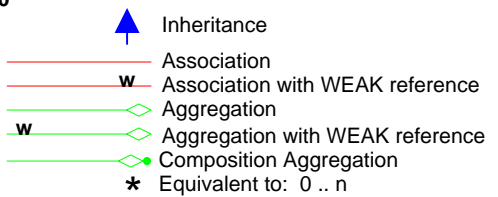
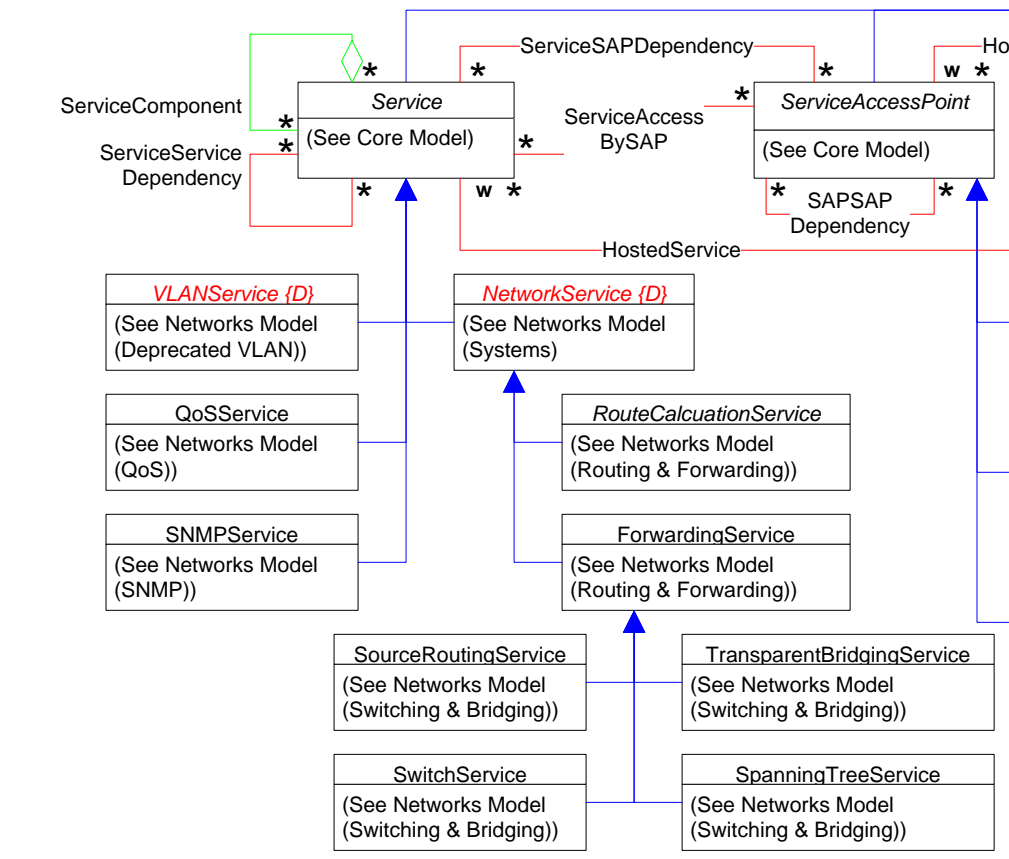
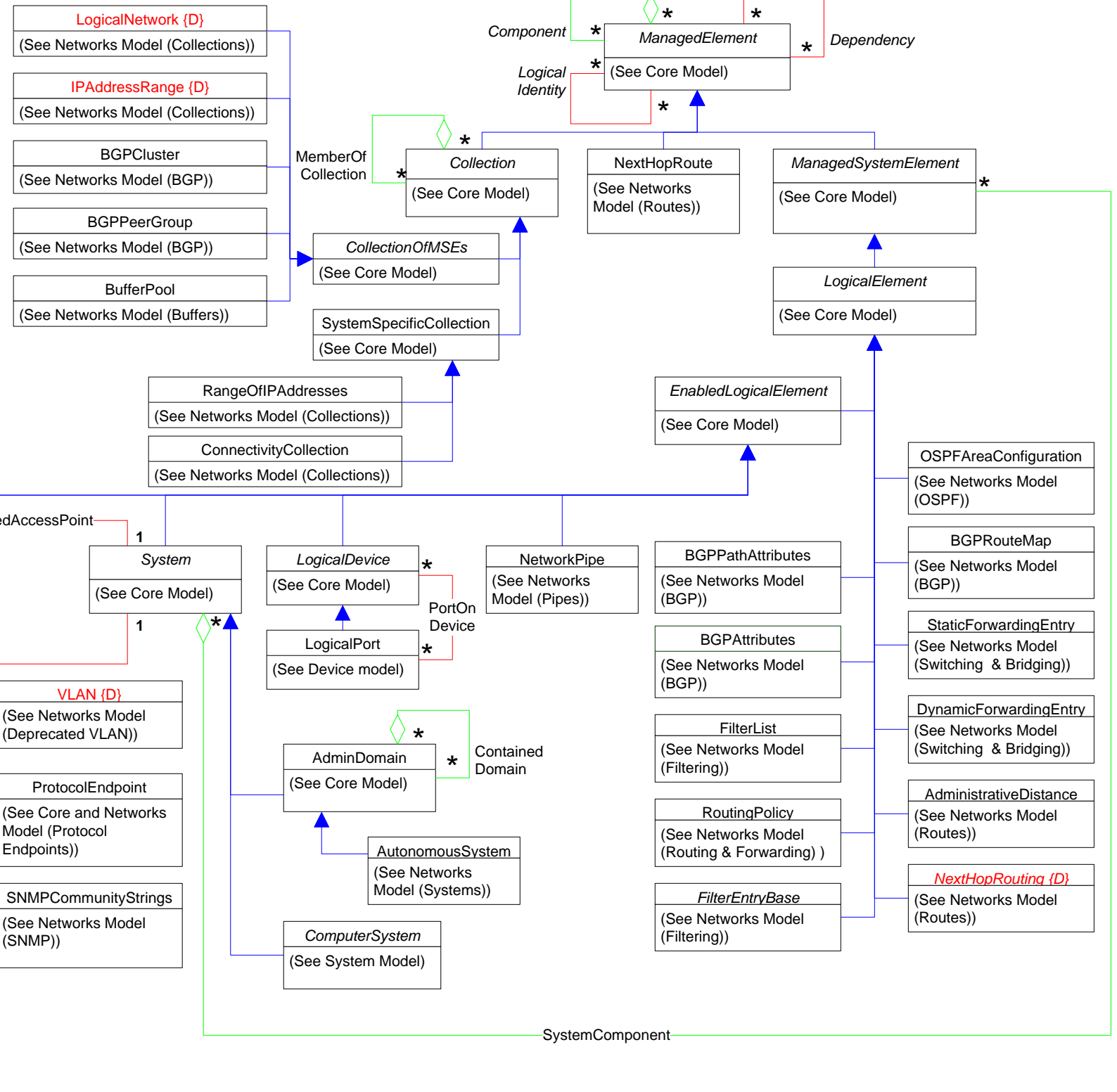









