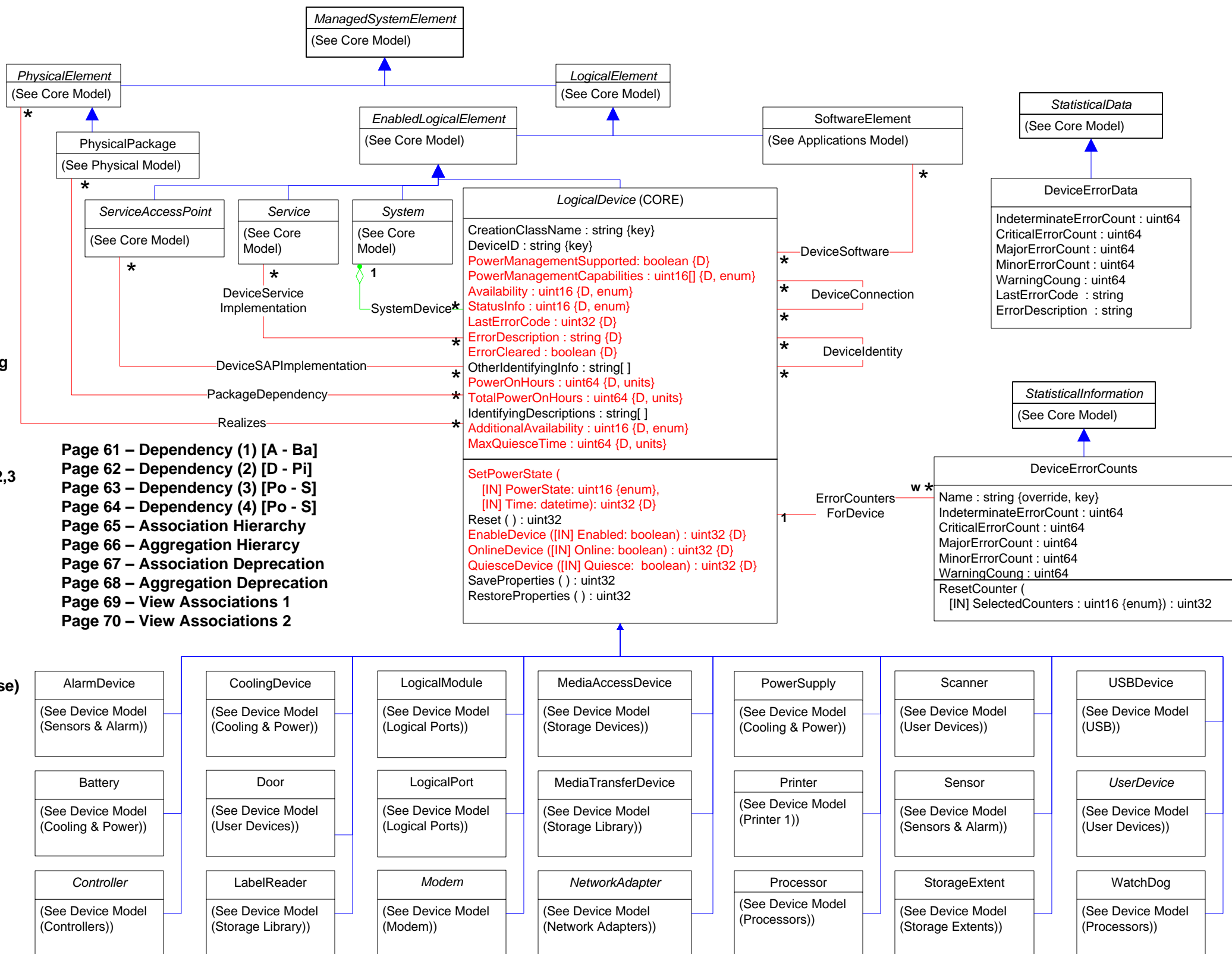








**Title** : Device Specification 2.45.0  
**Filename** : CIM\_Device.vsd  
**Author** : DMTF Core Schema WG  
**Date** : 9 Nov 2015

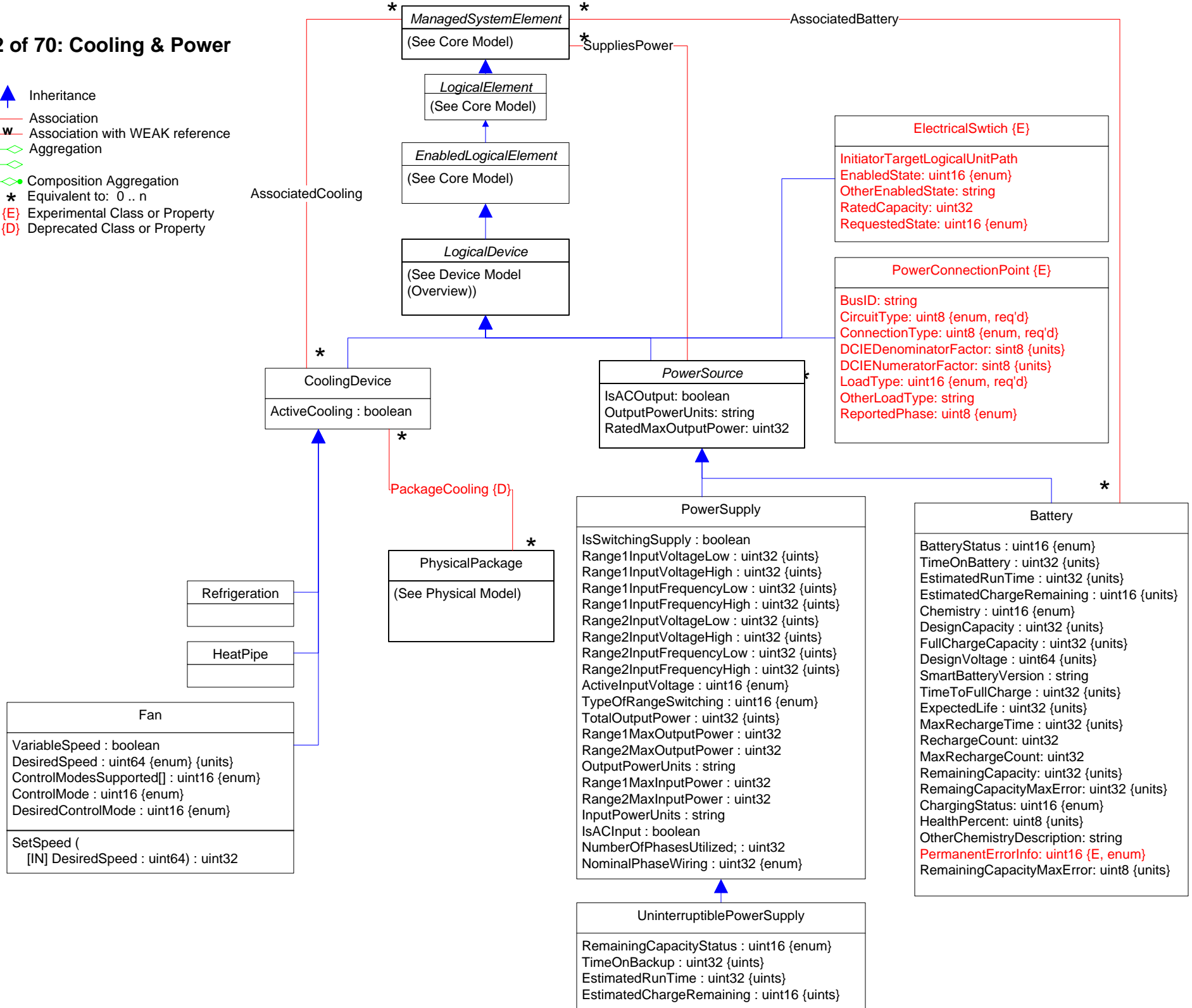
- Page 1 – Overview
- Page 2 – Cooling & Power
- Page 3 – Processors
- Page 4 – Controllers
- Page 5 – Video Controllers
- Page 6 – PCI Controllers
- Page 7,8,9 – Logical Ports 1,2,3
- Page 10 – Logical Port Group
- Page 11 – Protocol Controllers
- Page 12 – Network Adapters
- Page 13 – Network Adapter Statistics
- Page 14 – Fibre Channel
- Page 15 – Fibre Channel Statistics
- Page 16 – Fibre Channel Services & Zoning
- Page 17 – InfiniBand
- Page 18 – Storage Devices
- Page 19 – Storage Multipath
- Page 20,21 – Storage Extents 1,2
- Page 22 – SCC Extent Model
- Page 23,24,25,26,27 – Storage Services 1,2,3
- Page 28 – Storage Tiers 1
- Page 29 – Storage Tiers 2
- Page 30 – Storage Protection
- Page 31 – Storage Groups
- Page 32 - 37 – Storage Capabilities 1 - 5
- Page 38 – Storage Settings
- Page 39,40 – Storage Statistics 1,2
- Page 41 – Storage Library
- Page 42,43 – Storage Views 1,2
- Page 44 – Storage Diagnostics
- Page 45 – User Devices (Keyboards, Mouse)
- Page 46 – Displays
- Page 47,48 – Memory
- Page 49 – Modems
- Page 50,51,52 – Printing 1,2,3
- Page 53 – Sensors & Alarm
- Page 54 – 7 USB
- Page 55 – Disk Group
- Page 56 – Device Sharing
- Page 57 – LED
- Page 58 – WiFi Services
- Page 59 – VTL
- Page 60 – Operational Power

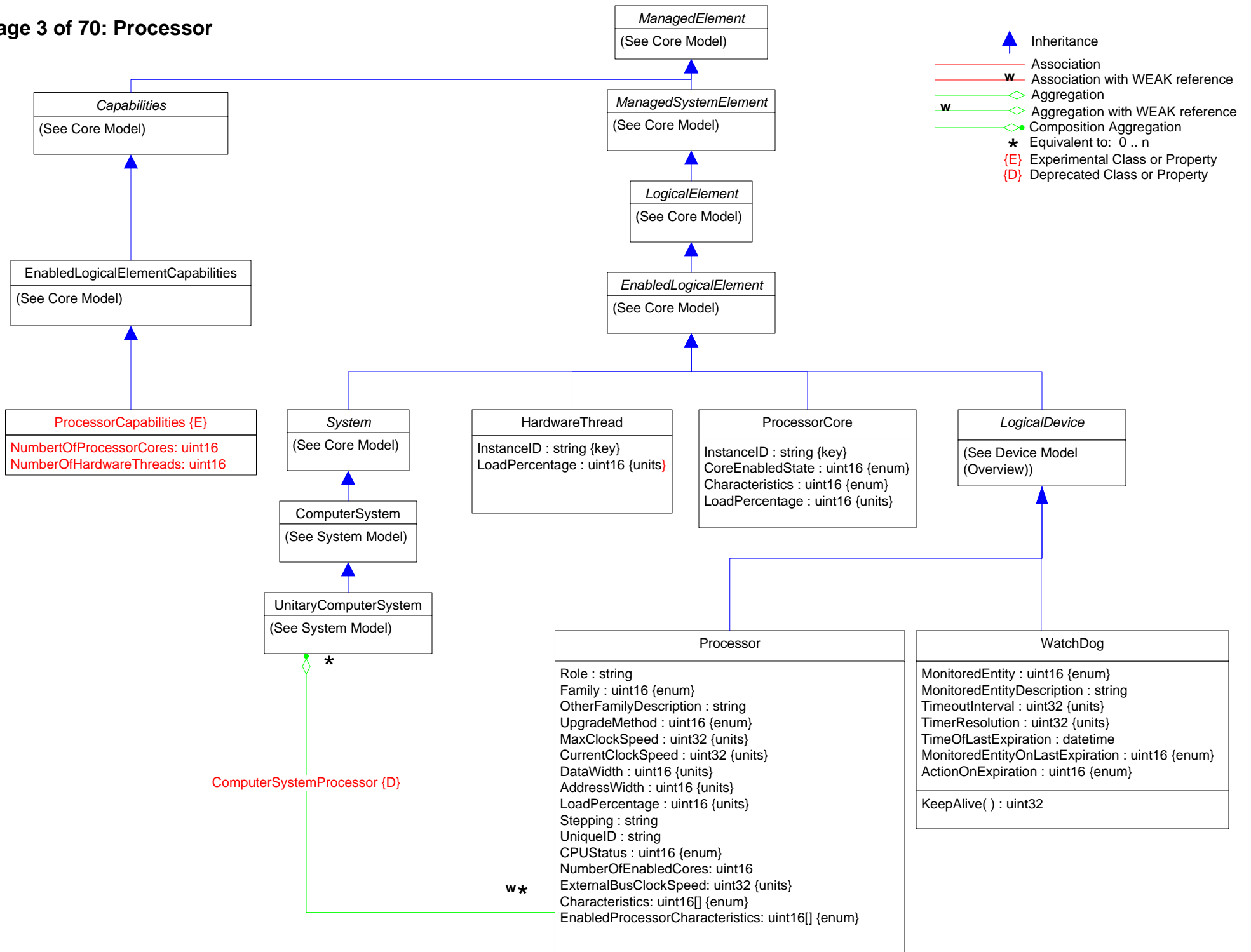


Page 61 – Dependency (1) [A - Ba]  
 Page 62 – Dependency (2) [D - Pi]  
 Page 63 – Dependency (3) [Po - S]  
 Page 64 – Dependency (4) [Po - S]  
 Page 65 – Association Hierarchy  
 Page 66 – Aggregation Hierarchy  
 Page 67 – Association Deprecation  
 Page 68 – Aggregation Deprecation  
 Page 69 – View Associations 1  
 Page 70 – View Associations 2










# Page 2 of 70: Cooling & Power

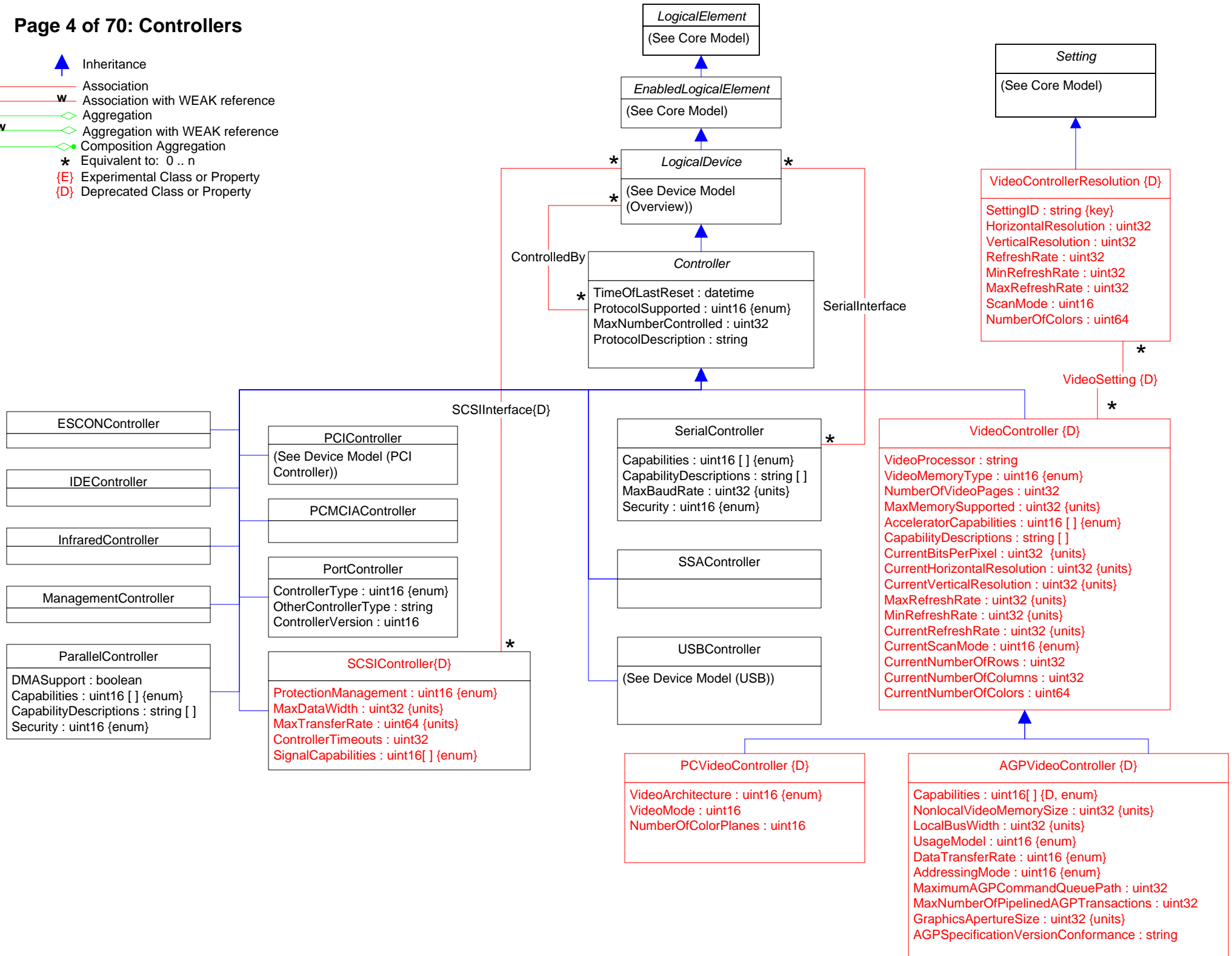
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Composition Aggregation
-  Equivalent to: 0..n
- (E) Experimental Class or Property
- (D) Deprecated Class or Property












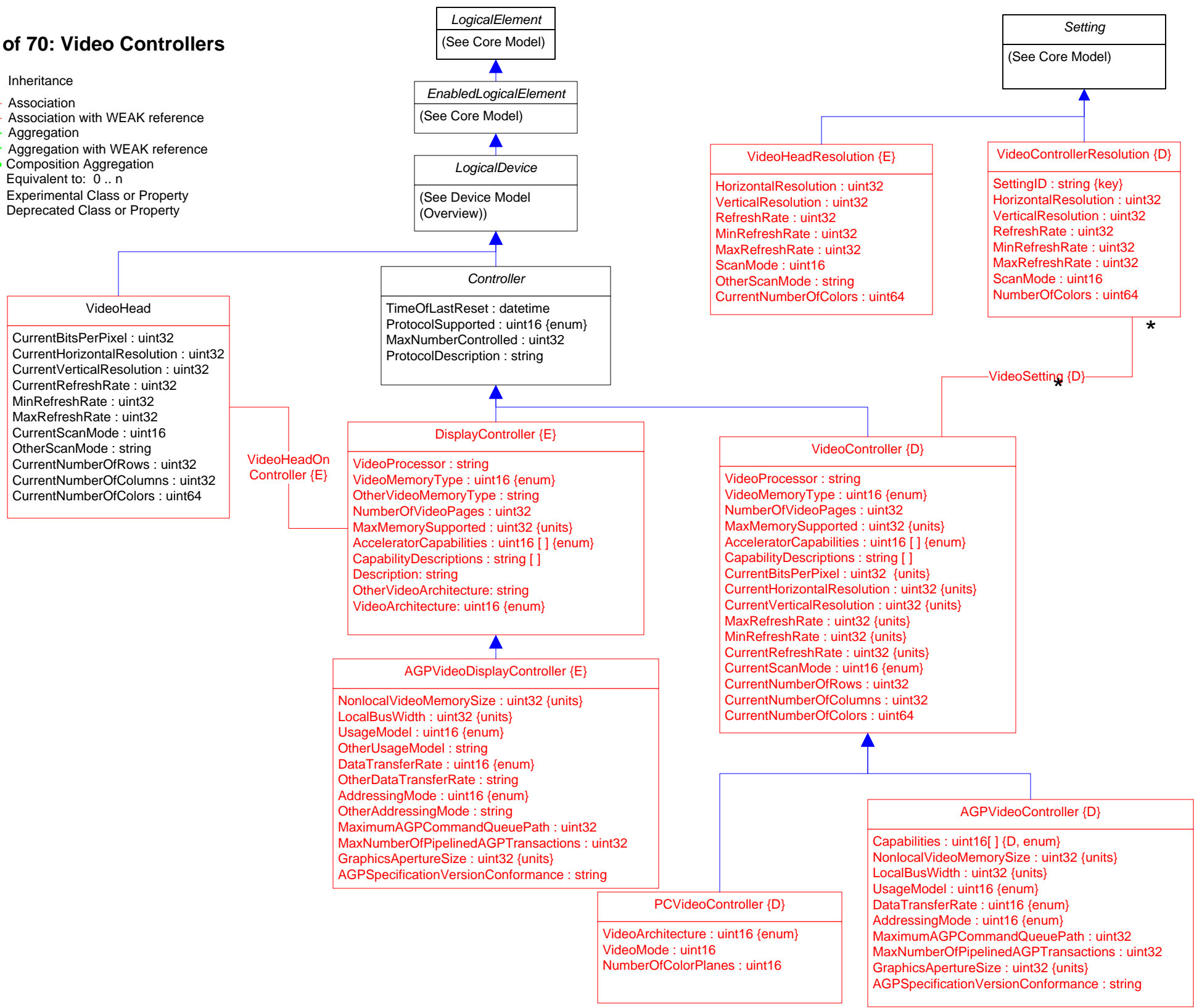


# Page 4 of 70: Controllers










-  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

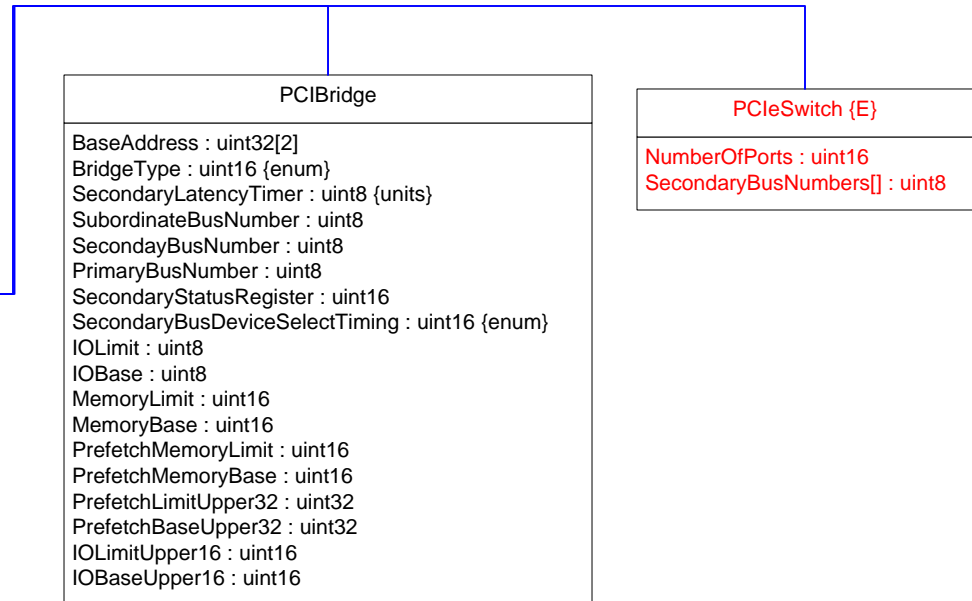
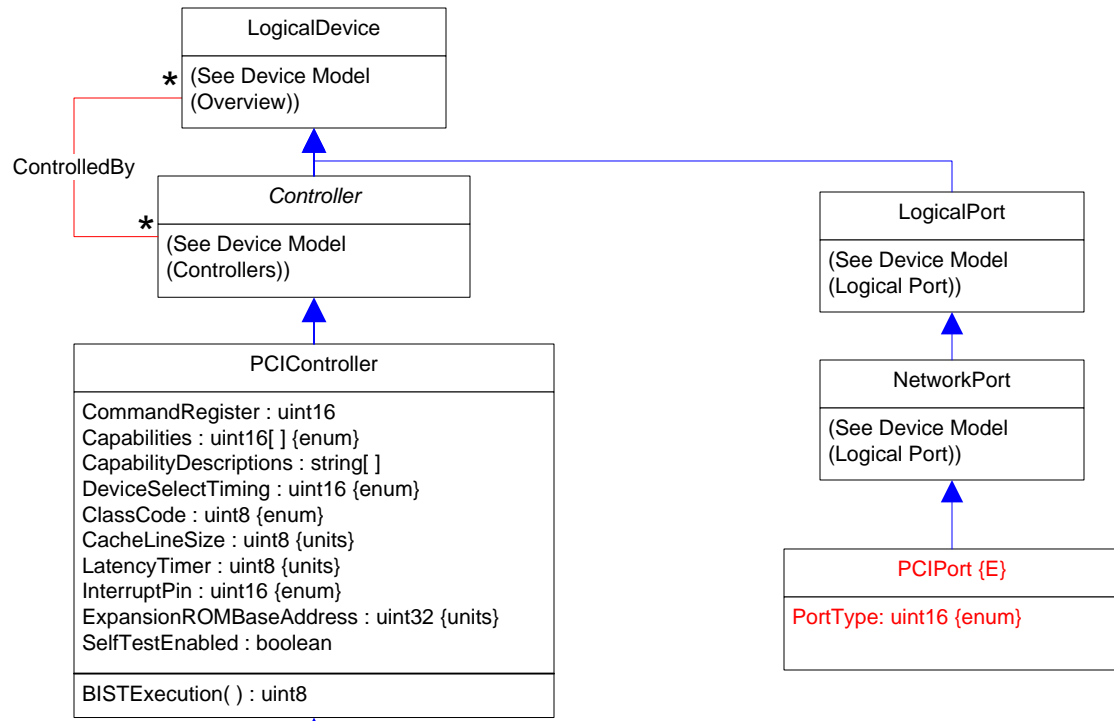
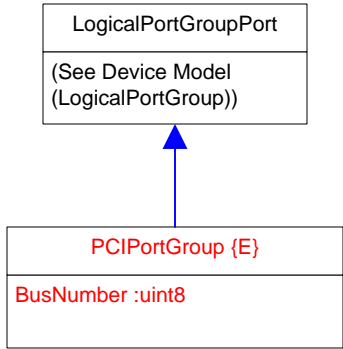


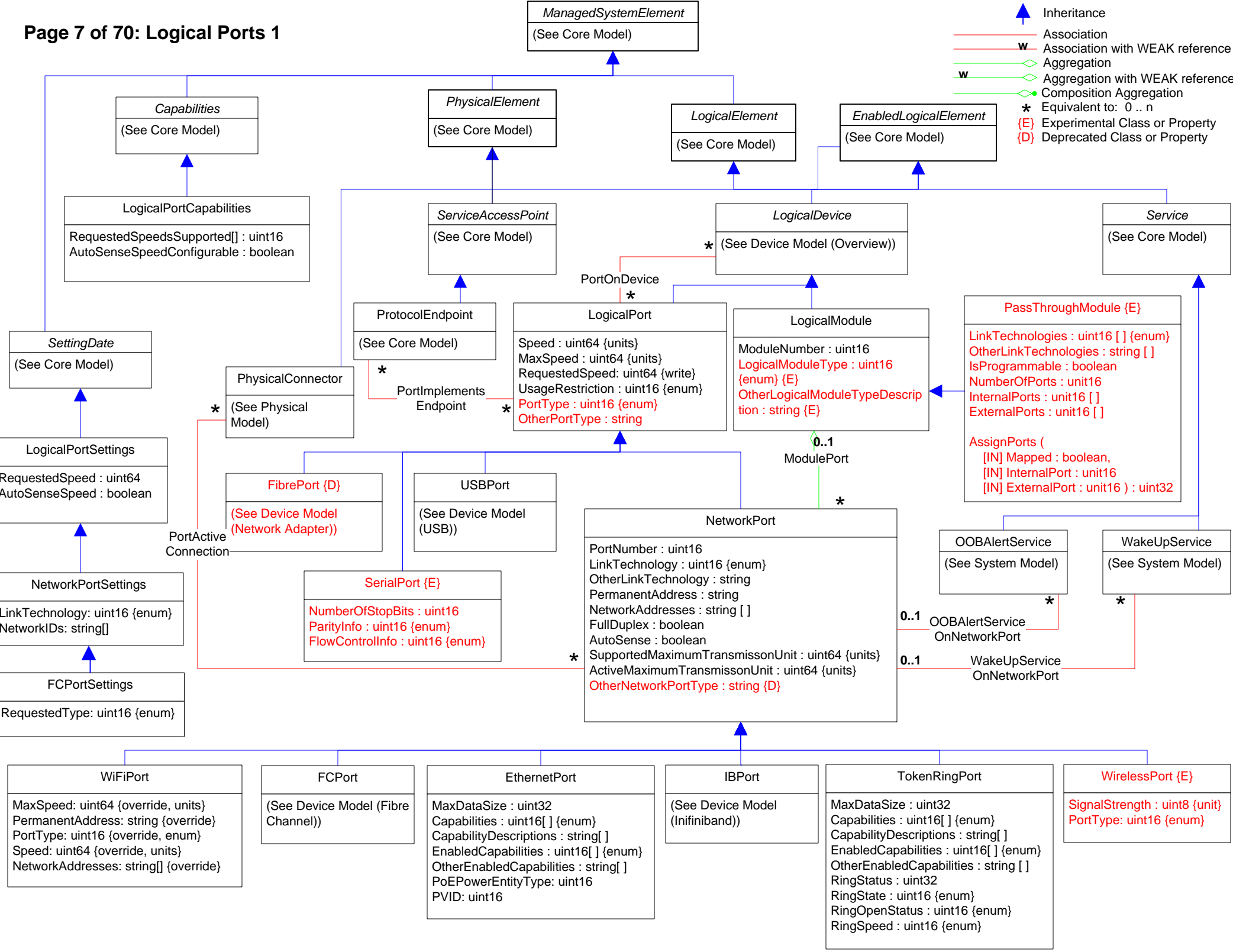
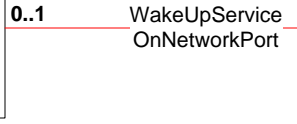
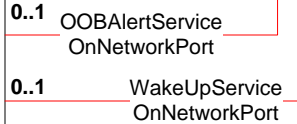
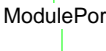
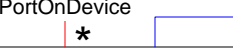
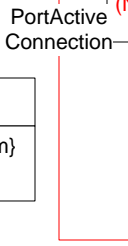
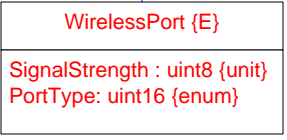
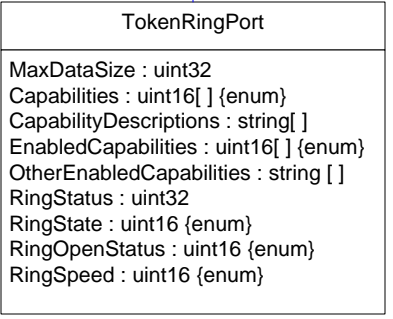
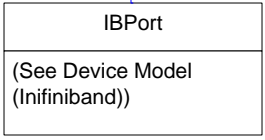
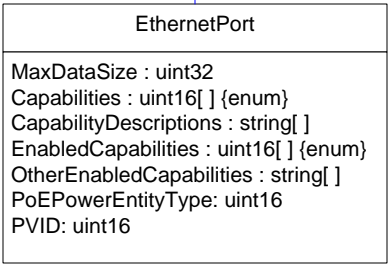
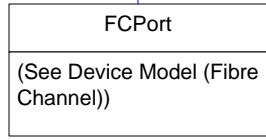
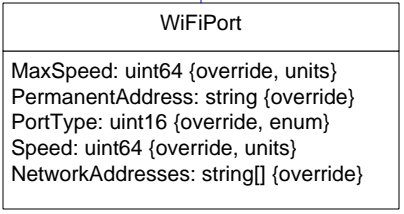
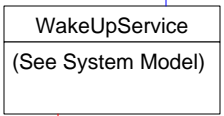
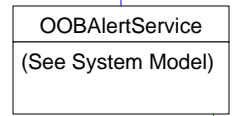
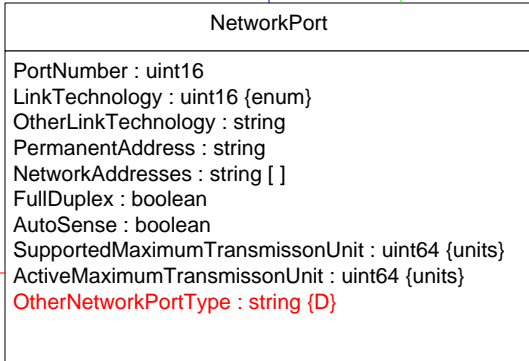
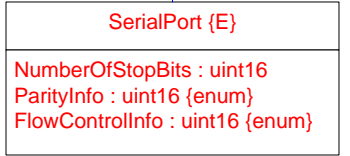
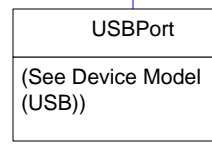
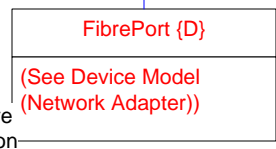
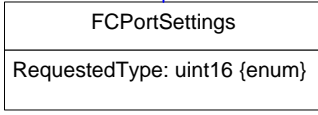
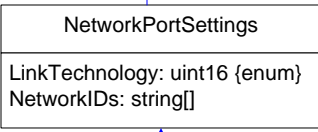
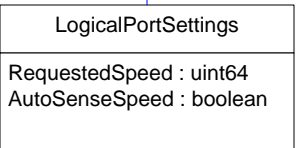
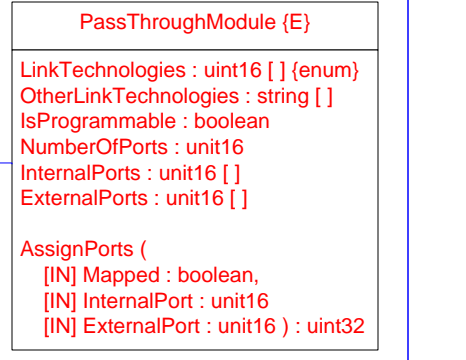
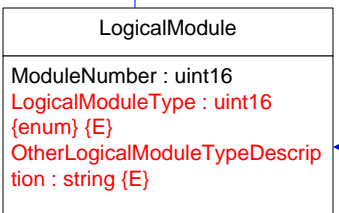
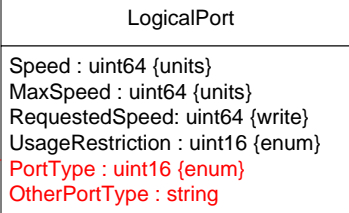
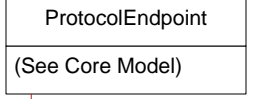
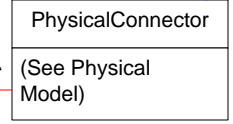
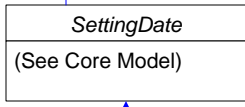
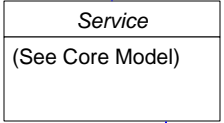
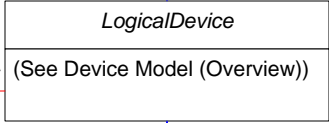
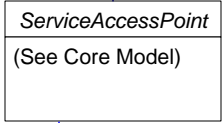
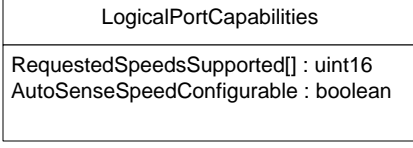
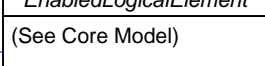
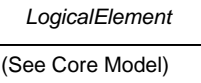
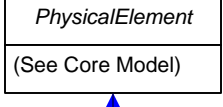
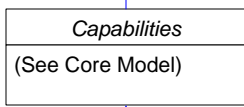
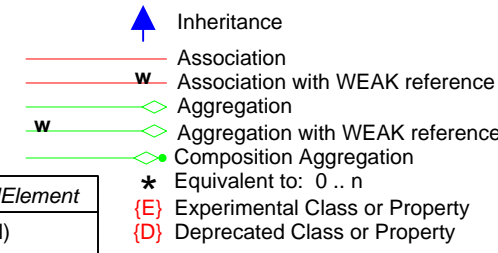
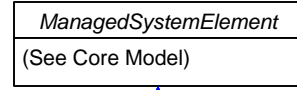
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n
-  Experimental Class or Property
-  Deprecated Class or Property



