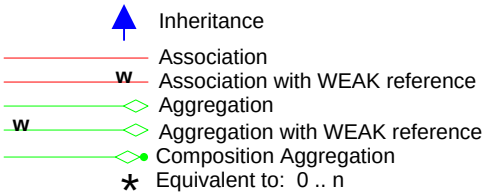


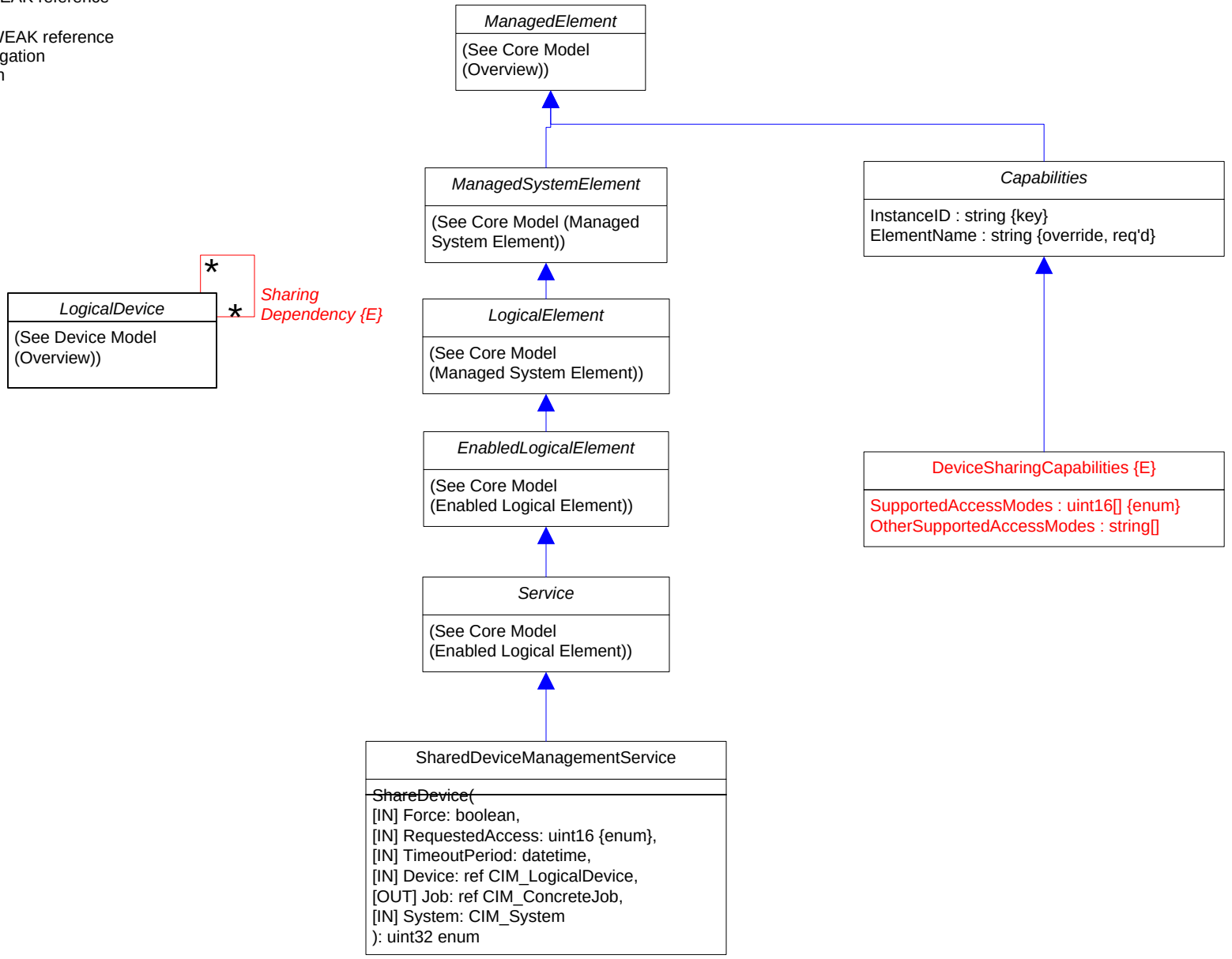
Page 46 of 60: Disk Group

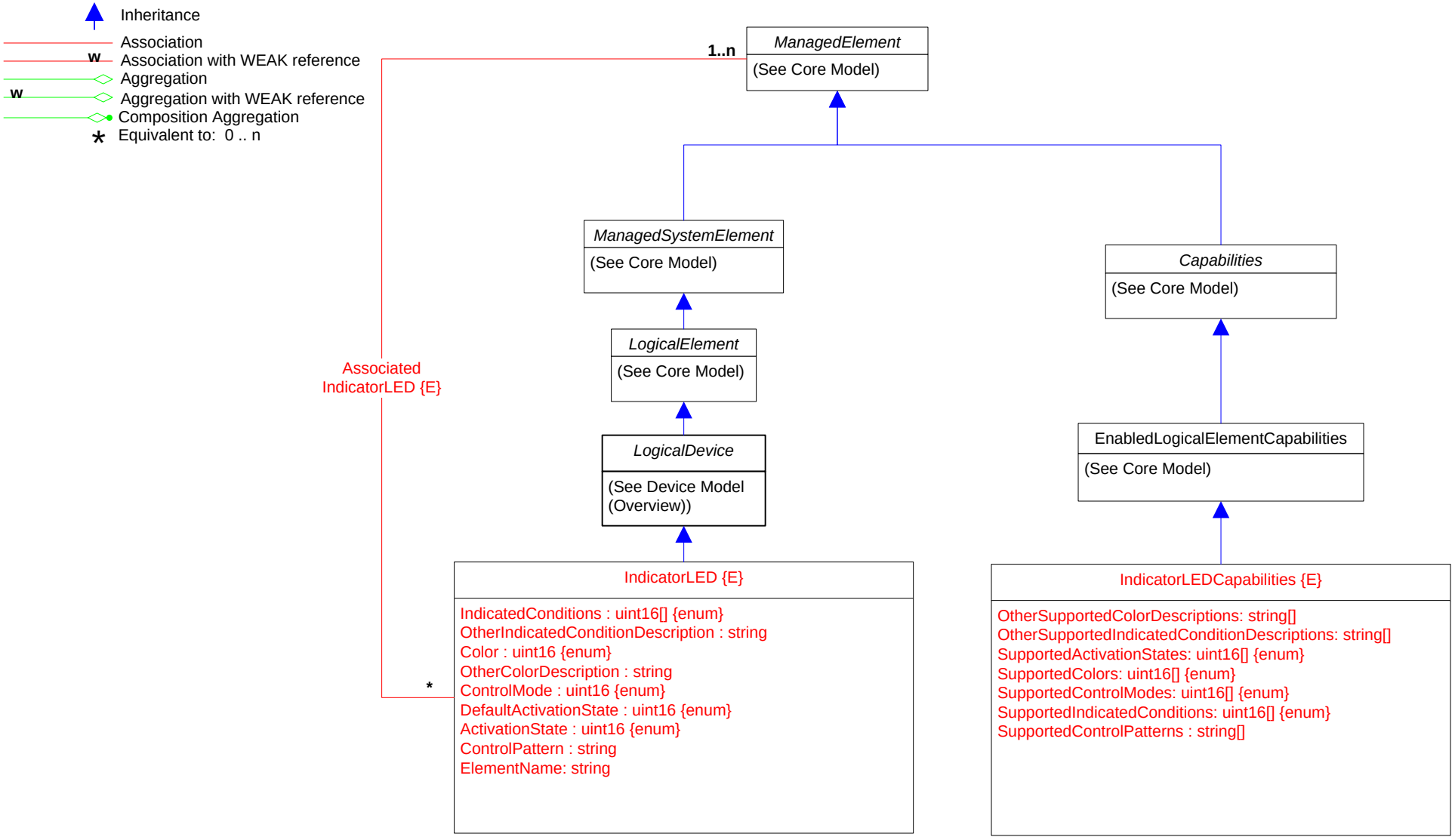




Page 47 of 60: Device Sharing

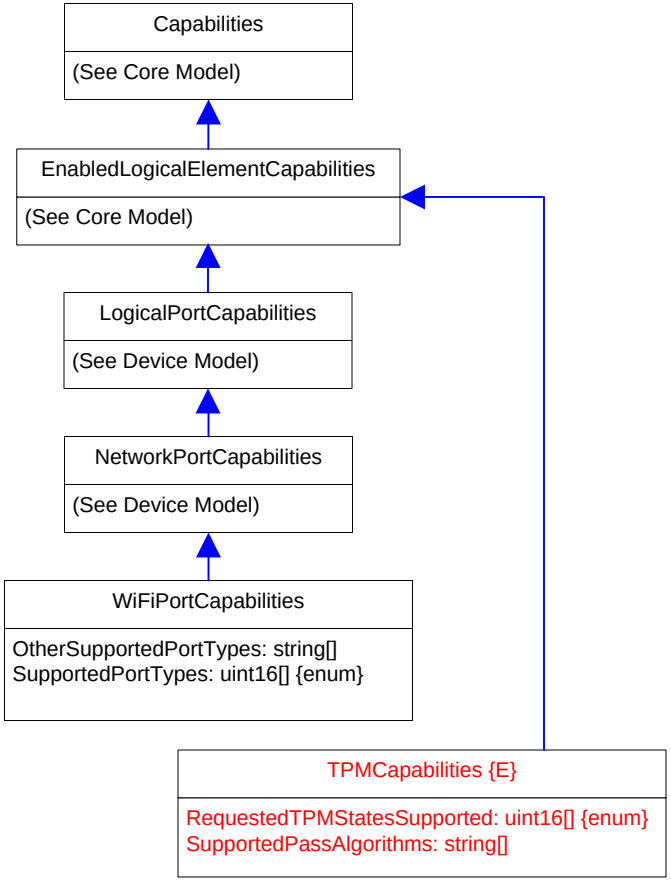


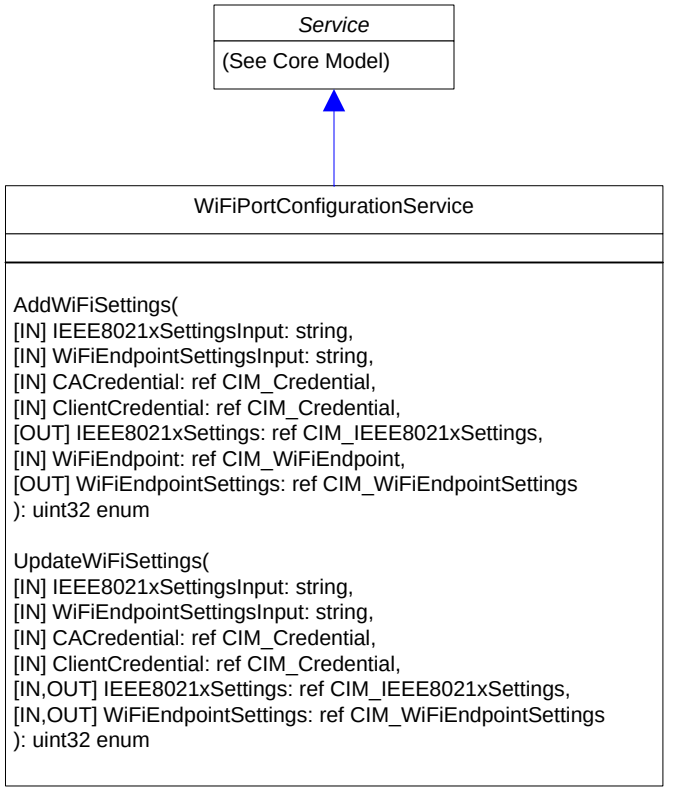


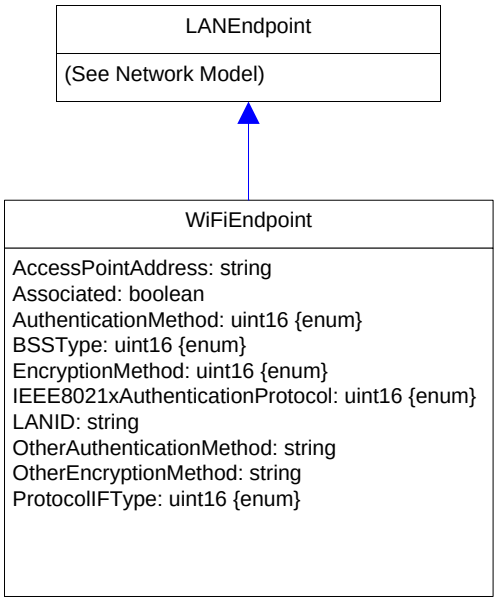

Inheritance
Association
w
Association with WEAK reference
Aggregation
w
Aggregation with WEAK reference
Composition Aggregation
*
Equivalent to: 0 .. n
1..n
ManagedElement
(See Core Model)
ManagedSystemElement
(See Core Model)
LogicalElement
(See Core Model)
LogicalDevice
(See Device Model (Overview))
Capabilities
(See Core Model)
EnabledLogicalElementCapabilities
(See Core Model)
Associated IndicatorLED {E}
*
IndicatorLED {E}
IndicatedConditions : uint16[] {enum}
OtherIndicatedConditionDescription : string
Color : uint16 {enum}