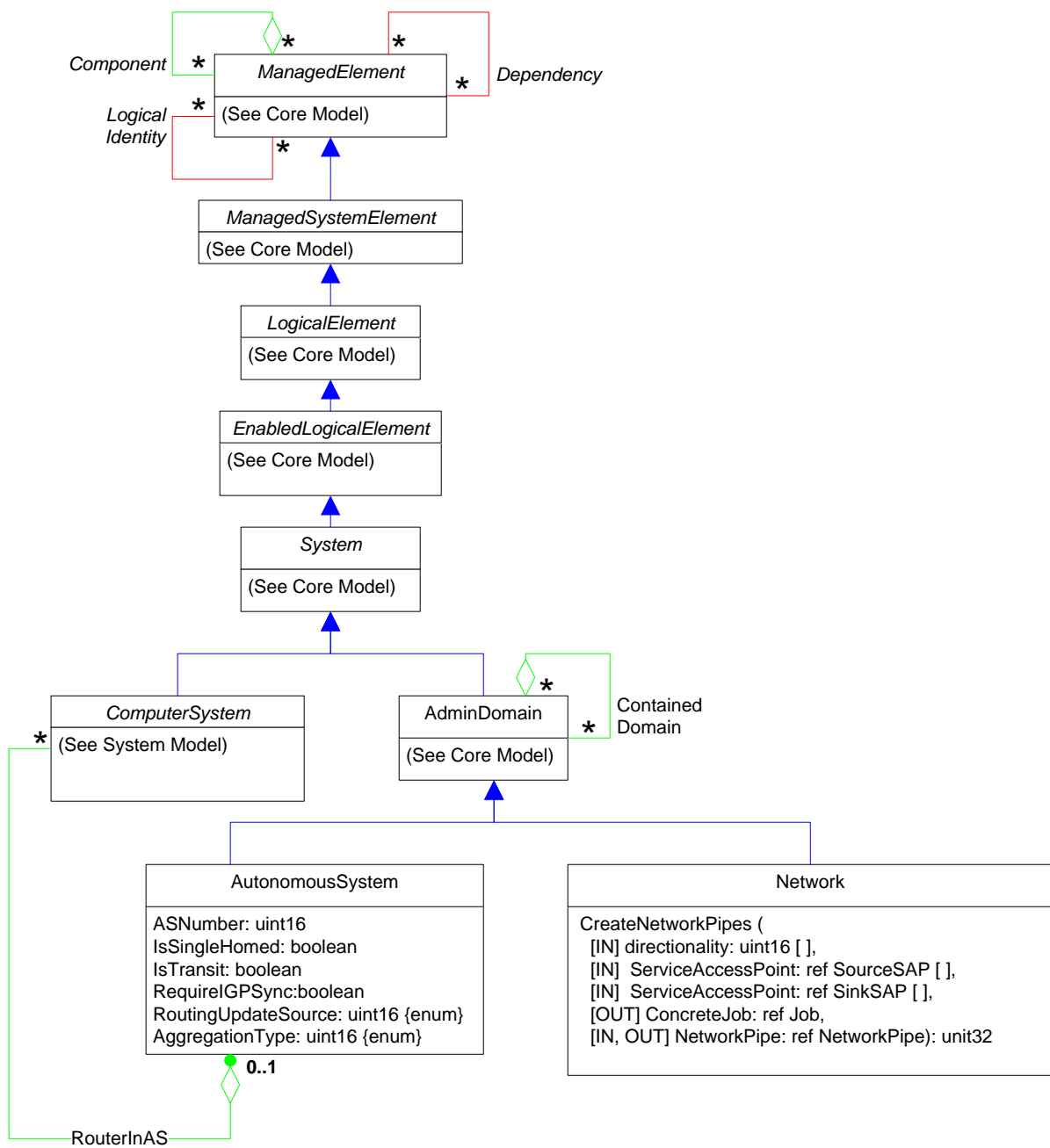
Page 1 : Overview  
 Page 2 : Network Systems  
 Page 3 : Network Collections  
 Page 4 : Protocol Endpoints  
 Page 5 : Protocol Endpoints (2)  
 Page 6 : ProtocolEndpoints (3)  
 Page 7 : Routing and Forwarding  
 Page 8 : Routes  
 Page 9 : Pipes  
 Page 10 : Filtering and Filter Entries  
 Page 11 : Buffer Pools (Network Resources)  
 Page 12 : SNMP  
 Page 13 : OSPF  
 Page 14 : BGP  
 Page 15 : BGP (Continued)  
 Page 16 : Switching and Bridging  
 Page 17 : QoS  
 Page 18 : QoS Conditioning Services  
 Page 19 : IPSec  
 Page 20 : VLAN  
 Page 21 : MPLS(1)  
 Page 22 : MPLS(2)



Page 23 : Topology  
 Page 24 : 802.3ad Link Aggregation  
 Page 25 : NAT  
 Page 26 : iSCSI(1)  
 Page 27 : iSCSI(2)  
 Page 28 : Channel Extender  
 Page 29 : Redirection  
 Page 30 : MediaRedirection  
 Page 31 : ConfigurationServices  
 Page 32 : Dependency Hierarchy  
 Page 33 : Dependency Hierarchy (Con't)  
 Page 34 : HostedDependency Hierarchy  
 Page 35 : Association Hierarchy  
 Page 36 : Aggregation Hierarchy  
 Page 37 : MemberOfCollection  
 Page 38 : Deprecated VLAN  
 Page 39 : Deprecated Associations