# Page 6 of 70: PCI Controllers

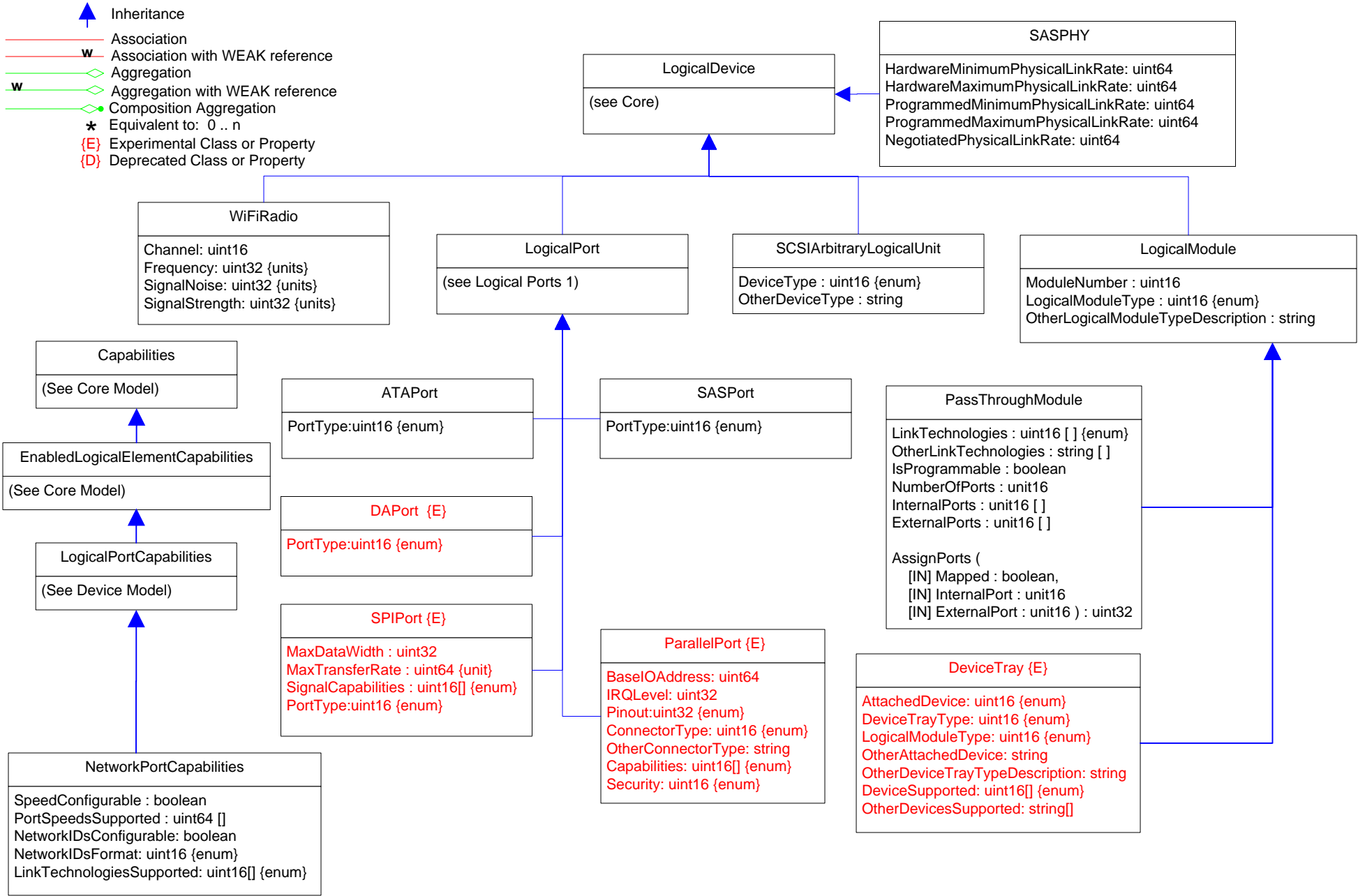
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0..n
-  Experimental Class or Property
-  Deprecated Class or Property
















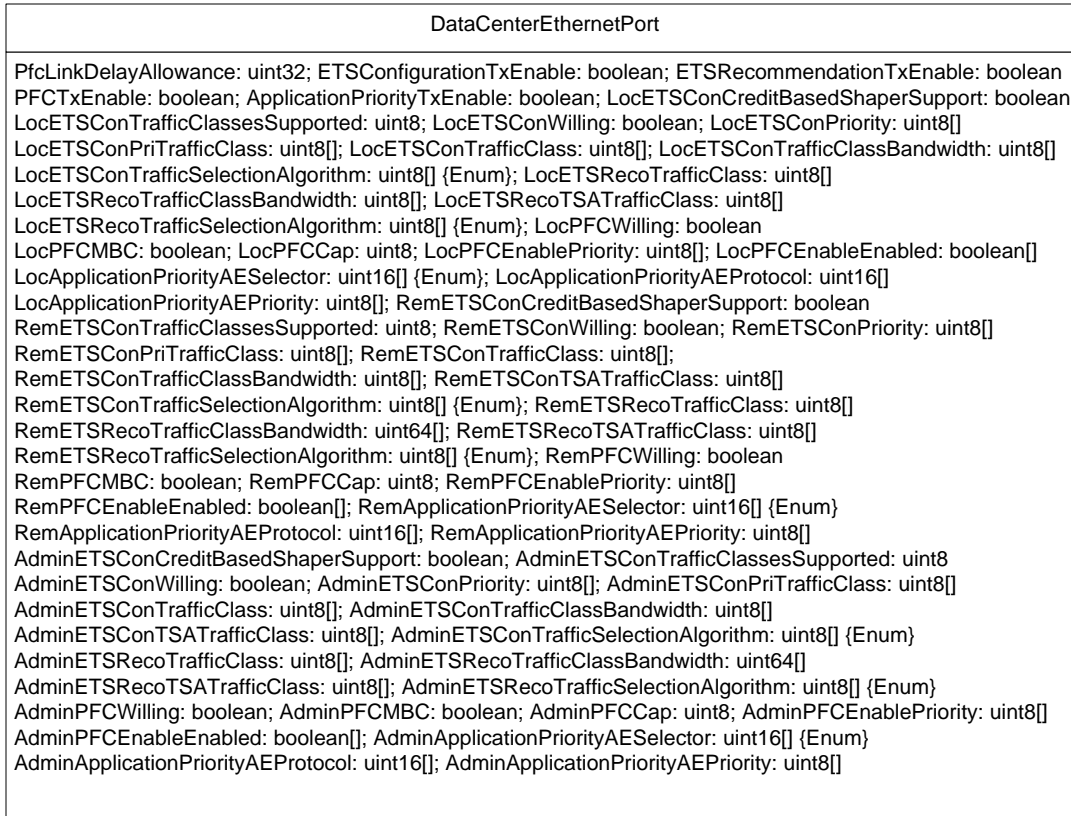
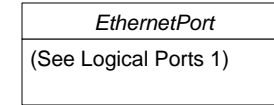
# Page 8 of 70: Logical Ports 2

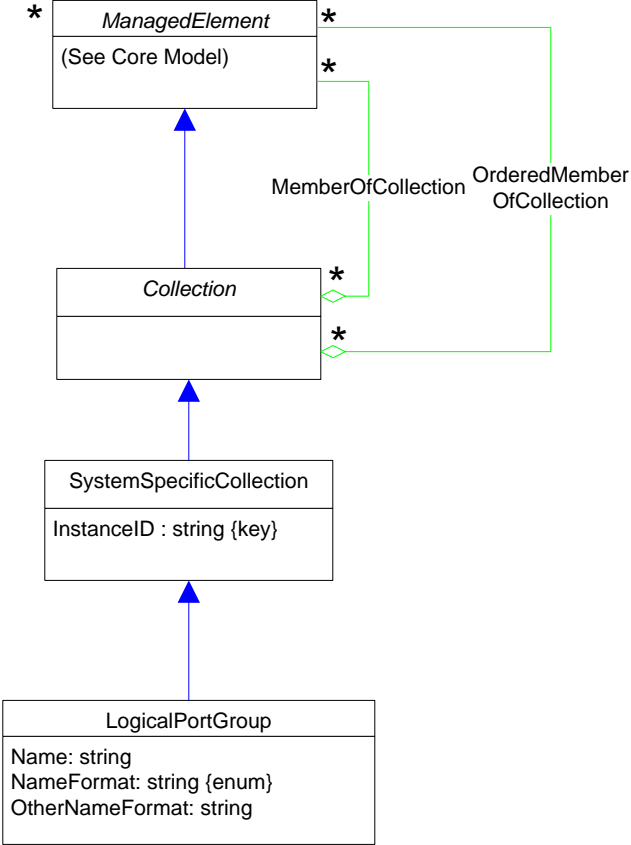




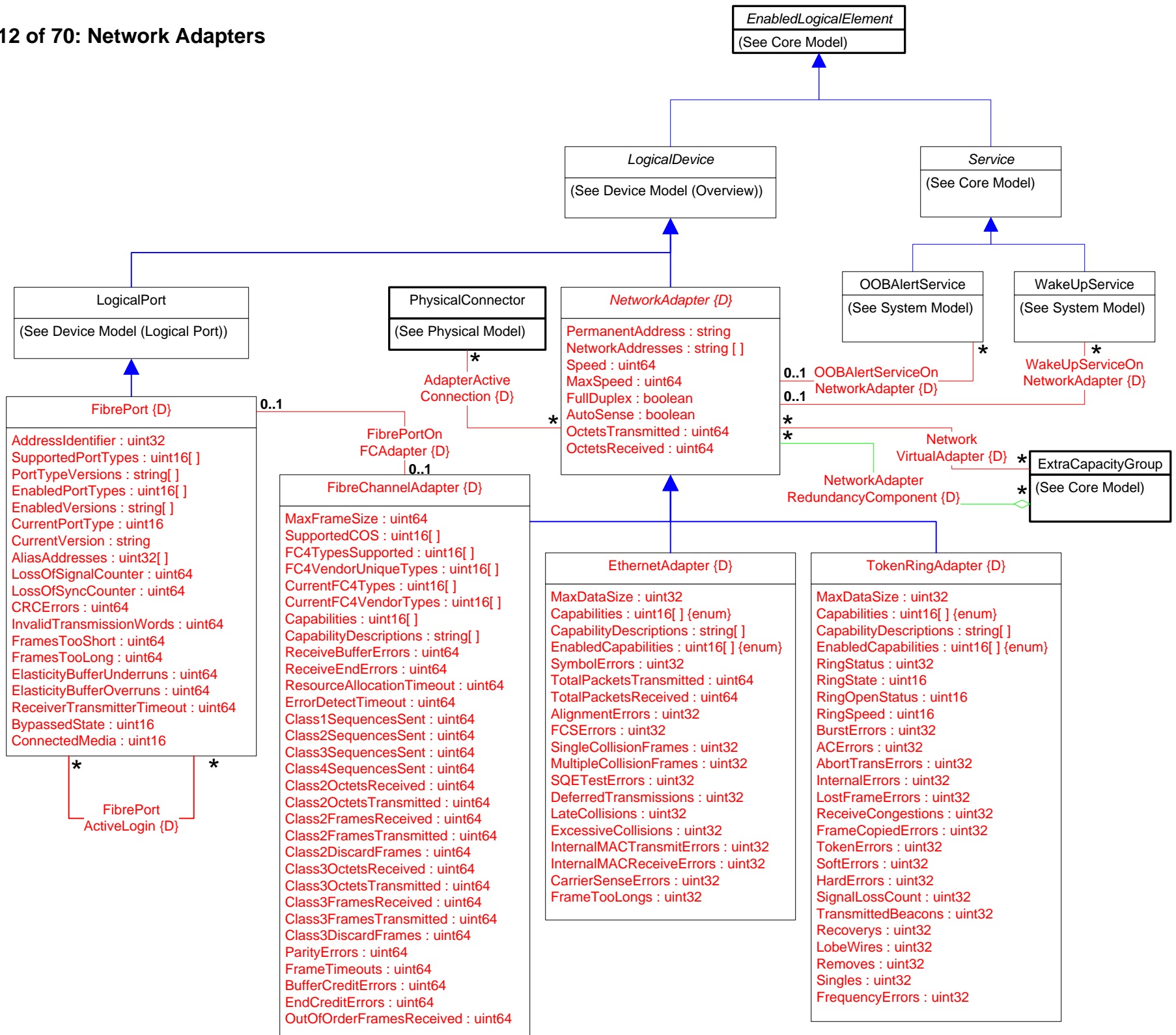
# Page 9 of 70: Logical Ports 3

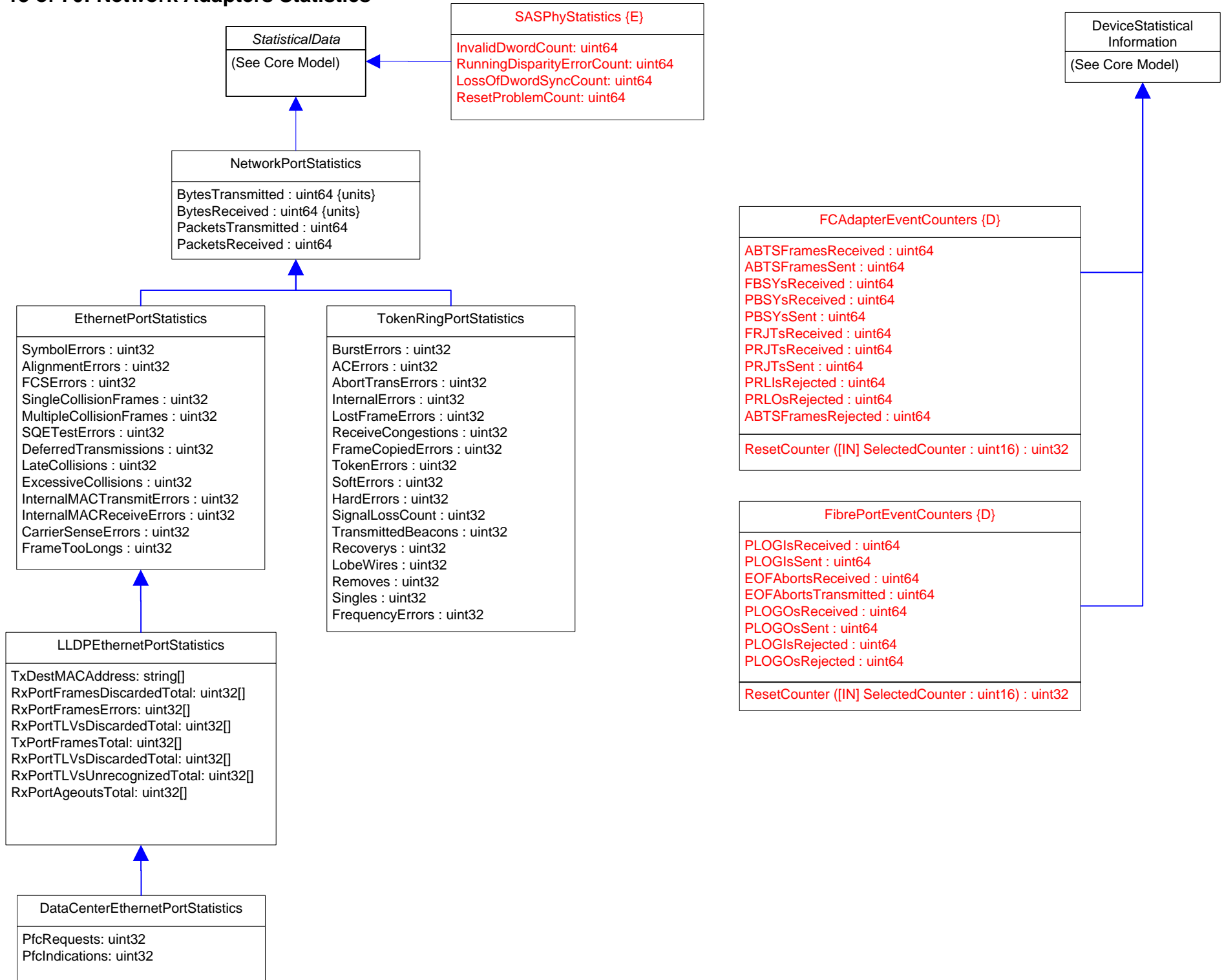
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n
-  Experimental Class or Property
-  Deprecated Class or Property




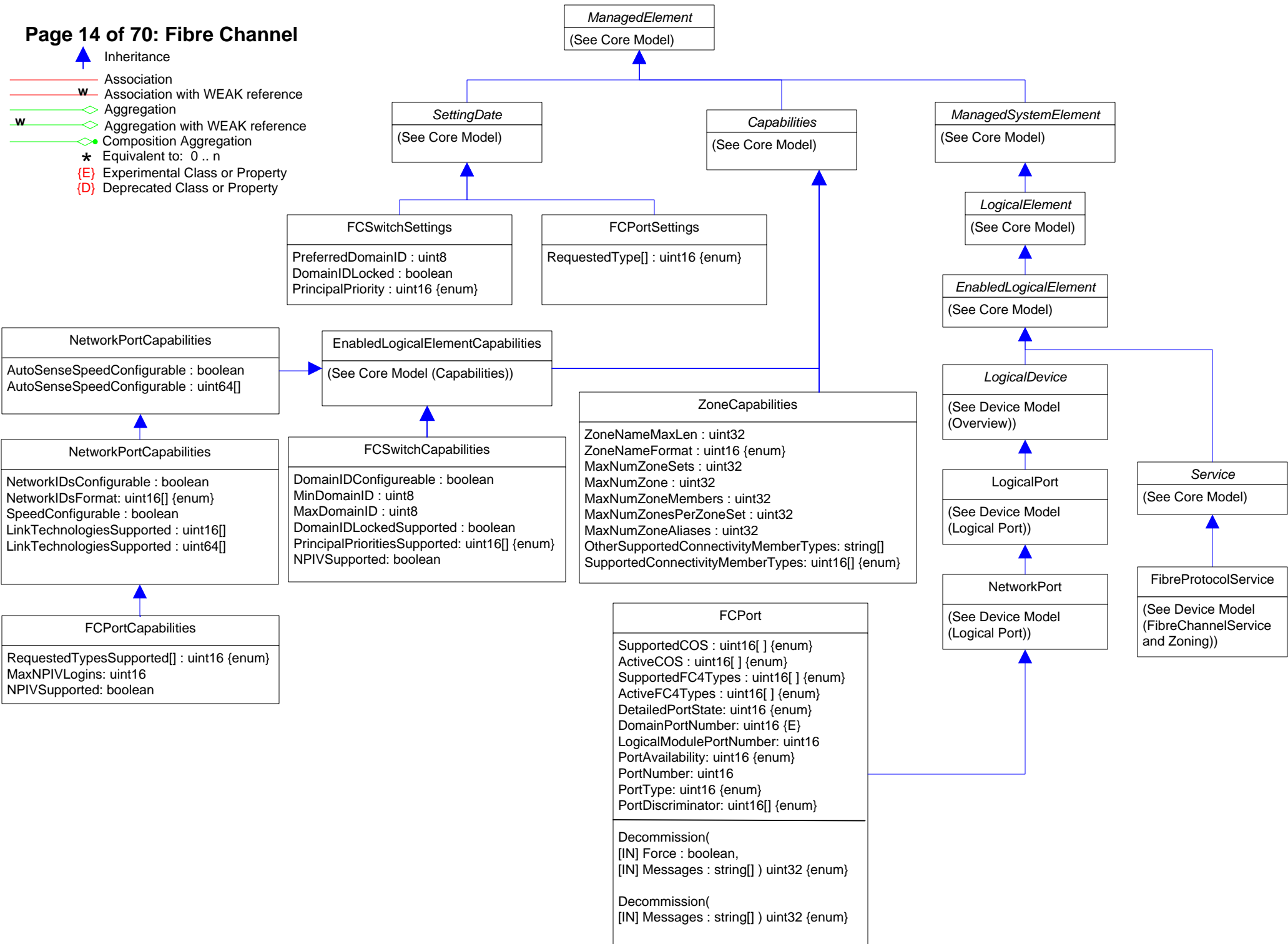


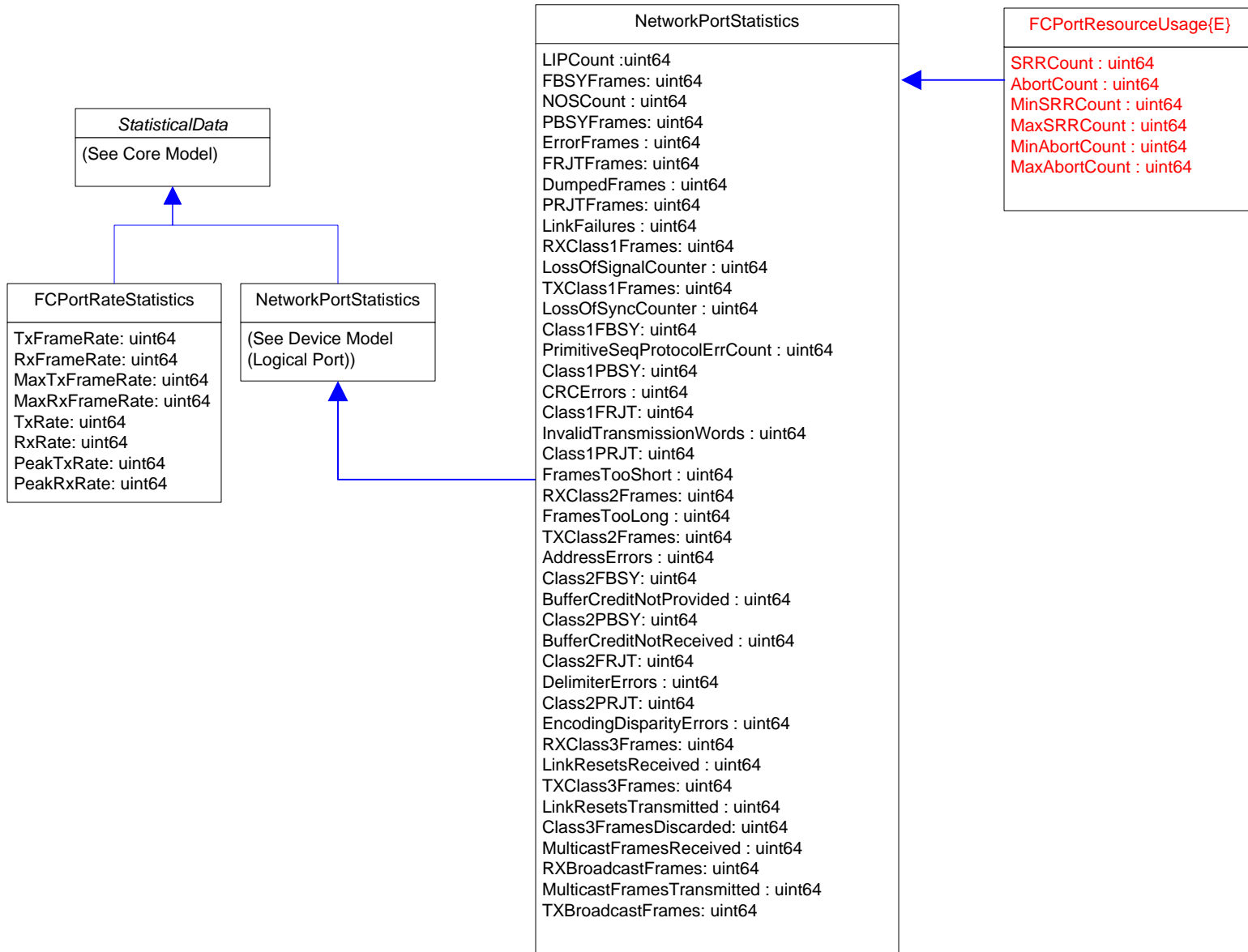















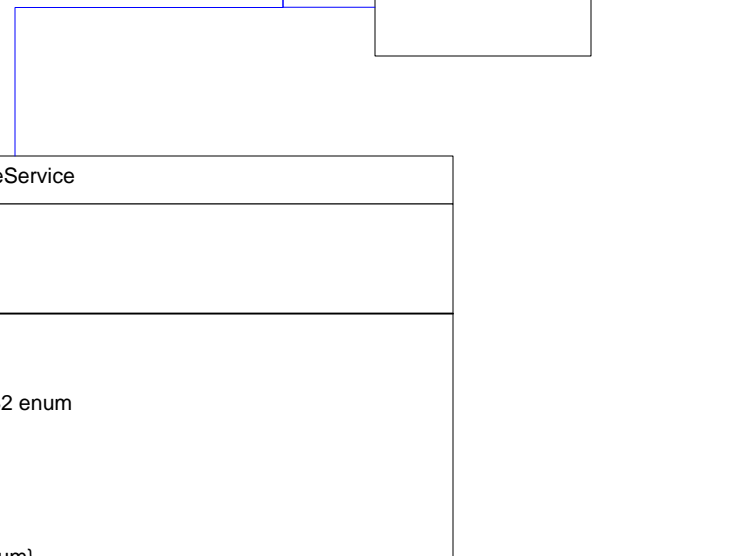
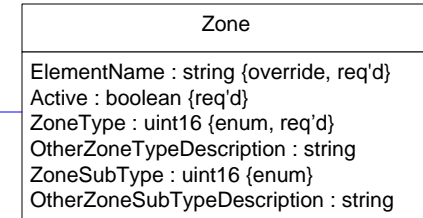
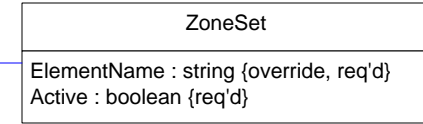
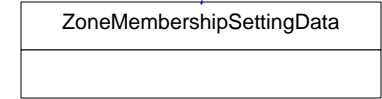
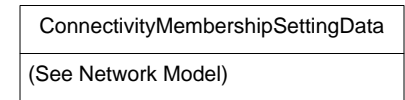
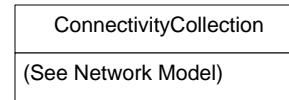
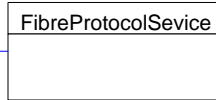
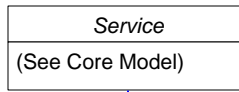
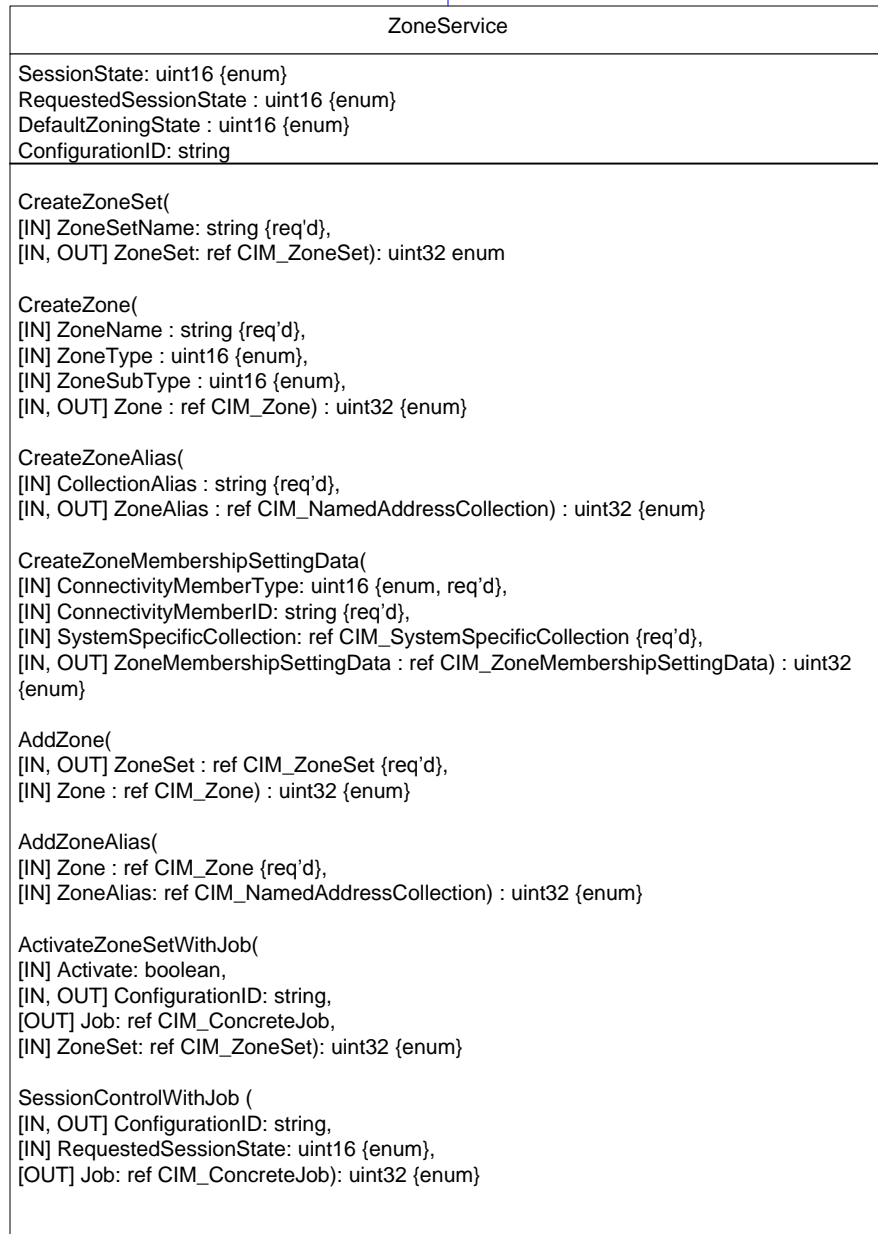
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n
-  Experimental Class or Property
-  Deprecated Class or Property