OtherColorDescription : string
ControlMode : uint16 {enum}
DefaultActivationState : uint16 {enum}
ActivationState : uint16 {enum}
ControlPattern : string
ElementName: string
IndicatorLEDCapabilities {E}
OtherSupportedColorDescriptions: string[]
OtherSupportedIndicatedConditionDescriptions: string[]
SupportedActivationStates: uint16[] {enum}
SupportedColors: uint16[] {enum}
SupportedControlModes: uint16[] {enum}
SupportedIndicatedConditions: uint16[] {enum}
SupportedControlPatterns : string[]

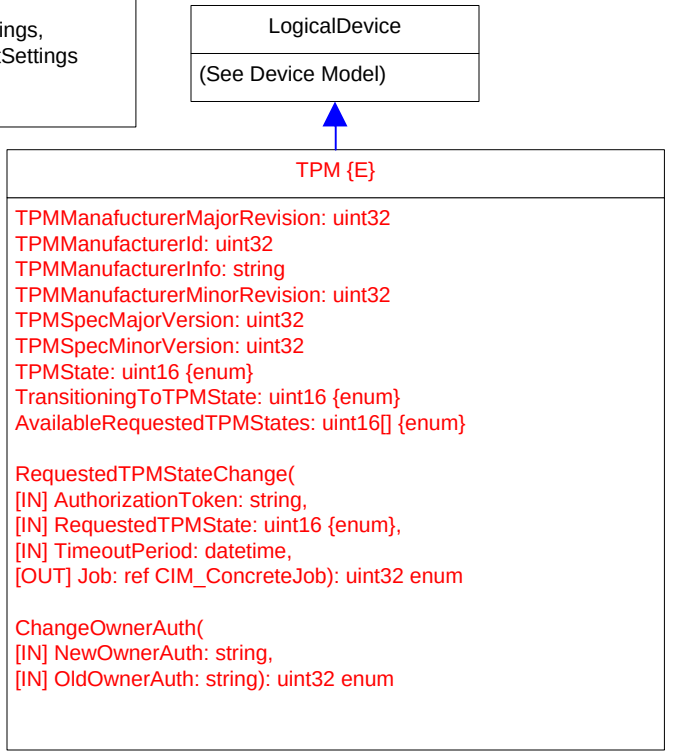
Page 49 of 60: WiFi Services, TPM

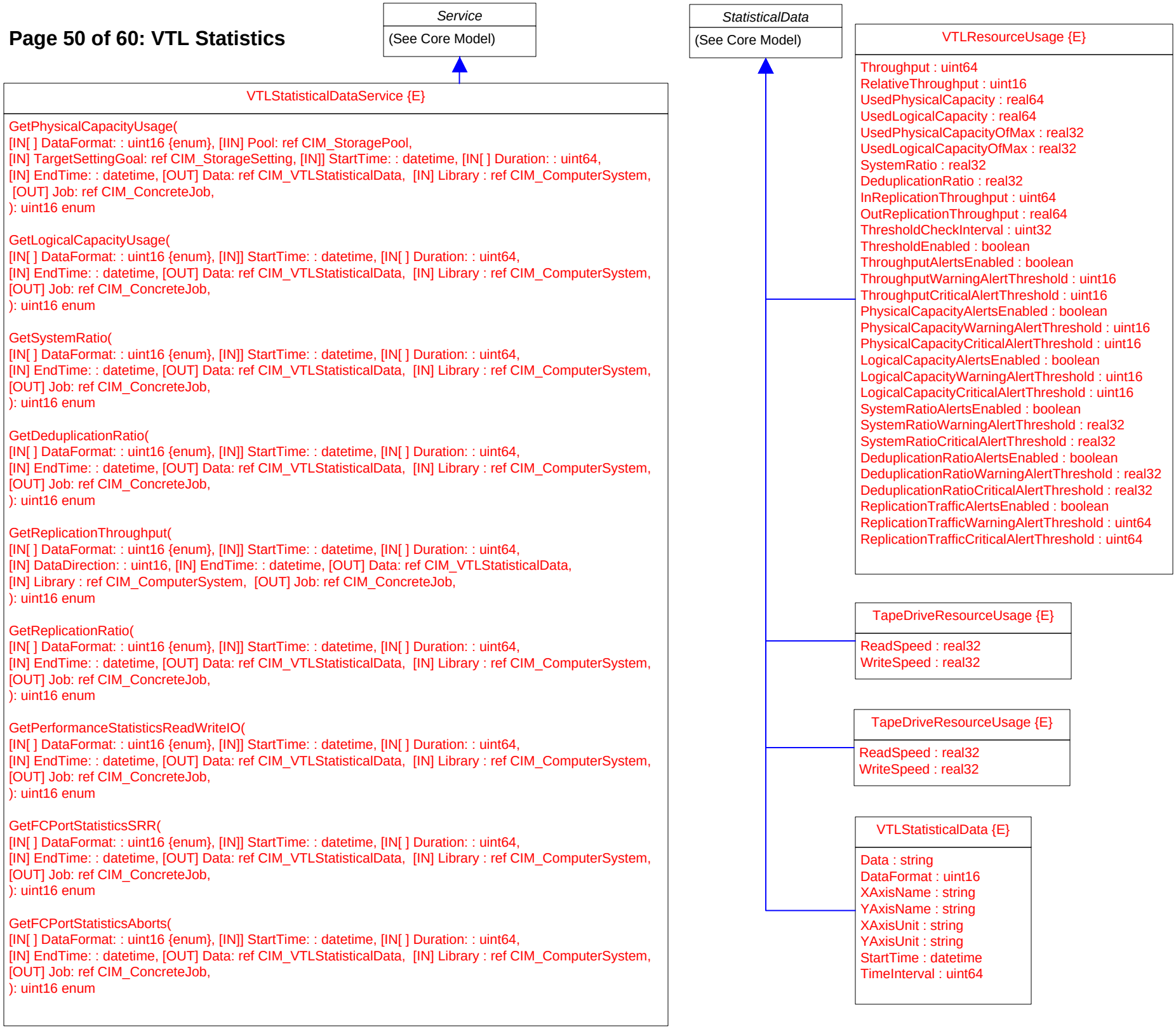
Inheritance
Association
w Association with WEAK reference
Aggregation
w Aggregation with WEAK reference
Composition Aggregation
* Equivalent to: 0 .. n
{E} Experimental Class or Property
{D} Deprecated Class or Property