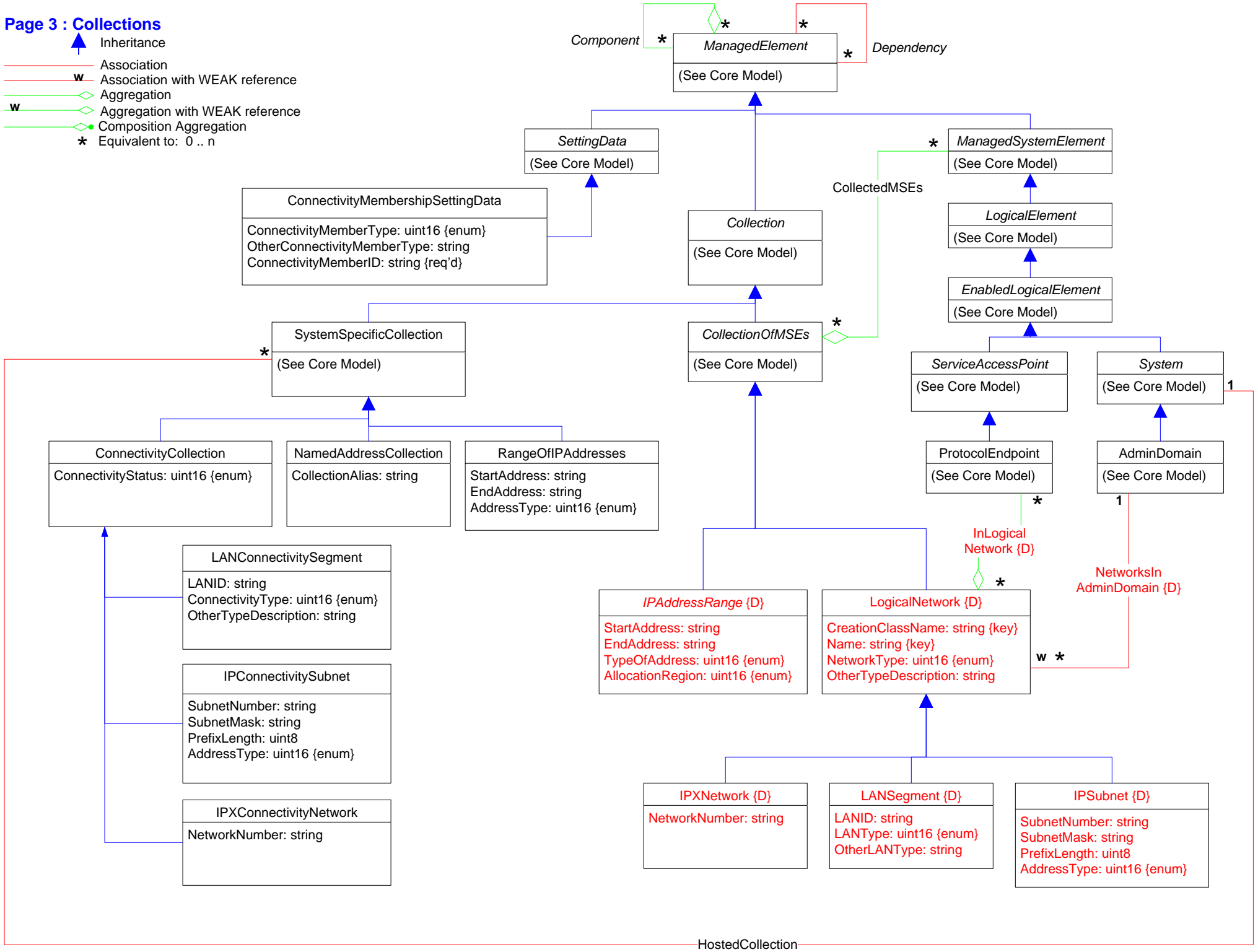


-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n



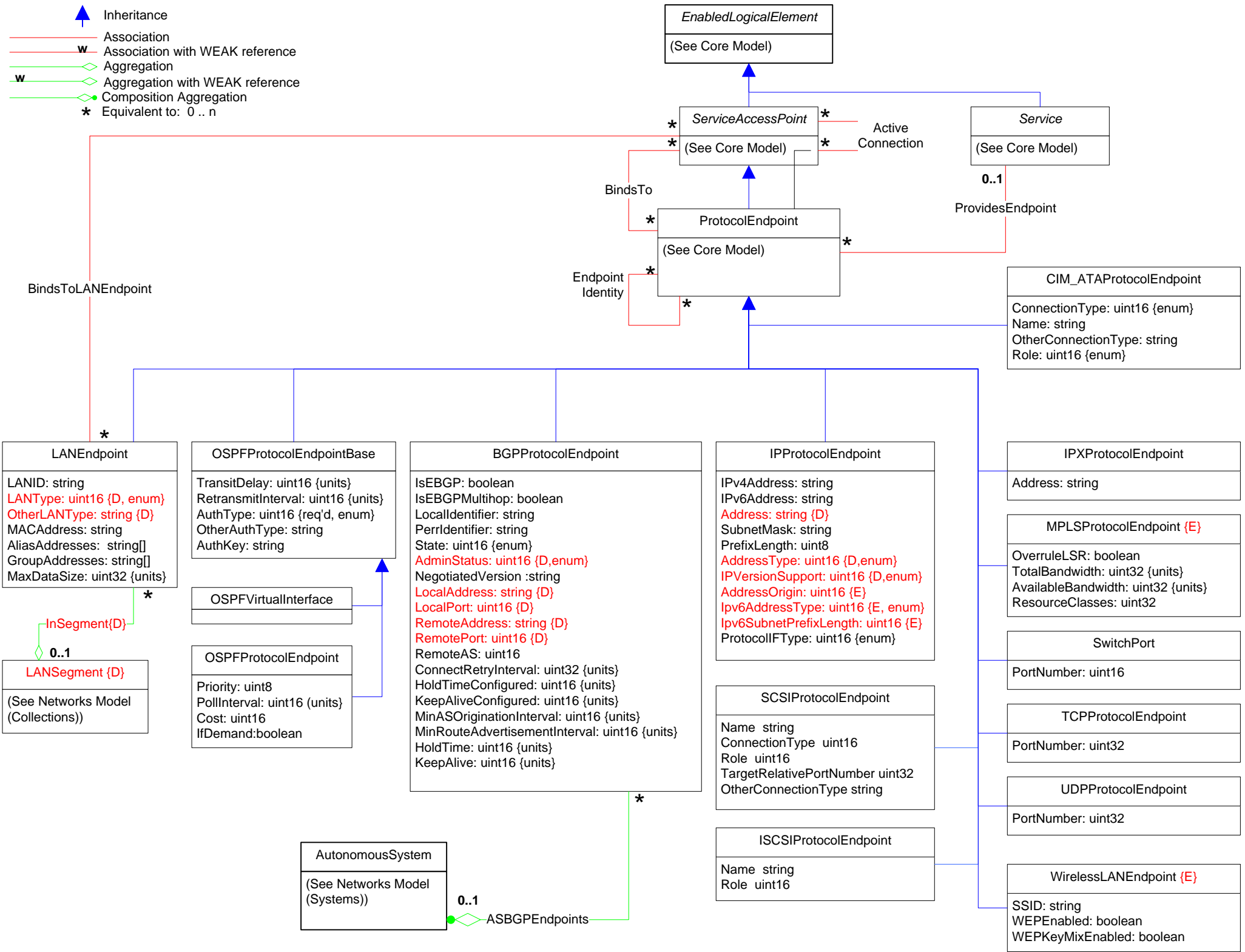
# Page 3 : Collections

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




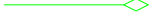





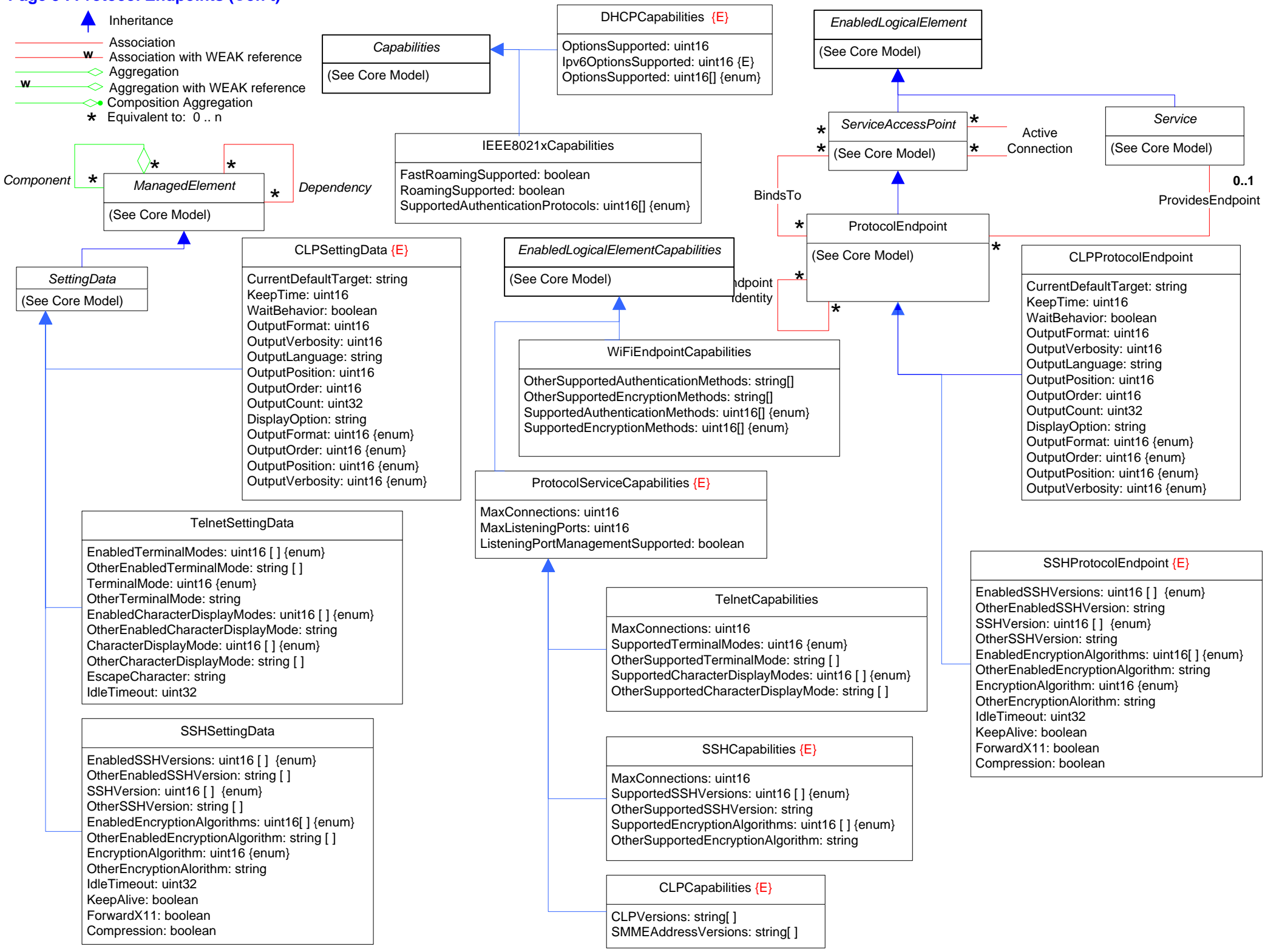
Page 4 : Protocol Endpoints

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



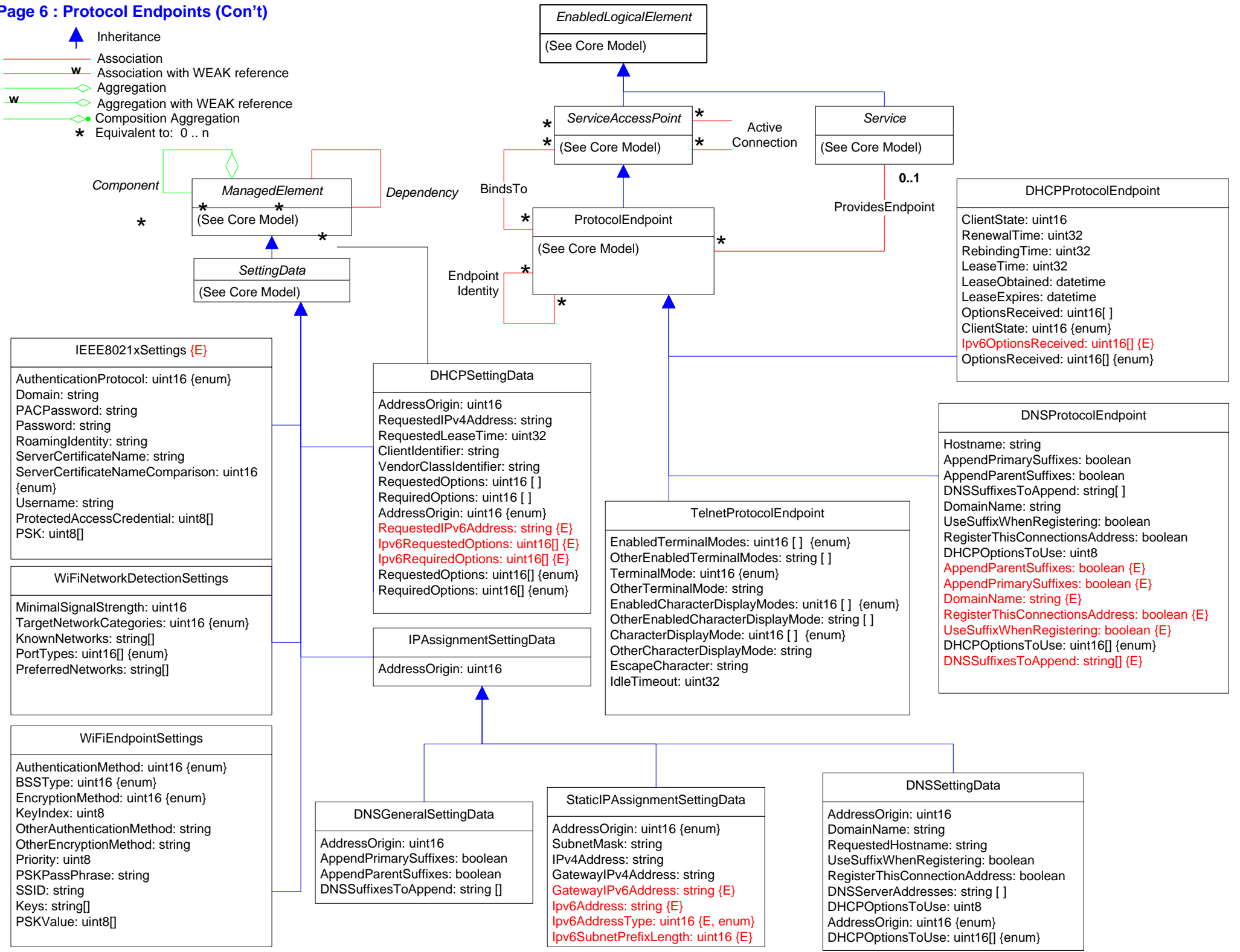
Page 5 : Protocol Endpoints (Con't)