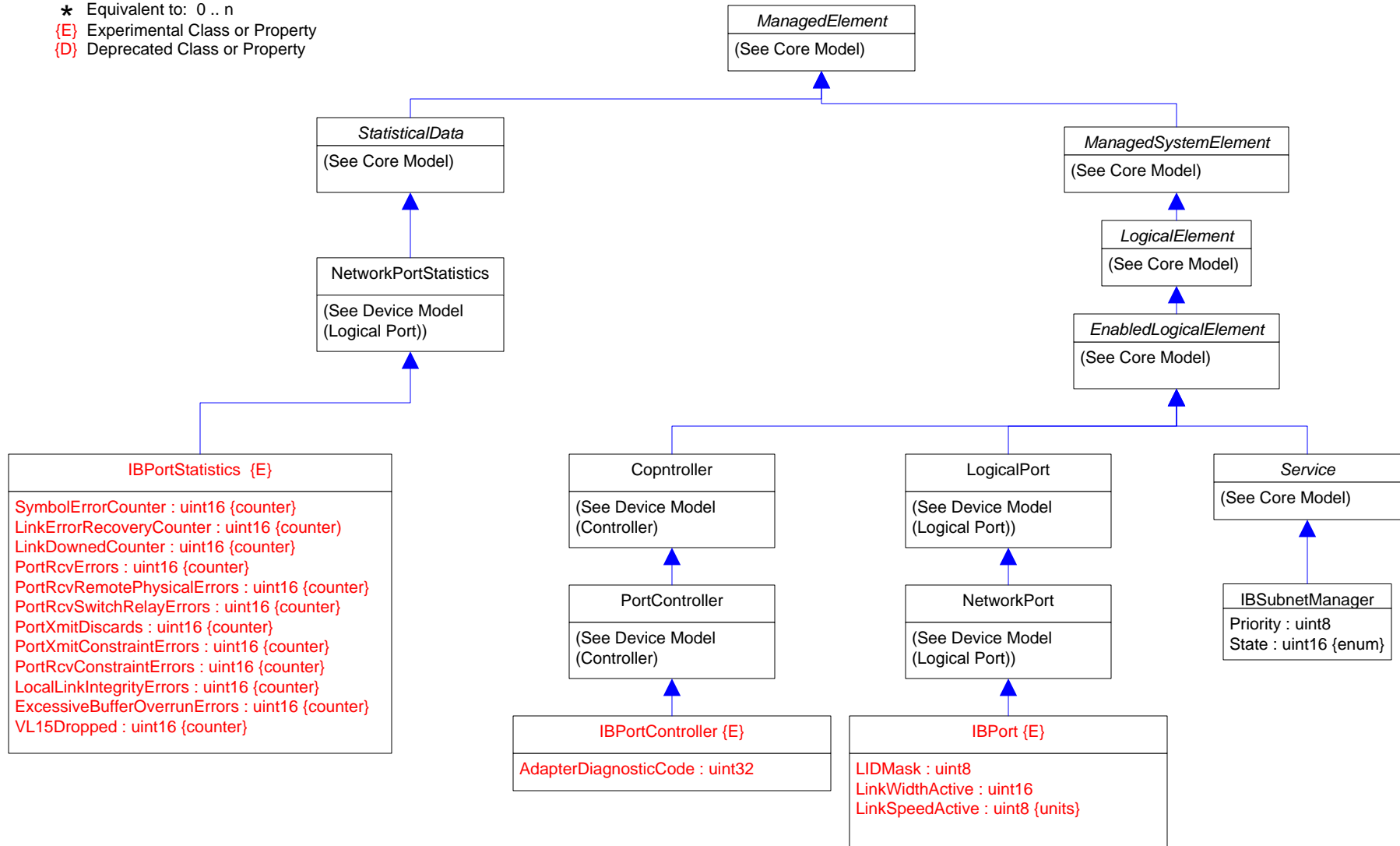













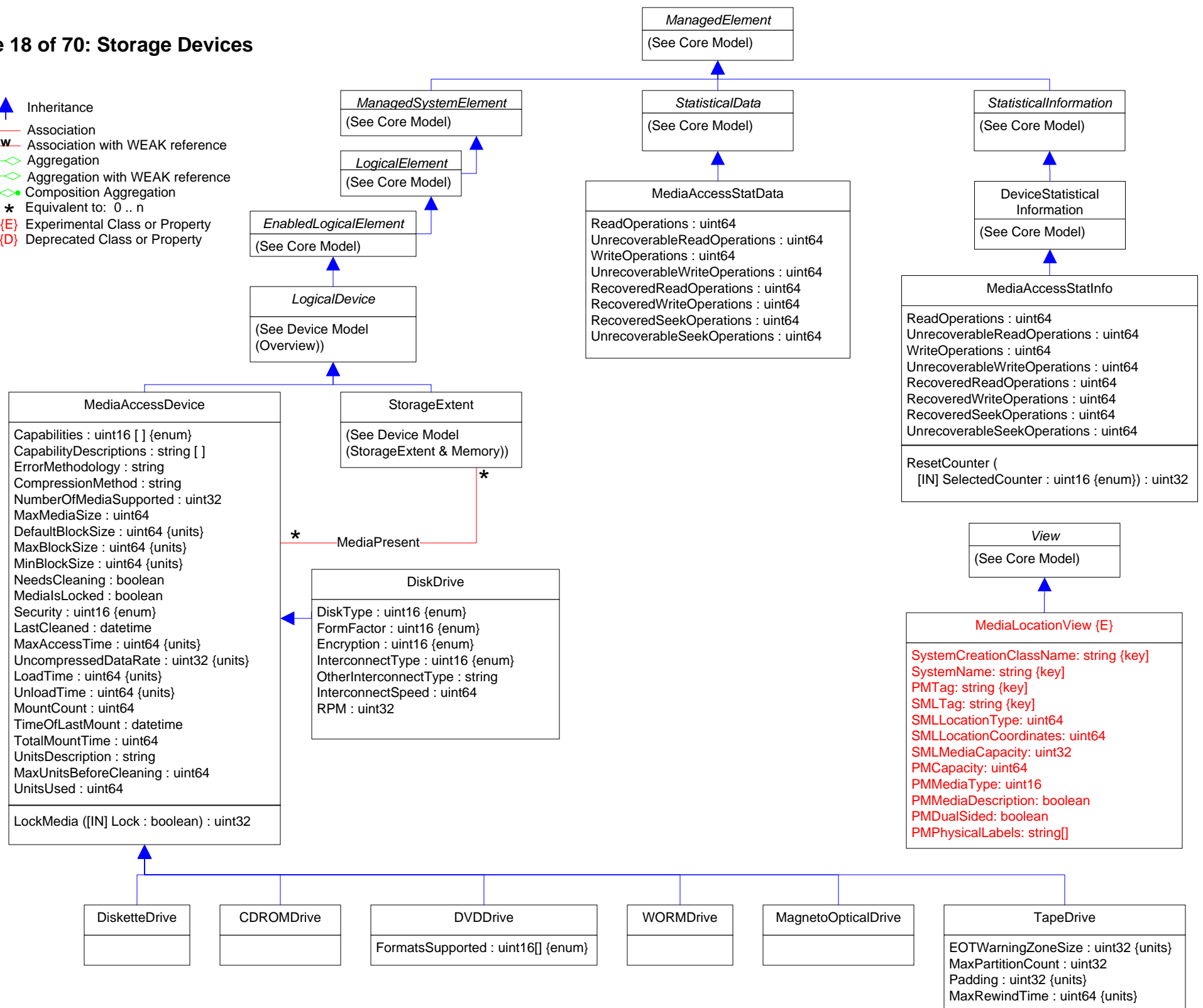
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n
-  Experimental Class or Property
-  Deprecated Class or Property




-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n
-  Experimental Class or Property
-  Deprecated Class or Property



-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0..n
-  Experimental Class or Property
-  Deprecated Class or Property



# Page 19 of 70: Storage Multipath

-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n
-  Experimental Class or Property
-  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] LogicalDevice : 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}

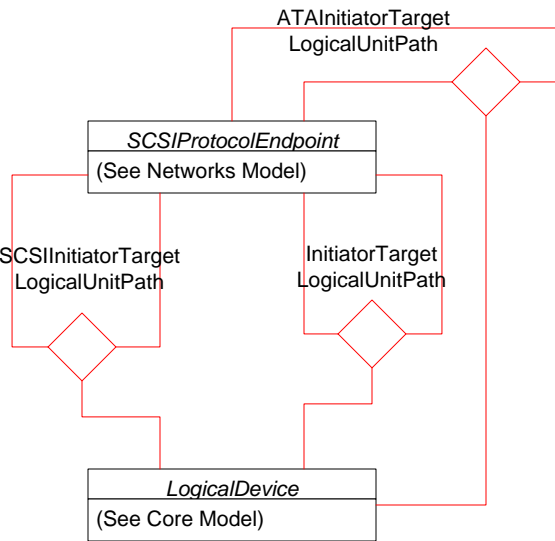
*SCSIMultipathConfigurationCapabilities*

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)

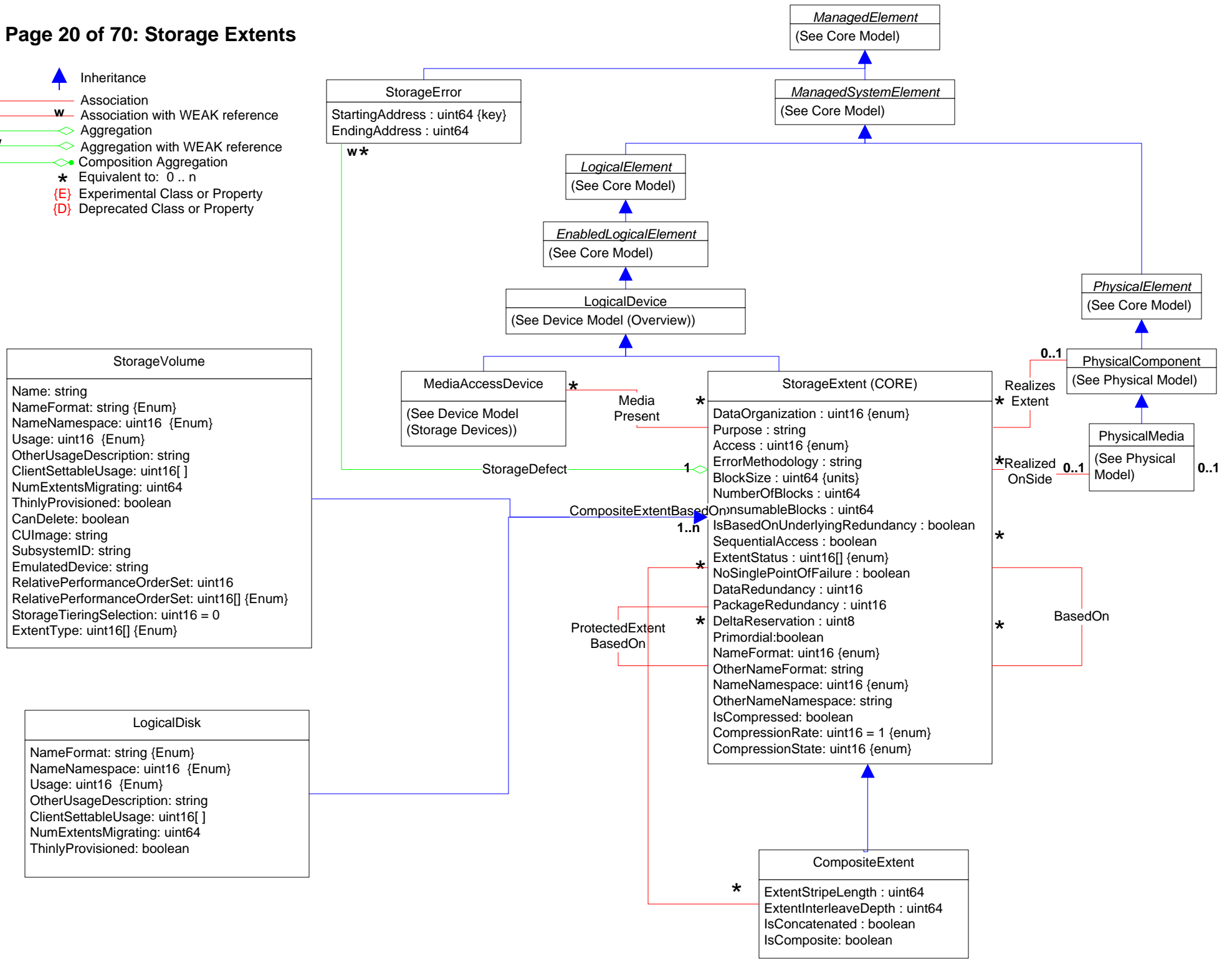
*SCSIMultipathSettings*

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



# Page 20 of 70: Storage Extents

-  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



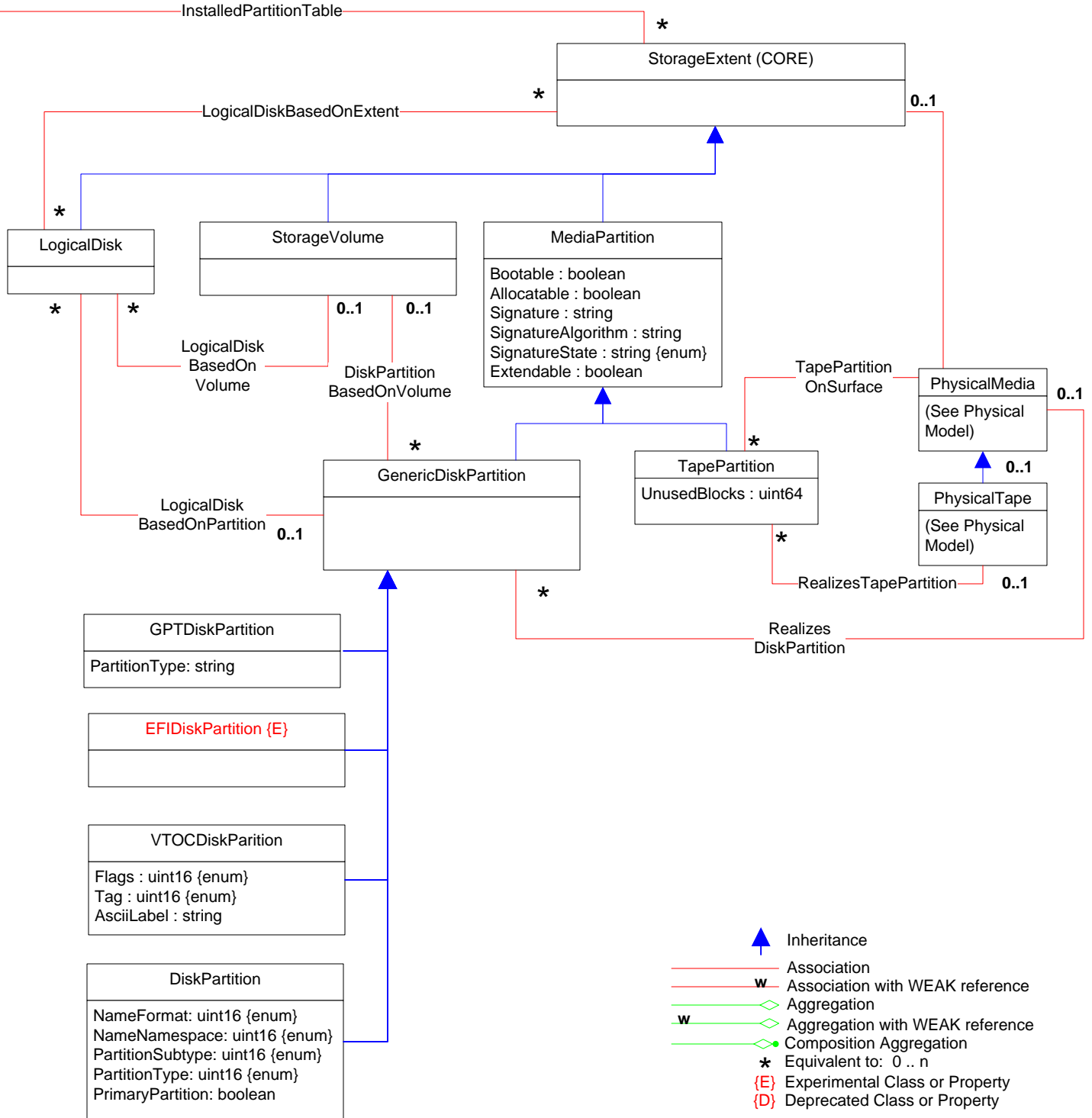
Capabilities  
See core model)

DiskPartitionConfigurationCapabilities  
PartitionStyle : uint16 {enum}  
ValidSubPartitionStyles : uint16 [] {enum}  
OtherValidSubPartitionStyles : string []  
Version : uint16  
MaxNumberOfPartitions : uint16  
SupportedSynchronousActions: uint16[] {enum}  
MaxCapacity : uint64  
OverlapAllowed : boolean  
PartitionTableSize : uint32

StorageElementCompositionCapabilities  
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}

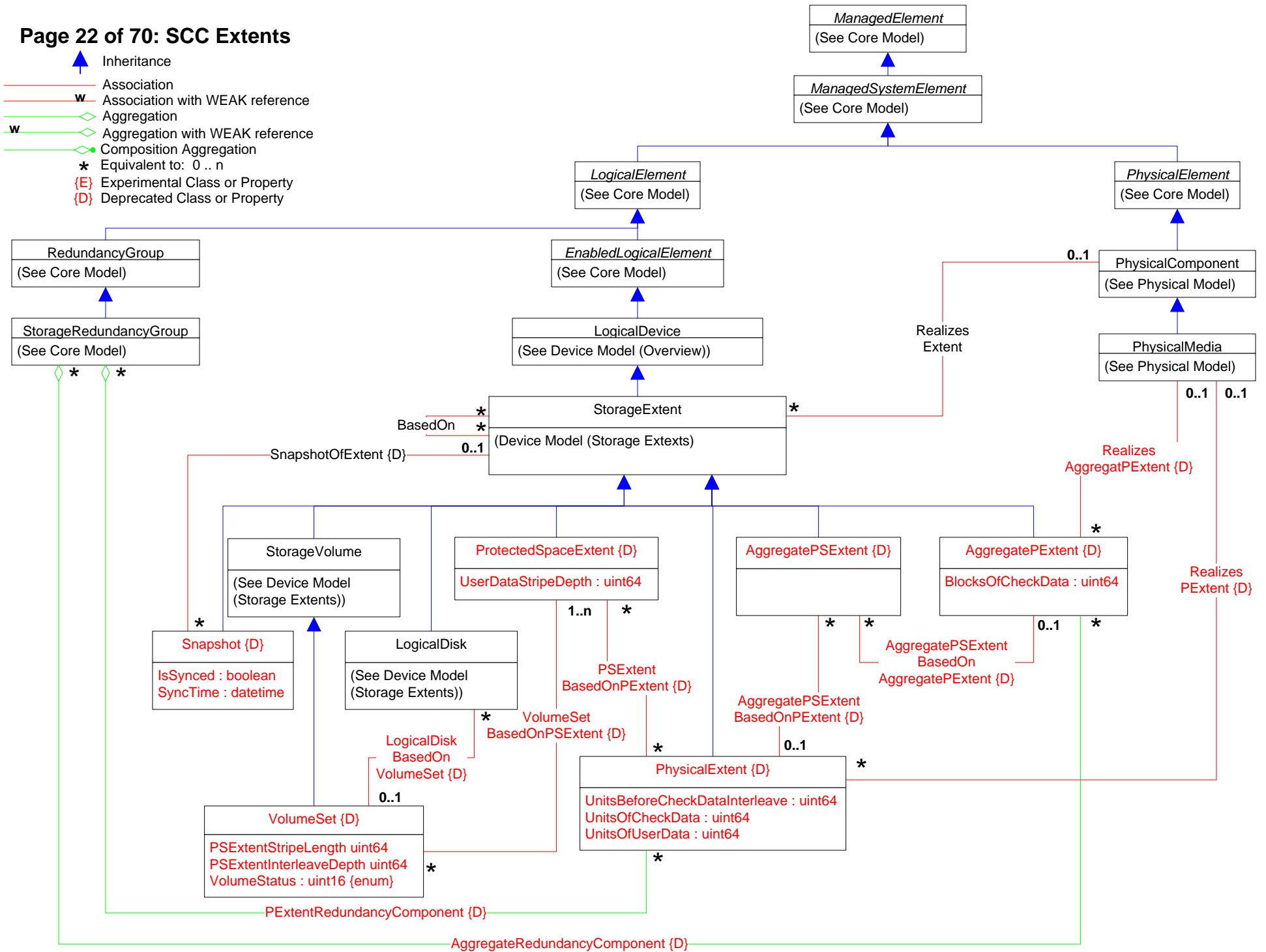
Service  
(See Core model)

DiskPartitionConfigurationService  
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}

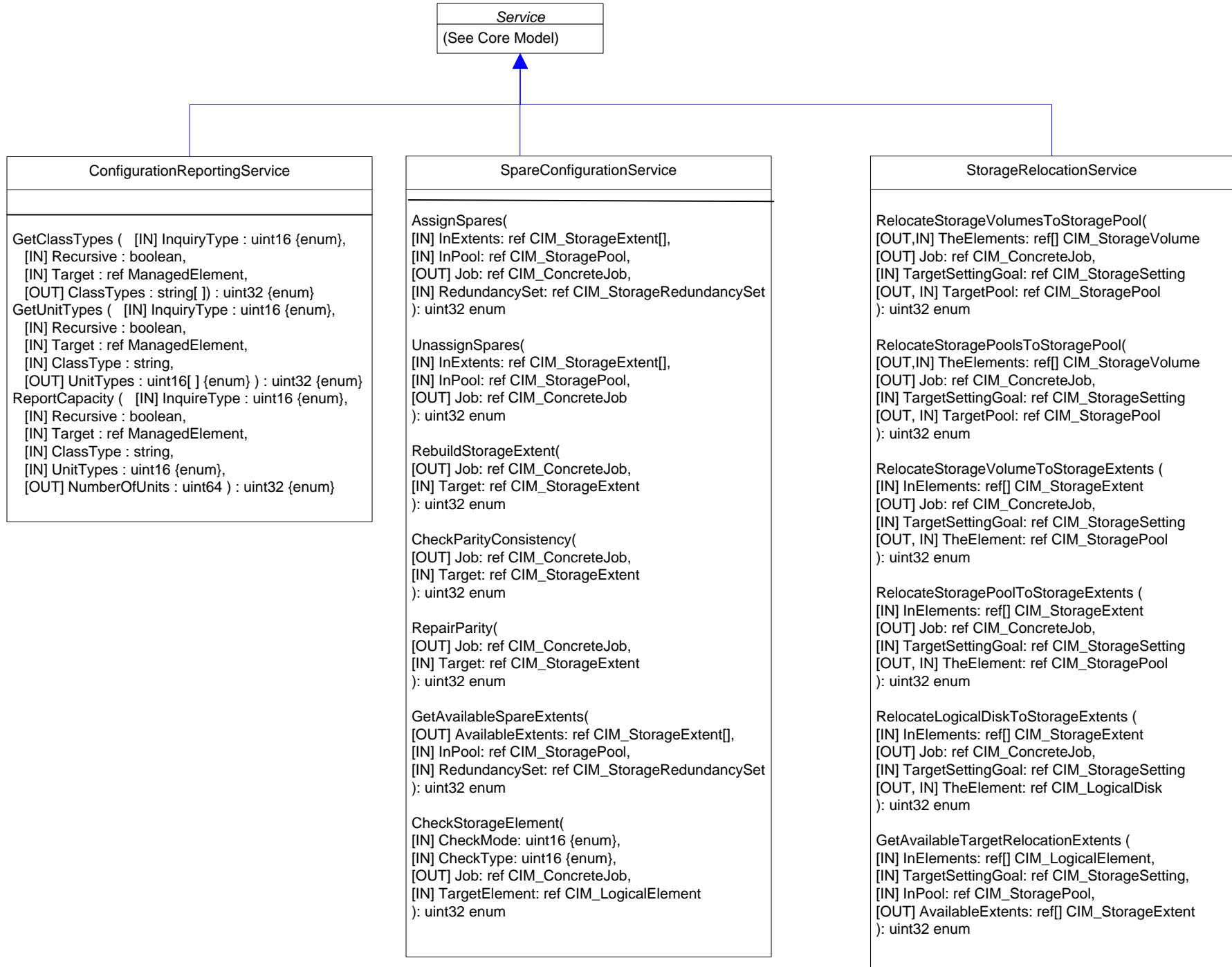


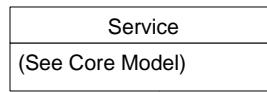
# Page 22 of 70: SCC Extents

- ▲ 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







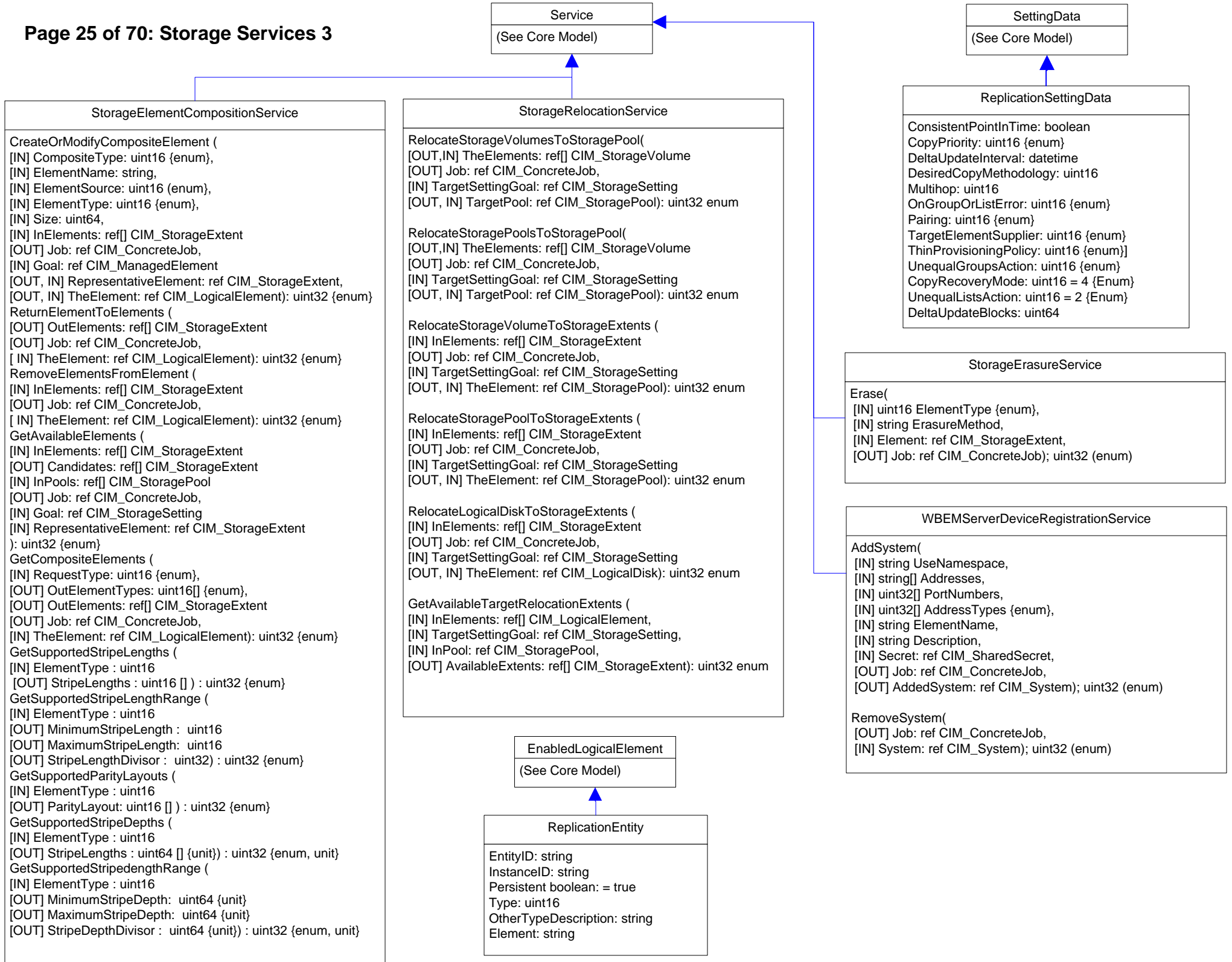


StorageConfigurationService

```

CreateOrModifyStoragePool(
  [IN] string ElementName, [OUT] CIM_ConcreteJob ref Job, [IN] CIM_ManagedElement 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: ref CIM_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_ManagedElement,
[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)
CreateElementsFromStoragePools(
  [IN] string ElementNames[], [IN] uint16 ElementType, {enum}, [IN] uint64 ElementCount, [OUT] Job: ref CIM_ConcreteJob, [IN] Goal: ref CIM_SettingData, [IN] uint64 Size, [IN] InPools: ref CIM_StoragePool[],
[IN] Collections: ref CIM_Collection, [IN] TheElements: ref CIM_LogicalElement[]); uint32 (enum)
ReturnElementsToStoragePool(
  [IN] uint16 Options, {enum}, [IN] Job: ref CIM_ConcreteJob, [IN] TheElements: ref CIM_LogicalElement[]); uint32 (enum)
GetAvailableTargetElements(
  [IN] SourceElement: ref CIM_LogicalElement, [IN] TargetPool: ref CIM_StoragePool[], [IN] uint16 CopyType, {enum}, [OUT] Candidates: ref CIM_LogicalElement[]); uint32 (enum)

```



Service  
(See Core Model)

SettingData  
(See Core Model)

**StorageElementCompositionService**

CreateOrModifyCompositeElement ([IN] CompositeType: uint16 {enum}, [IN] ElementName: string, [IN] ElementSource: uint16 {enum}, [IN] ElementType: uint16 {enum}, [IN] Size: uint64, [IN] InElements: ref[] CIM\_StorageExtent) [OUT] Job: ref CIM\_ConcreteJob, [IN] Goal: ref CIM\_ManagedElement [OUT, IN] RepresentativeElement: ref CIM\_StorageExtent, [OUT, IN] TheElement: ref CIM\_LogicalElement): uint32 {enum}

ReturnElementToElements ([OUT] OutElements: ref[] CIM\_StorageExtent) [OUT] Job: ref CIM\_ConcreteJob, [IN] TheElement: ref CIM\_LogicalElement): uint32 {enum}

RemoveElementsFromElement ([IN] InElements: ref[] CIM\_StorageExtent) [OUT] Job: ref CIM\_ConcreteJob, [IN] TheElement: ref CIM\_LogicalElement): uint32 {enum}

GetAvailableElements ([IN] InElements: ref[] CIM\_StorageExtent) [OUT] Candidates: ref[] CIM\_StorageExtent [IN] InPools: ref[] CIM\_StoragePool [OUT] Job: ref CIM\_ConcreteJob, [IN] Goal: ref CIM\_StorageSetting [IN] RepresentativeElement: ref CIM\_StorageExtent): uint32 {enum}

GetCompositeElements ([IN] RequestType: uint16 {enum}, [OUT] OutElementTypes: uint16[] {enum}, [OUT] OutElements: ref[] CIM\_StorageExtent) [OUT] Job: ref CIM\_ConcreteJob, [IN] TheElement: ref CIM\_LogicalElement): uint32 {enum}

GetSupportedStripeLengths ([IN] ElementType: uint16 [OUT] StripeLengths: uint16 []): uint32 {enum}

GetSupportedStripeLengthRange ([IN] ElementType: uint16 [OUT] MinimumStripeLength: uint16 [OUT] MaximumStripeLength: uint16 [OUT] StripeLengthDivisor: uint32): uint32 {enum}

GetSupportedParityLayouts ([IN] ElementType: uint16 [OUT] ParityLayout: uint16 []): uint32 {enum}

GetSupportedStripeDepths ([IN] ElementType: uint16 [OUT] StripeLengths: uint64 [] {unit}): uint32 {enum, unit}

GetSupportedStripedengthRange ([IN] ElementType: uint16 [OUT] MinimumStripeDepth: uint64 {unit} [OUT] MaximumStripeDepth: uint64 {unit} [OUT] StripeDepthDivisor: uint64 {unit}): uint32 {enum, unit}

**StorageRelocationService**

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

**ReplicationSettingData**

ConsistentPointInTime: boolean  
CopyPriority: uint16 {enum}  
DeltaUpdateInterval: datetime  
DesiredCopyMethodology: uint16  
Multihop: uint16  
OnGroupOrListError: uint16 {enum}  
Pairing: uint16 {enum}  
TargetElementSupplier: uint16 {enum}  
ThinProvisioningPolicy: uint16 {enum}  
UnequalGroupsAction: uint16 {enum}  
CopyRecoveryMode: uint16 = 4 {Enum}  
UnequalListsAction: uint16 = 2 {Enum}  
DeltaUpdateBlocks: uint64

**StorageErasureService**

Erase([IN] uint16 ElementType {enum}, [IN] string ErasureMethod, [IN] Element: ref CIM\_StorageExtent, [OUT] Job: ref CIM\_ConcreteJob): uint32 {enum}

**WBEMServerDeviceRegistrationService**

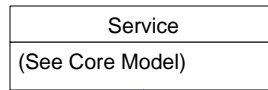
AddSystem([IN] string UseNamespace, [IN] string[] Addresses, [IN] uint32[] PortNumbers, [IN] uint32[] AddressTypes {enum}, [IN] string ElementName, [IN] string Description, [IN] Secret: ref CIM\_SharedSecret, [OUT] Job: ref CIM\_ConcreteJob, [OUT] AddedSystem: ref CIM\_System): uint32 {enum}

RemoveSystem([OUT] Job: ref CIM\_ConcreteJob, [IN] System: ref CIM\_System): uint32 {enum}