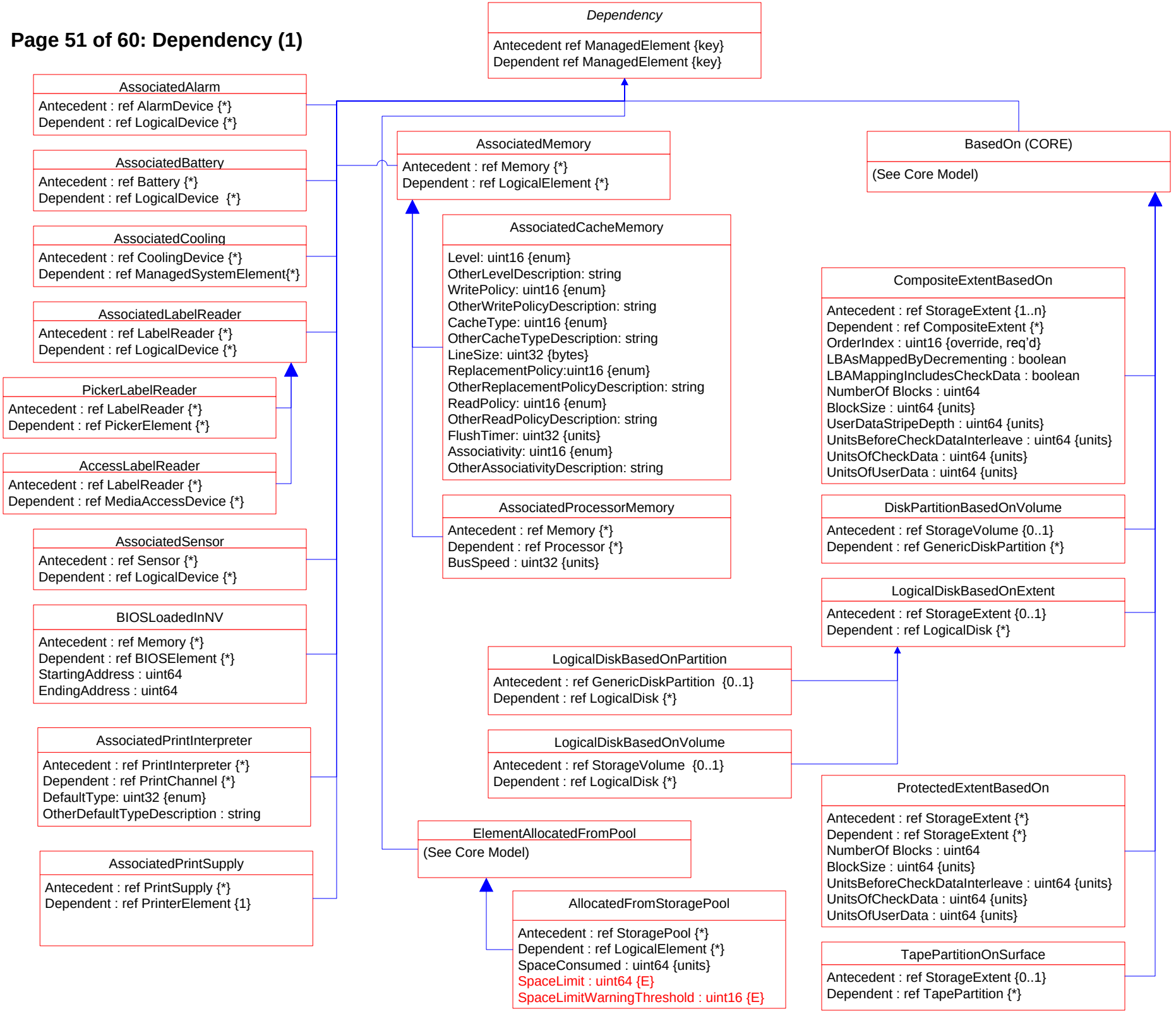


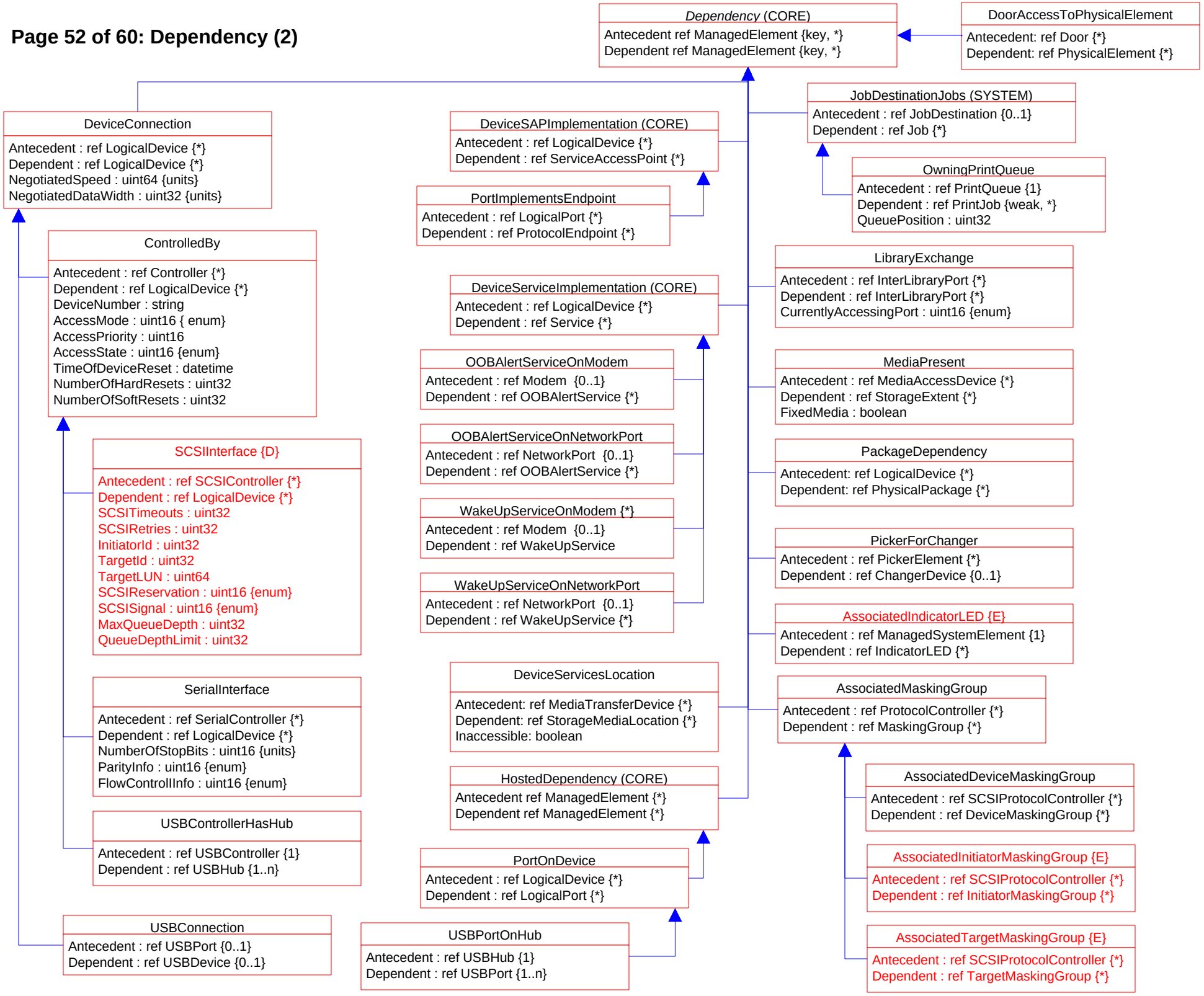


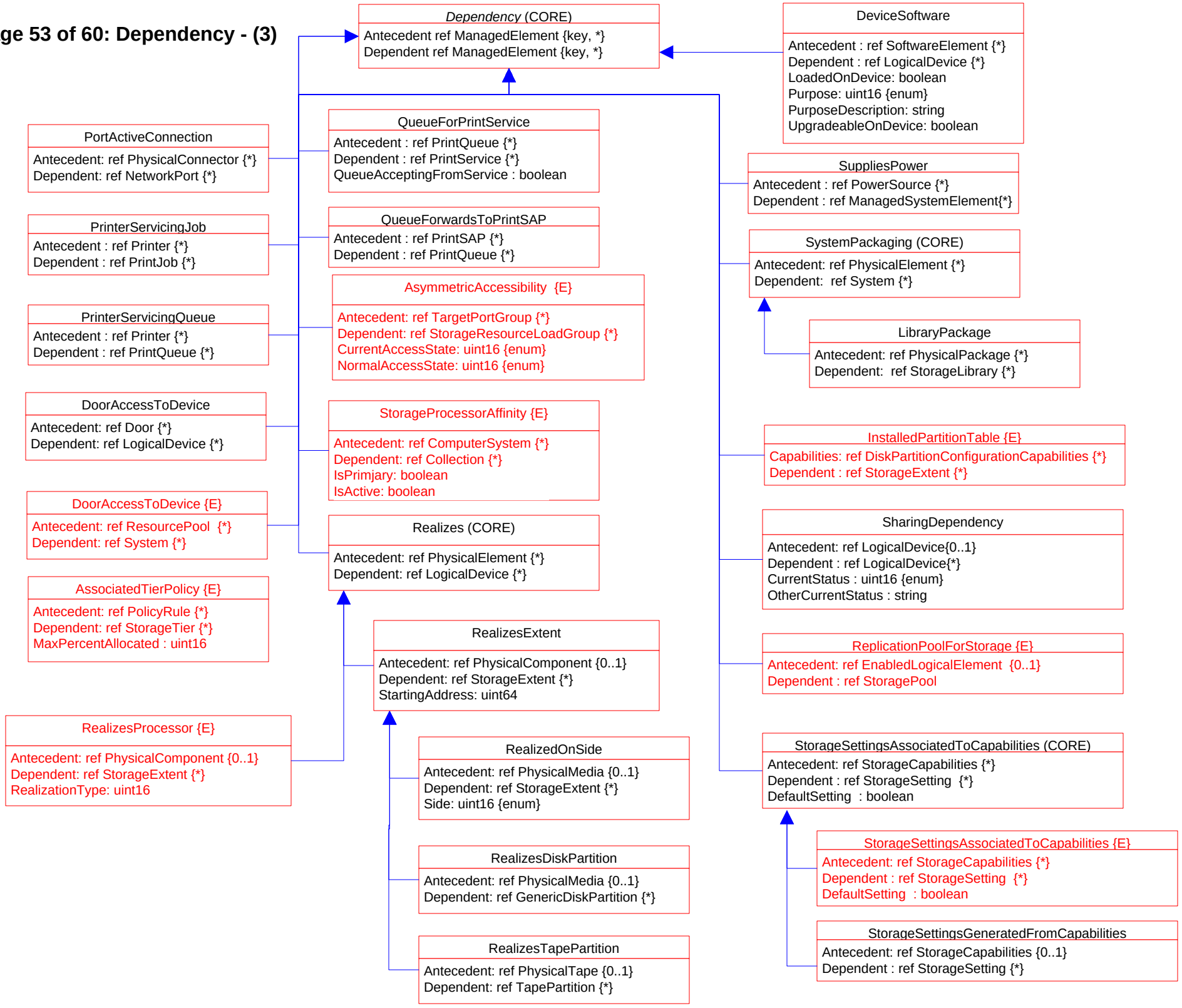




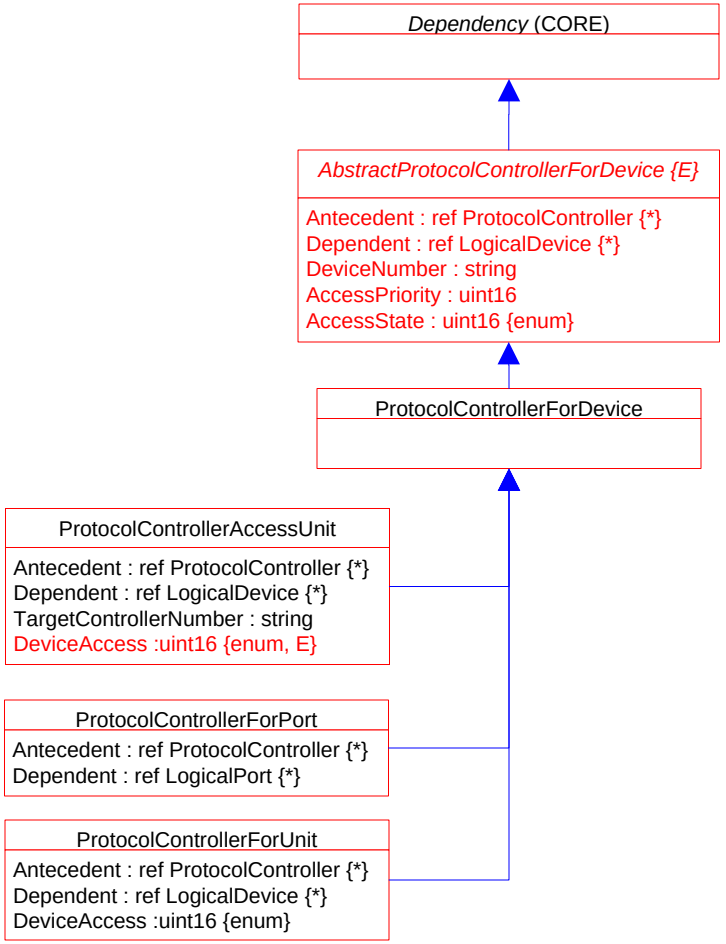

Service
(See Core Model)
StatisticalData
(See Core Model)
VTLStatisticalDataService {E}
GetPhysicalCapacityUsage(
[IN[ ] DataFormat: : uint16 {enum}, [IIN] Pool: ref CIM_StoragePool,
[IN] TargetSettingGoal: ref CIM_StorageSetting, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData, [IN] Library : ref CIM_ComputerSystem,
[OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
GetLogicalCapacityUsage(
[IN[ ] DataFormat: : uint16 {enum}, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData, [IN] Library : ref CIM_ComputerSystem,
[OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
GetSystemRatio(
[IN[ ] DataFormat: : uint16 {enum}, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData, [IN] Library : ref CIM_ComputerSystem,
[OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
GetDeduplicationRatio(
[IN[ ] DataFormat: : uint16 {enum}, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData, [IN] Library : ref CIM_ComputerSystem,
[OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
GetReplicationThroughput(
[IN[ ] DataFormat: : uint16 {enum}, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] DataDirection: : uint16, [IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData,
[IN] Library : ref CIM_ComputerSystem, [OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
GetReplicationRatio(
[IN[ ] DataFormat: : uint16 {enum}, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData, [IN] Library : ref CIM_ComputerSystem,
[OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
GetPerformanceStatisticsReadWriteIO(
[IN[ ] DataFormat: : uint16 {enum}, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData, [IN] Library : ref CIM_ComputerSystem,
[OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
GetFCPortStatisticsSRR(
[IN[ ] DataFormat: : uint16 {enum}, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData, [IN] Library : ref CIM_ComputerSystem,
[OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
GetFCPortStatisticsAborts(
[IN[ ] DataFormat: : uint16 {enum}, [IN]] StartTime: : datetime, [IN[ ] Duration: : uint64,
[IN] EndTime: : datetime, [OUT] Data: ref CIM_VTLStatisticalData, [IN] Library : ref CIM_ComputerSystem,
[OUT] Job: ref CIM_ConcreteJob,
): uint16 enum
VTLResourceUsage {E}
Throughput : uint64
RelativeThroughput : uint16
UsedPhysicalCapacity : real64
UsedLogicalCapacity : real64
UsedPhysicalCapacityOfMax : real32
UsedLogicalCapacityOfMax : real32
SystemRatio : real32
DeduplicationRatio : real32
InReplicationThroughput : uint64
OutReplicationThroughput : real64
ThresholdCheckInterval : uint32
ThresholdEnabled : boolean
ThroughputAlertsEnabled : boolean
ThroughputWarningAlertThreshold : uint16
ThroughputCriticalAlertThreshold : uint16
PhysicalCapacityAlertsEnabled : boolean
PhysicalCapacityWarningAlertThreshold : uint16
PhysicalCapacityCriticalAlertThreshold : uint16
LogicalCapacityAlertsEnabled : boolean
LogicalCapacityWarningAlertThreshold : uint16
LogicalCapacityCriticalAlertThreshold : uint16
SystemRatioAlertsEnabled : boolean
SystemRatioWarningAlertThreshold : real32
SystemRatioCriticalAlertThreshold : real32
DeduplicationRatioAlertsEnabled : boolean
DeduplicationRatioWarningAlertThreshold : real32
DeduplicationRatioCriticalAlertThreshold : real32
ReplicationTrafficAlertsEnabled : boolean
ReplicationTrafficWarningAlertThreshold : uint64