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



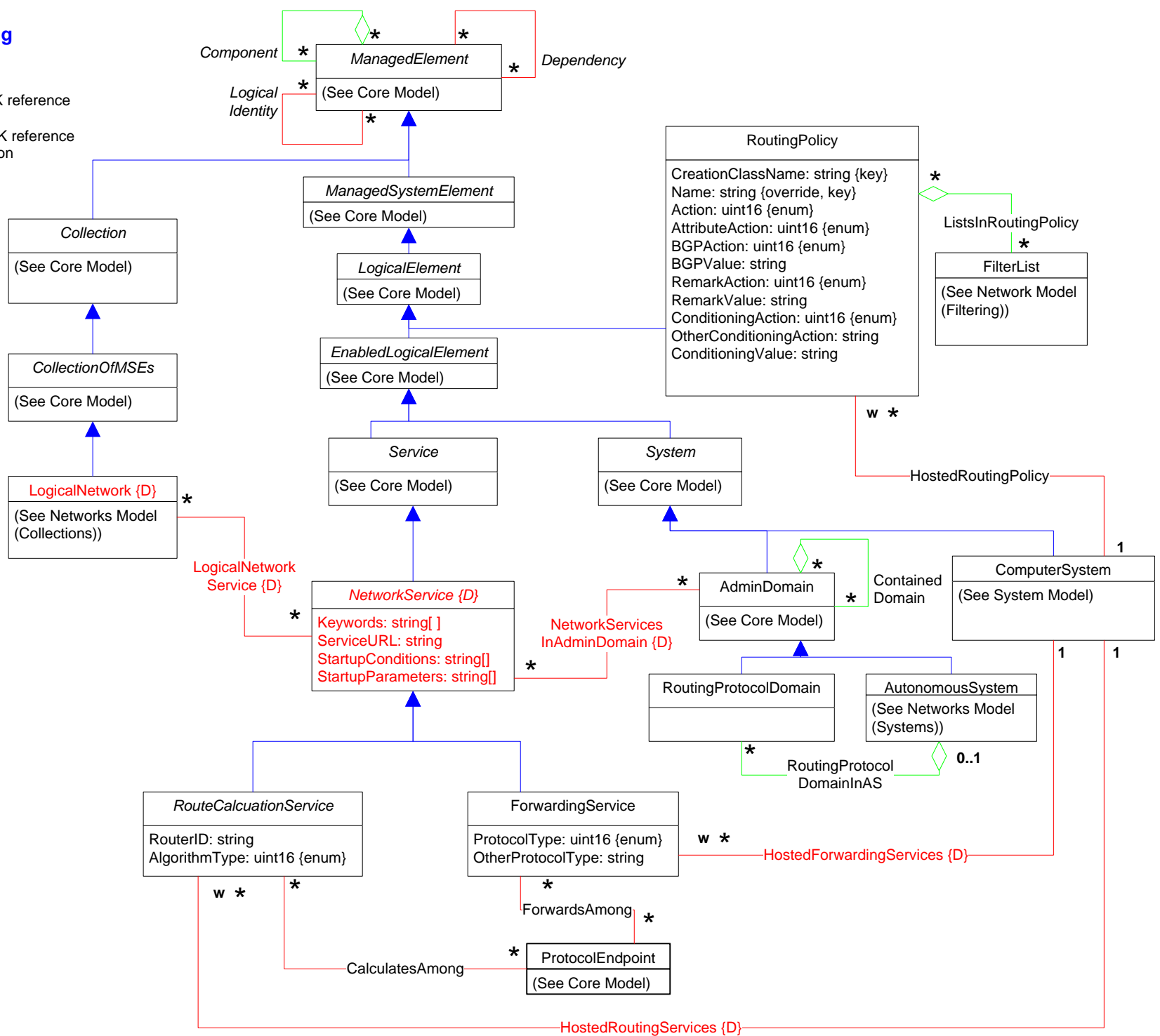
**Page 6 : Protocol Endpoints (Con't)**

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

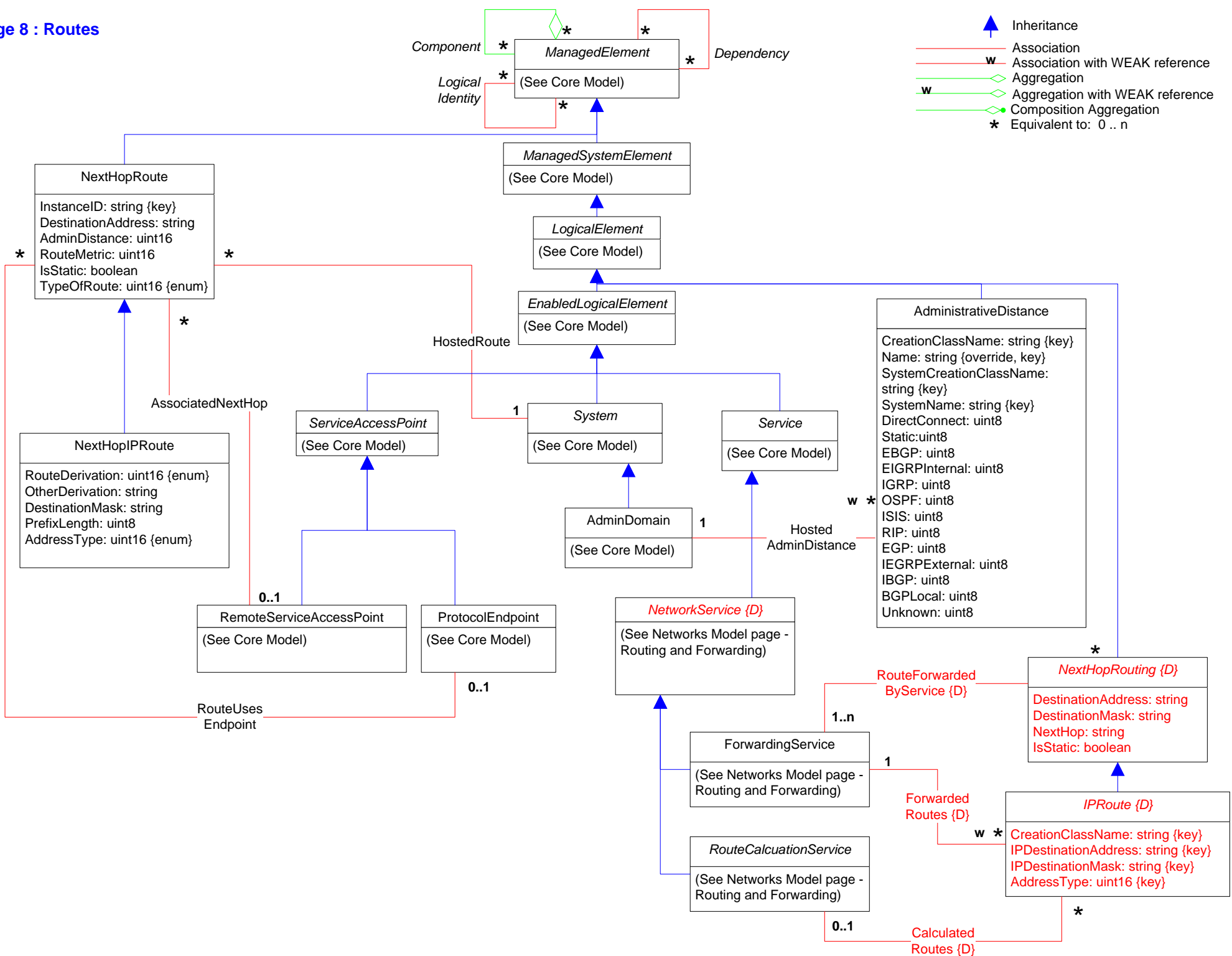


# Page 7 : Routing & Forwarding


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