EnabledLogicalElement  
(See Core Model)

**ReplicationEntity**

EntityID: string  
InstanceID: string  
Persistent boolean: = true  
Type: uint16  
OtherTypeDescription: string  
Element: string



ReplicationService

CreateGroup([IN] GroupName: string,[IN] Members: ref[] CIM\_LogicalElement,[IN] Persistent: boolean,[IN] DeleteOnEmptyElement: boolean,[IN] DeleteOnUnassociated: boolean,[OUT] ServiceAccessPoint: ref[] CIM\_ReplicationGroup,[IN] ReplicationSettingData: string, [IN] ReservedAs uint16): uint32 enum

DeleteGroup([IN] ReplicationGroup: ref CIM\_ReplicationGroup,[IN] ServiceAccessPoint: ref CIM\_ServiceAccessPoint,[IN] RemoveElements: boolean,[IN] ReplicationSettingData: string): uint32 enum

AddMembers([IN] Members: ref[] CIM\_LogicalElement,[IN] ReplicationGroup: ref CIM\_ReplicationGroup,[IN] ServiceAccessPoint: ref CIM\_ServiceAccessPoint,[IN] ReplicationSettingData: string): uint32 enum

RemoveMembers([IN] Members: ref[] CIM\_LogicalElement,[IN] DeleteOnEmptyElement: boolean,[IN] ReplicationGroup: ref CIM\_ReplicationGroup,[IN] ReplicationSettingData: string): uint32 enum

CreateElementReplica([IN] ElementName: string,[IN] SyncType: string {enum},[IN] Mode: string {enum},[IN] SourceElement: ref CIM\_LogicalElement,[IN] SourceAccessPoint: ref CIM\_ServiceAccessPoint,[OUT,IN] TargetElement: ref CIM\_LogicalElement,[IN] ReplicationSettingData: string,[OUT,IN] Synchronization: ref CIM\_Synchronized,[IN] TargetSettingGoal: ref CIM\_SettingData,[IN] TargetPool: ref CIM\_ResourcePool,[IN] WaitForCopyState: uint16,[IN] ConnectivityCollection: ref CIM\_ConnectivityCollection, [IN] Collections: ref[] CIM\_Collection): uint32 enum

CreateGroupReplica([IN] RelationshipName: string,[IN] SyncType: uint16 {enum},[IN] Mode: uint16 {enum},[IN] SourceGroup: ref CIM\_ReplicationGroup,[IN] SourceElement: ref CIM\_LogicalElement,[IN] SourceAccessPoint: ref CIM\_ServiceAccessPoint,[IN] TargetGroup: ref CIM\_ReplicationGroup,[IN] TargetElementCount: uint64,[IN] TargetAccessPoint: ref CIM\_ServiceAccessPoint,[IN] Consistency: uint16 {enum},[IN] ReplicationSettingData: string,[OUT] Job: ref CIM\_ConcreteJob,[OUT] Synchronization: ref CIM\_Synchronized,[IN] TargetSettingGoal: ref CIM\_SettingData,[IN] TargetPool: ref CIM\_ResourcePool,[IN] WaitForCopyState: uint16,[IN] ConnectivityCollection: ref CIM\_ConnectivityCollection, [IN] Collections: ref[] CIM\_Collection): uint32 enum

CreateSynchronizationAspect([IN] Name: string,[IN] SyncType: uint16 {enum},[IN] Mode: uint16 {enum},[IN] SourceGroup: ref CIM\_ReplicationGroup,[IN] SourceElement: ref CIM\_ManagedElement,[IN] SourceAccessPoint: ref CIM\_ServiceAccessPoint,[IN] Consistency: uint16 {enum},[IN] ReplicationSettingData: string,[OUT] Job: ref CIM\_ConcreteJob,[OUT] SettingsState: ref CIM\_SettingsDefineState ): uint32 enum

ModifyReplicaSynchronization([IN] Operation: uint16 {enum},[IN] Synchronization: ref CIM\_Synchronized,[IN] ReplicationSettingData: string,[IN] SyncPair: ref[] CIM\_StorageSynchronized,[IN] SyncPair: ref[] CIM\_Synchronized,[OUT] Job: ref CIM\_ConcreteJob,[OUT] SettingsState: ref CIM\_SettingsDefineState[IN] Force: boolean,[IN] WaitForCopyState: uint16, [IN] UpdatedSynchronization: ref CIM\_Synchronized): uint32 enum

ModifyListSynchronization([IN] Operation: uint16 {enum},[IN] Synchronization: ref[] CIM\_Synchronized,[IN] ReplicationSettingData: string,[OUT] Job: ref CIM\_ConcreteJob,[OUT] SettingsState: ref CIM\_SettingsDefineState,[IN] Force: boolean,[IN] WaitForCopyState: uint16, [IN] UpdatedSynchronization: ref[] CIM\_Synchronized): uint32 enum

ModifySettingsDefineState([IN] Operation: uint16 {enum},[IN] SettingsState: ref CIM\_SettingsDefineState,[IN,OUT] TargetElement: ref CIM\_LogicalElement,[IN,OUT] TargetGroup: ref CIM\_ReplicationGroup,[IN] TargetElementCount: string,[IN] TargetAccessPoint: ref CIM\_ServiceAccessPoint,[IN] Synchronization: ref[] CIM\_Synchronized,[IN] ReplicationSettingData: string,[OUT] Job: ref CIM\_ConcreteJob,[IN] TargetSettingGoal: ref CIM\_SettingData,[IN] TargetPool: ref CIM\_ResourcePool,[IN] WaitForCopyState: uint16, [IN] ElementName: string, [IN] Collection: ref[] CIM\_Collection): uint32 enum

GetAvailableTargetElements([IN] SourceElement: ref CIM\_LogicalElement,[IN] SyncType: uint16 {enum},[IN] Mode: uint16,[IN] ReplicationSettingData: string,[IN] TargetAccessPoint: ref CIM\_ServiceAccessPoint,[IN] TargetSettingGoal: ref[] CIM\_SettingData,[IN] TargetPools: ref[] CIM\_ResourcePool,[OUT] Job: ref CIM\_ConcreteJob,[IN] Candidates: ref[] CIM\_LogicalElement, [IN] MaxElementCount: uint16): uint32 enum

GetPeerSystems([IN] Options: uint16,[OUT] Job: ref CIM\_ConcreteJob,[OUT] Systems: ref[] CIM\_ComputerSystem, [OUT] LocalAccessPoints: ref[] CIM\_ServiceAccessPoint, [OUT] RemoteAccessPoints: ref[] CIM\_ServiceAccessPoint): uint32 enum

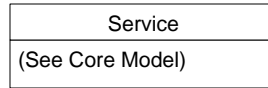
GetReplicationRelationships([IN] Type: uint16 (enum),[IN] SyncType: uint16 (enum),[IN] Mode: uint16 (enum),[IN] Locality: uint16 (enum),[IN] CopyState: uint16 (enum),[OUT] Job: ref CIM\_ConcreteJob,[OUT] Synchronizations: ref[] CIM\_Synchronized, [IN] ReplicationSettingData: string): uint32 enum

GetServiceAccessPoints([IN] System: ref CIM\_ComputerSystem,[OUT] Job: ref CIM\_ConcreteJob,[OUT] ComputerSystem: ref[] CIM\_ServiceAccessPoint): uint32 enum

AddReplicationEntity([IN] ReplicationEntity: string,[IN] Persistent: boolean,[IN] InstanceNamespace: string,[OUT] ReplicationEntityPath: ref CIM\_ReplicationEntity.): uint32 enum

AddServiceAccessPoint([IN] ServiceAccessPoint: string,[IN] InstanceNamespace: string,[OUT] ServiceAccessPointPath: ref CIM\_ServiceAccessPoint): uint32 enum

AddSharedSecret([IN] SharedSecret: string,[IN] ServiceAccessPoint: ref CIM\_ServiceAccessPoint,[IN] InstanceNamespace: string,[OUT] SharedSecretPath: ref CIM\_SharedSecret): uint32 enum



ReplicationService (continued)

CreateListReplica([IN] ElementNames: string[],[IN] SyncType: uint16 {enum},[IN] Mode: uint16 {enum},[IN] SourceElements: ref[] CIM\_LogicalElement,[IN] SourceAccessPoint: ref CIM\_ServiceAccessPoint,[IN] TargetElements: ref[] CIM\_LogicalElement,[IN] TargetAccessPoint: ref CIM\_ServiceAccessPoint,[IN] ReplicationSettingData: string,[OUT] Job: ref CIM\_ConcreteJob,[OUT] Synchronizations: ref[] CIM\_Synchronized,[IN] TargetSettingGoal: ref CIM\_SettingData,[IN] TargetPool: ref CIM\_ResourcePool,[IN] WaitForCopyState: uint16,[IN] ConnectivityCollection: ref CIM\_ConnectivityCollection, [IN] Consistency: uint16, [IN] Collections: ref[] CIM\_Collection ): uint32 enum

CreateGroupReplicaFromElements([IN] RelationshipName: string,[IN] SyncType: uint16 {enum},[IN] Mode: uint16 {enum}, [IN,OUT] SourceGroup: ref CIM\_ReplicationGroup [IN] SourceElements: ref[] CIM\_LogicalElement,[IN] SourceGroupName: string,[IN] SourceAccessPoint: ref CIM\_ServiceAccessPoint,[IN,OUT] TargetGroup: ref CIM\_ReplicationGroup, [IN,OUT] TargetGroupName: string,[IN] TargetElements ref[] CIM\_LogicalElement, [IN] TargetElements: string[], [IN] TargetAccessPoint: ref CIM\_ServiceAccessPoint,[IN] Consistency: uint16 {enum},[IN] ReplicationSettingData: string,[OUT] Job: ref CIM\_ConcreteJob,[OUT] Synchronization: ref CIM\_Synchronized[IN] TargetSettingGoal: ref CIM\_SettingData,[IN] TargetPool: ref CIM\_ResourcePool,[IN] TargetPools: ref[] CIM\_ResourcePool,[IN] WaitForCopyState: uint16,[IN] Collections: ref[] CIM\_Collection ): uint32 enum

GetReplicationRelationshipInstances([IN] Type: uint16 {enum},[IN] SyncType: uint16 {enum},[IN] Mode: uint16 {enum},[IN] Locality: uint16 {enum},[IN] CopyState: uint16,[OUT] Job: ref CIM\_ConcreteJob,[OUT] Synchronization: ref CIM\_Synchronized[IN] TargetSettingGoal: ref CIM\_SettingData,[IN] TargetPool: ref CIM\_ResourcePool,[IN] Synchronizations: string[], [IN] ReplicationSettingData: string): uint32 enum

ModifyListSettingsDefineState([IN] Operation: uint16 {enum},[IN] SettingsState: ref CIM\_SettingsDefineState,[IN] TargetElements: ref[] CIM\_LogicalElement,[IN,OUT] TargetGroup: ref CIM\_ReplicationGroup,[IN] TargetElementCount: uint64,[IN] TargetAccessPoint: ref CIM\_ServiceAccessPoint,[IN,OUT] Synchronization: ref[] CIM\_Synchronized[IN] ReplicationSettingData: string,[OUT] Job: ref CIM\_ConcreteJob,[IN] TargetSettingGoal: ref CIM\_SettingData,[IN] TargetPool: ref CIM\_ResourcePool,[IN] WaitForCopyState: uint16, [IN] ElementNames: string[], [IN] Collections: ref[] CIM\_Collection): uint32 enum

AddToRemoteReplicationCollection([IN] LocalAccessPoints: ref[] CIM\_ServiceAccessPoint,[IN] RemoteAccessPoints: ref CIM\_ServiceAccessPoint, [IN] RemoteComputerSystem: ref CIM\_ComputerSystem,[OUT] Job: ref CIM\_ConcreteJob,[IN] ConnectivityCollection: ref CIM\_ConnectivityCollection): uint32 enum

CreateRemoteReplicationCollection([IN] ElementName: string,[IN] LocalAccessPoints: ref CIM\_ServiceAccessPoint,[IN] RemoteAccessPoints: ref CIM\_ServiceAccessPoint,[IN] RemoteComputerSystem: ref CIM\_ComputerSystem,[IN] Active: boolean,[IN] DeleteOnUnassociated: boolean,[OUT] Job: ref CIM\_ConcreteJob,[IN] ConnectivityCollection: ref CIM\_ConnectivityCollection,[IN] ReplicationSettingData: string): uint32 enum

RemoveFromRemoteReplicationCollection([IN] LocalAccessPoints: ref CIM\_ServiceAccessPoint,[IN] RemoteAccessPoints: ref CIM\_ServiceAccessPoint,[IN] RemoteComputerSystem: ref CIM\_ComputerSystem, [OUT] Job: ref CIM\_ConcreteJob,[IN] ConnectivityCollection: ref CIM\_ConnectivityCollection): uint32 enum

CreateGroupReplicaFromElementSynchronizations([IN] RelationshipName: string, [IN] ElementSynchronizations ref[] CIM\_Synchronized,[IN,OUT] SourceGroupName:string[] [IN,OUT] SourceGroup: ref CIM\_ReplicationGroup, [IN] SourceAccessPoint: ref CIM\_ServiceAccessPoint, [IN,OUT] TargetGroupName:string[] , [IN,OUT] string[] SourceGroupName, [IN,OUT] TargetGroup ref CIM\_ReplicationGroup, [IN] TargetAccessPoint: ref CIM\_ServiceAccessPoint, [IN] Consistency: uint16 , [IN] ReplicationSettingData: string , [OUT] Job: ref CIM\_ConcreteJob, [OUT] GroupSynchronization ref CIM\_Synchronized, [IN] WaitForCopyState: uint16 ): uint32 enum

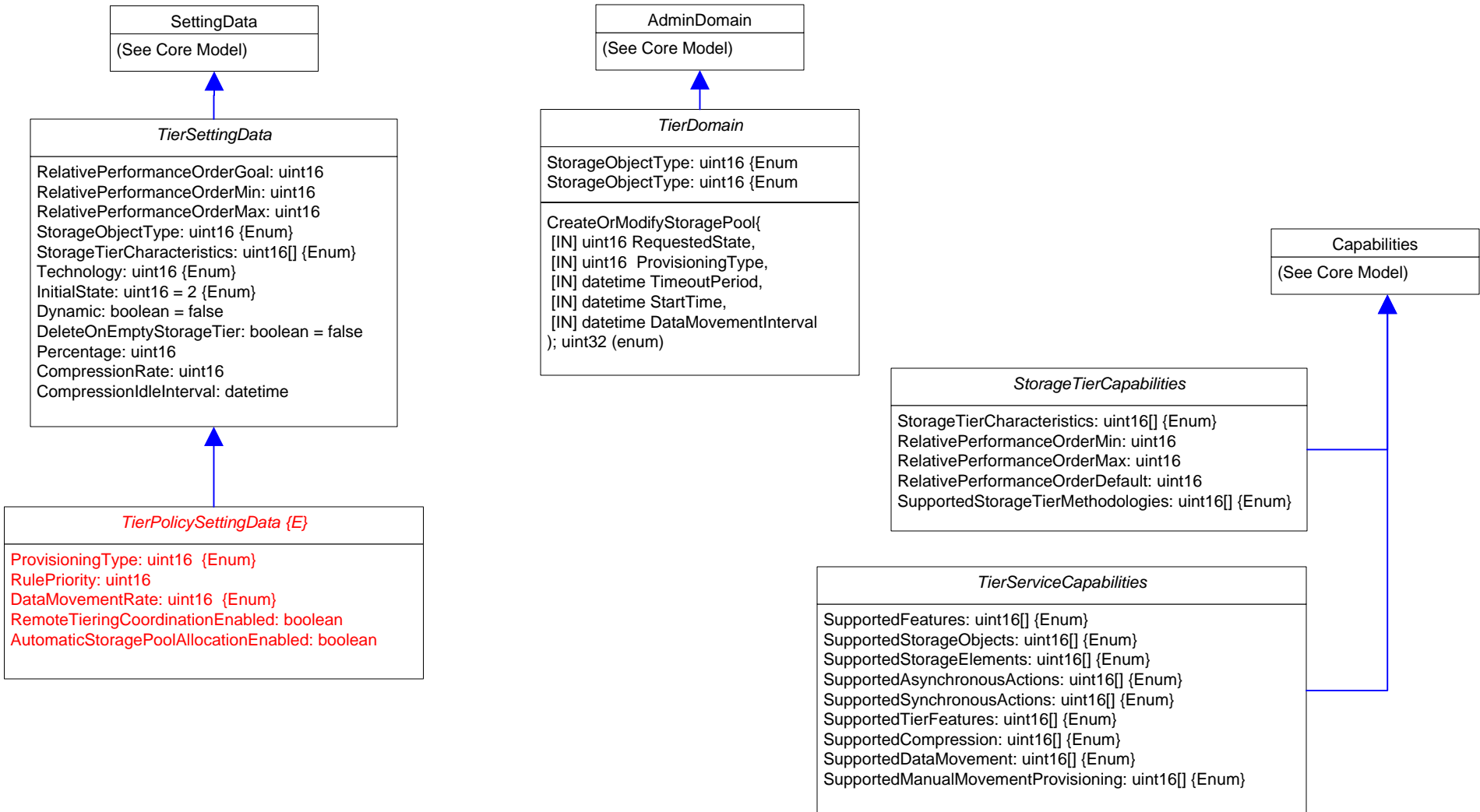
GetSynchronizationAspects([IN] SyncType: uint16, [IN] Mode: uint16, [IN] Locality: uint16, [IN] SyncState: uint16, [OUT] Job: ref CIM\_ConcreteJob, [IN] CachedData: boolean, [IN] ReplicationSettingData: string, [OUT] SynchronizationAspects: ref[] CIM\_SynchronizationAspect,): uint32 enum

GetSynchronizationAspectInstances([IN] SyncType: uint16, [IN] Mode: uint16, [IN] Locality: uint16, [IN] SyncState: uint16, [OUT] Job: ref CIM\_ConcreteJob, [IN] CachedData: boolean, [IN] ReplicationSettingData: string, [OUT] SynchronizationAspects: string.): uint32 enum

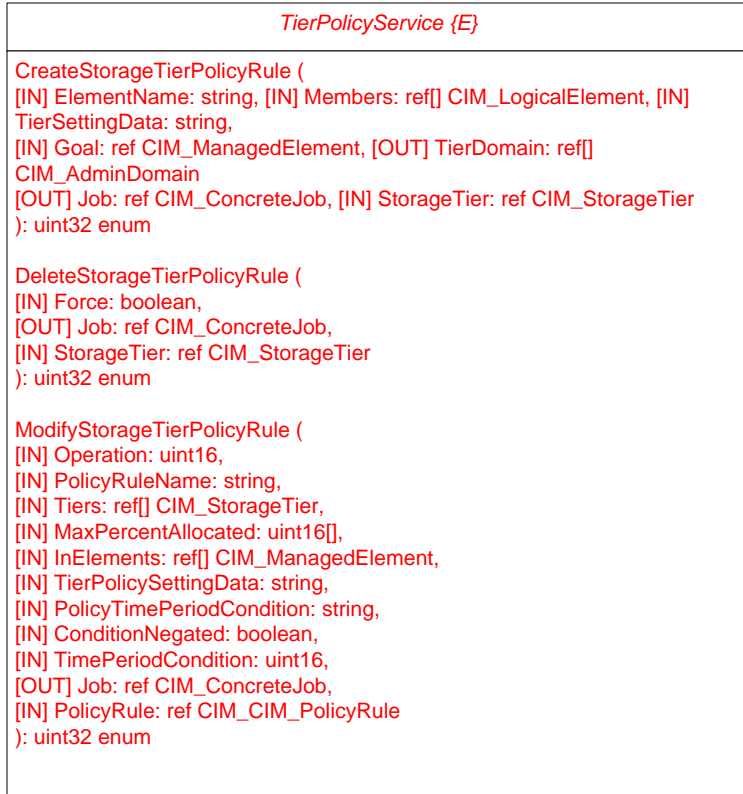
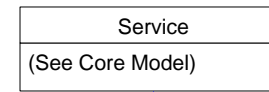
CreateGroupReplicaFromElementSynchronizations( [IN] Synchronized ref CIM\_Synchronized, [IN] SourceElements ref[] CIM\_LogicalElement, [IN] TargetElements ref[] CIM\_LogicalElement, [IN] SourceAccessPoint ref CIM\_ServiceAccessPoint, [IN] TargetAccessPoint ref CIM\_ServiceAccessPoint, [IN] TargetGroupName: uint16, [IN] ReplicationSettingData: string, [OUT] Job: ref CIM\_ConcreteJob, [OUT] Synchronizations ref[] CIM\_Synchronized, [IN] WaitForCopyState: uint16 ): uint32 enum

ConfirmTargetData( [IN] Synchronized ref CIM\_Synchronized, [IN] SourceAccessPoint ref CIM\_ServiceAccessPoint, [IN] TargetAccessPoint ref CIM\_ServiceAccessPoint, [IN] TargetGroupName: uint16, [IN] ReplicationSettingData: string, [OUT] Job: ref CIM\_ConcreteJob, [IN] ConnectivityCollection ref CIM\_ConnectivityCollection, [IN] WaitTime: datetime): uint32 enum

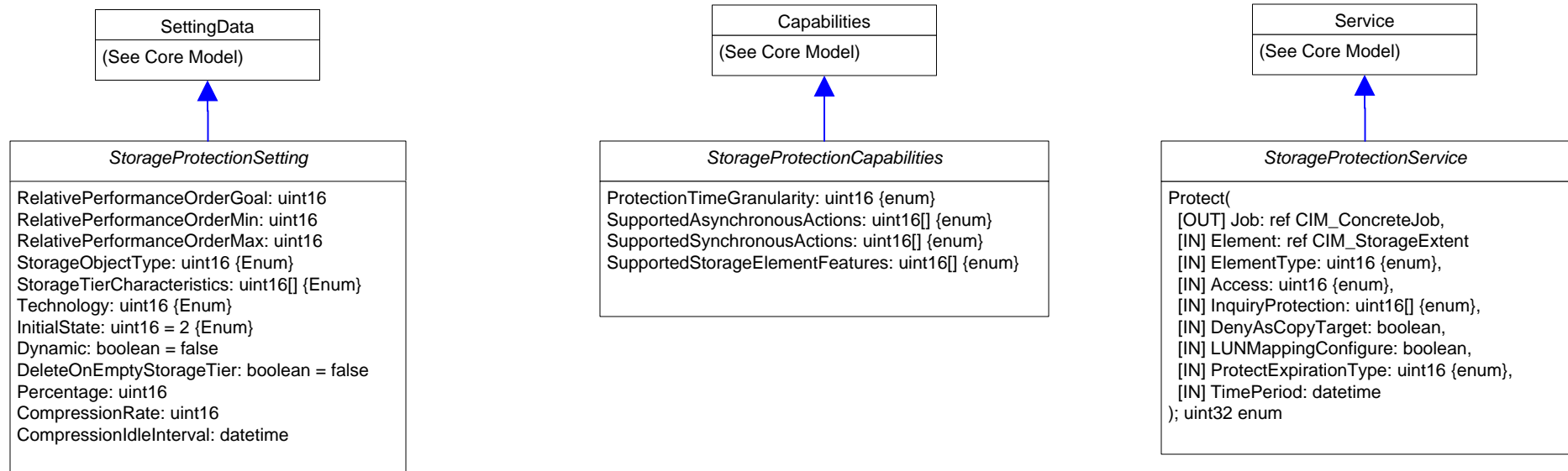
CreateListSynchronizationAspect([IN] Names: string[],[IN] SyncType: uint16,[IN] Mode: uint16,[IN] SourceElements ref[] ManagedElement,[IN] SourceAccessPoint ref ServiceAccessPoint,[IN] Consistency: uint16,[IN] ReplicationSettingData: string,[OUT] Job ref ConcreteJob,[OUT] SettingsStates ref[] SettingsDefineState) : uint32