ReplicationTrafficCriticalAlertThreshold : uint64
TapeDriveResourceUsage {E}
ReadSpeed : real32
WriteSpeed : real32
TapeDriveResourceUsage {E}
ReadSpeed : real32
WriteSpeed : real32
VTLStatisticalData {E}
Data : string
DataFormat : uint16
XAxisName : string
YAxisName : string
XAxisUnit : string
YAxisUnit : string
StartTime : datetime
TimeInterval : uint64


Dependency
Antecedent ref ManagedElement {key}
Dependent ref ManagedElement {key}
AssociatedAlarm
Antecedent : ref AlarmDevice {*}
Dependent : ref LogicalDevice {*}
AssociatedBattery
Antecedent : ref Battery {*}
Dependent : ref LogicalDevice {*}
AssociatedCooling
Antecedent : ref CoolingDevice {*}
Dependent : ref ManagedSystemElement{*}
AssociatedLabelReader
Antecedent : ref LabelReader {*}
Dependent : ref LogicalDevice {*}
PickerLabelReader
Antecedent : ref LabelReader {*}
Dependent : ref PickerElement {*}
AccessLabelReader
Antecedent : ref LabelReader {*}
Dependent : ref MediaAccessDevice {*}
AssociatedSensor
Antecedent : ref Sensor {*}
Dependent : ref LogicalDevice {*}
BIOSLoadedInNV
Antecedent : ref Memory {*}
Dependent : ref BIOSElement {*}
StartingAddress : uint64
EndingAddress : uint64
AssociatedPrintInterpreter
Antecedent : ref PrintInterpreter {*}
Dependent : ref PrintChannel {*}
DefaultType: uint32 {enum}
OtherDefaultTypeDescription : string
AssociatedPrintSupply
Antecedent : ref PrintSupply {*}
Dependent : ref PrinterElement {1}
AssociatedMemory
Antecedent : ref Memory {*}
Dependent : ref LogicalElement {*}
AssociatedCacheMemory
Level: uint16 {enum}
OtherLevelDescription: string
WritePolicy: uint16 {enum}
OtherWritePolicyDescription: string
CacheType: uint16 {enum}
OtherCacheTypeDescription: string
LineSize: uint32 {bytes}
ReplacementPolicy:uint16 {enum}
OtherReplacementPolicyDescription: string
ReadPolicy: uint16 {enum}
OtherReadPolicyDescription: string
FlushTimer: uint32 {units}
Associativity: uint16 {enum}
OtherAssociativityDescription: string
AssociatedProcessorMemory
Antecedent : ref Memory {*}
Dependent : ref Processor {*}
BusSpeed : uint32 {units}
LogicalDiskBasedOnPartition
Antecedent : ref GenericDiskPartition {0..1}
Dependent : ref LogicalDisk {*}
LogicalDiskBasedOnVolume
Antecedent : ref StorageVolume {0..1}
Dependent : ref LogicalDisk {*}
ElementAllocatedFromPool
(See Core Model)
AllocatedFromStoragePool
Antecedent : ref StoragePool {*}
Dependent : ref LogicalElement {*}
SpaceConsumed : uint64 {units}
SpaceLimit : uint64 {E}
SpaceLimitWarningThreshold : uint16 {E}
BasedOn (CORE)
(See Core Model)
CompositeExtentBasedOn
Antecedent : ref StorageExtent {1..n}
Dependent : ref CompositeExtent {*}
OrderIndex : uint16 {override, req'd}
LBAsMappedByDecrementing : boolean
LBAMappingIncludesCheckData : boolean
NumberOf Blocks : uint64
BlockSize : uint64 {units}
UserDataStripeDepth : uint64 {units}
UnitsBeforeCheckDataInterleave : uint64 {units}
UnitsOfCheckData : uint64 {units}
UnitsOfUserData : uint64 {units}
DiskPartitionBasedOnVolume
Antecedent : ref StorageVolume {0..1}
Dependent : ref GenericDiskPartition {*}
LogicalDiskBasedOnExtent
Antecedent : ref StorageExtent {0..1}
Dependent : ref LogicalDisk {*}
ProtectedExtentBasedOn
Antecedent : ref StorageExtent {*}
Dependent : ref StorageExtent {*}
NumberOf Blocks : uint64
BlockSize : uint64 {units}
UnitsBeforeCheckDataInterleave : uint64 {units}
UnitsOfCheckData : uint64 {units}
UnitsOfUserData : uint64 {units}
TapePartitionOnSurface
Antecedent : ref StorageExtent {0..1}
Dependent : ref TapePartition {*}