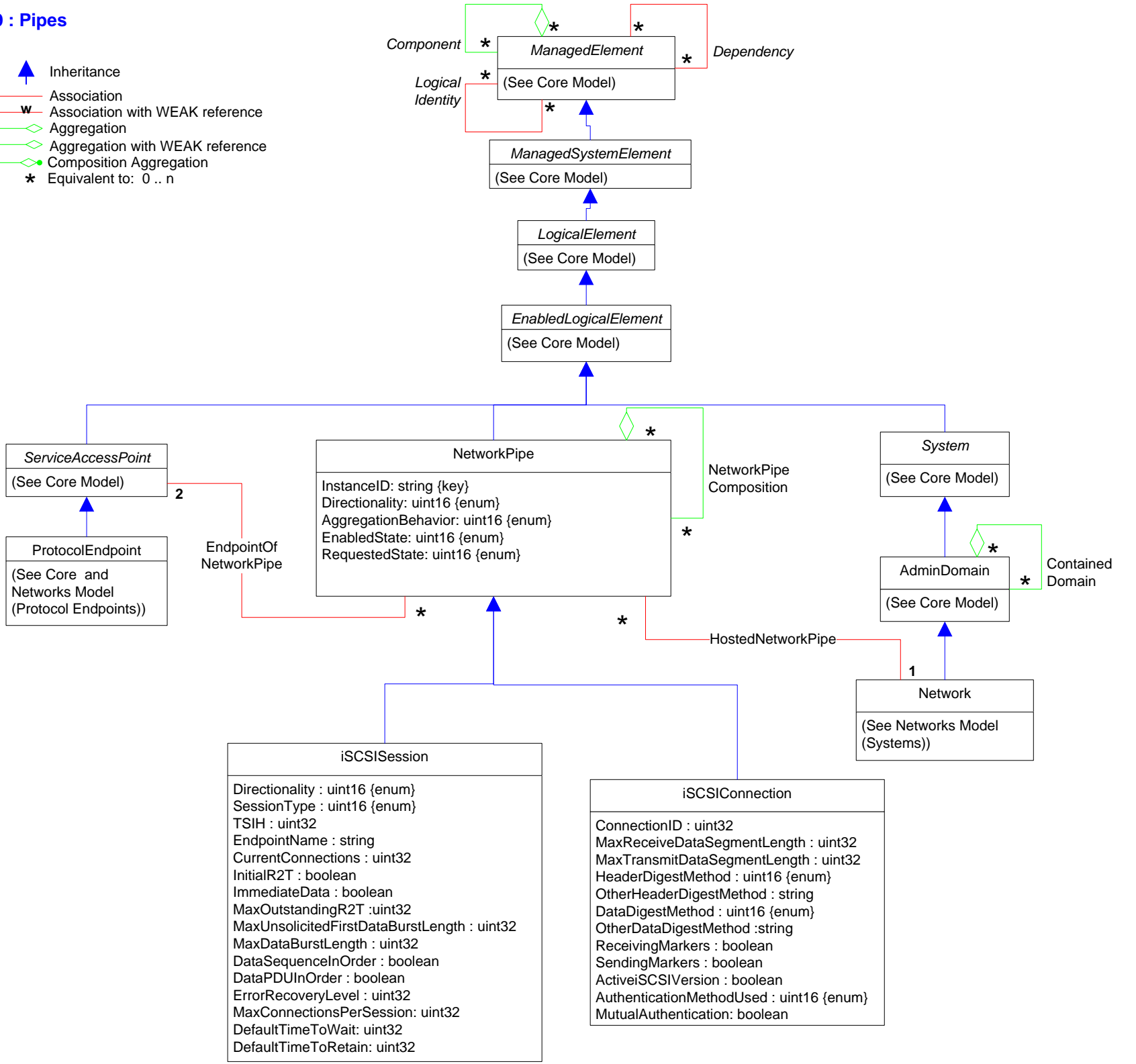













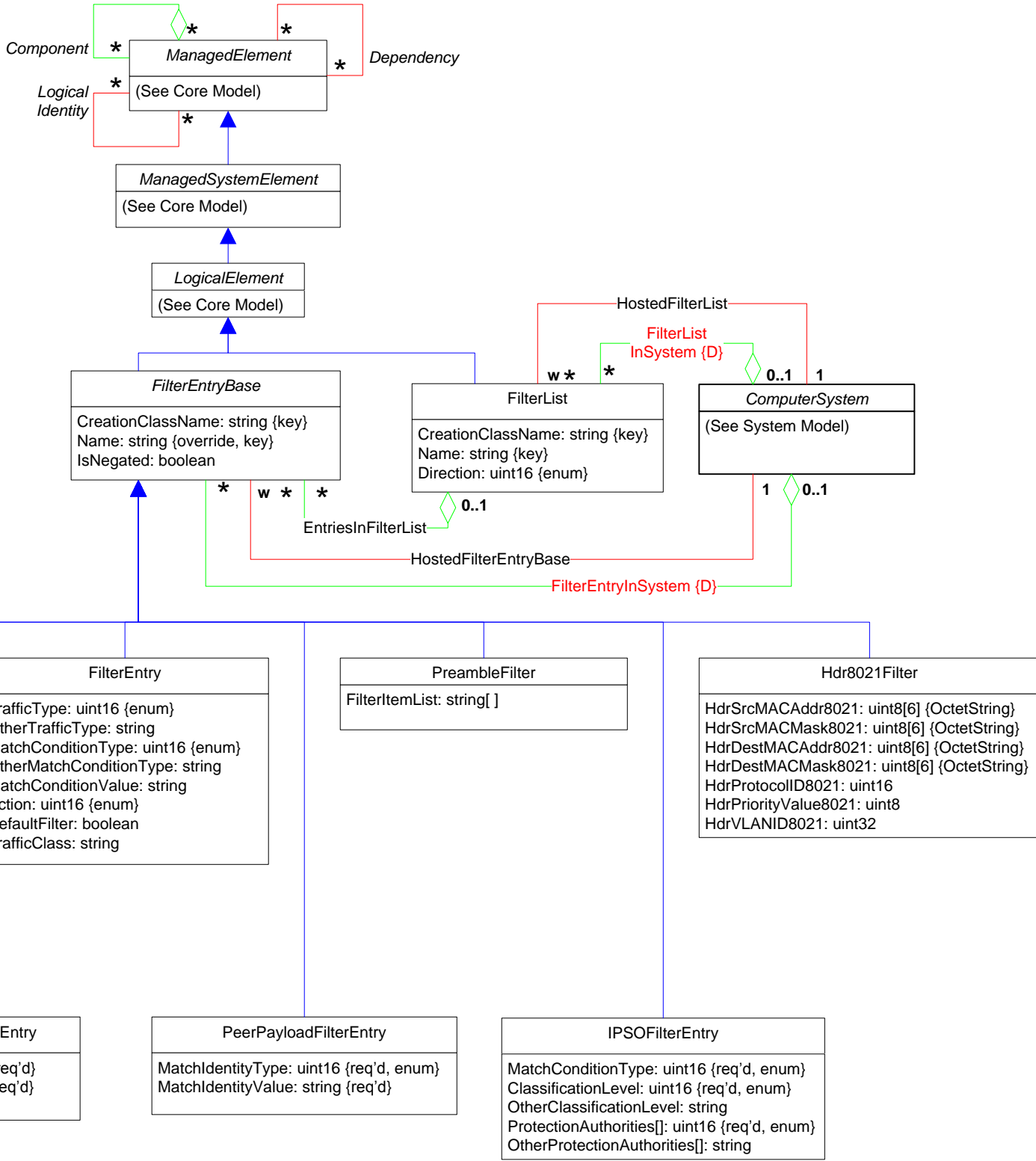


-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n










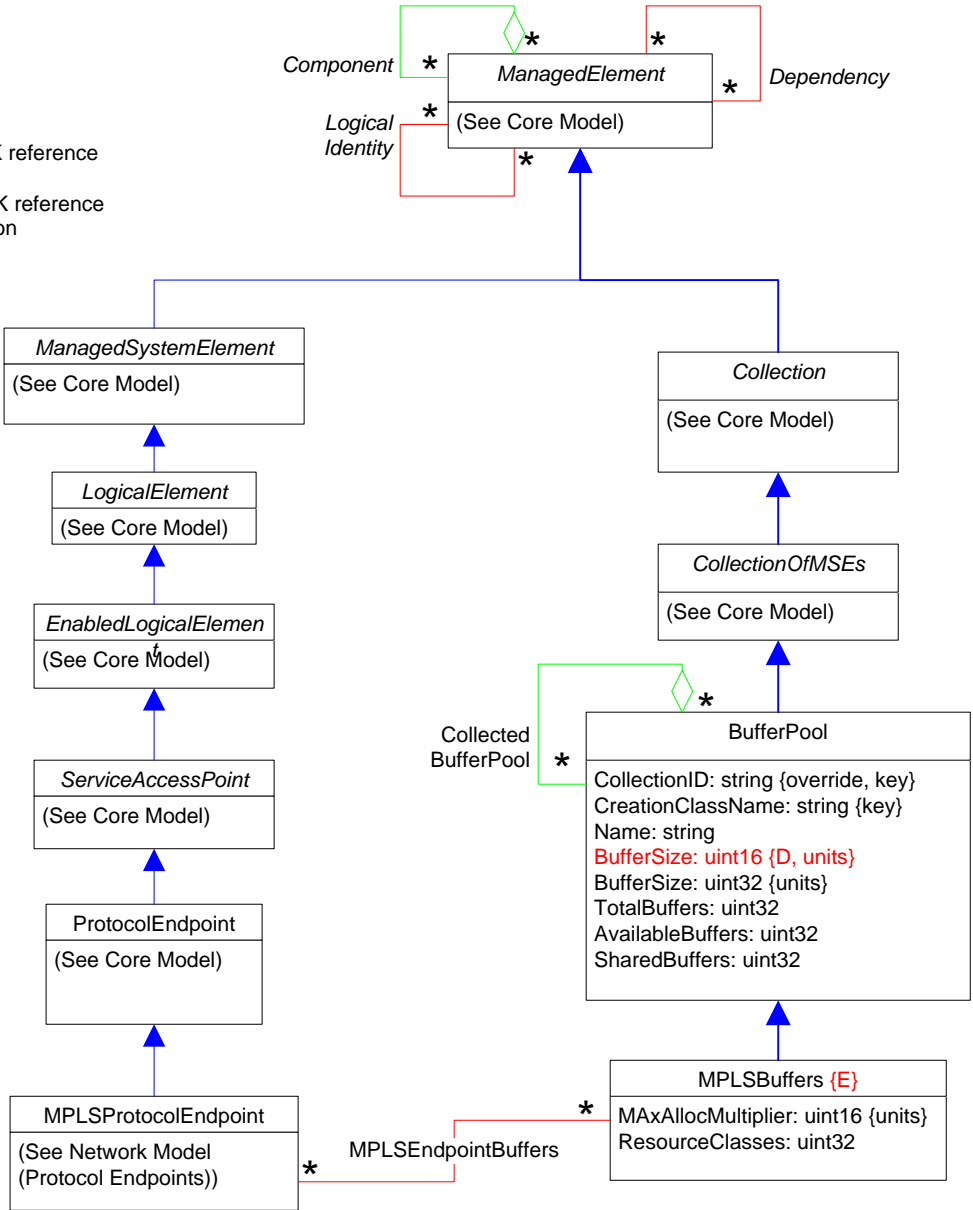
Page 10 : Filtering

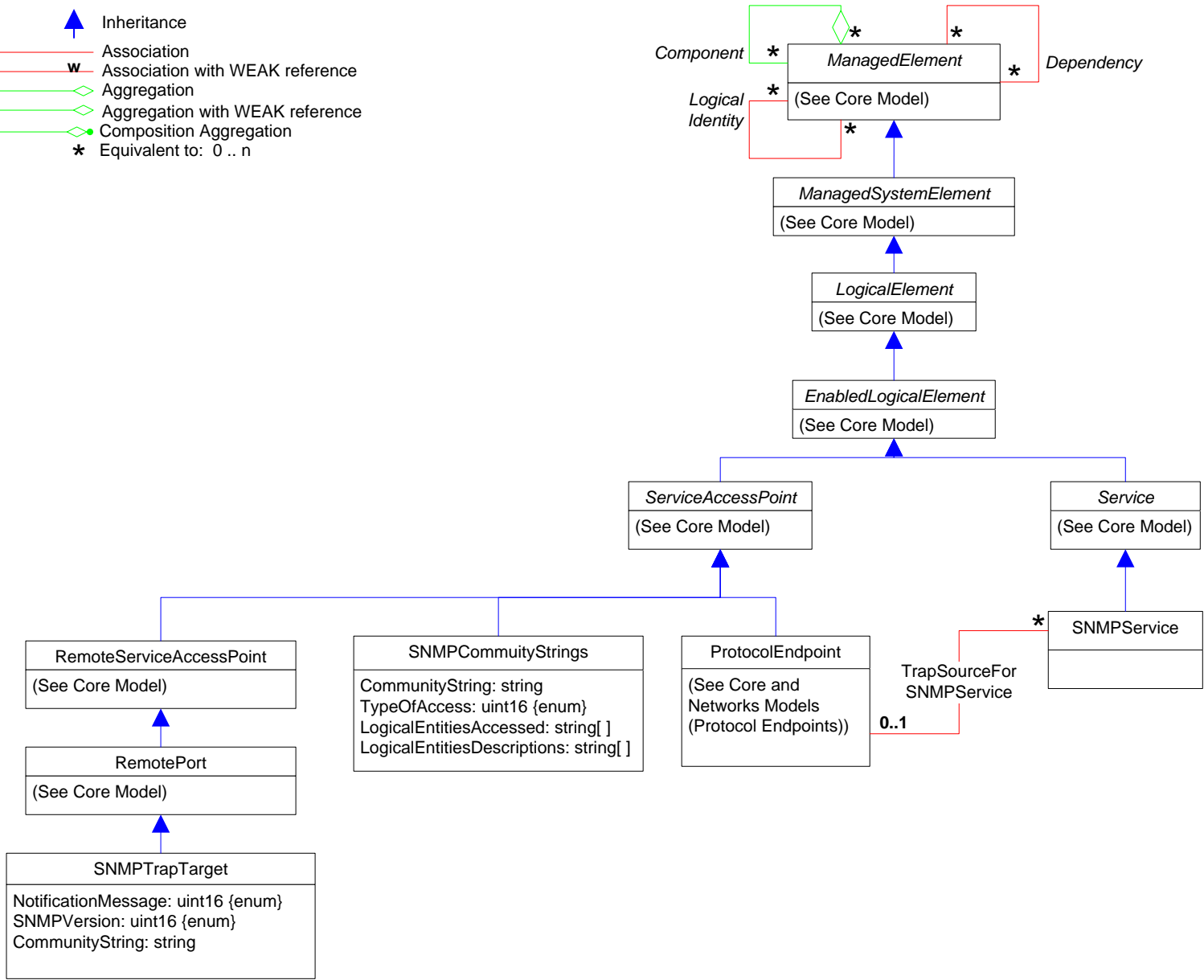
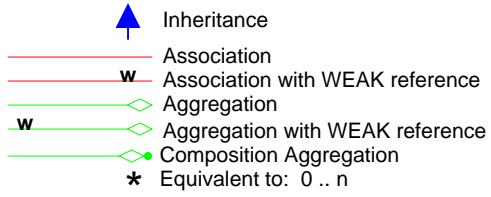
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0..n