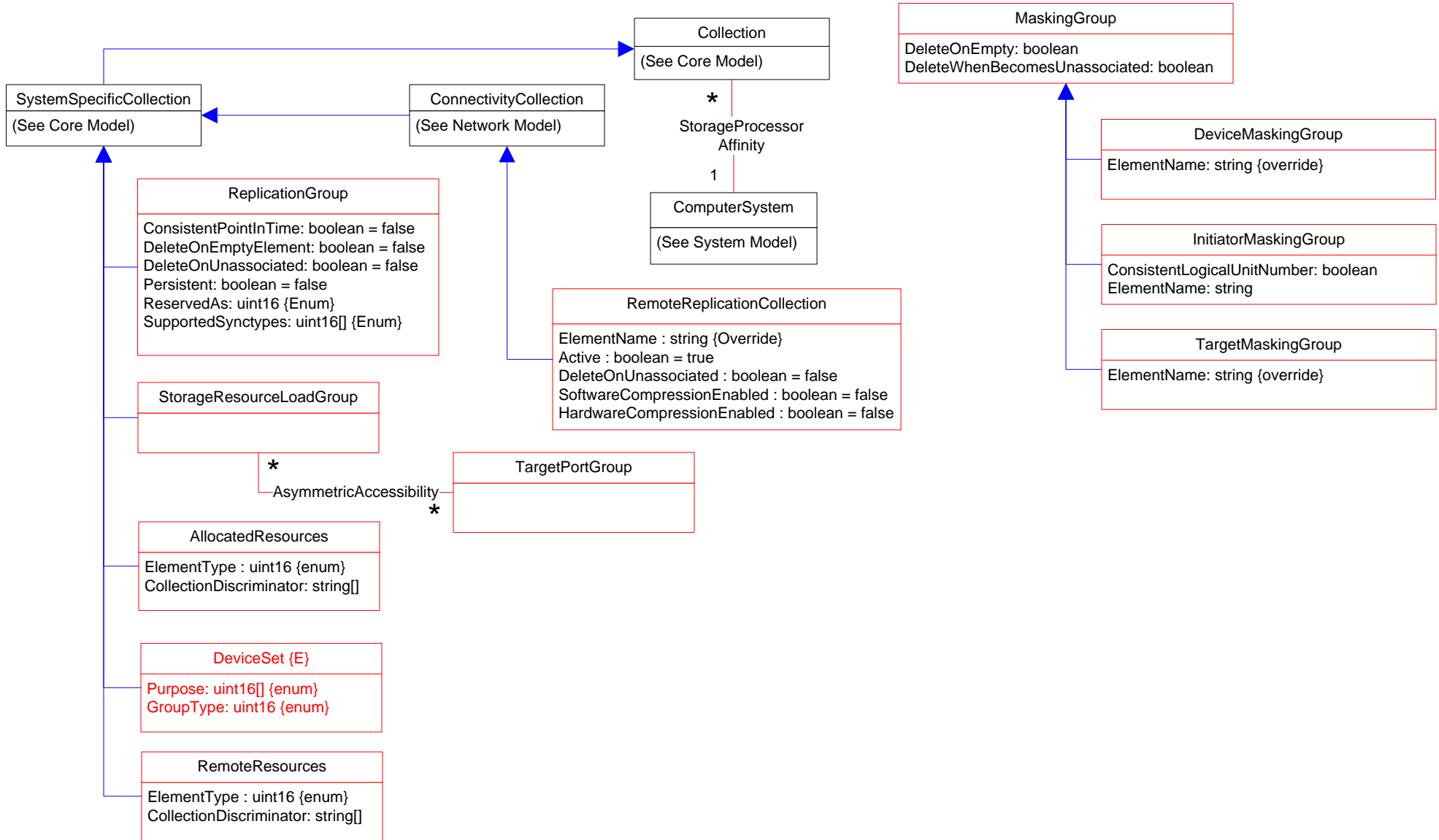


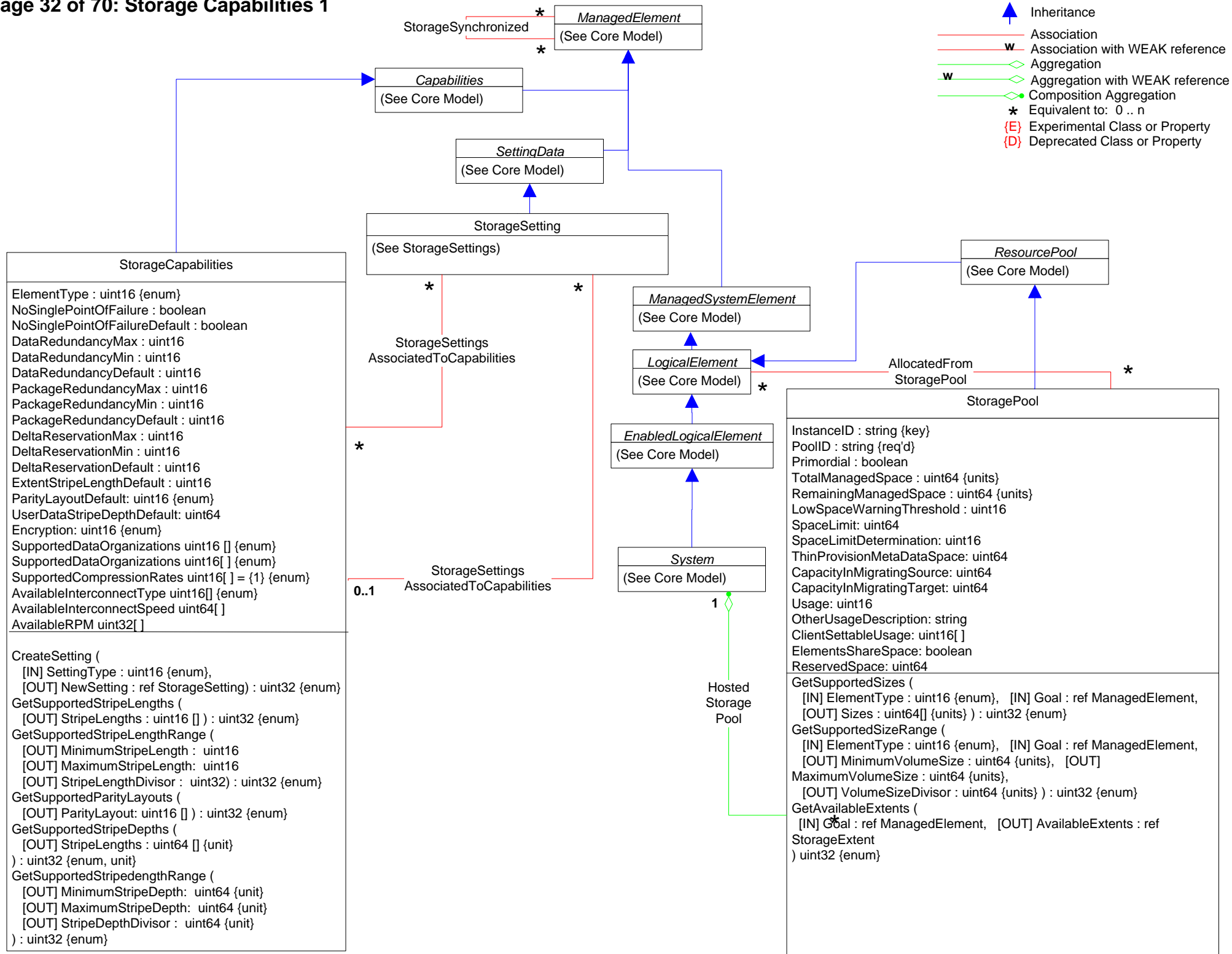


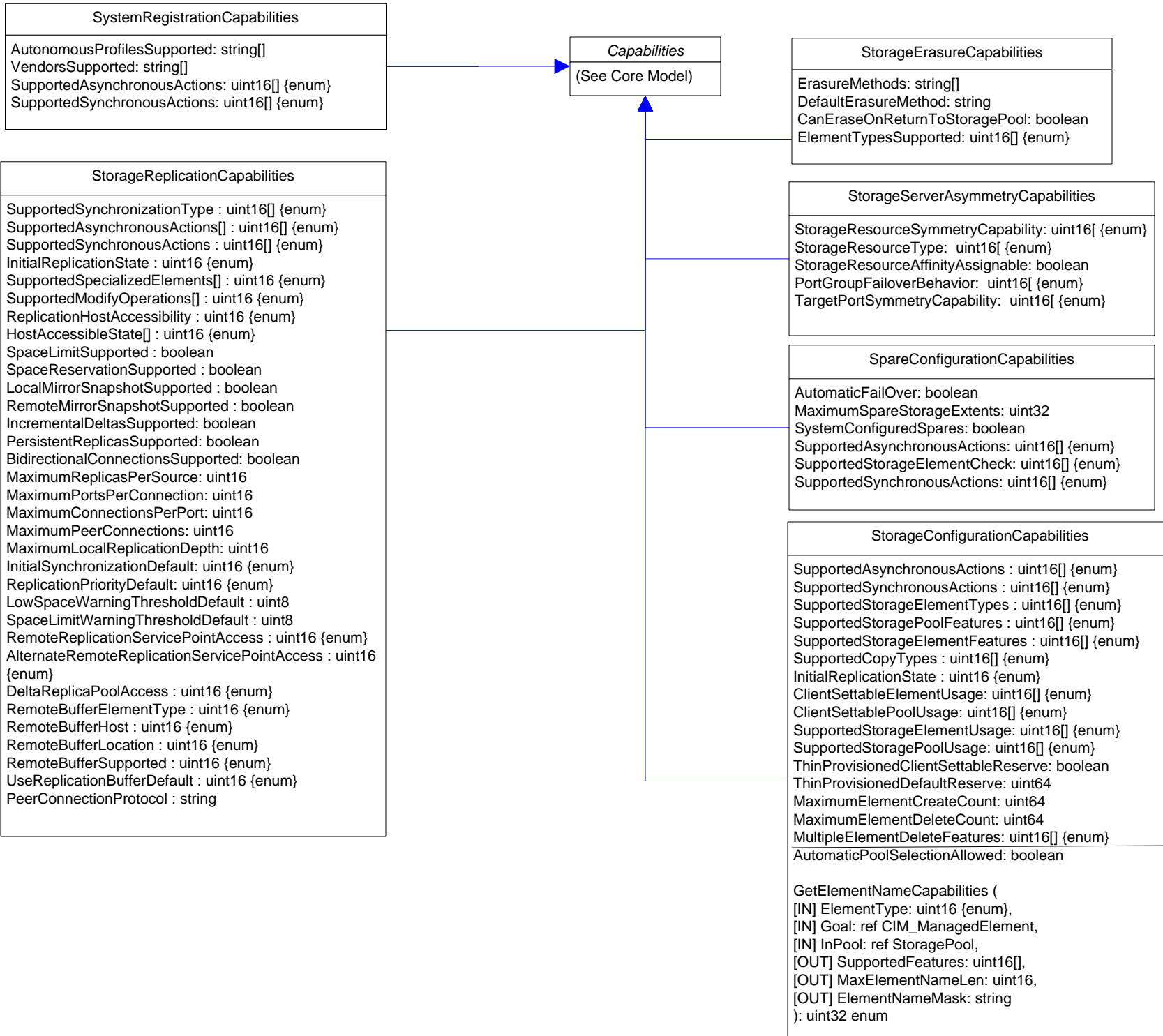


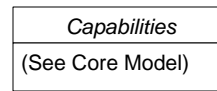












ReplicationServiceCapabilities
SupportedReplicationTypes uint16[ ] {enum} SupportedStorageObjects uint16[ ] {enum} SupportedAsynchronousActions uint16[ ] {enum} SupportedSynchronousActions uint16[ ] {enum}
ConvertSyncTypeToReplicationType( [IN] uint16 SyncType, [IN] uint16 Mode, [IN] uint16 Mode, [IN] uint16 LocalOrRemote, [OUT] uint16 SupportedReplicationTypes); uint32 (enum) ConvertReplicationTypeToSyncType( [IN] uint16 ReplicationType, [OUT] uint16 SyncType, [OUT] uint16 Mode, [OUT] uint16 LocalOrRemote ); uint32 (enum) GetSupportedCopyStates( [IN] uint16 ReplicationType[ ], [OUT] uint16 SupportedCopyStates[ ], [OUT] boolean HostAccessible[ ], [IN] string ReplicationSettingData, [IN] Operation: uint16 ); uint32 (enum) GetSupportedGroupCopyStates( [IN] uint16 ReplicationType, [OUT] uint16 SupportedCopyStates[ ], string ReplicationSettingData, [IN] uint16 Operation); uint32 (enum) GetSupportedWaitForCopyStates( [IN] uint16 ReplicationType, [IN] uint16 MethodName, [OUT] uint16 SupportedCopyStates[ ], [IN] string ReplicationSettingData, [IN] uint16 Operation); uint32 (enum) GetSupportedFeatures( [IN] uint16 ReplicationType, [OUT] uint16 Features[ ], [IN] string ReplicationSettingData ); uint32 (enum) GetSupportedGroupFeatures( [IN] uint16 ReplicationType, [OUT] uint16 GroupFeatures[ ], [IN] string ReplicationSettingData ); uint32 (enum) GetSupportedConsistency( [IN] uint16 ReplicationType, [OUT] uint16 SupportedConsistency[ ], [IN] string ReplicationSettingData ); uint32 (enum) GetSupportedOperations( [IN] uint16 ReplicationType, [OUT] uint16 SupportedOperations[ ], [IN] string ReplicationSettingData, [IN] uint16 CopyState, [OUT] uint16[] ServiceControlling, [OUT] boolean[] RequiresForce, [OUT] boolean[] UpdatesSynchronizedPath); uint32 (enum) GetSupportedGroupOperations( [IN] uint16 ReplicationType, [OUT] uint16 SupportedGroupOperations[ ], [IN] string ReplicationSettingData, [IN] uint16 CopyState, [OUT] uint16[] ServiceControlling, [OUT] boolean[] RequiresForce, [OUT] boolean[] UpdatesSynchronizedPath); uint32 (enum) GetSupportedListOperations( [IN] uint16 ReplicationType, [IN] uint16 SynchronizationType, [OUT] uint16[] SupportedListOperations, [IN] string ReplicationSettingData, [OUT] uint16[] ServiceControlling, [OUT] boolean[] RequiresForce, [OUT] boolean[] UpdatesSynchronizedPath); uint32 (enum) GetSupportedSettingsDefineStateOperations( [IN] uint16 ReplicationType, [OUT] uint16[] SupportedOperations, [IN] string ReplicationSettingData ); uint32 (enum) GetSupportedThinProvisioningFeatures( [IN] uint16 ReplicationType, [OUT] uint16 SupportedThinProvisioningFeatures[ ] ); uint32 (enum) GetSupportedMaximum( [IN] uint16 ReplicationType, [IN] uint16 Component, [OUT] uint64 MaxValue, [IN] string ReplicationSettingData ); uint32 (enum) GetDefaultConsistency( [IN] uint16 ReplicationType, [OUT] uint16 DefaultConsistency [IN] string ReplicationSettingData); uint32 (enum) GetDefaultGroupPersistence( [OUT] uint16 DefaultGroupPersistence ); uint32 (enum) GetSupportedReplicationSettingData( [IN] uint16 ReplicationType, [IN] uint16 PropertyName, [OUT] uint64[] SupportedValues, [IN] string ReplicationSettingData ); uint32 (enum) GetDefaultReplicationSettingData( [IN] uint16 ReplicationType, [OUT] string DefaultInstance ); uint32 (enum) GetSupportedConnectionFeatures( [IN] CIM_ServiceAccessPoint REF Connection, [OUT] uint16[] SupportedConnectionFeatures ); uint32 (enum) uint32 GetSupportedReplicationSettingDataDateTime( [IN] ReplicationType:uint16,[IN] PropertyName:uint16,[OUT] SupportedValues:datetime[],[OUT] SupportedValuesIndicator:uint16, [IN] ReplicationSettingData:string {EmbeddedInstance}): uint32 {enum}

Capabilities  
(See Core Model)



ReplicationServiceCapabilities (continued)

GetSynchronizationSupported(  
[IN] CIM\_LogicalElement REF LocalElement, [IN] CIM\_LogicalElement REF OtherElement,  
[IN] CIM\_ServiceAccessPoint REF OtherElementAccessPoint, [IN] uint16 MethodName, [IN] string ReplicationSettingData, [OUT] uint16 SyncTypes[ ],  
[OUT] uint16[] Modes, [OUT] uint16[] LocalElementRole); uint32 (enum)

GetSupportedStorageCompressionFeatures(  
[IN] uint16 ReplicationType, [OUT] uint16[] SupportedStorageCompressionFeatures, [IN] string ReplicationSettingData ); uint32 (enum)

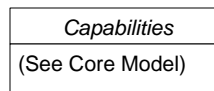
GetSupportedTokenizedReplicationType(  
[IN] CIM\_ManagedElement REF SourceElement, [IN] CIM\_ManagedElement REF TargetElement,  
[IN] CIM\_ServiceAccessPoint REF ElementAccessPoint, [IN] string ReplicationSettingData, [OUT] uint16[] ReplicationTypes ); uint32 (enum)

GetSupportedListFeatures(  
[IN] uint16 ReplicationType, [IN] string ReplicationSettingData); uint32 (enum)

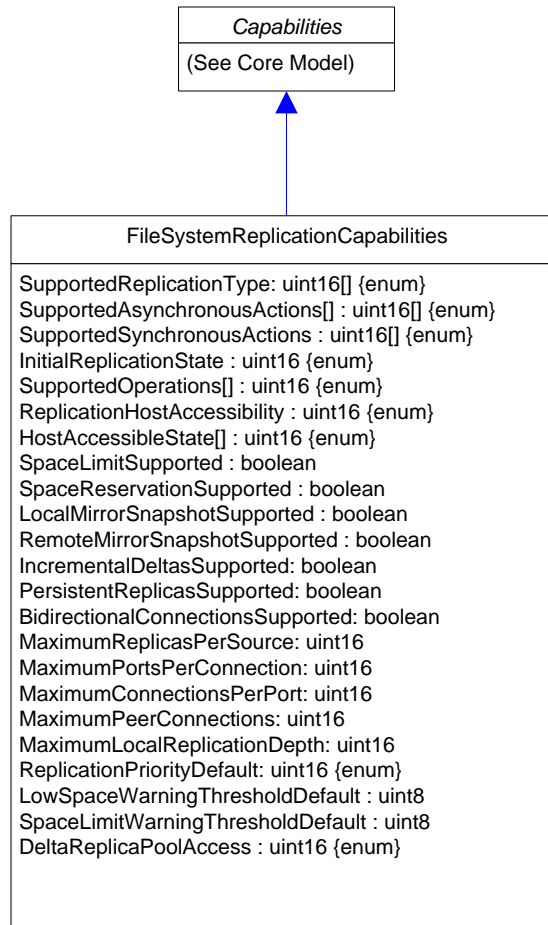
GetSupportedOperationsForSynchronization(  
[IN] CIM\_Synchronized REF Synchronization, [IN] string ReplicationSettingData, [IN] uint16 SynchronizationType, [OUT] uint16[] SupportedOperations,  
[OUT] uint16[] ServiceControlling, [OUT] boolean[] RequiresForce, [OUT] boolean[] UpdatesSynchronizedPath); uint32 (enum)

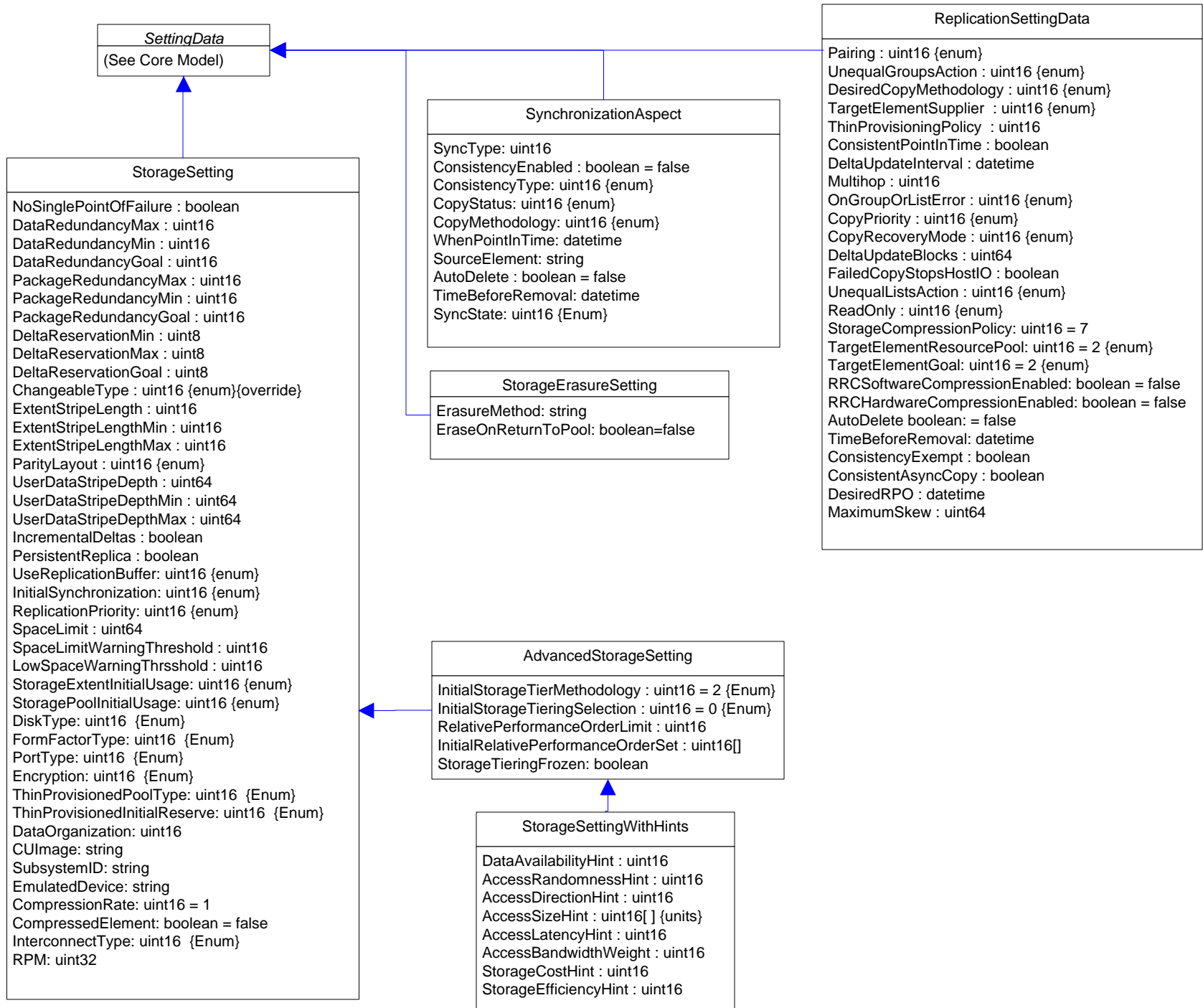
GetSupportedReplicationTypesForSystem(  
[IN] CIM\_ComputerSystem REF System, [IN] string ReplicationSettingData, [OUT] uint16[] SupportedReplicationTypes,); uint32 (enum)

GetElementNameCapabilities(  
[IN] uint16 ElementType, [OUT] uint16[] SupportedFeatures, [OUT] uint16 MaxElementNameLen, [OUT] string ElementNameMask); uint32 (enum)


















# Page 39 of 70: Storage Statistics 1

-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0..n
-  Experimental Class or Property
-  Deprecated Class or Property

*ManagedElement*  
(See Core Model)

*Collection*  
(See Core Model)

*SystemSpecificCollection*  
(See Core Model)

*StatisticsCollection*  
(See Core Model)

*BlockStatisticsManifestCollection*  
IsDefault : boolean

*QueryStatisticsCollection*

Query : string  
 QueryLanguage : uint16 {enum}  
 SelectEncoding : uint16 {enum}  
 SelectedNames : string  
 SelectedTypes : string  
 SelectedValues : string  
 SelectedRateNames : string  
 SelectedRateTypes : string  
 SelectedRateValues : string

*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}  
 RateElementType : uint16 {enum}  
 TotalIOsRate : real32  
 KBytesTransferredRate : real32  
 KBytesWrittenRate : real32  
 ReadIOsRate : real32  
 ReadHitIOsRate : real32  
 KBytesReadRate : real32  
 WriteIOsRate : real32  
 WriteHitIOsRate : real32  
 MaintOpRate : real32  
 TotalHitIOs : uint64  
 ReadSequentialIOs : uint64  
 ReadSequentialHits : uint64  
 WriteSequentialIOs : uint64  
 WriteSequentialHits : uint64

*StatisticalData*  
(See core model)

*BlockStatisticsManifest*

InstanceID : string  
 ElementType : uint16 {enum}  
 IncludeStartStatisticTime : boolean {enum}  
 IncludeStatisticsTime : boolean  
 IncludeTotalIOs : boolean  
 IncludeKBytesTransferred : boolean  
 IncludeIOTimeCounter : boolean  
 IncludeReadIOs : boolean  
 IncludeReadHitIOs : boolean  
 IncludeReadIOTimeCounter : boolean  
 IncludeReadHitIOTimeCounter : boolean  
 IncludeWriteIOs : boolean  
 IncludeWriteHitIOs : boolean  
 IncludeWriteHitIOTimeCounter : boolean  
 IncludeKBytesWritten : boolean  
 IncludeIdleTimeCounter : boolean  
 IncludeMaintOp : boolean  
 IncludeMaintTimeCounter : boolean  
 IncludeKBytesRead : boolean  
 IncludeStartStatisticTime : boolean  
 InstanceID : string {key}  
 IncludeWriteIOTimeCounter : boolean  
 CSVSequence[] : string  
 RateElementType : uint16 {enum}  
 CSVRateSequence : string[]  
 IncludeRateIntervalStartTime : boolean  
 IncludeRateIntervalEndTime : boolean  
 IncludeKBytesTransferredRate : boolean  
 IncludeReadIOsRate : boolean  
 IncludeReadHitIOsRate : boolean  
 IncludeKBytesReadRate : boolean  
 IncludeWriteHitIOsRate : boolean  
 IncludeKBytesWrittenRate : boolean  
 IncludeMaintOpRate : boolean  
 IncludeTotalHitIOs : boolean  
 IncludeReadSequentialIOs : boolean  
 IncludeReadSequentialHits : boolean  
 IncludeWriteSequentialIOs : boolean  
 IncludeWriteSequentialHits : boolean

*LogicalPortStatistics*

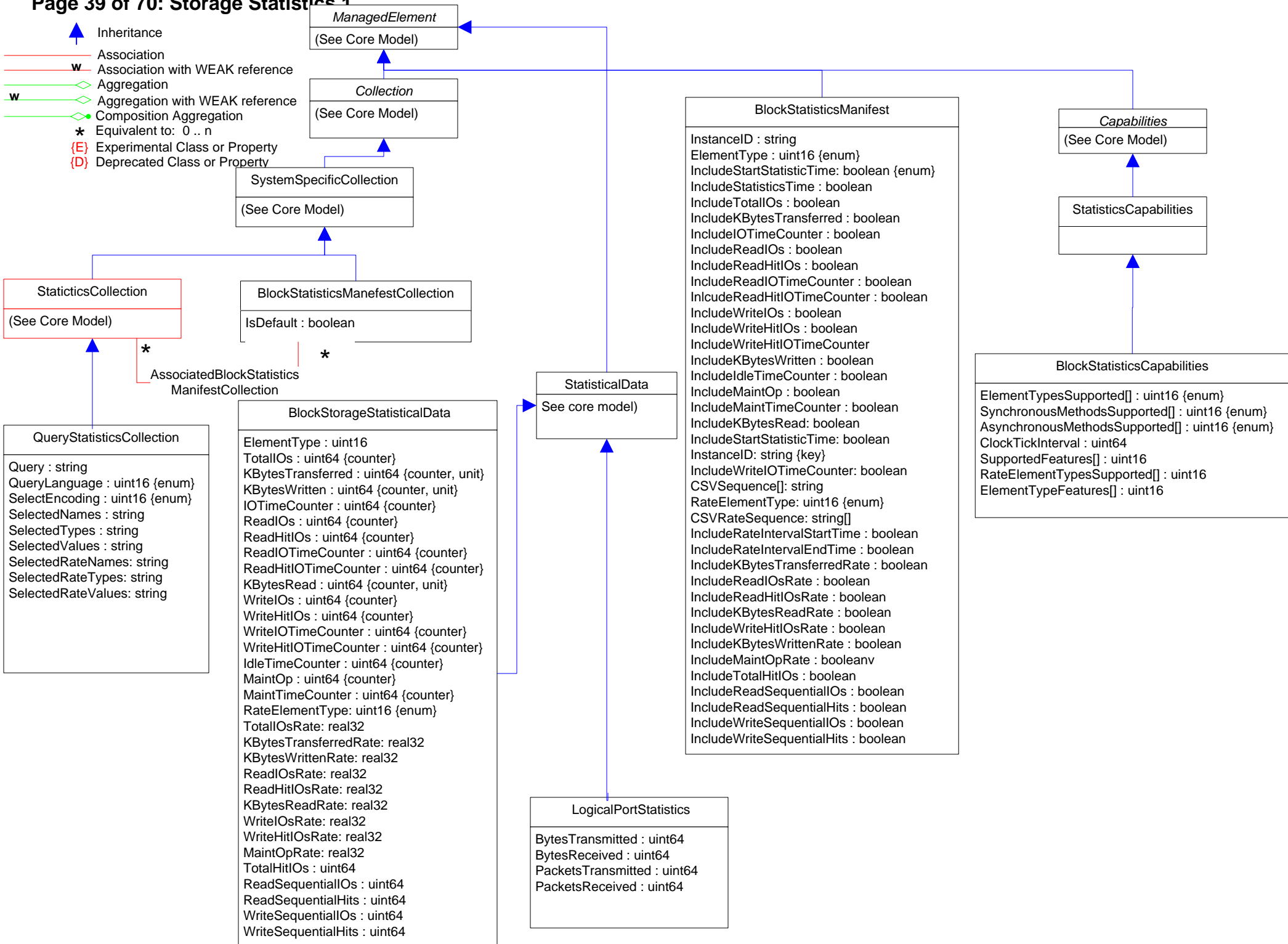
BytesTransmitted : uint64  
 BytesReceived : uint64  
 PacketsTransmitted : uint64  
 PacketsReceived : uint64

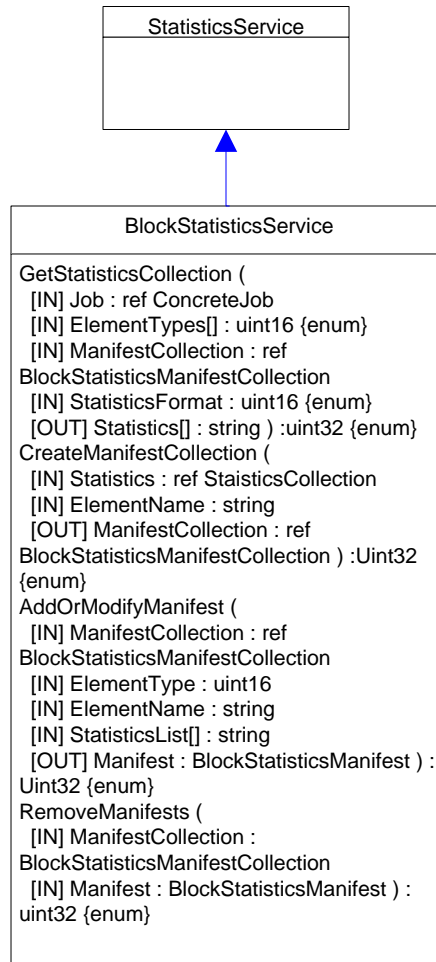
*Capabilities*  
(See Core Model)

*StatisticsCapabilities*

*BlockStatisticsCapabilities*

ElementTypesSupported[] : uint16 {enum}  
 SynchronousMethodsSupported[] : uint16 {enum}  
 AsynchronousMethodsSupported[] : uint16 {enum}  
 ClockTickInterval : uint64  
 SupportedFeatures[] : uint16  
 RateElementTypesSupported[] : uint16  
 ElementTypeFeatures[] : uint16





# Page 41 of 70: Storage Library

▲ Inheritance

— Association

—w Association with WEAK reference

◊ Aggregation

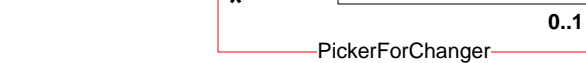
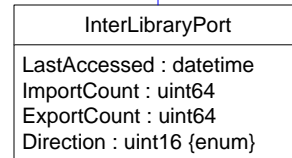
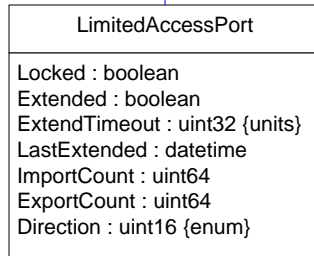
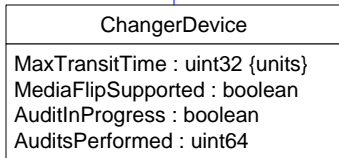
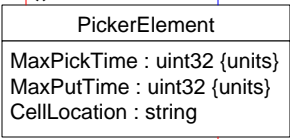
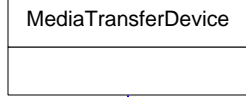
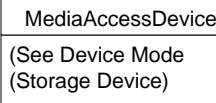
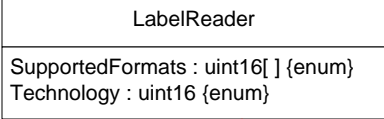
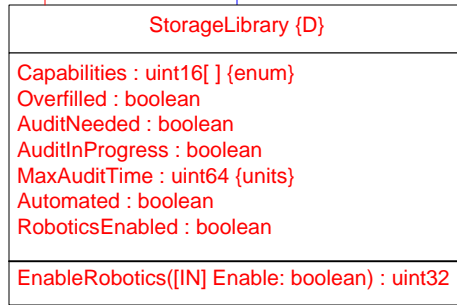
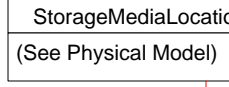
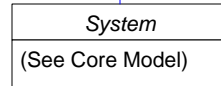
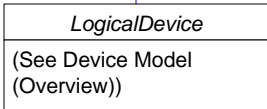
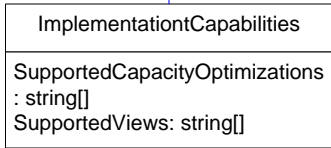
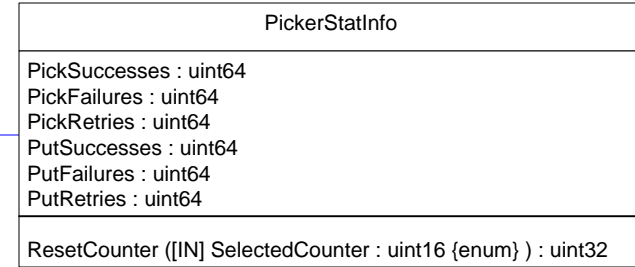
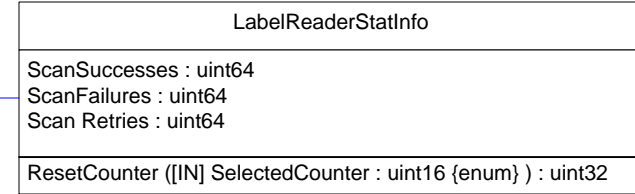
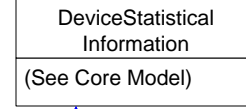
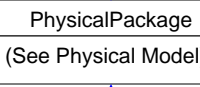
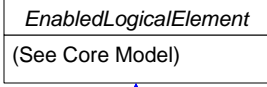
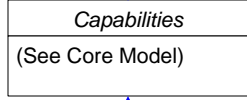
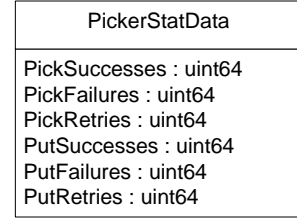
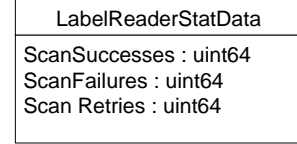
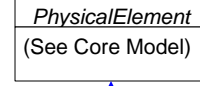
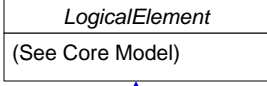
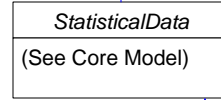
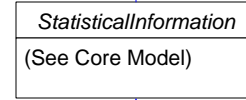
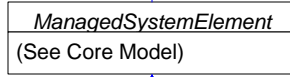
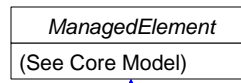
◊-w Aggregation with WEAK reference

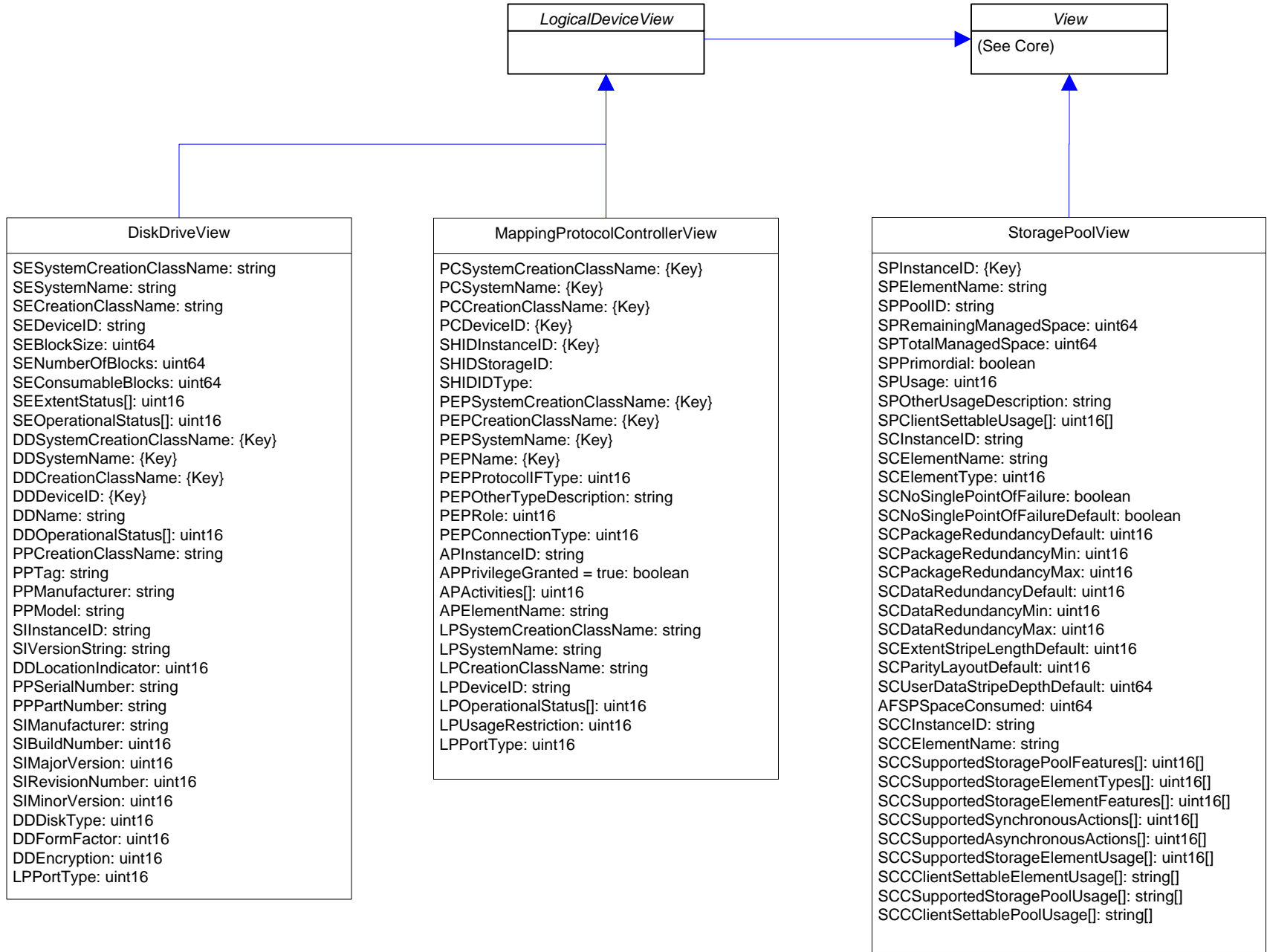
◊• Composition Aggregation

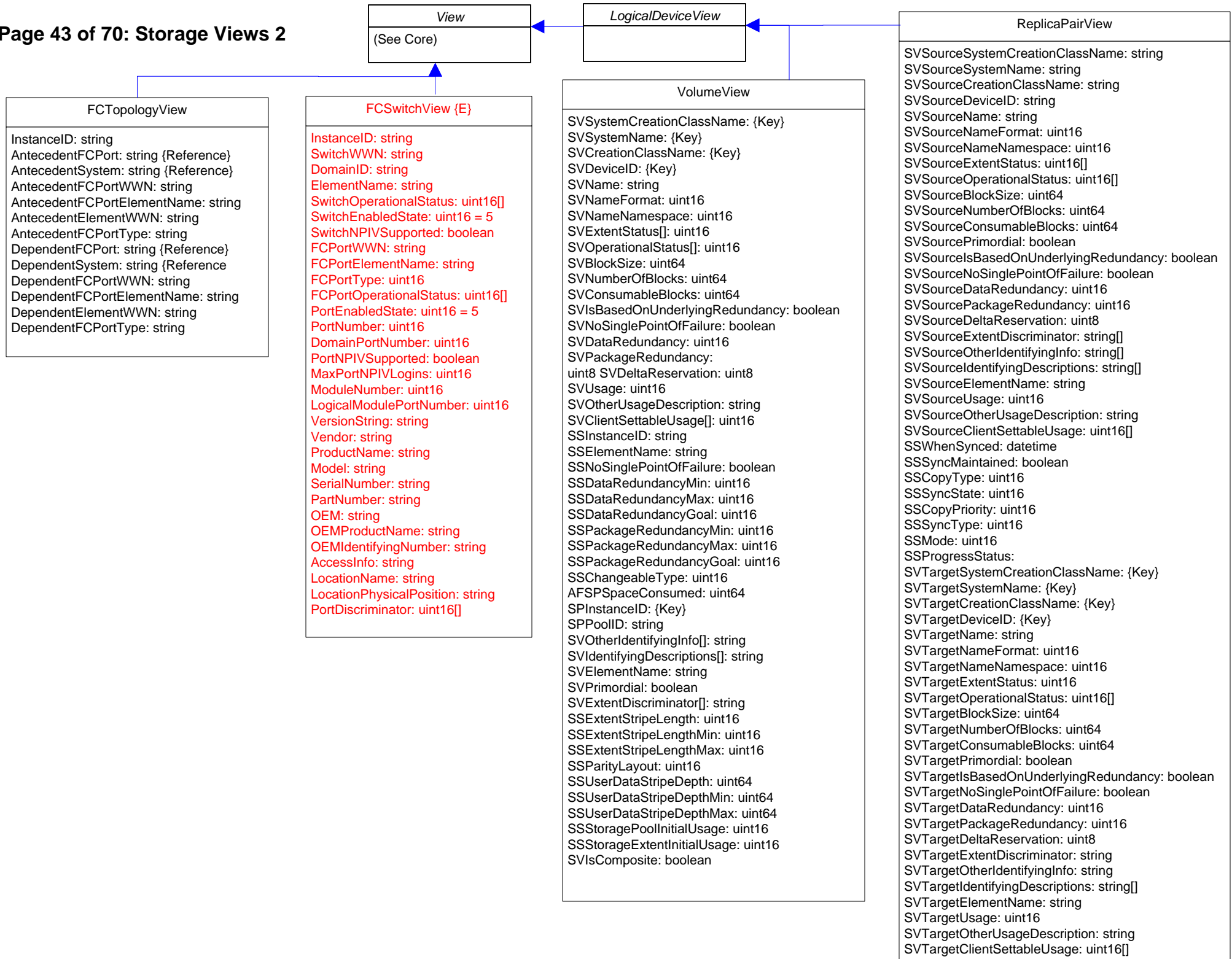
\* Equivalent to: 0..n

{E} Experimental Class or Property

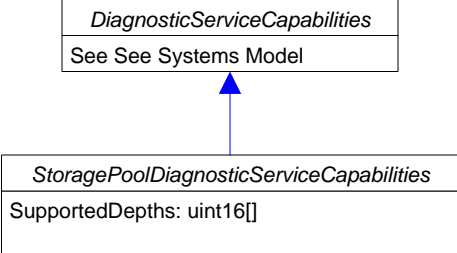
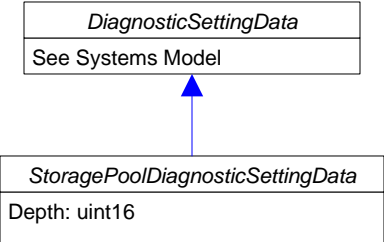
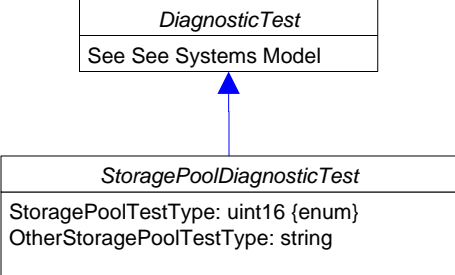
{D} Deprecated Class or Property