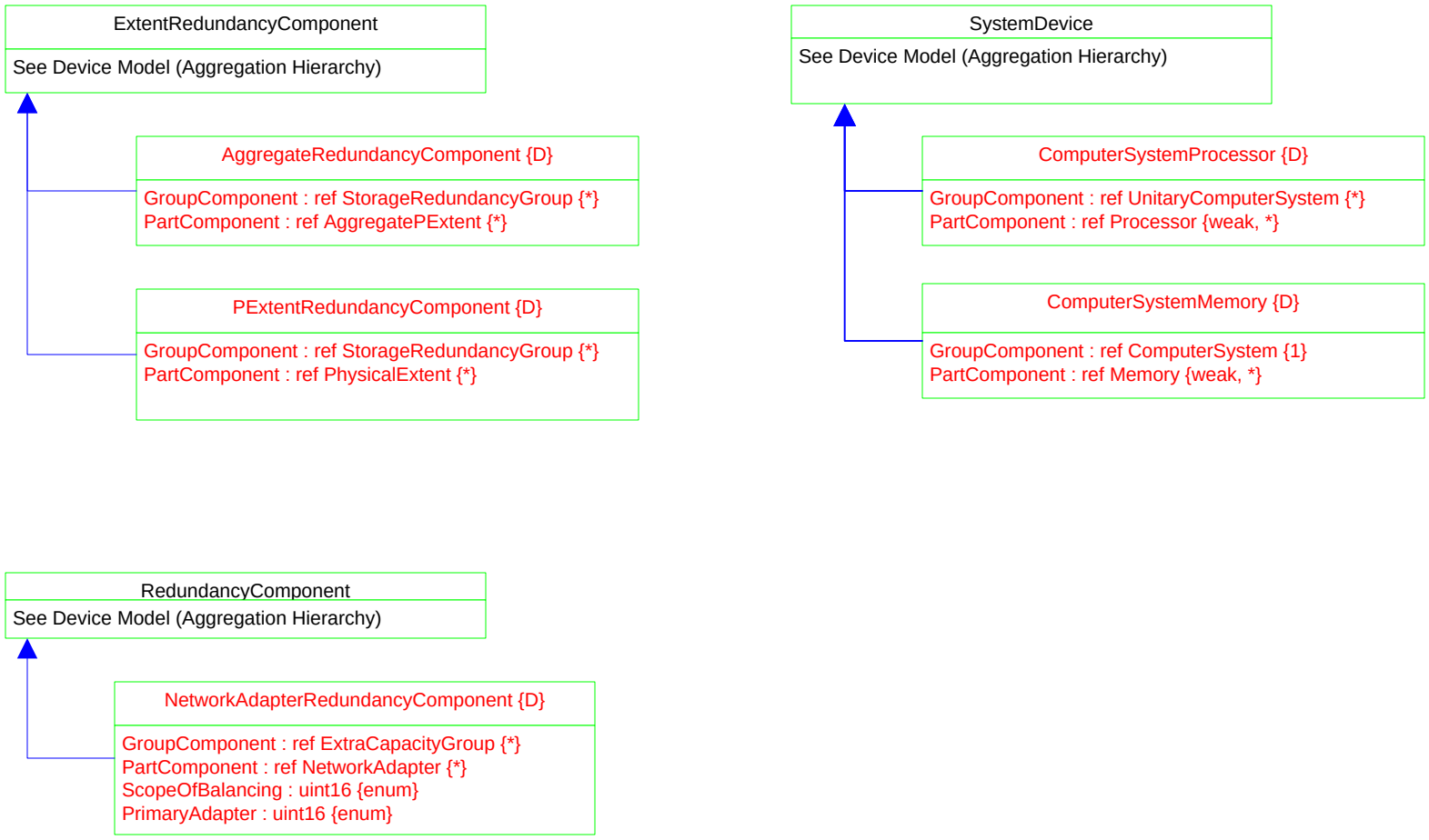

Dependency (CORE)
Antecedent ref ManagedElement {key, *}
Dependent ref ManagedElement {key, *}
DoorAccessToPhysicalElement
Antecedent: ref Door {*}
Dependent: ref PhysicalElement {*}
DeviceConnection
Antecedent : ref LogicalDevice {*}
Dependent : ref LogicalDevice {*}
NegotiatedSpeed : uint64 {units}
NegotiatedDataWidth : uint32 {units}
JobDestinationJobs (SYSTEM)
Antecedent : ref JobDestination {0..1}
Dependent : ref Job {*}
DeviceSAPImplementation (CORE)
Antecedent : ref LogicalDevice {*}
Dependent : ref ServiceAccessPoint {*}
OwningPrintQueue
Antecedent : ref PrintQueue {1}
Dependent : ref PrintJob {weak, *}
QueuePosition : uint32
PortImplementsEndpoint
Antecedent : ref LogicalPort {*}
Dependent : ref ProtocolEndpoint {*}
ControlledBy
Antecedent : ref Controller {*}
Dependent : ref LogicalDevice {*}
DeviceNumber : string
AccessMode : uint16 { enum}
AccessPriority : uint16
AccessState : uint16 {enum}
TimeOfDeviceReset : datetime
NumberOfHardResets : uint32
NumberOfSoftResets : uint32
LibraryExchange
Antecedent : ref InterLibraryPort {*}
Dependent : ref InterLibraryPort {*}
CurrentlyAccessingPort : uint16 {enum}
DeviceServiceImplementation (CORE)
Antecedent : ref LogicalDevice {*}
Dependent : ref Service {*}
OOBAlertServiceOnModem
Antecedent : ref Modem {0..1}
Dependent : ref OOBAlertService {*}
MediaPresent
Antecedent : ref MediaAccessDevice {*}
Dependent : ref StorageExtent {*}
FixedMedia : boolean
OOBAlertServiceOnNetworkPort
Antecedent : ref NetworkPort {0..1}
Dependent : ref OOBAlertService {*}
SCSIInterface {D}
Antecedent : ref SCSIController {*}
Dependent : ref LogicalDevice {*}
SCSITimeouts : uint32
SCSIRetries : uint32
InitiatorId : uint32
TargetId : uint32
TargetLUN : uint64
SCSIReservation : uint16 {enum}
SCSISignal : uint16 {enum}
MaxQueueDepth : uint32
QueueDepthLimit : uint32
PackageDependency
Antecedent: ref LogicalDevice {*}
Dependent: ref PhysicalPackage {*}
WakeUpServiceOnModem {*}
Antecedent : ref Modem {0..1}
Dependent : ref WakeUpService
PickerForChanger
Antecedent : ref PickerElement {*}
Dependent : ref ChangerDevice {0..1}
WakeUpServiceOnNetworkPort
Antecedent : ref NetworkPort {0..1}
Dependent : ref WakeUpService {*}
AssociatedIndicatorLED {E}
Antecedent : ref ManagedSystemElement {1}
Dependent : ref IndicatorLED {*}
DeviceServicesLocation
Antecedent: ref MediaTransferDevice {*}
Dependent: ref StorageMediaLocation {*}
Inaccessible: boolean
AssociatedMaskingGroup
Antecedent : ref ProtocolController {*}
Dependent : ref MaskingGroup {*}
SerialInterface
Antecedent : ref SerialController {*}
Dependent : ref LogicalDevice {*}
NumberOfStopBits : uint16 {units}
ParityInfo : uint16 {enum}
FlowControlIInfo : uint16 {enum}
HostedDependency (CORE)
Antecedent ref ManagedElement {*}
Dependent ref ManagedElement {*}
AssociatedDeviceMaskingGroup
Antecedent : ref SCSIProtocolController {*}
Dependent : ref DeviceMaskingGroup {*}
USBControllerHasHub
Antecedent : ref USBController {1}
Dependent : ref USBHub {1..n}
PortOnDevice
Antecedent : ref LogicalDevice {*}
Dependent : ref LogicalPort {*}
AssociatedInitiatorMaskingGroup {E}
Antecedent : ref SCSIProtocolController {*}
Dependent : ref InitiatorMaskingGroup {*}
USBConnection
Antecedent : ref USBPort {0..1}
Dependent : ref USBDevice {0..1}
USBPortOnHub
Antecedent : ref USBHub {1}
Dependent : ref USBPort {1..n}
AssociatedTargetMaskingGroup {E}
Antecedent : ref SCSIProtocolController {*}
Dependent : ref TargetMaskingGroup {*}