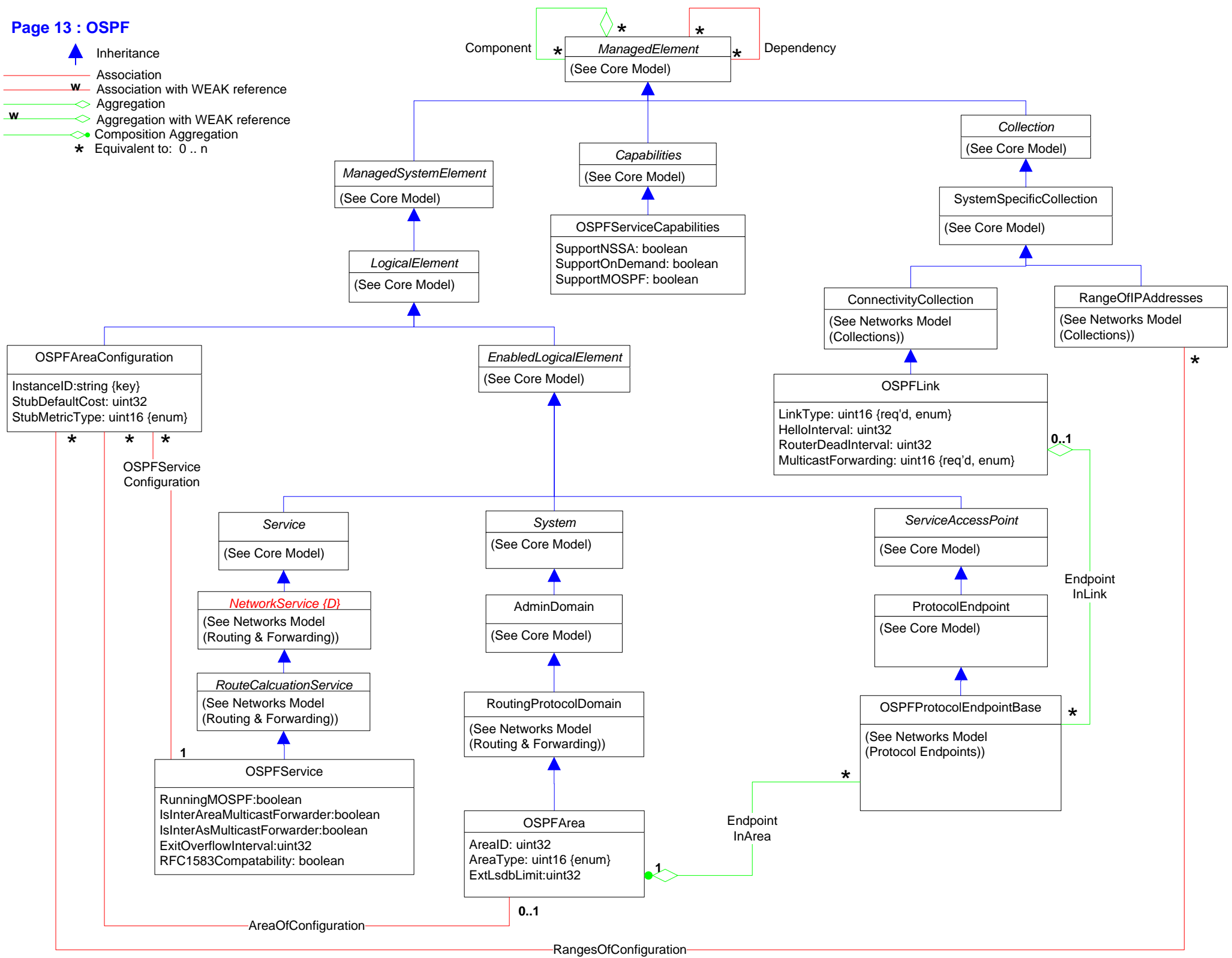
Page 11 : Buffers

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

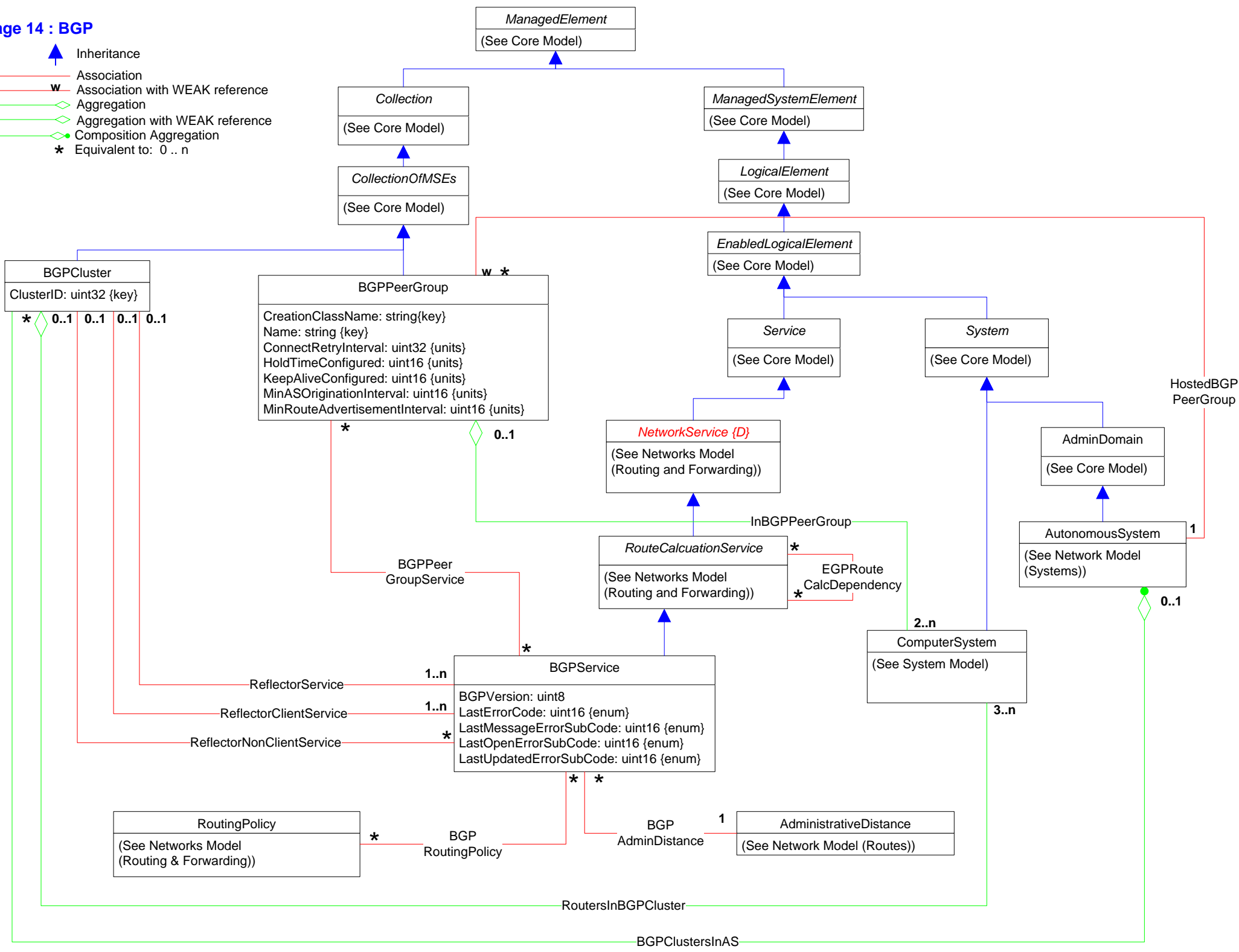


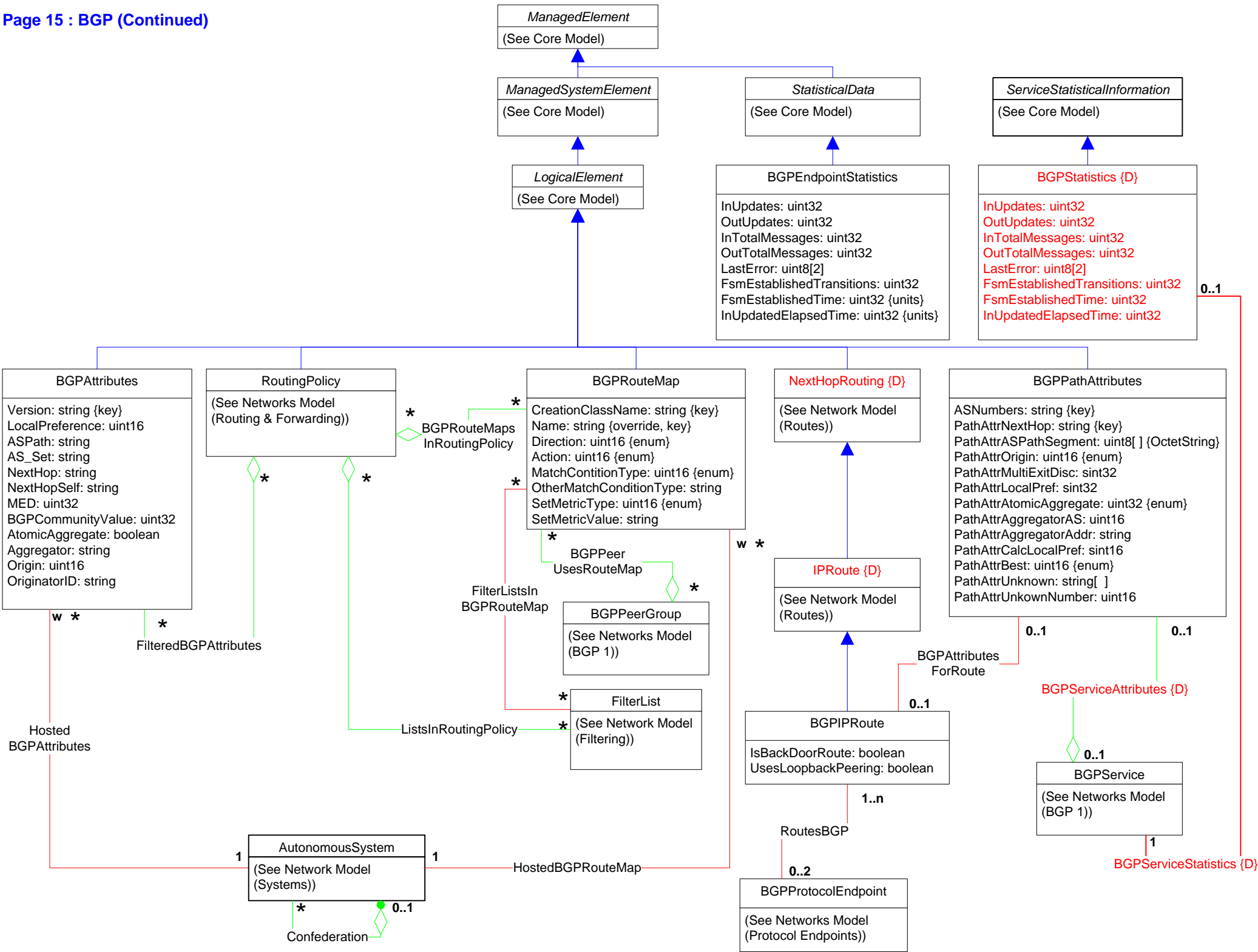


-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n