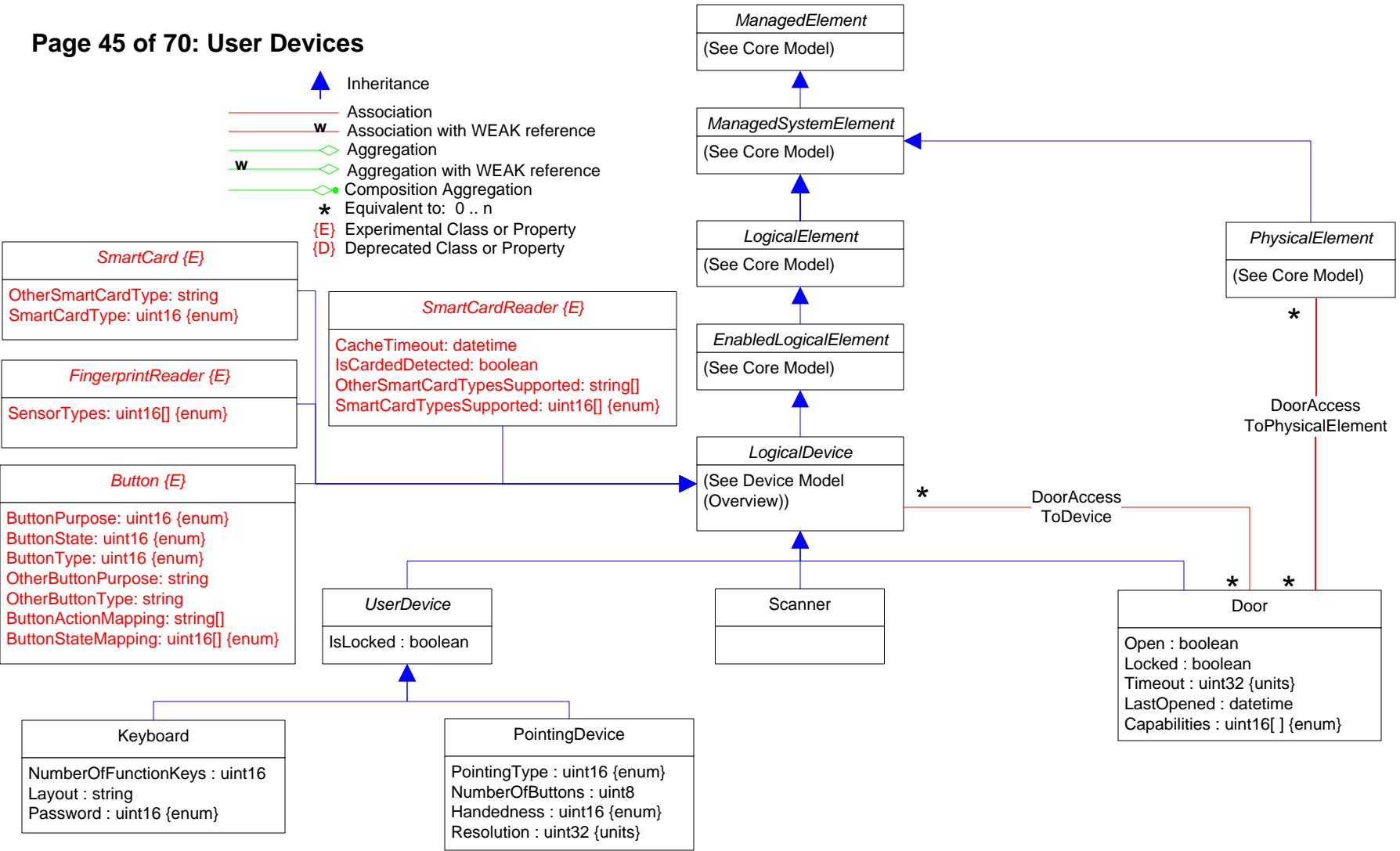











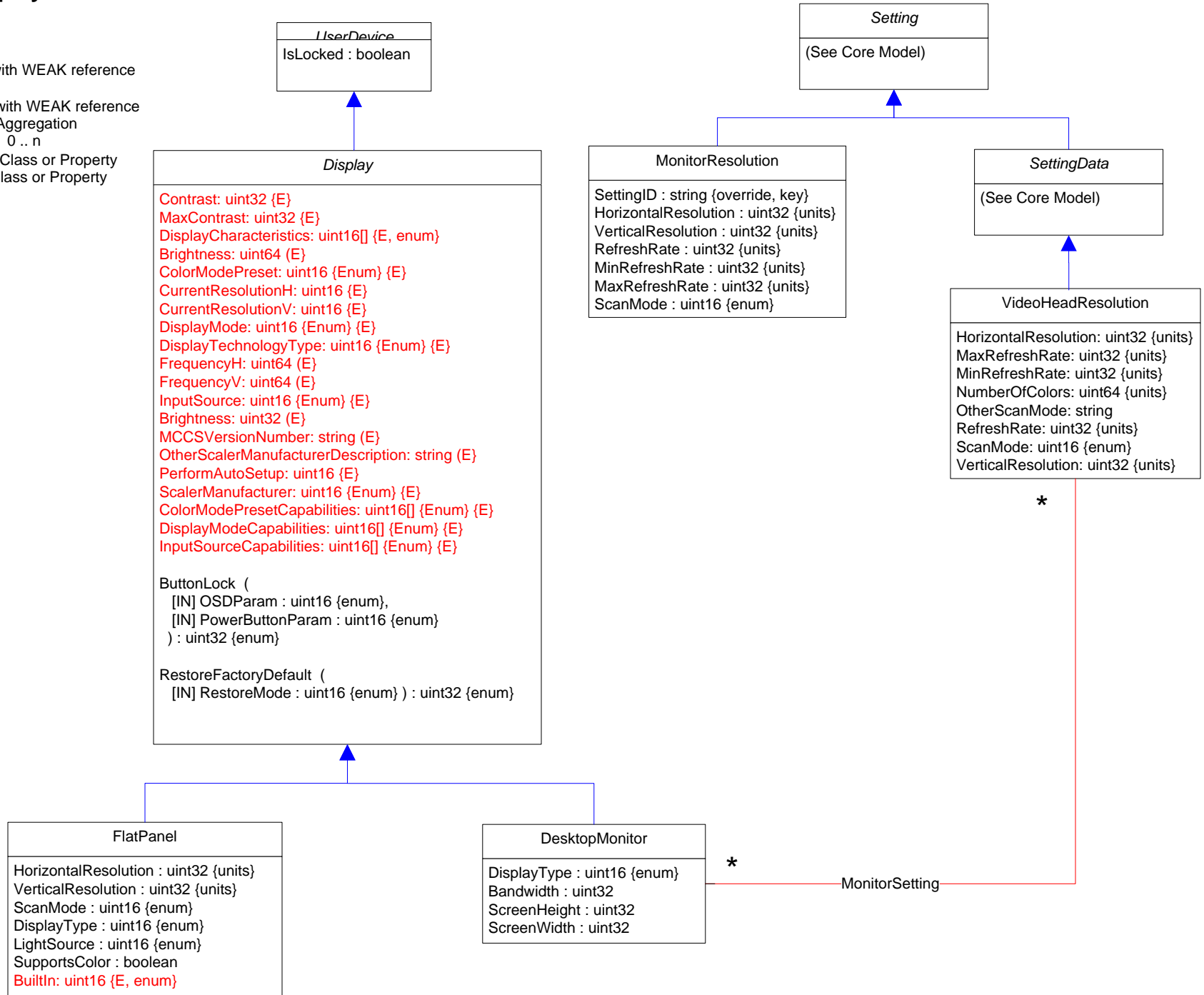


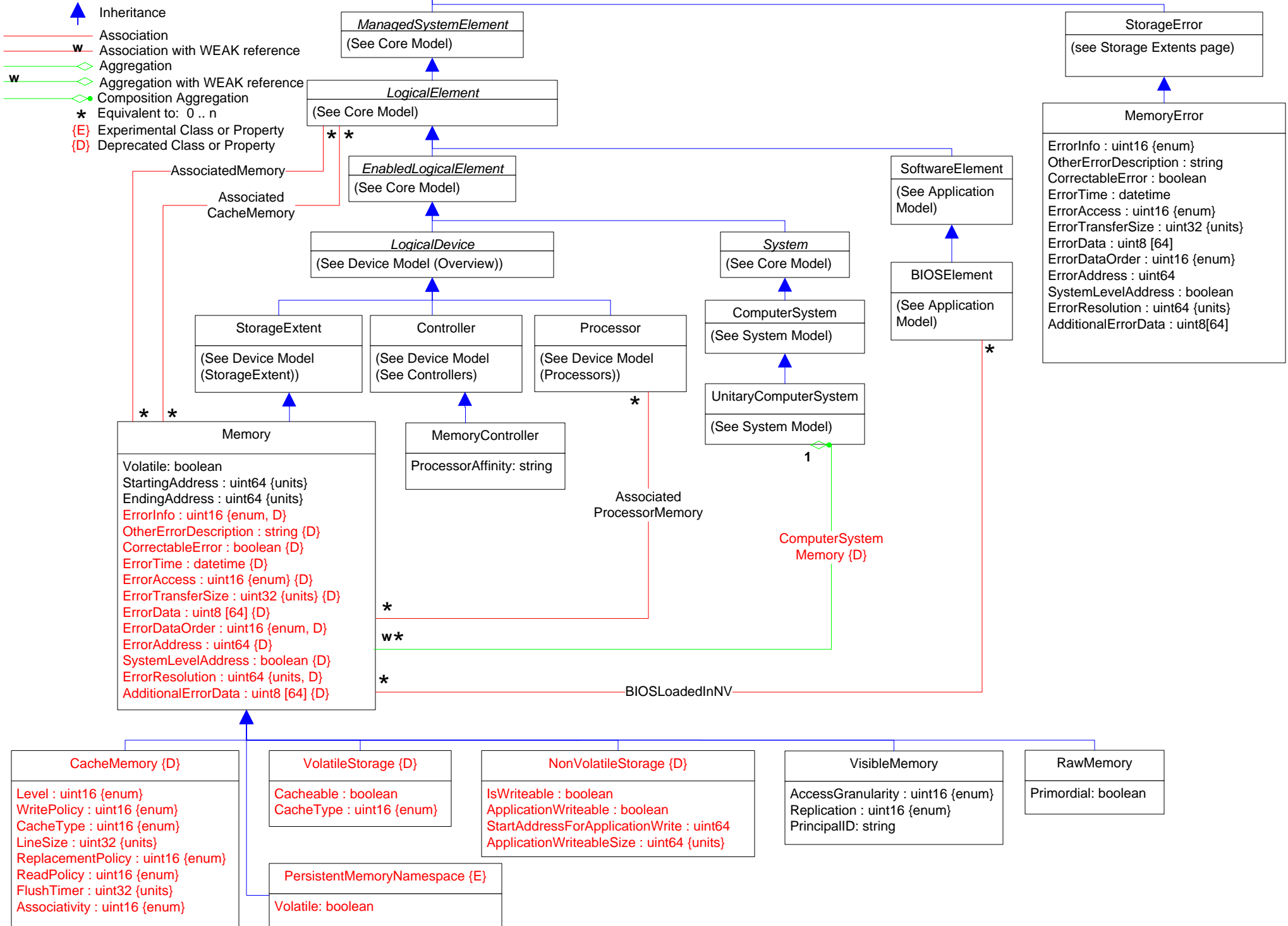
# Page 45 of 70: User Devices

- 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












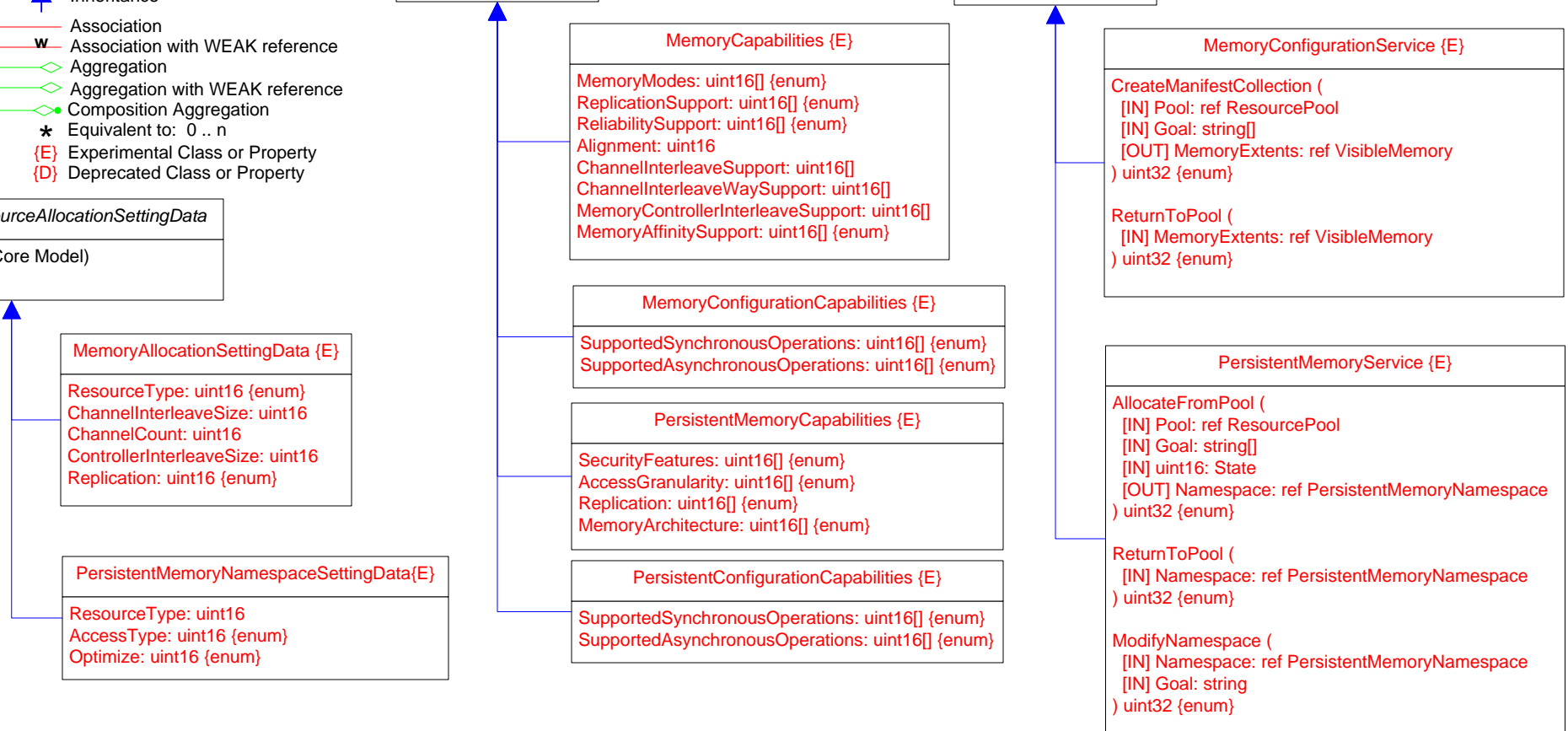
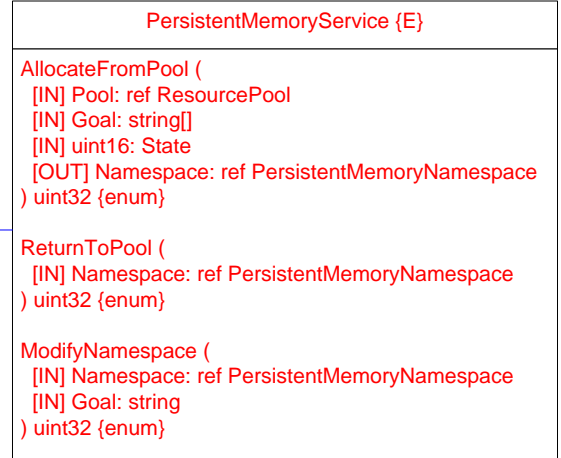
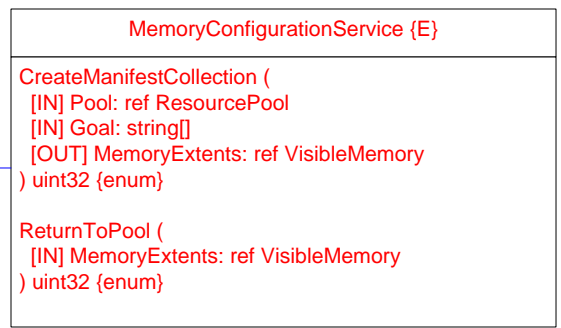
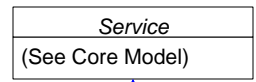
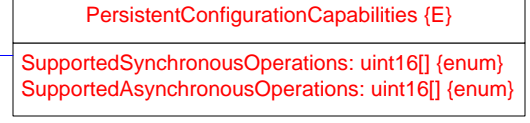
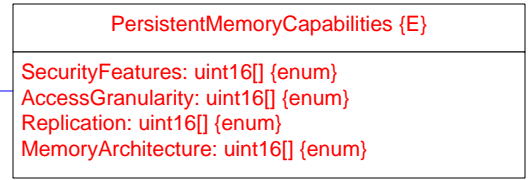
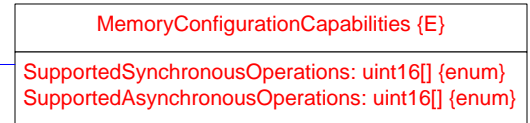
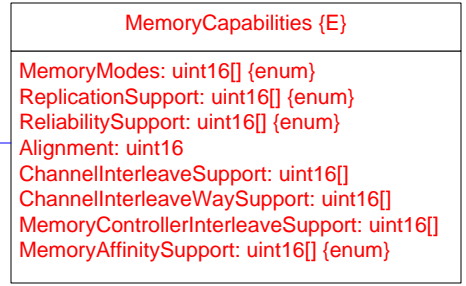
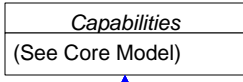
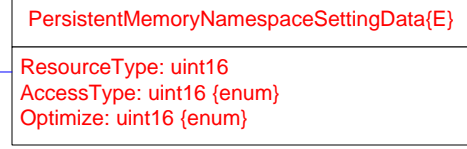
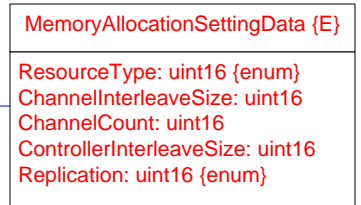
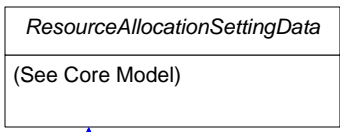
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0..n
- {E} Experimental Class or Property
- {D} Deprecated Class or Property












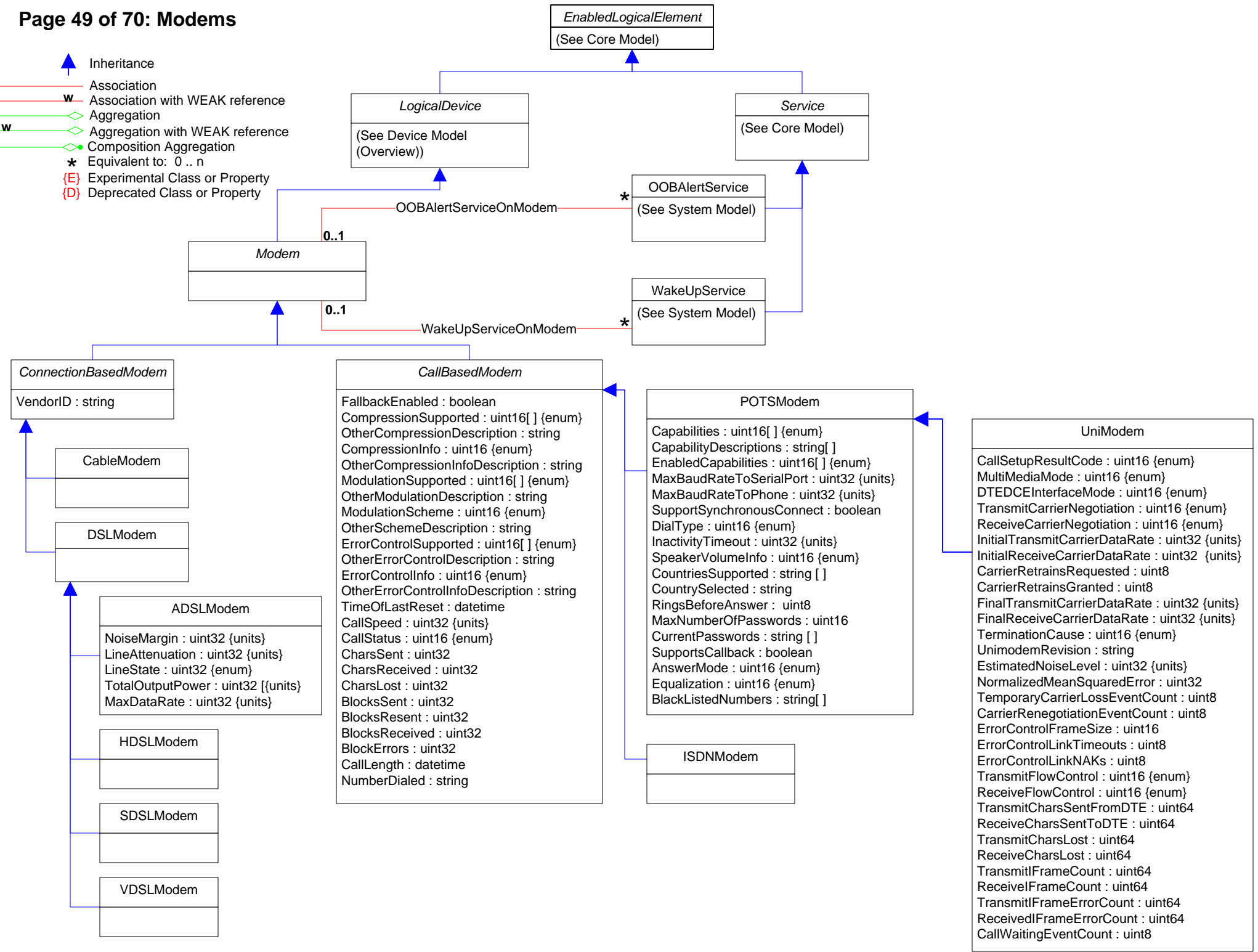


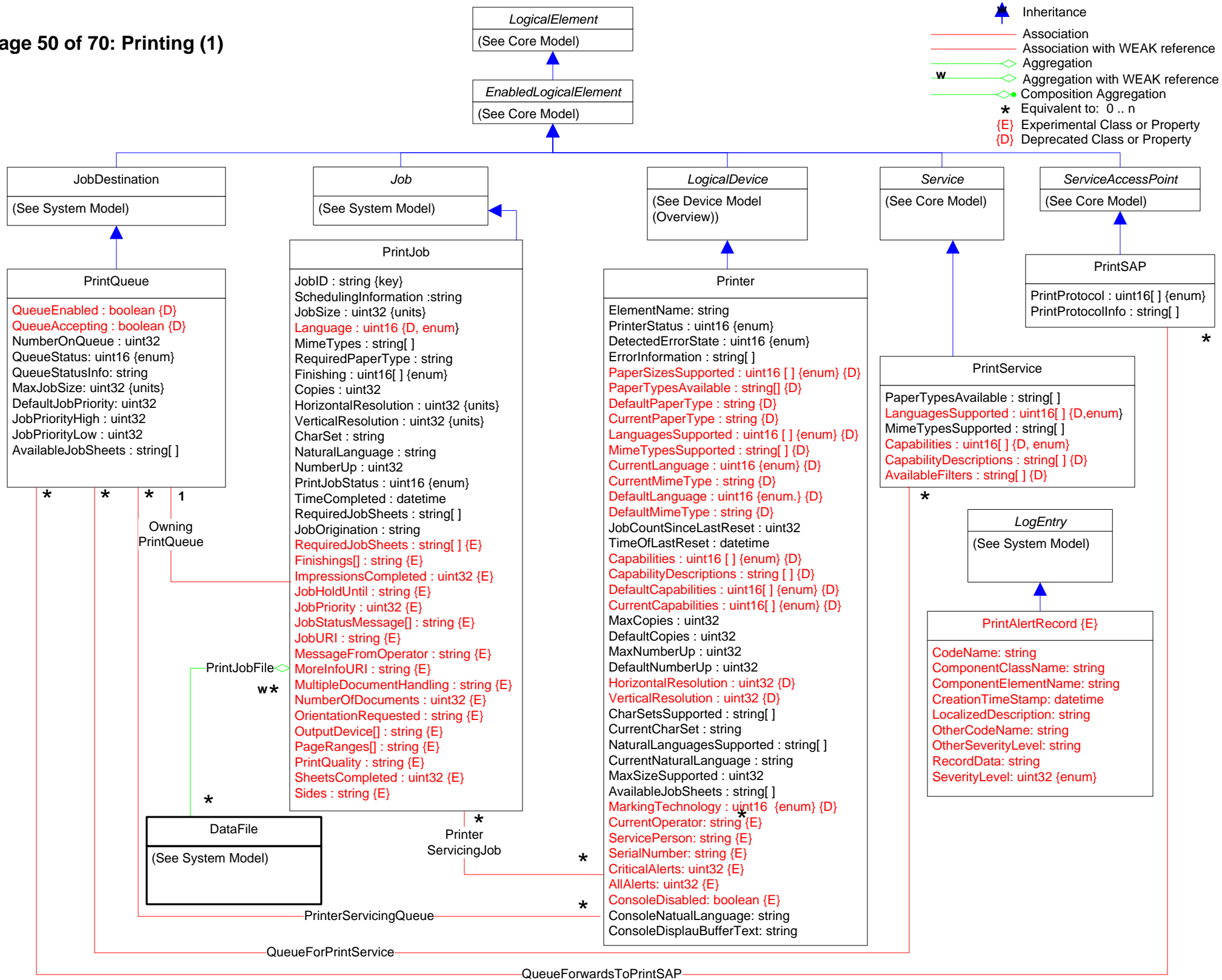
# Page 48 of 70: Memory (2)

-  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

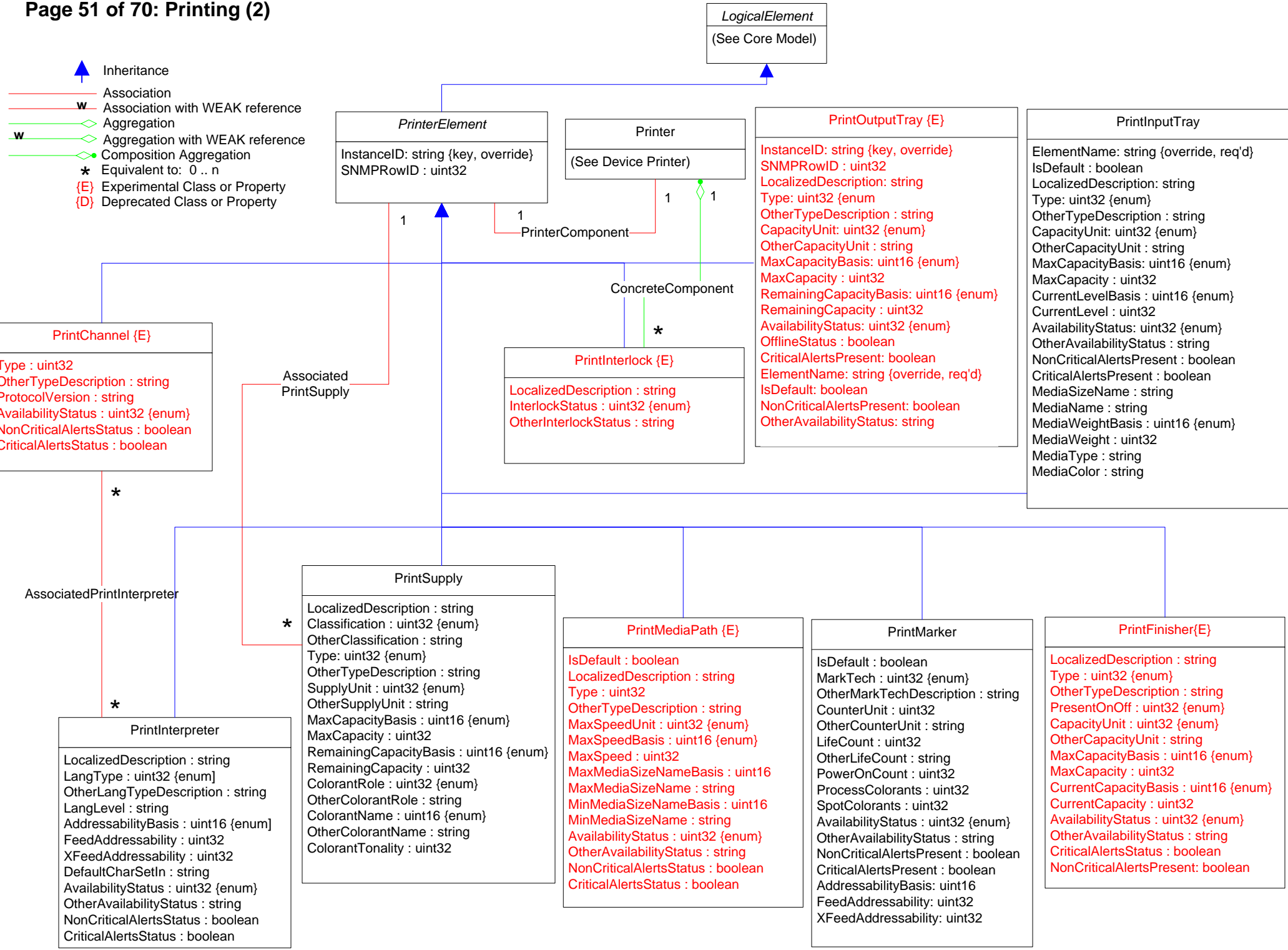


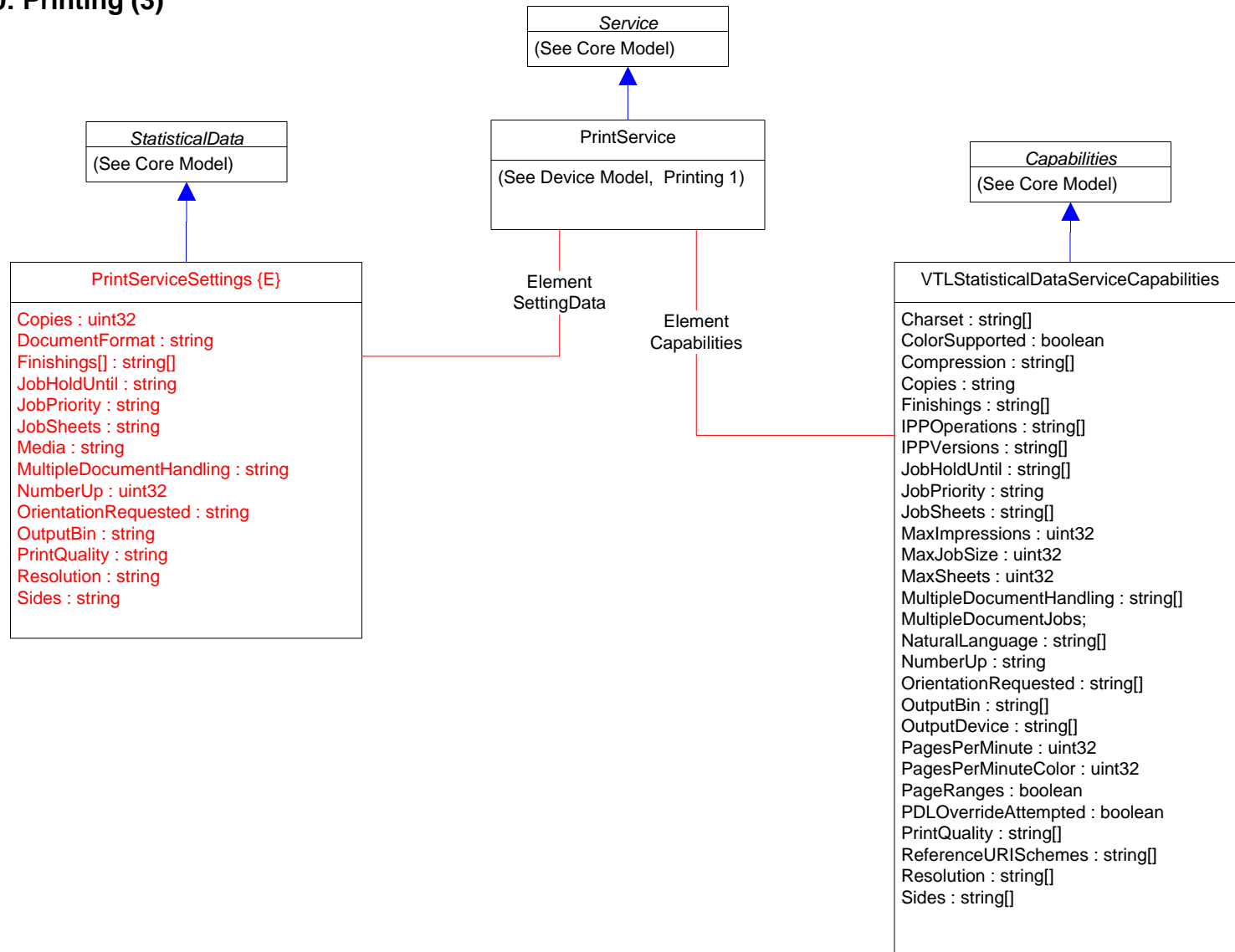
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0..n
-  {E} Experimental Class or Property
-  {D} Deprecated Class or Property