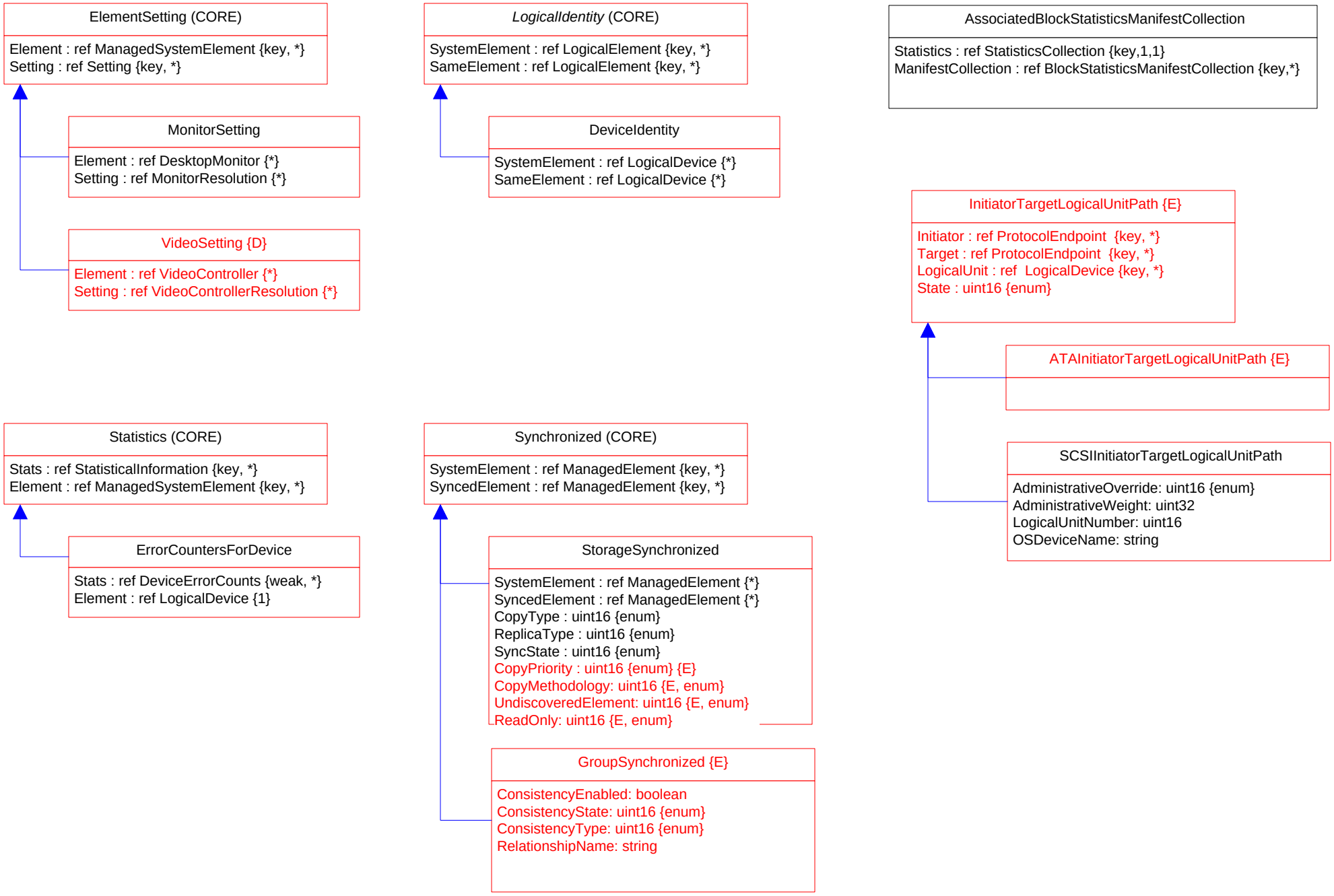

Dependency (CORE)
Antecedent ref ManagedElement {key, *}
Dependent ref ManagedElement {key, *}
DeviceSoftware
Antecedent : ref SoftwareElement {*}
Dependent : ref LogicalDevice {*}
LoadedOnDevice: boolean
Purpose: uint16 {enum}
PurposeDescription: string
UpgradeableOnDevice: boolean
PortActiveConnection
Antecedent: ref PhysicalConnector {*}
Dependent: ref NetworkPort {*}
QueueForPrintService
Antecedent : ref PrintQueue {*}
Dependent : ref PrintService {*}
QueueAcceptingFromService : boolean
SuppliesPower
Antecedent : ref PowerSource {*}
Dependent : ref ManagedSystemElement{*}
PrinterServicingJob
Antecedent : ref Printer {*}
Dependent : ref PrintJob {*}
QueueForwardsToPrintSAP
Antecedent : ref PrintSAP {*}
Dependent : ref PrintQueue {*}
SystemPackaging (CORE)
Antecedent: ref PhysicalElement {*}
Dependent: ref System {*}
AsymmetricAccessibility {E}
Antecedent: ref TargetPortGroup {*}
Dependent: ref StorageResourceLoadGroup {*}
CurrentAccessState: uint16 {enum}
NormalAccessState: uint16 {enum}
PrinterServicingQueue
Antecedent : ref Printer {*}
Dependent : ref PrintQueue {*}
LibraryPackage
Antecedent: ref PhysicalPackage {*}
Dependent: ref StorageLibrary {*}
DoorAccessToDevice
Antecedent: ref Door {*}
Dependent: ref LogicalDevice {*}
StorageProcessorAffinity {E}
Antecedent: ref ComputerSystem {*}
Dependent: ref Collection {*}
IsPrimjary: boolean
IsActive: boolean
InstalledPartitionTable {E}
Capabilities: ref DiskPartitionConfigurationCapabilities {*}
Dependent : ref StorageExtent {*}
DoorAccessToDevice {E}
Antecedent: ref ResourcePool {*}
Dependent: ref System {*}
Realizes (CORE)
Antecedent: ref PhysicalElement {*}
Dependent: ref LogicalDevice {*}
SharingDependency
Antecedent: ref LogicalDevice{0..1}
Dependent : ref LogicalDevice{*}
CurrentStatus : uint16 {enum}
OtherCurrentStatus : string
AssociatedTierPolicy {E}
Antecedent: ref PolicyRule {*}
Dependent: ref StorageTier {*}
MaxPercentAllocated : uint16
RealizesExtent
Antecedent: ref PhysicalComponent {0..1}
Dependent: ref StorageExtent {*}
StartingAddress: uint64
ReplicationPoolForStorage {E}
Antecedent: ref EnabledLogicalElement {0..1}
Dependent : ref StoragePool
RealizesProcessor {E}
Antecedent: ref PhysicalComponent {0..1}
Dependent: ref StorageExtent {*}
RealizationType: uint16
RealizedOnSide
Antecedent: ref PhysicalMedia {0..1}
Dependent: ref StorageExtent {*}
Side: uint16 {enum}
StorageSettingsAssociatedToCapabilities (CORE)
Antecedent: ref StorageCapabilities {*}
Dependent : ref StorageSetting {*}
DefaultSetting : boolean
RealizesDiskPartition
Antecedent: ref PhysicalMedia {0..1}
Dependent: ref GenericDiskPartition {*}
StorageSettingsAssociatedToCapabilities {E}
Antecedent: ref StorageCapabilities {*}
Dependent : ref StorageSetting {*}
DefaultSetting : boolean
RealizesTapePartition
Antecedent: ref PhysicalTape {0..1}
Dependent: ref TapePartition {*}
StorageSettingsGeneratedFromCapabilities
Antecedent: ref StorageCapabilities {0..1}
Dependent : ref StorageSetting {*}

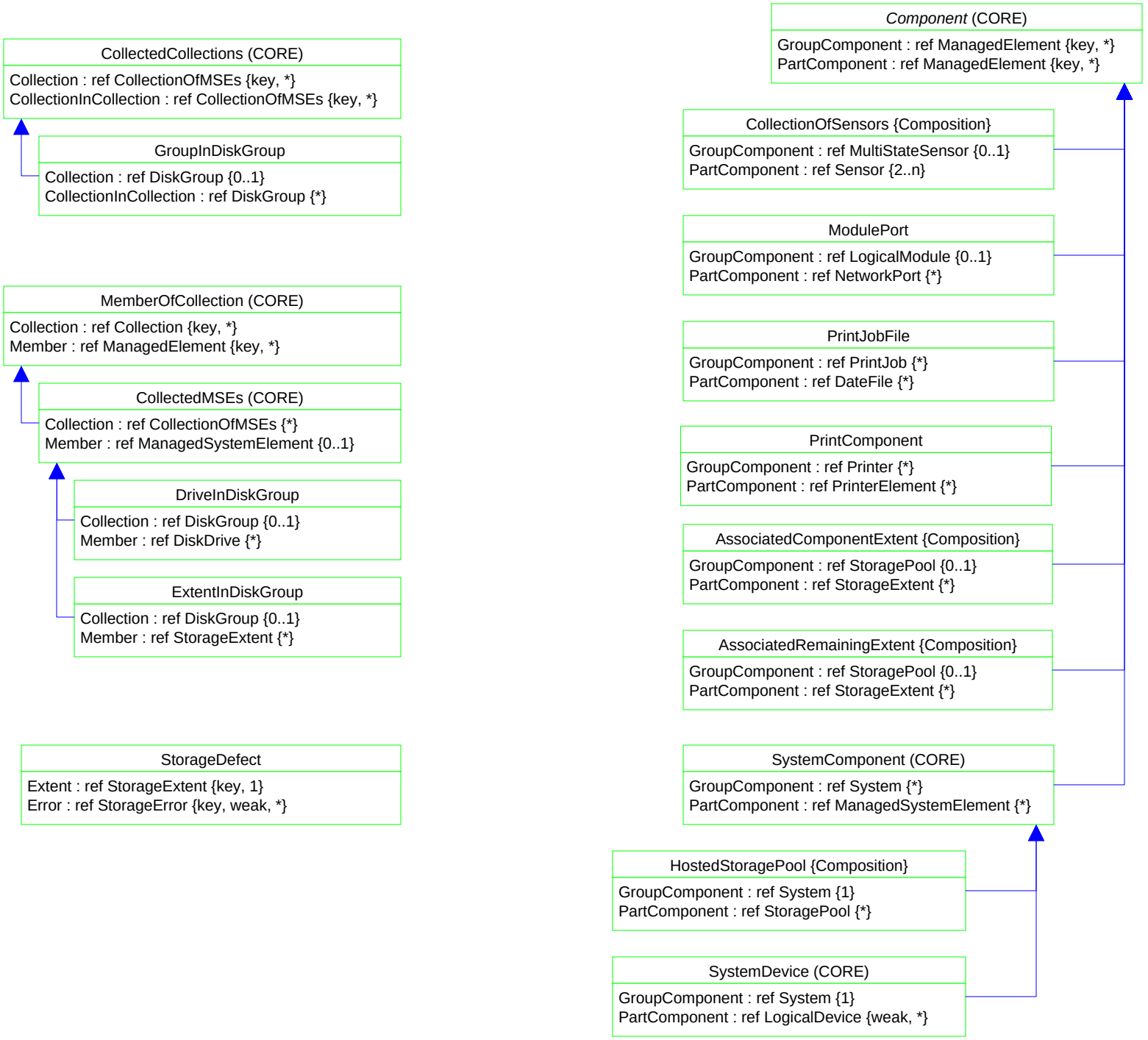
Page 54 of 60: Dependency- (4)