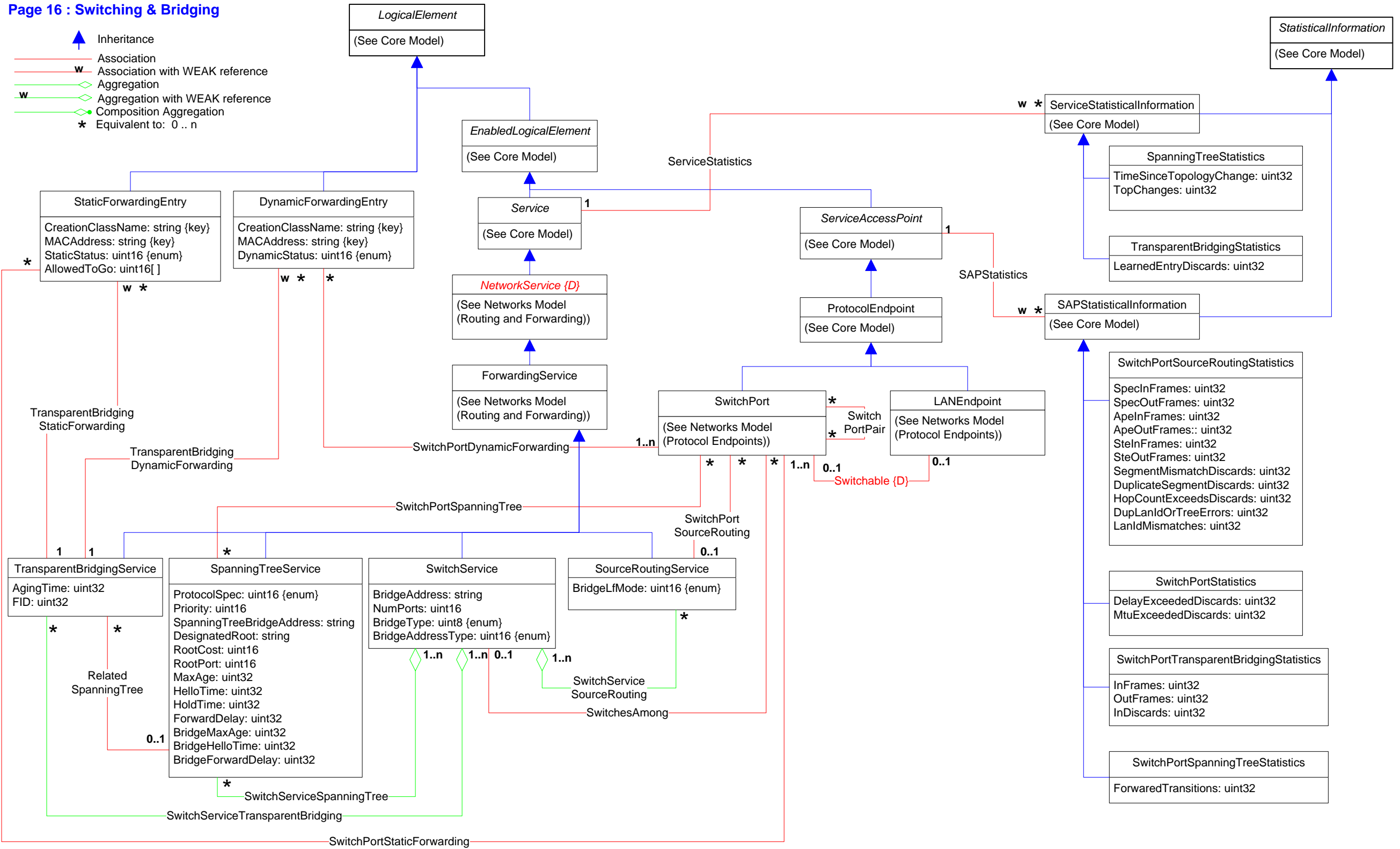
- Inheritance
- Association
- Association with WEAK reference
- Aggregation
- Aggregation with WEAK reference
- Composition Aggregation
- Equivalent to: 0 .. n