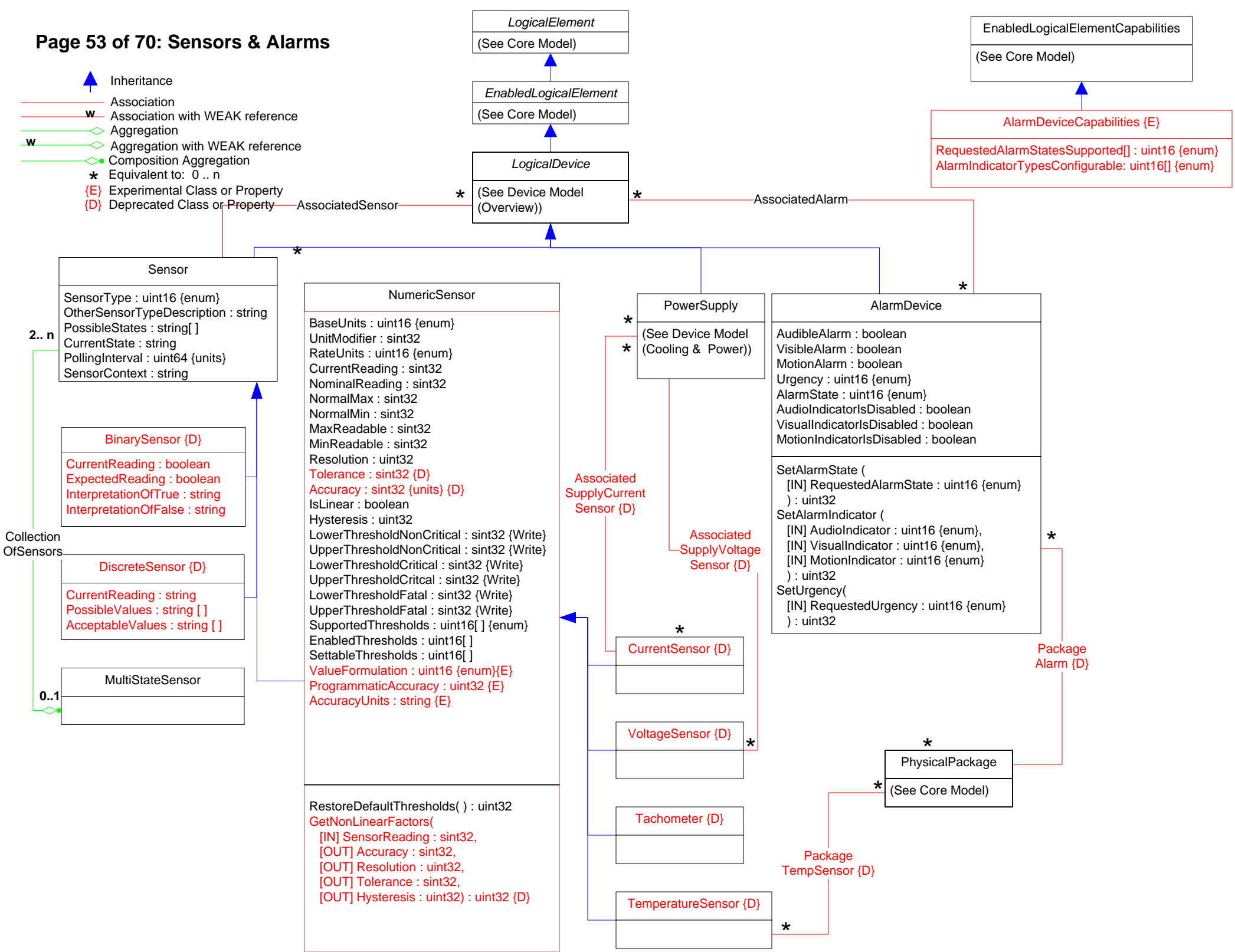
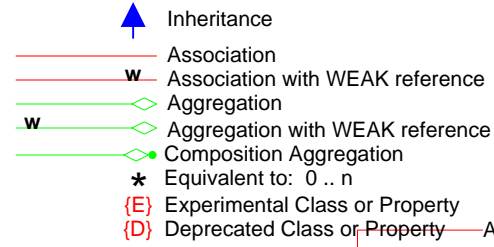











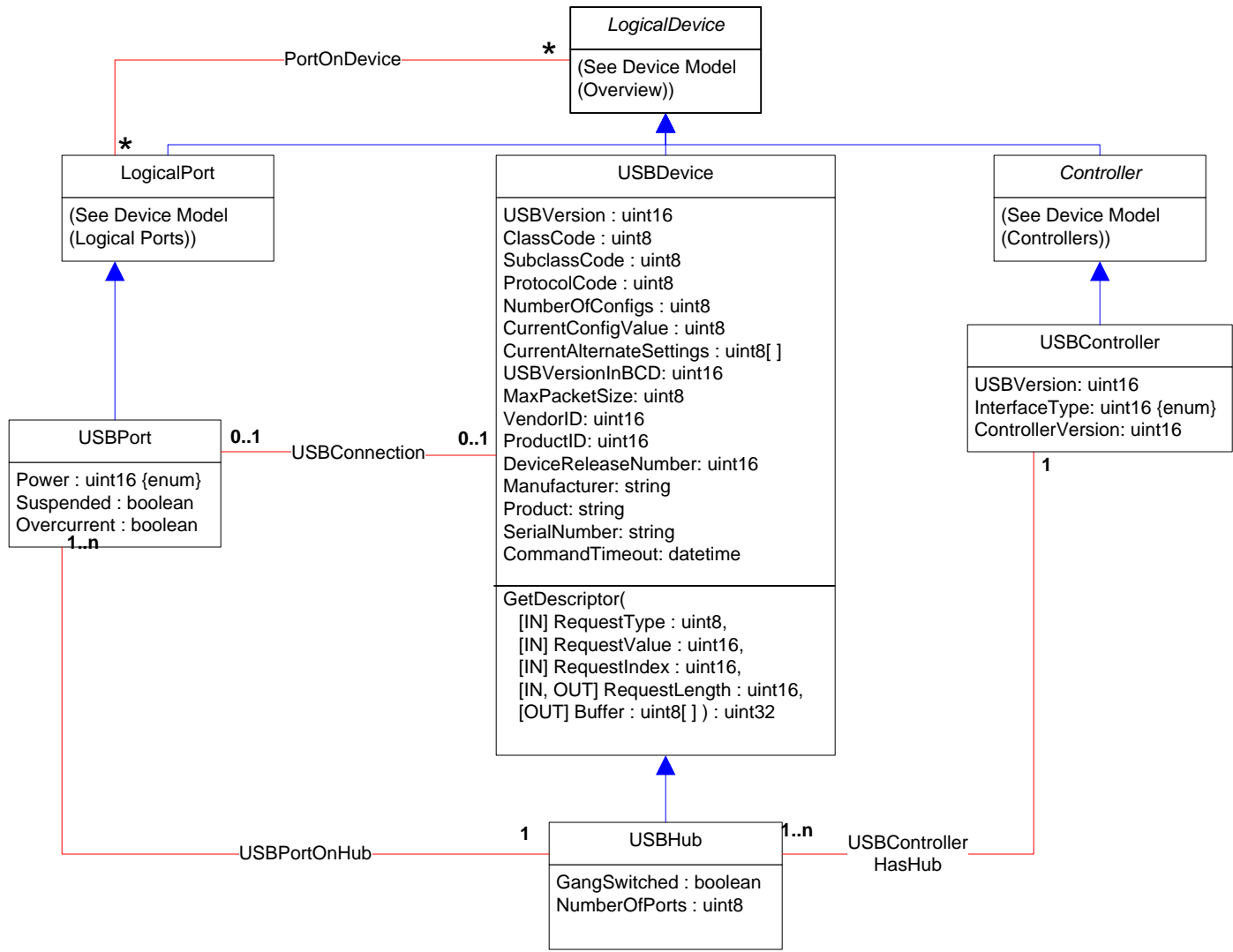







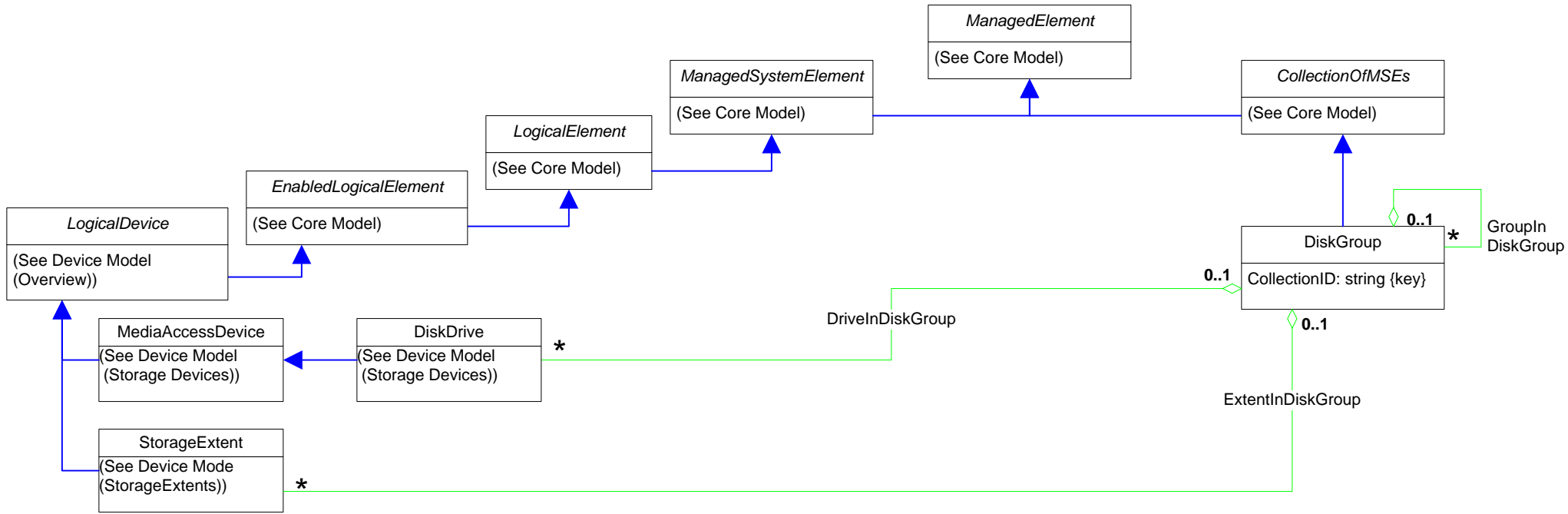


-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n










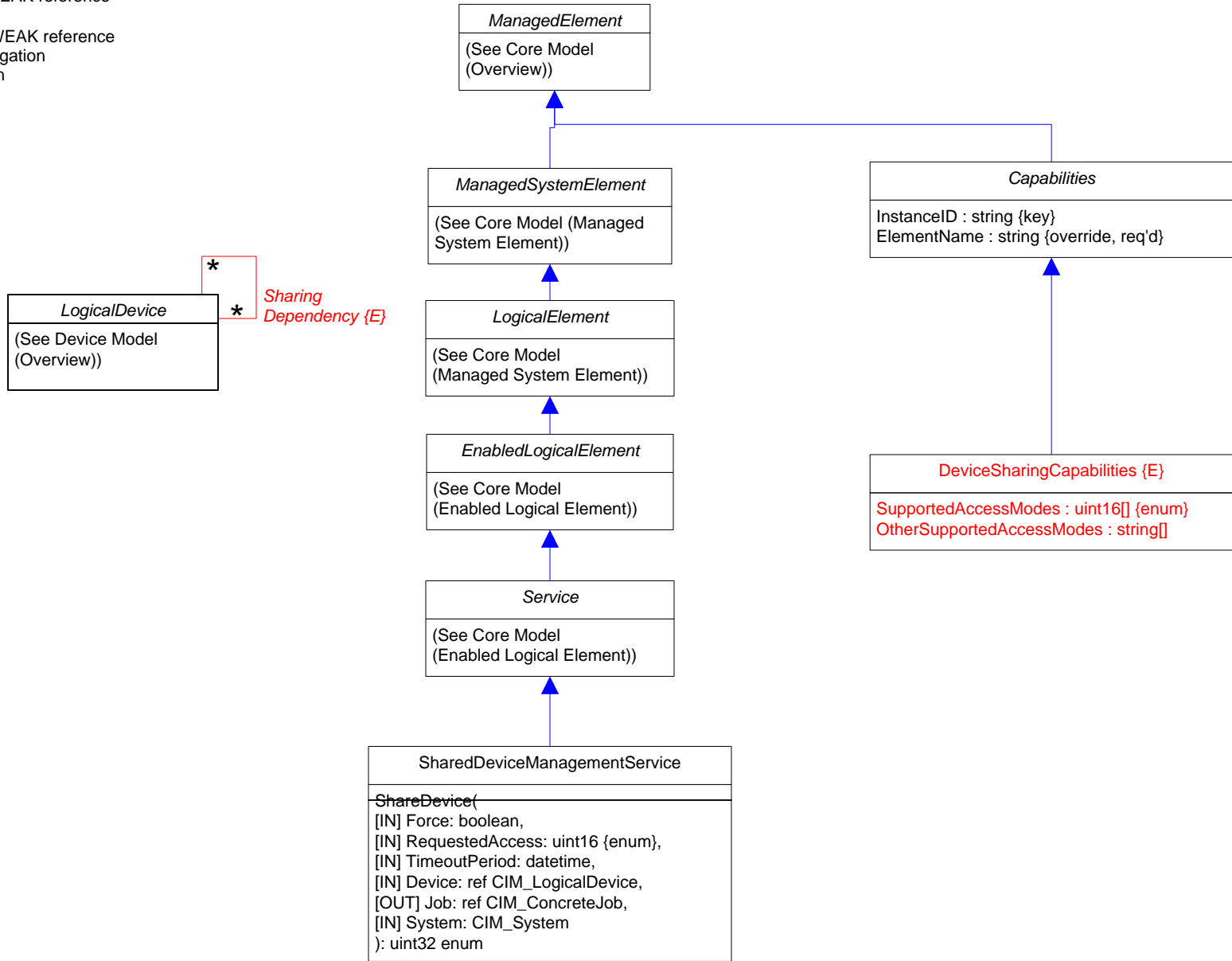
# Page 55 of 70: Disk Group





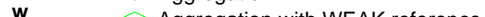
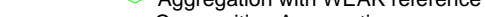

-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0..n

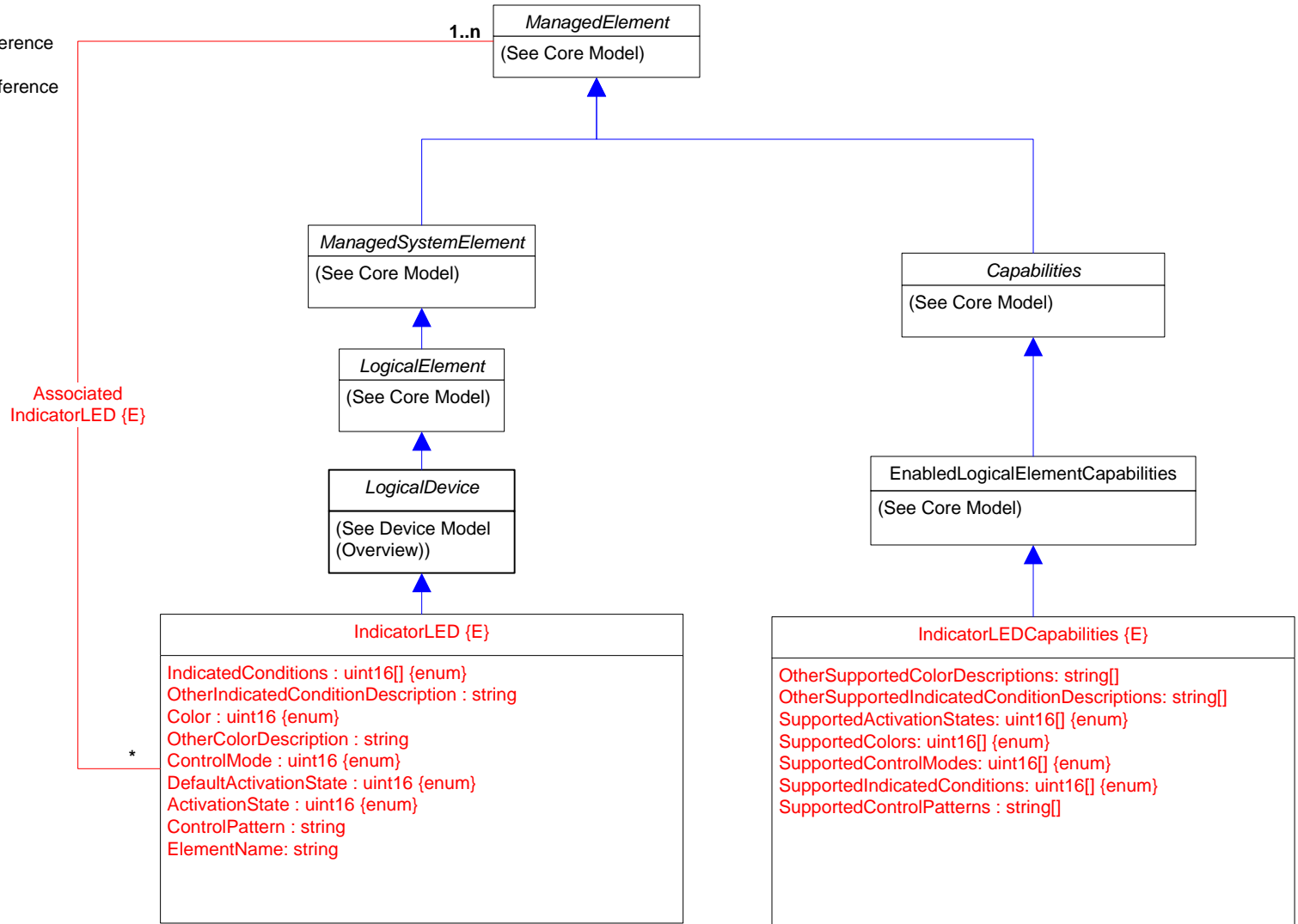


# Page 56 of 70: Device Sharing










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

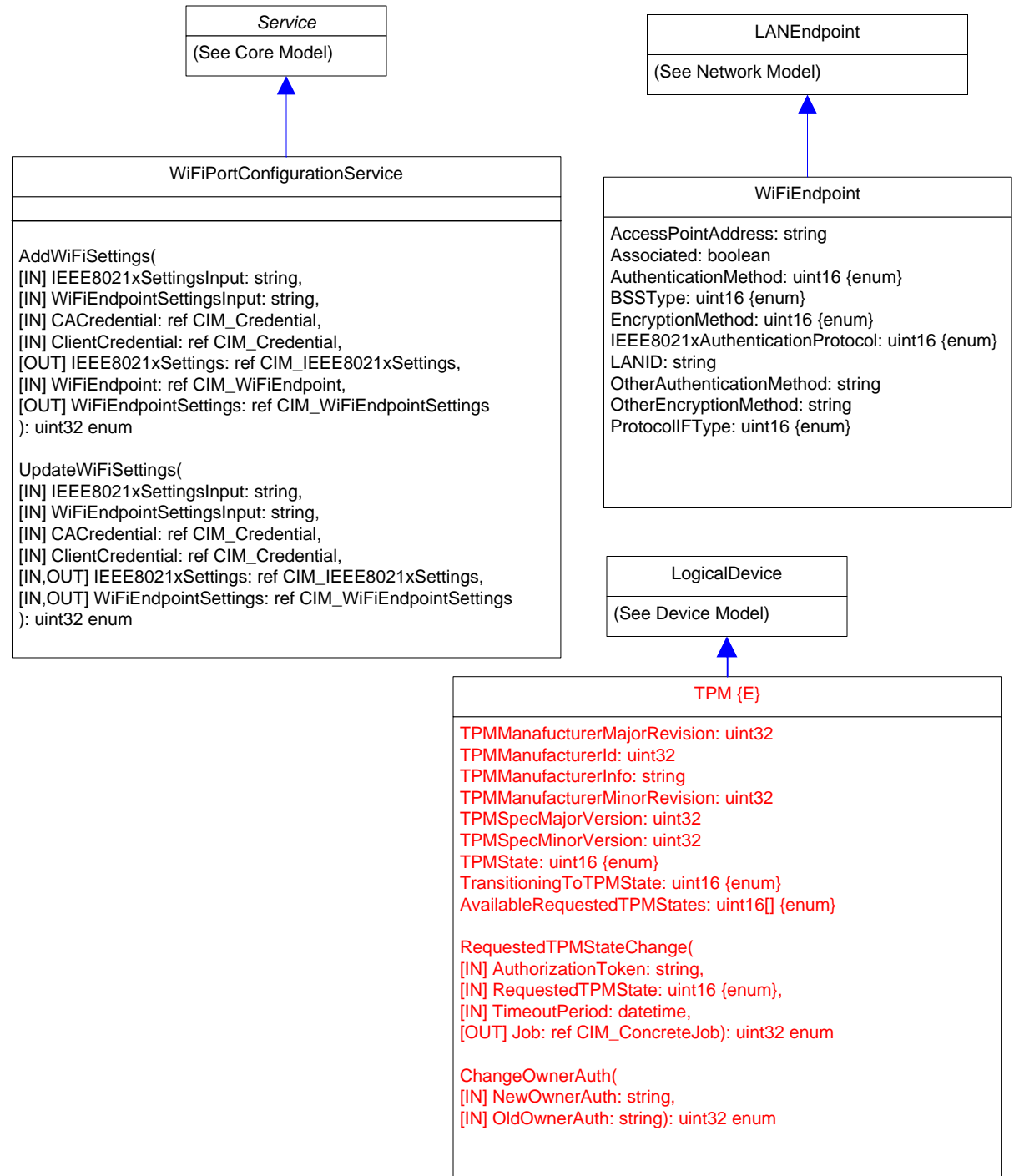
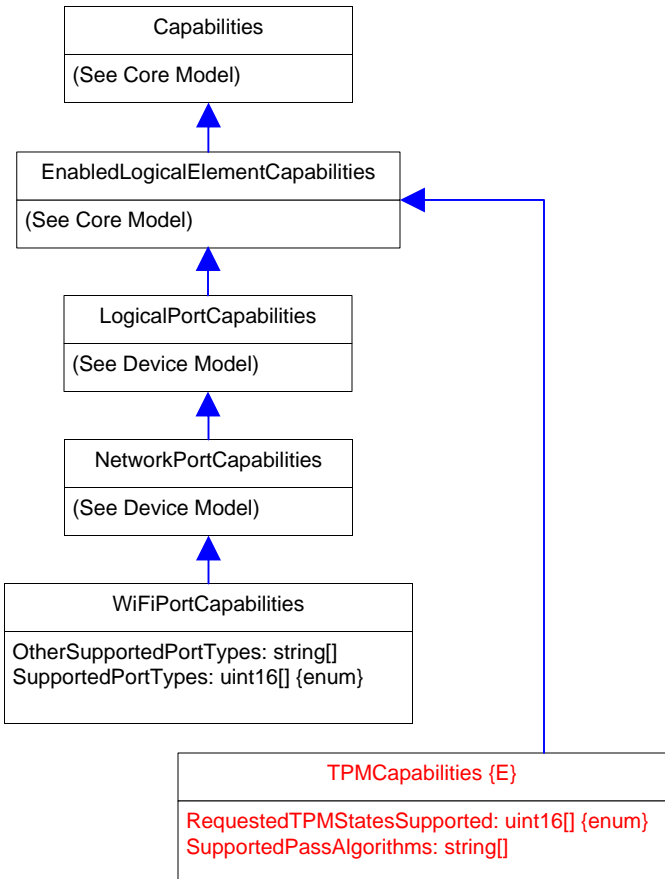


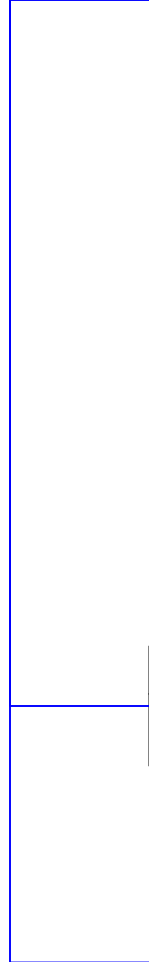
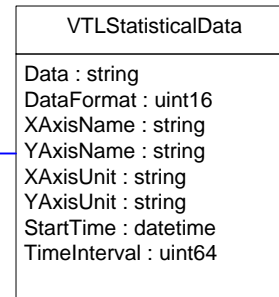
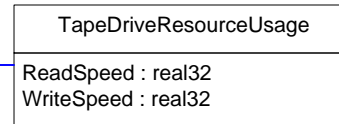
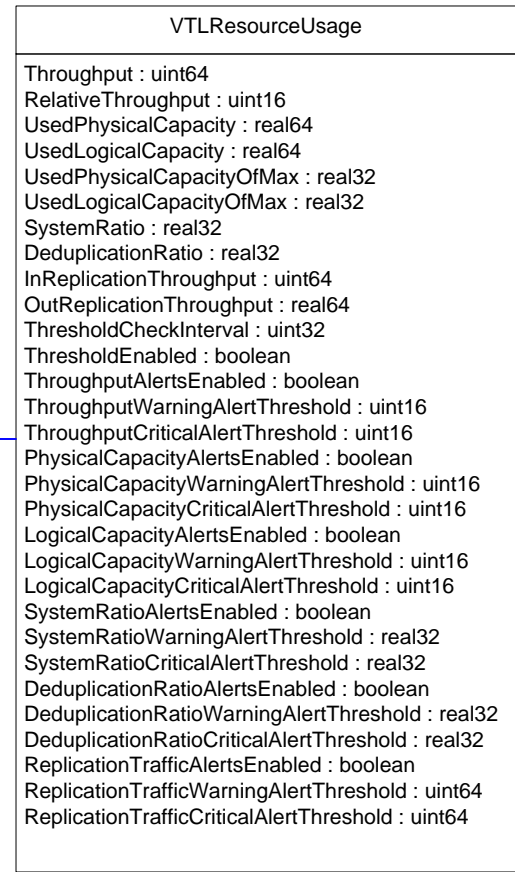
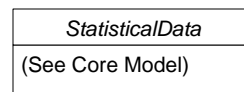
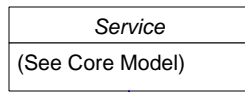
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n



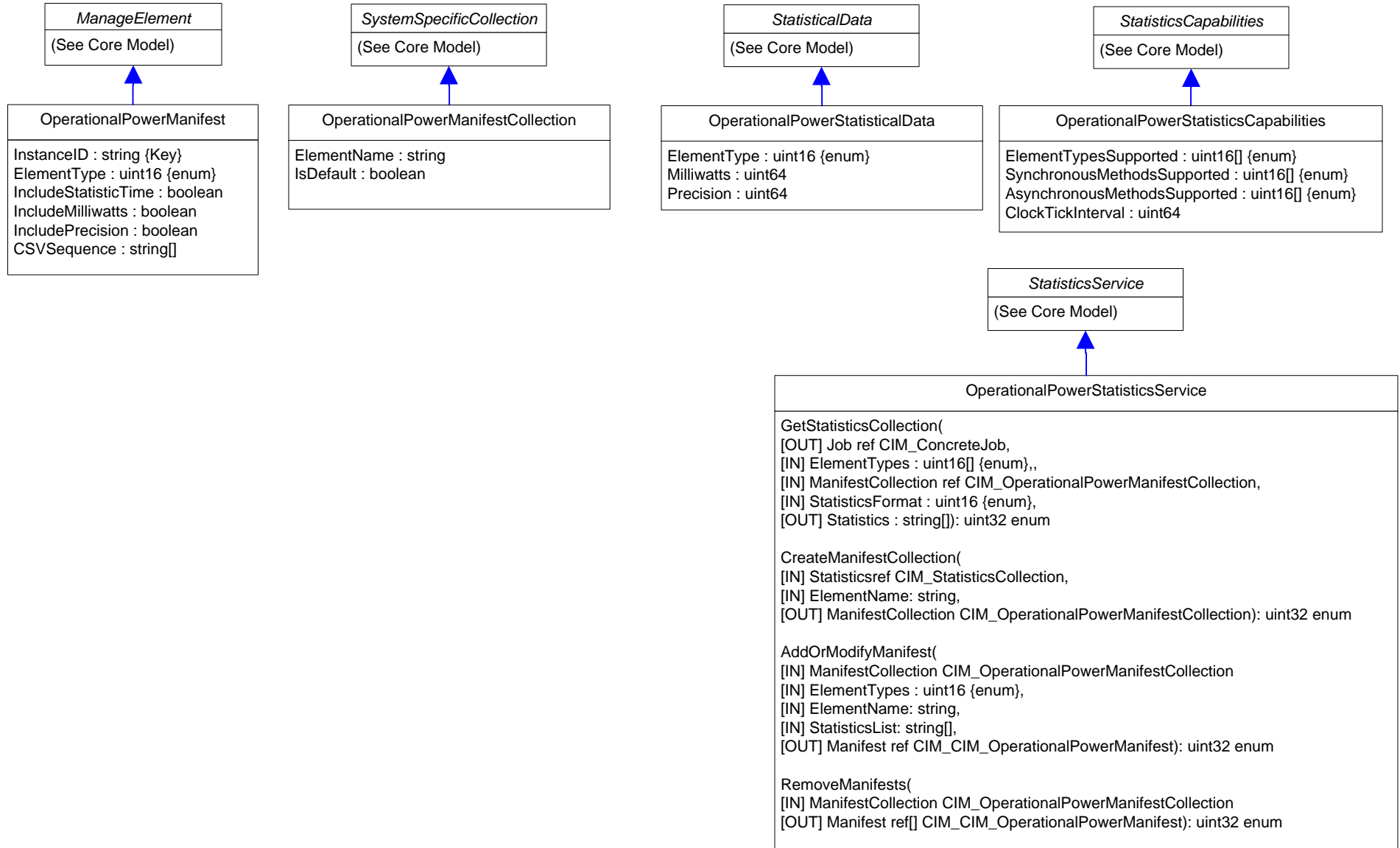


-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n
-  Experimental Class or Property
-  Deprecated Class or Property