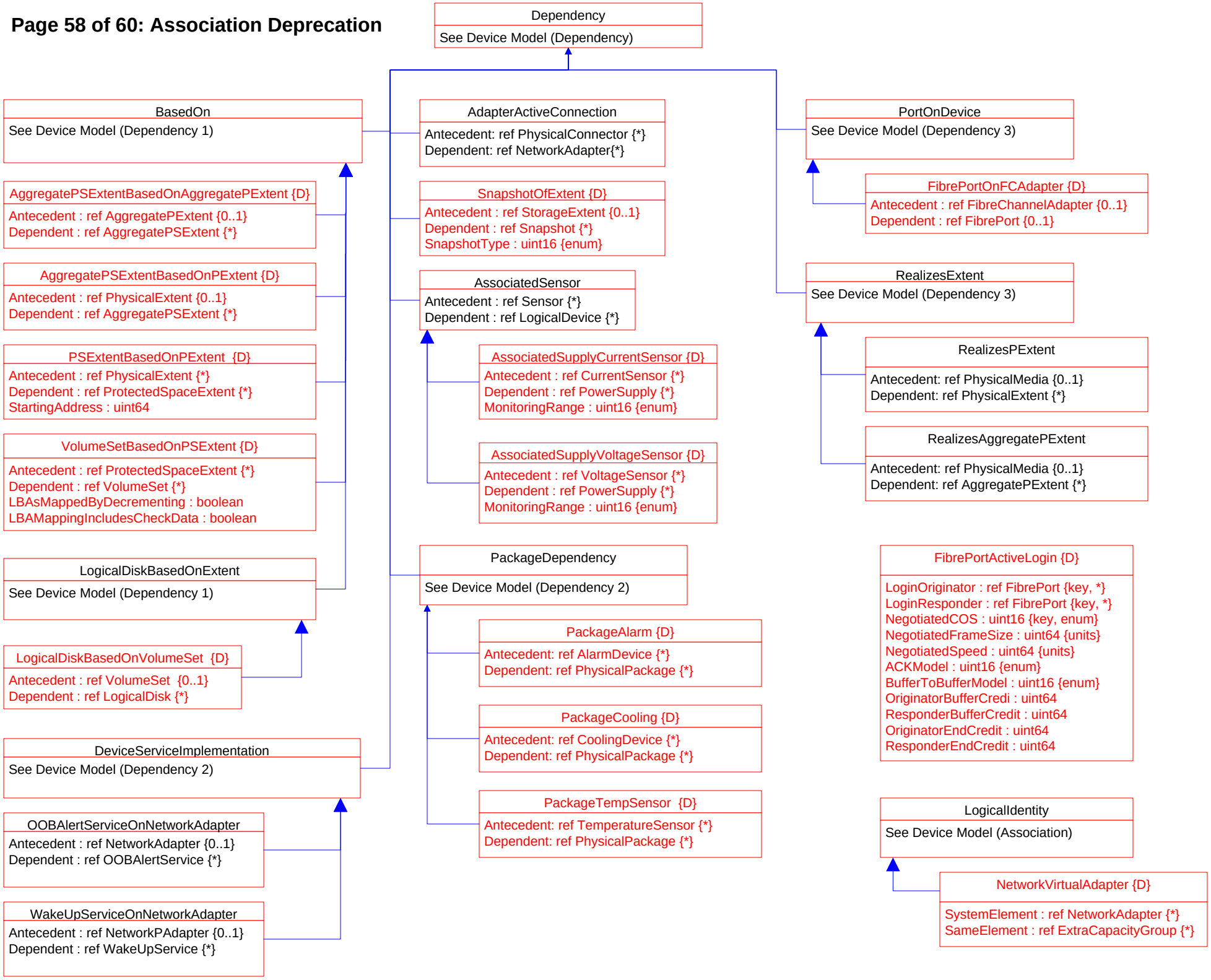


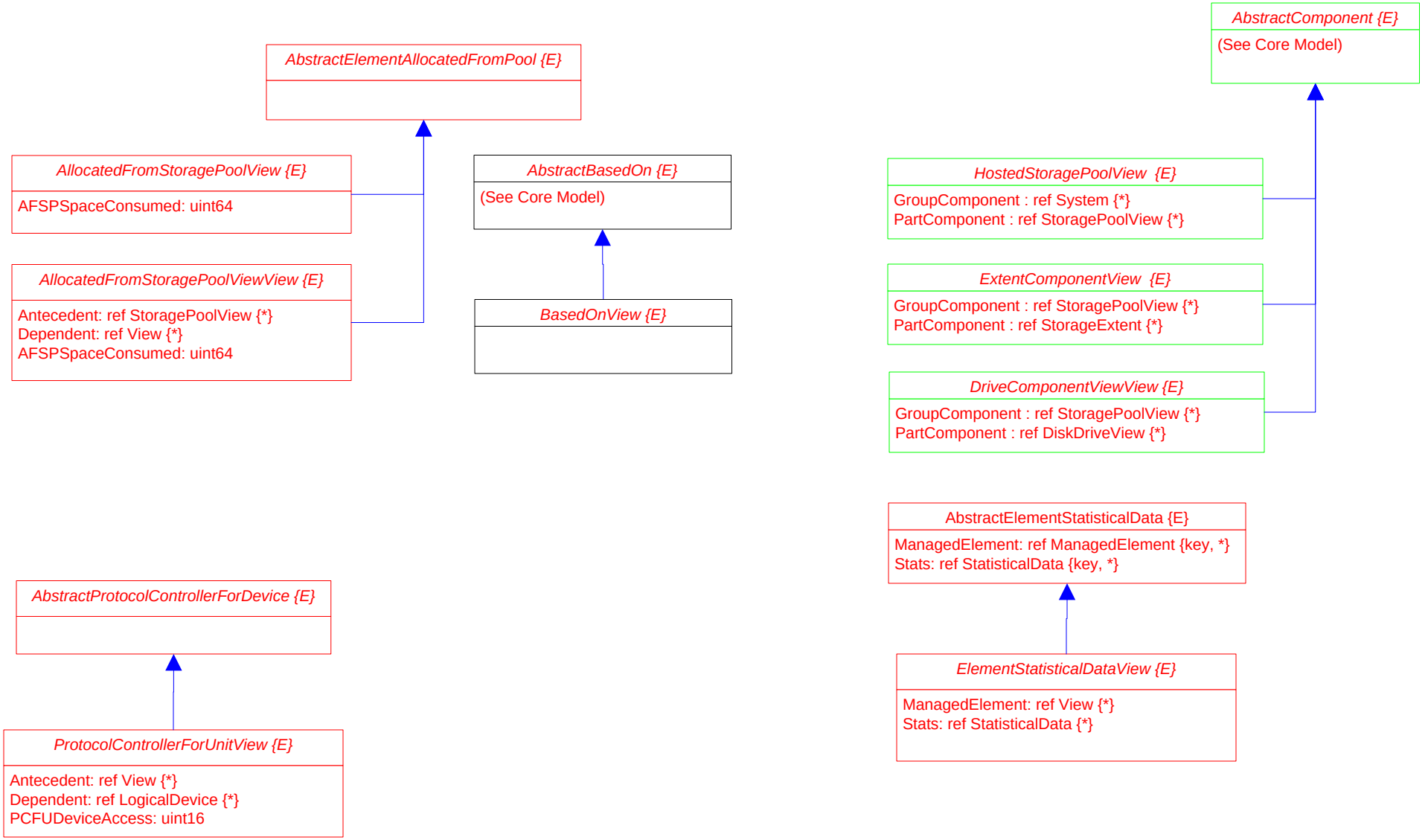
Page 55 of 60: Aggregation Deprecation

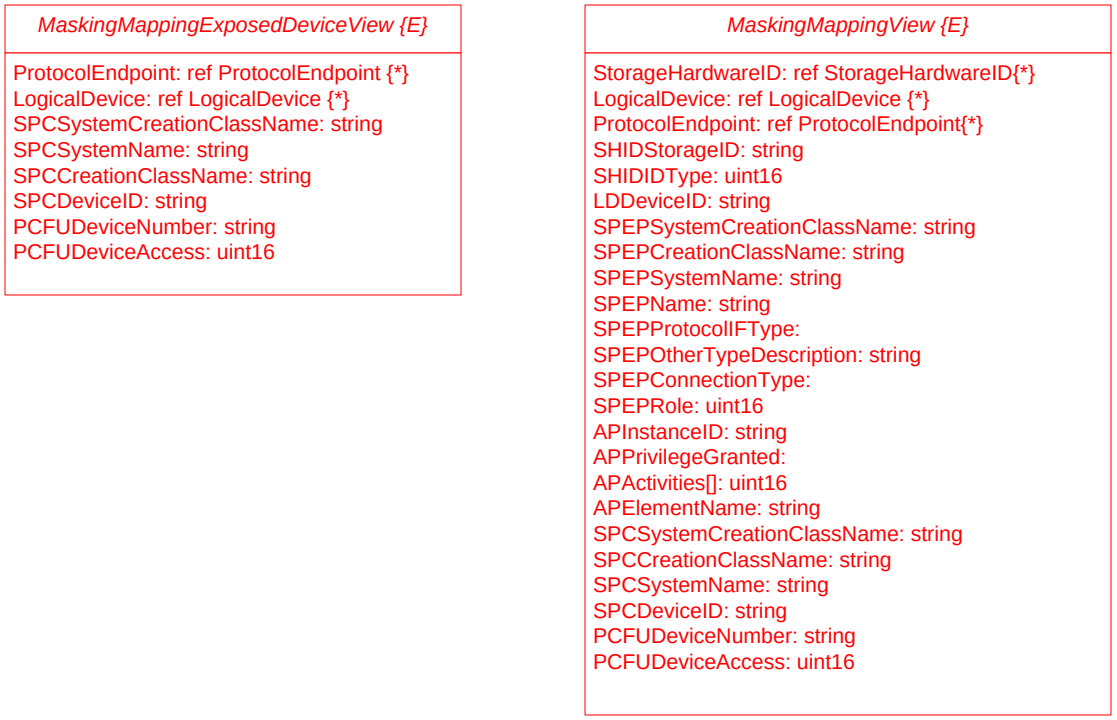



ElementSetting (CORE)
Element : ref ManagedSystemElement {key, *}
Setting : ref Setting {key, *}
MonitorSetting
Element : ref DesktopMonitor {*}
Setting : ref MonitorResolution {*}
VideoSetting {D}
Element : ref VideoController {*}
Setting : ref VideoControllerResolution {*}
LogicalIdentity (CORE)
SystemElement : ref LogicalElement {key, *}
SameElement : ref LogicalElement {key, *}
DeviceIdentity
SystemElement : ref LogicalDevice {*}
SameElement : ref LogicalDevice {*}
AssociatedBlockStatisticsManifestCollection
Statistics : ref StatisticsCollection {key,1,1}
ManifestCollection : ref BlockStatisticsManifestCollection {key,*}
InitiatorTargetLogicalUnitPath {E}
Initiator : ref ProtocolEndpoint {key, *}
Target : ref ProtocolEndpoint {key, *}
LogicalUnit : ref LogicalDevice {key, *}
State : uint16 {enum}
ATAInitiatorTargetLogicalUnitPath {E}
SCSIInitiatorTargetLogicalUnitPath
AdministrativeOverride: uint16 {enum}
AdministrativeWeight: uint32
LogicalUnitNumber: uint16
OSDeviceName: string
Statistics (CORE)
Stats : ref StatisticalInformation {key, *}
Element : ref ManagedSystemElement {key, *}
ErrorCountersForDevice
Stats : ref DeviceErrorCounts {weak, *}
Element : ref LogicalDevice {1}
Synchronized (CORE)
SystemElement : ref ManagedElement {key, *}
SyncedElement : ref ManagedElement {key, *}
StorageSynchronized
SystemElement : ref ManagedElement {*}
SyncedElement : ref ManagedElement {*}
CopyType : uint16 {enum}
ReplicaType : uint16 {enum}
SyncState : uint16 {enum}
CopyPriority : uint16 {enum} {E}
CopyMethodology: uint16 {E, enum}
UndiscoveredElement: uint16 {E, enum}
ReadOnly: uint16 {E, enum}
GroupSynchronized {E}
ConsistencyEnabled: boolean
ConsistencyState: uint16 {enum}
ConsistencyType: uint16 {enum}
RelationshipName: string


CollectedCollections (CORE)
Collection : ref CollectionOfMSEs {key, *}
CollectionInCollection : ref CollectionOfMSEs {key, *}
GroupInDiskGroup
Collection : ref DiskGroup {0..1}
CollectionInCollection : ref DiskGroup {*}
MemberOfCollection (CORE)
Collection : ref Collection {key, *}
Member : ref ManagedElement {key, *}
CollectedMSEs (CORE)
Collection : ref CollectionOfMSEs {*}
Member : ref ManagedSystemElement {0..1}
DriveInDiskGroup
Collection : ref DiskGroup {0..1}
Member : ref DiskDrive {*}
ExtentInDiskGroup
Collection : ref DiskGroup {0..1}
Member : ref StorageExtent {*}
StorageDefect
Extent : ref StorageExtent {key, 1}
Error : ref StorageError {key, weak, *}
Component (CORE)
GroupComponent : ref ManagedElement {key, *}
PartComponent : ref ManagedElement {key, *}
CollectionOfSensors {Composition}
GroupComponent : ref MultiStateSensor {0..1}
PartComponent : ref Sensor {2..n}
ModulePort
GroupComponent : ref LogicalModule {0..1}
PartComponent : ref NetworkPort {*}
PrintJobFile
GroupComponent : ref PrintJob {*}
PartComponent : ref DateFile {*}
PrintComponent
GroupComponent : ref Printer {*}
PartComponent : ref PrinterElement {*}
AssociatedComponentExtent {Composition}
GroupComponent : ref StoragePool {0..1}
PartComponent : ref StorageExtent {*}
AssociatedRemainingExtent {Composition}
GroupComponent : ref StoragePool {0..1}
PartComponent : ref StorageExtent {*}
SystemComponent (CORE)
GroupComponent : ref System {*}
PartComponent : ref ManagedSystemElement {*}
HostedStoragePool {Composition}
GroupComponent : ref System {1}
PartComponent : ref StoragePool {*}
SystemDevice (CORE)
GroupComponent : ref System {1}
PartComponent : ref LogicalDevice {weak, *}


Dependency
See Device Model (Dependency)
BasedOn
See Device Model (Dependency 1)
AdapterActiveConnection
Antecedent: ref PhysicalConnector {*}
Dependent: ref NetworkAdapter{*}
PortOnDevice
See Device Model (Dependency 3)
AggregatePSExtentBasedOnAggregatePExtent {D}
Antecedent : ref AggregatePExtent {0..1}
Dependent : ref AggregatePSExtent {*}
SnapshotOfExtent {D}
Antecedent : ref StorageExtent {0..1}
Dependent : ref Snapshot {*}
SnapshotType : uint16 {enum}
FibrePortOnFCAdapter {D}
Antecedent : ref FibreChannelAdapter {0..1}
Dependent : ref FibrePort {0..1}