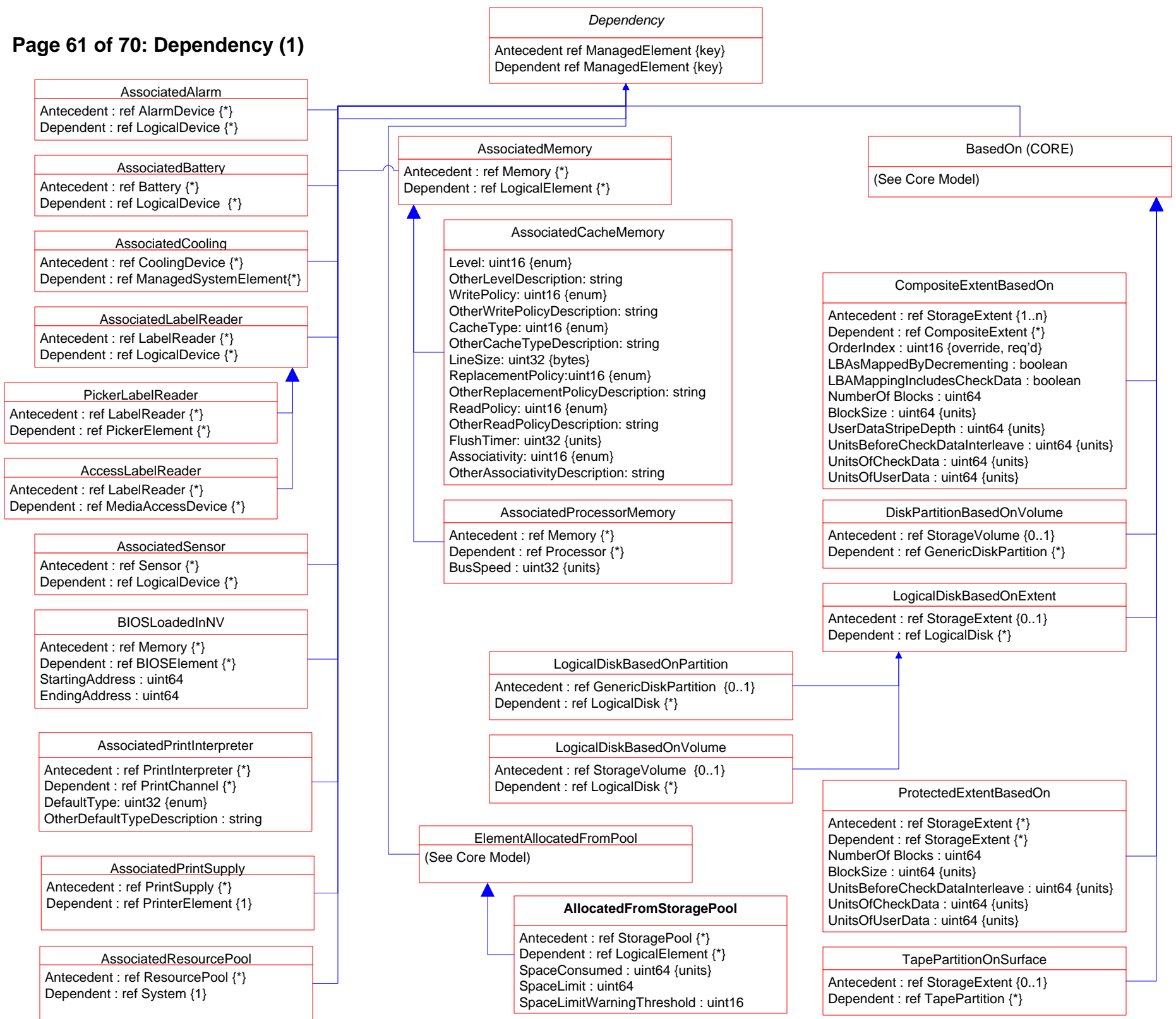




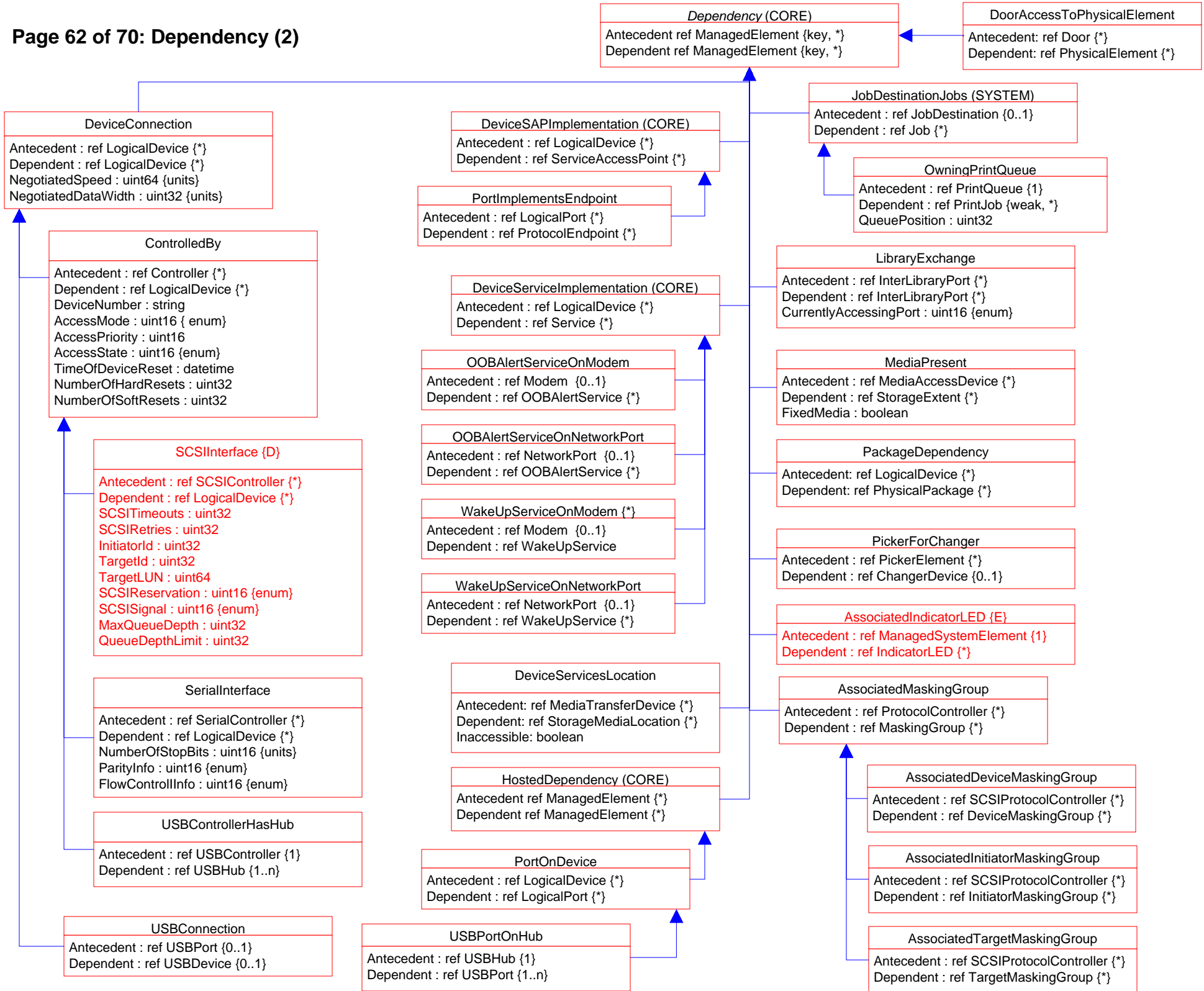
## Page 60 of 70: Operational Power

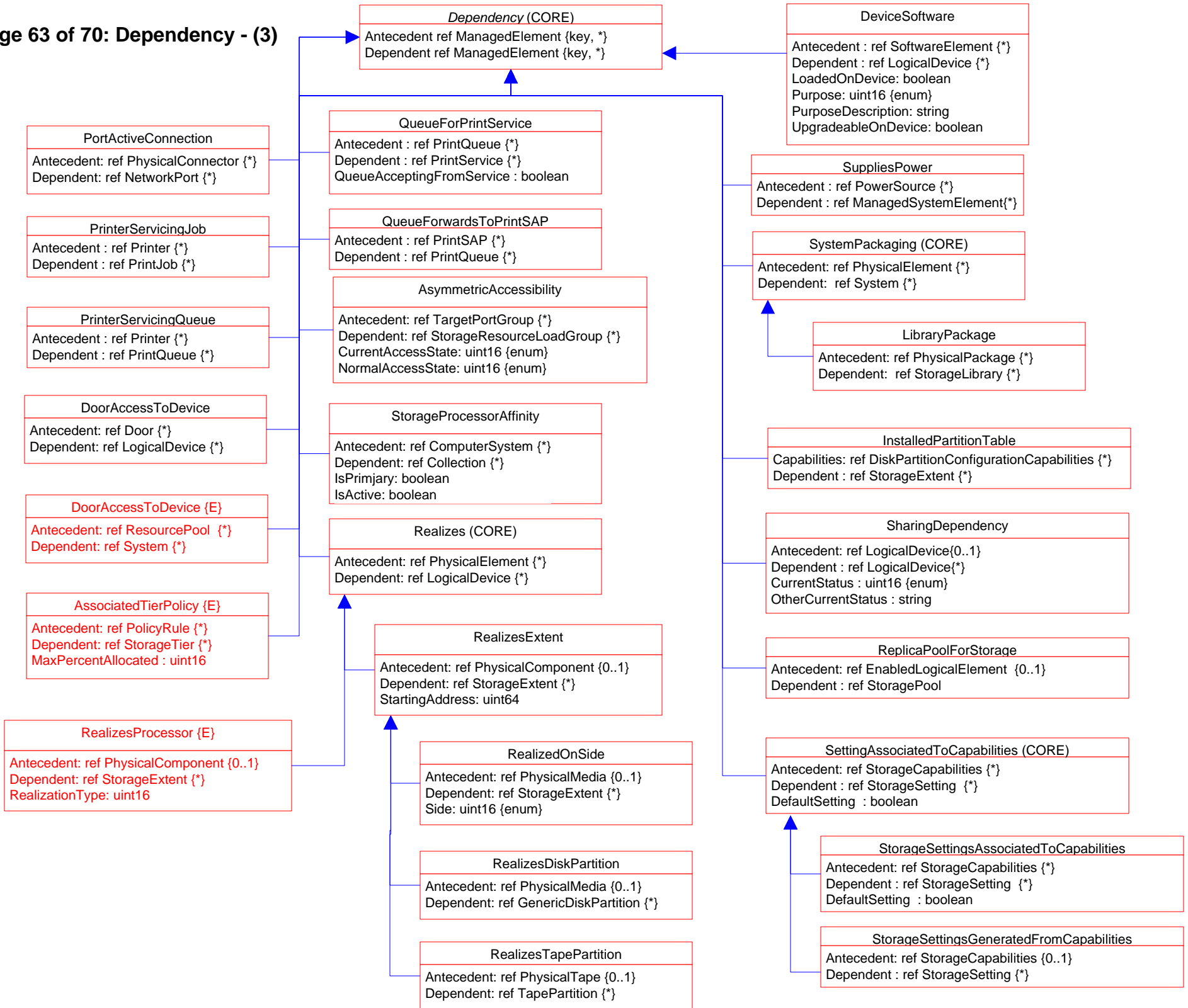


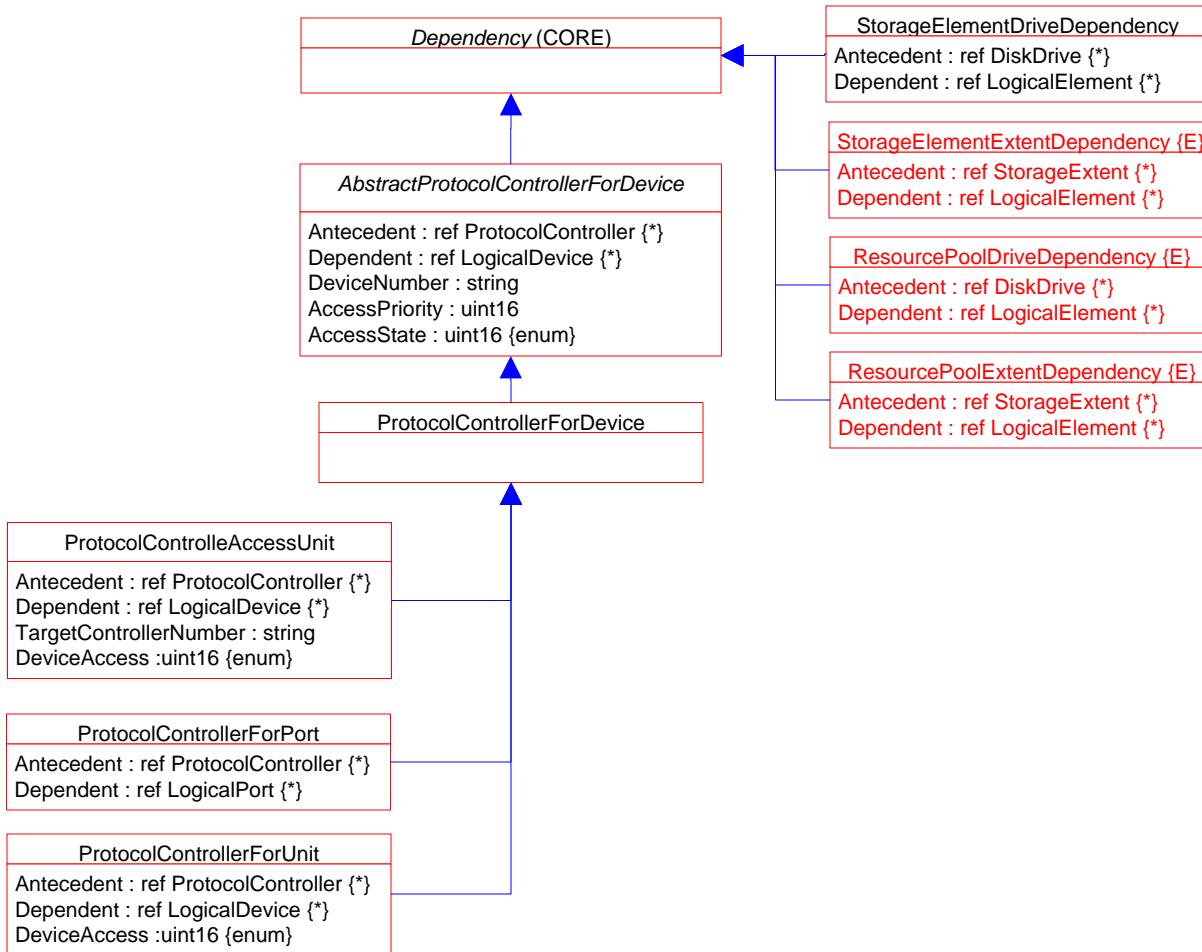
# Page 61 of 70: Dependency (1)



# Page 62 of 70: Dependency (2)

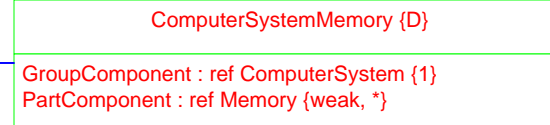
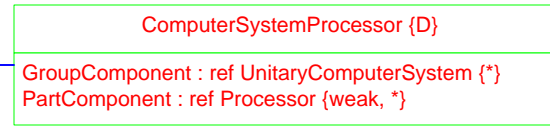
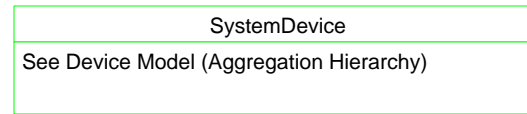
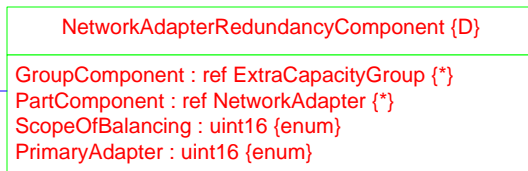
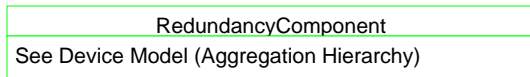
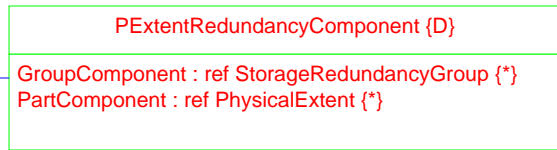
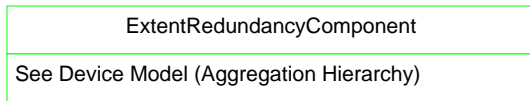




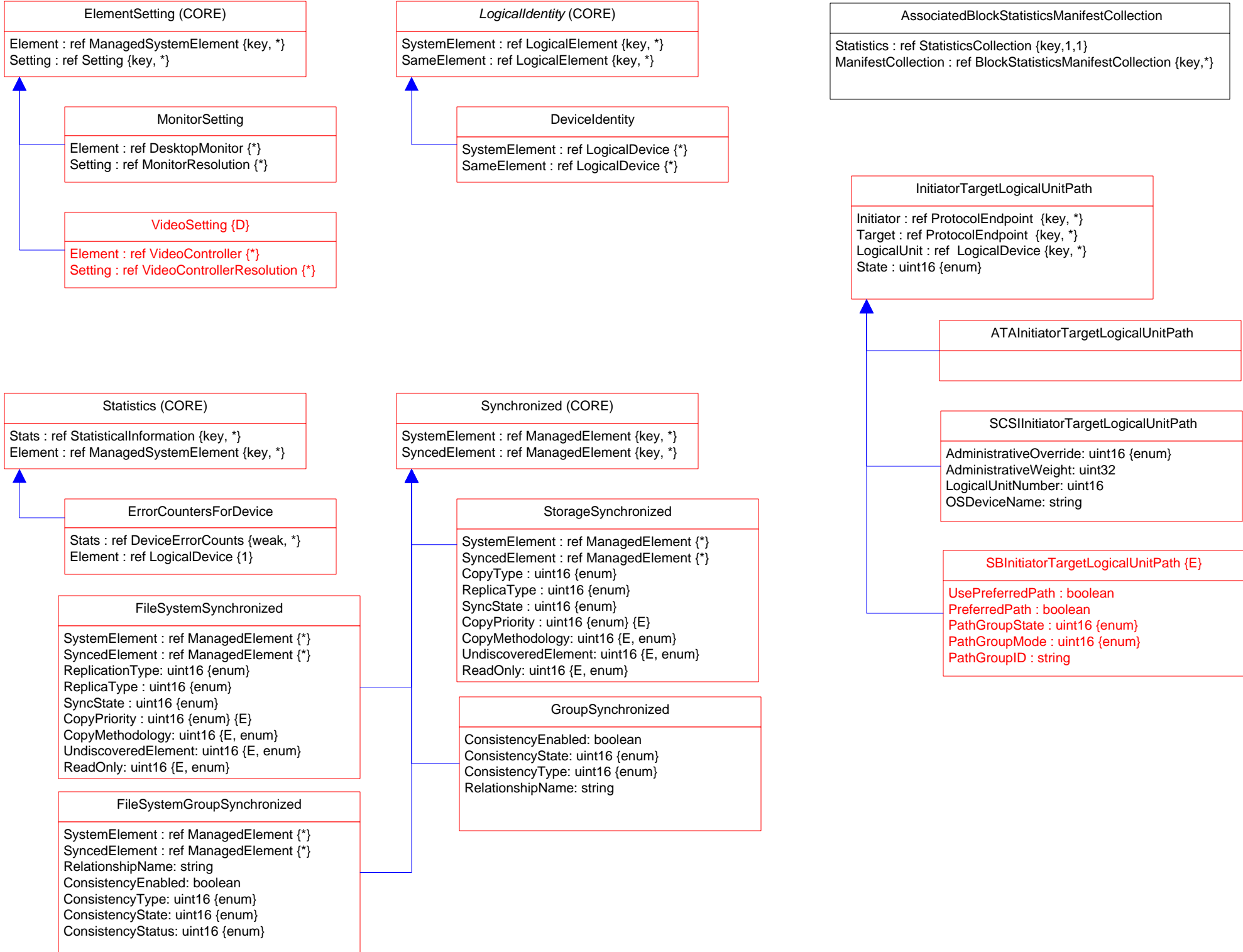


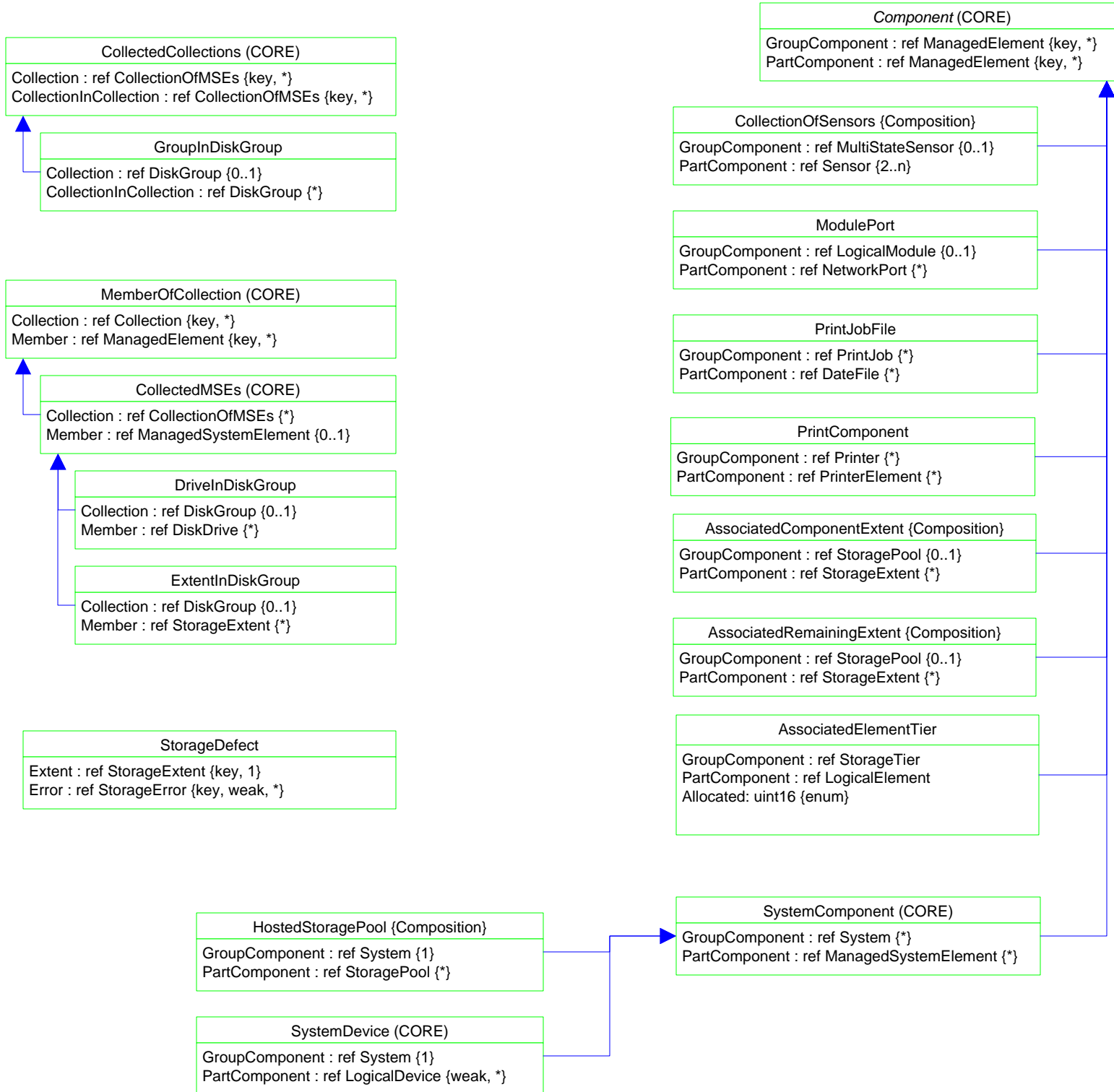


## Page 65 of 70: Aggregation Deprecation

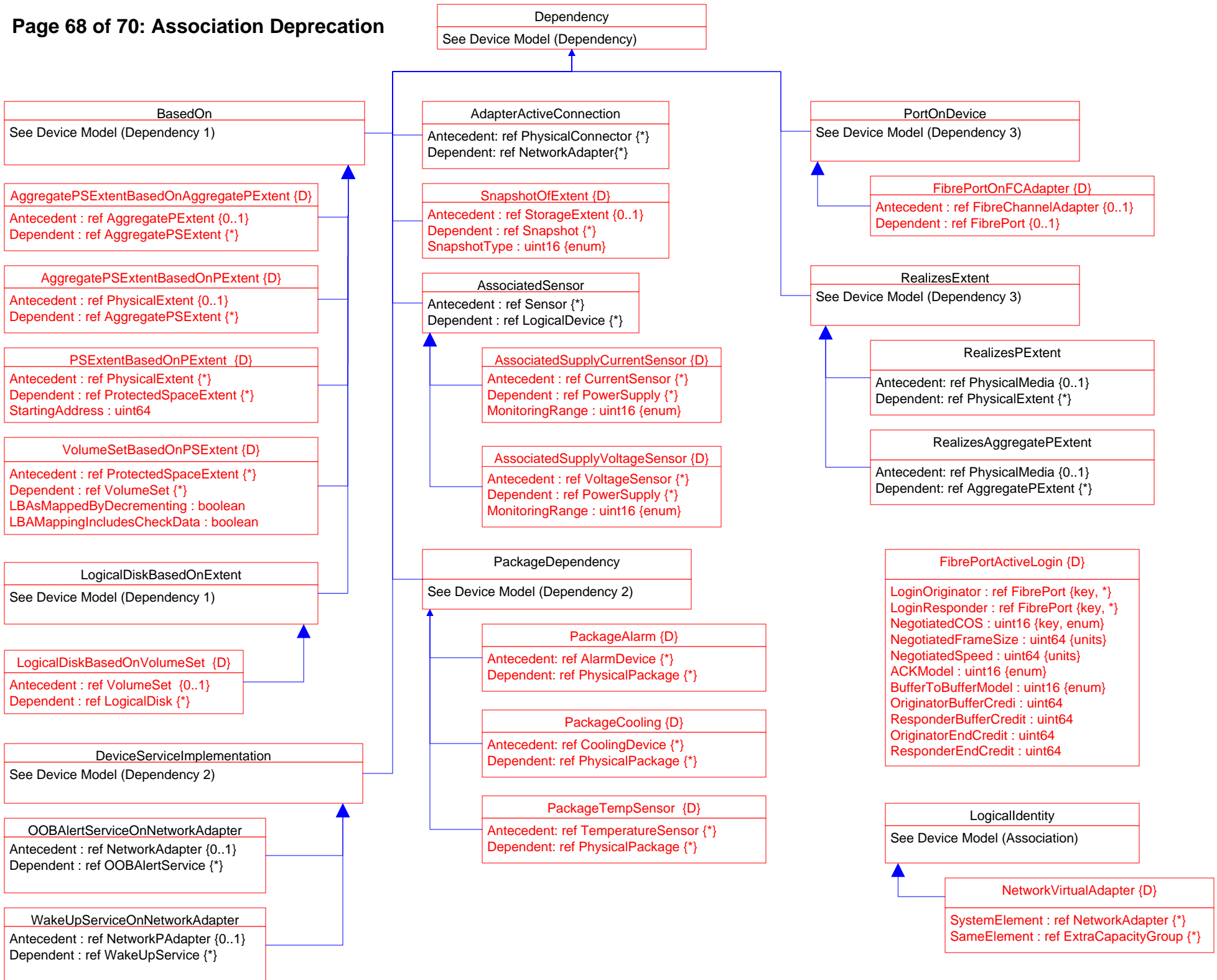


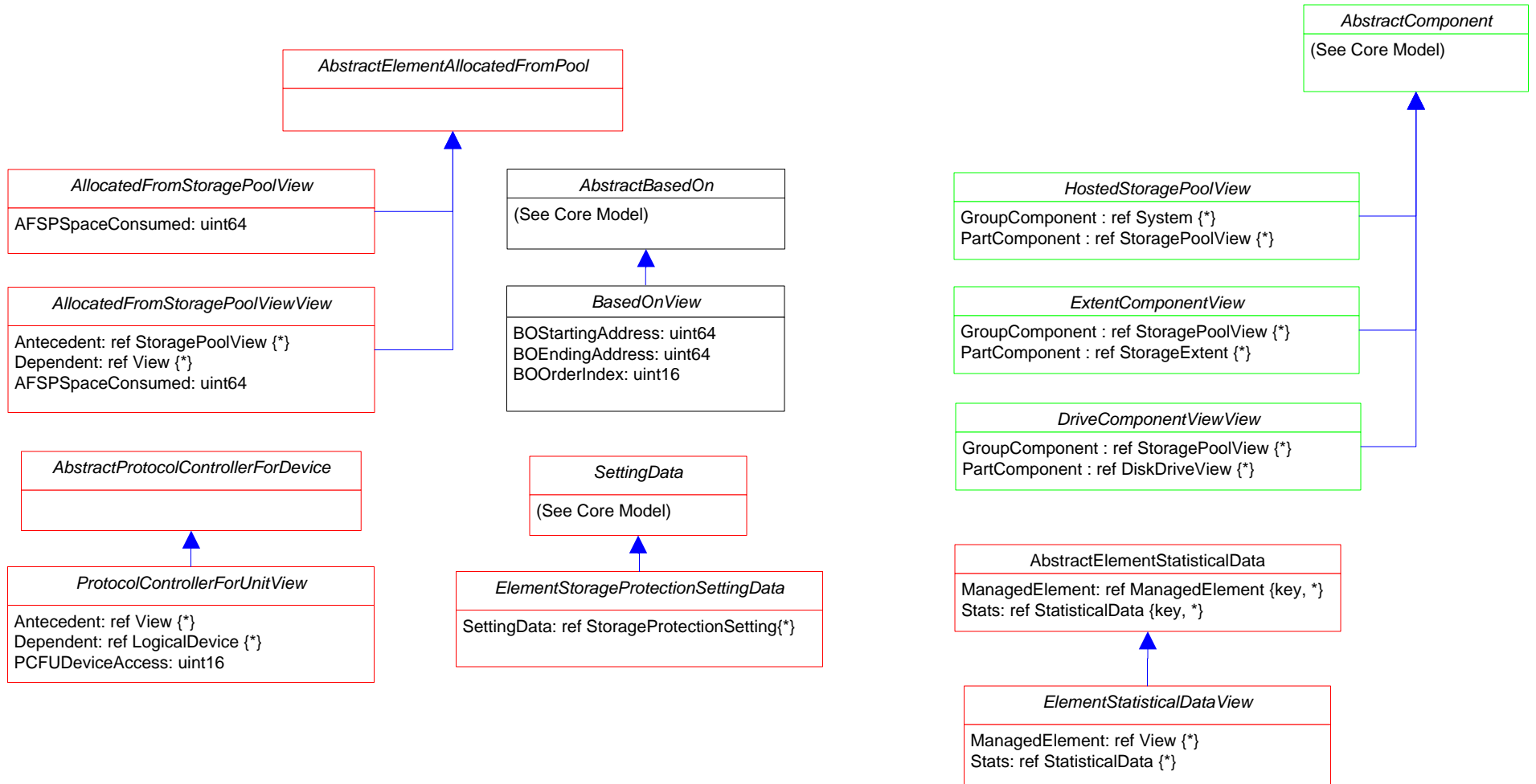
# Page 66 of 70: Association Hierarchy





# Page 68 of 70: Association Deprecation





*MaskingMappingExposedDeviceView*

ProtocolEndpoint: ref ProtocolEndpoint {\*}  
LogicalDevice: ref LogicalDevice {\*}  
SPCSystemCreationClassName: string  
SPCSystemName: string  
SPCCreationClassName: string  
SPCDeviceID: string  
PCFUDeviceNumber: string  
PCFUDeviceAccess: uint16

*MaskingMapView*

StorageHardwareID: ref StorageHardwareID{\*}  
LogicalDevice: ref LogicalDevice {\*}  
ProtocolEndpoint: ref ProtocolEndpoint{\*}  
SHIDStorageID: string  
SHIDIDType: uint16  
LDDeviceID: string  
SPEPSystemCreationClassName: string  
SPEPCreationClassName: string  
SPEPSystemName: string  
SPEPName: string  
SPEPProtocolIFTType:  
SPEPOtherTypeDescription: string  
SPEPConnectionType:  
SPEPRole: uint16  
APIInstanceID: string  
APPPrivilegeGranted:  
APActivities[]: uint16  
APElementName: string  
SPCSystemCreationClassName: string  
SPCCreationClassName: string  
SPCSystemName: string  
SPCDeviceID: string  
PCFUDeviceNumber: string  
PCFUDeviceAccess: uint16