AggregatePSExtentBasedOnPExtent {D}
Antecedent : ref PhysicalExtent {0..1}
Dependent : ref AggregatePSExtent {*}
AssociatedSensor
Antecedent : ref Sensor {*}
Dependent : ref LogicalDevice {*}
RealizesExtent
See Device Model (Dependency 3)
PSExtentBasedOnPExtent {D}
Antecedent : ref PhysicalExtent {*}
Dependent : ref ProtectedSpaceExtent {*}
StartingAddress : uint64
AssociatedSupplyCurrentSensor {D}
Antecedent : ref CurrentSensor {*}
Dependent : ref PowerSupply {*}
MonitoringRange : uint16 {enum}
RealizesPExtent
Antecedent: ref PhysicalMedia {0..1}
Dependent: ref PhysicalExtent {*}
VolumeSetBasedOnPSExtent {D}
Antecedent : ref ProtectedSpaceExtent {*}
Dependent : ref VolumeSet {*}
LBAsMappedByDecrementing : boolean
LBAMappingIncludesCheckData : boolean
AssociatedSupplyVoltageSensor {D}
Antecedent : ref VoltageSensor {*}
Dependent : ref PowerSupply {*}
MonitoringRange : uint16 {enum}
RealizesAggregatePExtent
Antecedent: ref PhysicalMedia {0..1}
Dependent: ref AggregatePExtent {*}
LogicalDiskBasedOnExtent
See Device Model (Dependency 1)
PackageDependency
See Device Model (Dependency 2)
FibrePortActiveLogin {D}
LoginOriginator : ref FibrePort {key, *}
LoginResponder : ref FibrePort {key, *}
NegotiatedCOS : uint16 {key, enum}
NegotiatedFrameSize : uint64 {units}
NegotiatedSpeed : uint64 {units}
ACKModel : uint16 {enum}
BufferToBufferModel : uint16 {enum}
OriginatorBufferCredi : uint64
ResponderBufferCredit : uint64
OriginatorEndCredit : uint64
ResponderEndCredit : uint64
PackageAlarm {D}
Antecedent: ref AlarmDevice {*}
Dependent: ref PhysicalPackage {*}
LogicalDiskBasedOnVolumeSet {D}
Antecedent : ref VolumeSet {0..1}
Dependent : ref LogicalDisk {*}
PackageCooling {D}
Antecedent: ref CoolingDevice {*}
Dependent: ref PhysicalPackage {*}
DeviceServiceImplementation
See Device Model (Dependency 2)
PackageTempSensor {D}
Antecedent: ref TemperatureSensor {*}
Dependent: ref PhysicalPackage {*}
LogicalIdentity
See Device Model (Association)
OOBAlertServiceOnNetworkAdapter
Antecedent : ref NetworkAdapter {0..1}
Dependent : ref OOBAlertService {*}
NetworkVirtualAdapter {D}
SystemElement : ref NetworkAdapter {*}
SameElement : ref ExtraCapacityGroup {*}
WakeUpServiceOnNetworkAdapter
Antecedent : ref NetworkPAdapter {0..1}
Dependent : ref WakeUpService {*}


AbstractElementAllocatedFromPool {E}
AllocatedFromStoragePoolView {E}
AFSPSpaceConsumed: uint64
AbstractBasedOn {E}
(See Core Model)
AllocatedFromStoragePoolViewView {E}
Antecedent: ref StoragePoolView {*}
Dependent: ref View {*}
AFSPSpaceConsumed: uint64
BasedOnView {E}
AbstractComponent {E}
(See Core Model)
HostedStoragePoolView {E}
GroupComponent : ref System {*}
PartComponent : ref StoragePoolView {*}
ExtentComponentView {E}
GroupComponent : ref StoragePoolView {*}
PartComponent : ref StorageExtent {*}
DriveComponentViewView {E}
GroupComponent : ref StoragePoolView {*}
PartComponent : ref DiskDriveView {*}
AbstractProtocolControllerForDevice {E}
ProtocolControllerForUnitView {E}
Antecedent: ref View {*}
Dependent: ref LogicalDevice {*}
PCFUDeviceAccess: uint16
AbstractElementStatisticalData {E}
ManagedElement: ref ManagedElement {key, *}
Stats: ref StatisticalData {key, *}
ElementStatisticalDataView {E}
ManagedElement: ref View {*}
Stats: ref StatisticalData {*}


MaskingMappingExposedDeviceView {E}
ProtocolEndpoint: ref ProtocolEndpoint {*}
LogicalDevice: ref LogicalDevice {*}
SPCSystemCreationClassName: string
SPCSystemName: string
SPCCreationClassName: string
SPCDeviceID: string
PCFUDeviceNumber: string
PCFUDeviceAccess: uint16
MaskingMappingView {E}
StorageHardwareID: ref StorageHardwareID{*}
LogicalDevice: ref LogicalDevice {*}
ProtocolEndpoint: ref ProtocolEndpoint{*}
SHIDStorageID: string
SHIDIDType: uint16
LDDeviceID: string
SPEPSystemCreationClassName: string
SPEPCreationClassName: string
SPEPSystemName: string
SPEPName: string
SPEPProtocolIFType:
SPEPOtherTypeDescription: string
SPEPConnectionType:
SPEPRole: uint16
APInstanceID: string
APPrivilegeGranted:
APActivities[]: uint16
APElementName: string
SPCSystemCreationClassName: string
SPCCreationClassName: string
SPCSystemName: string
SPCDeviceID: string
PCFUDeviceNumber: string
PCFUDeviceAccess: uint16