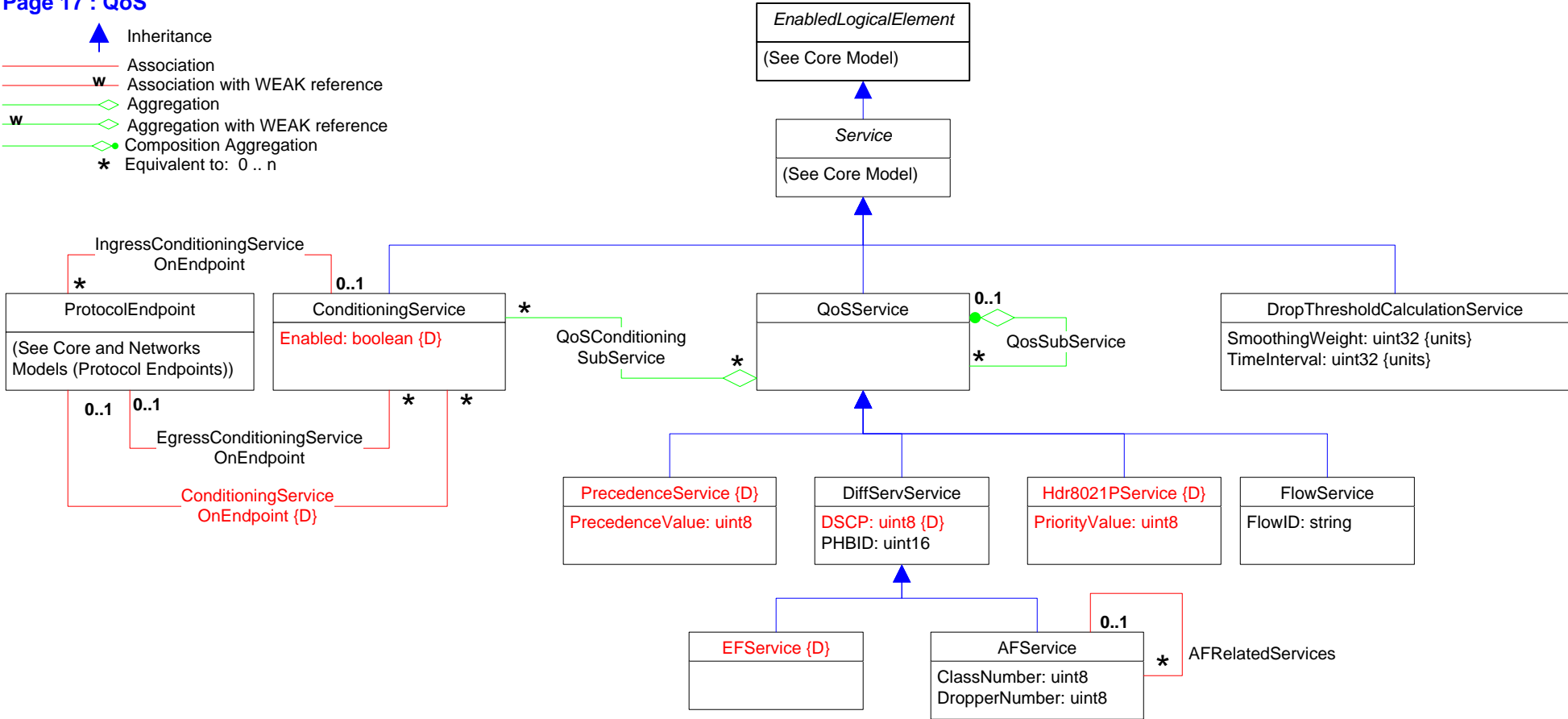


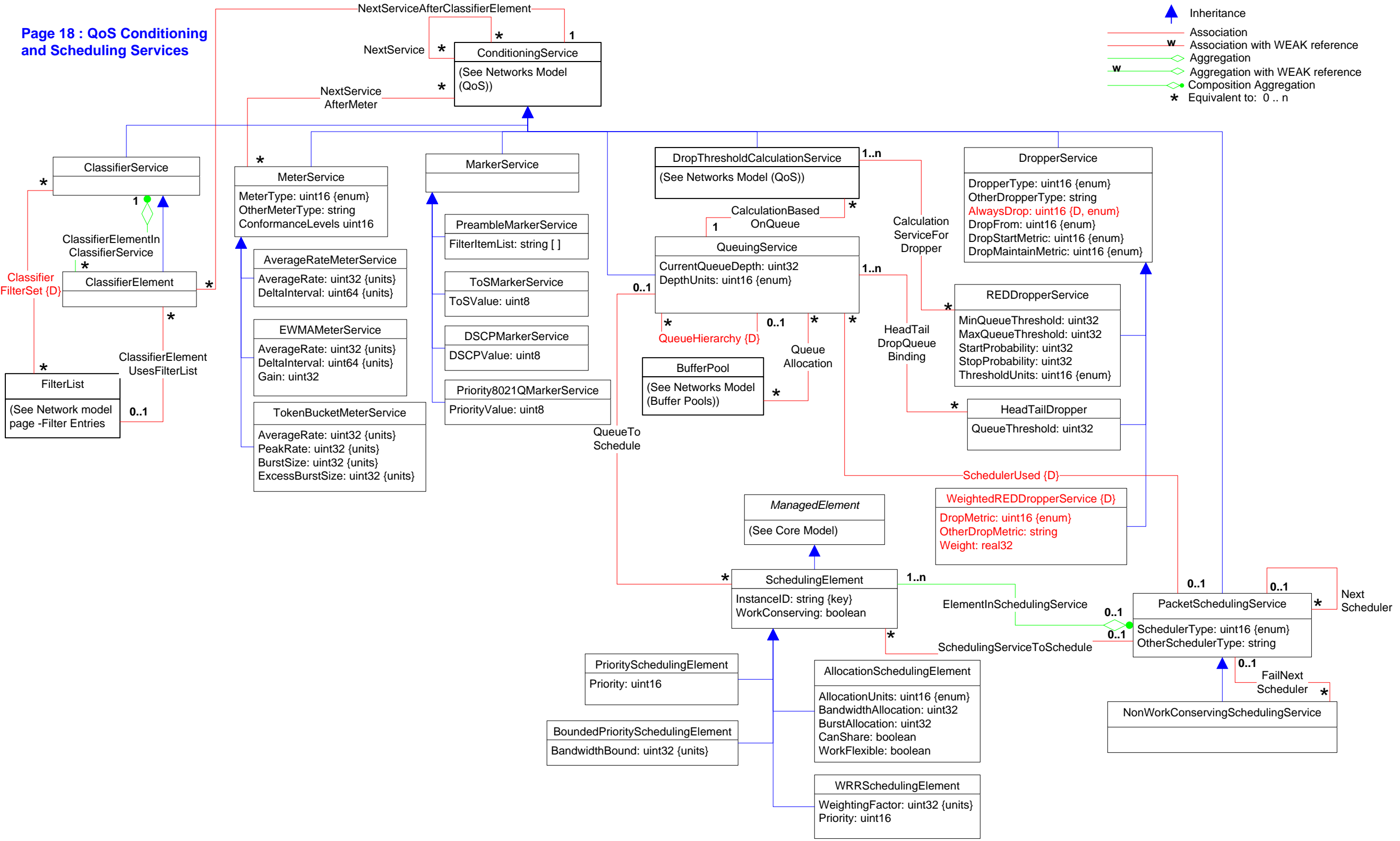
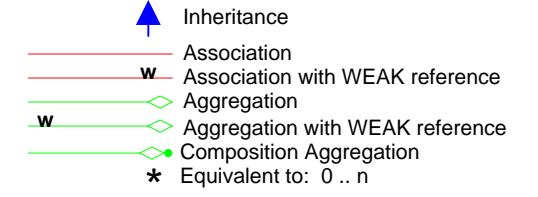


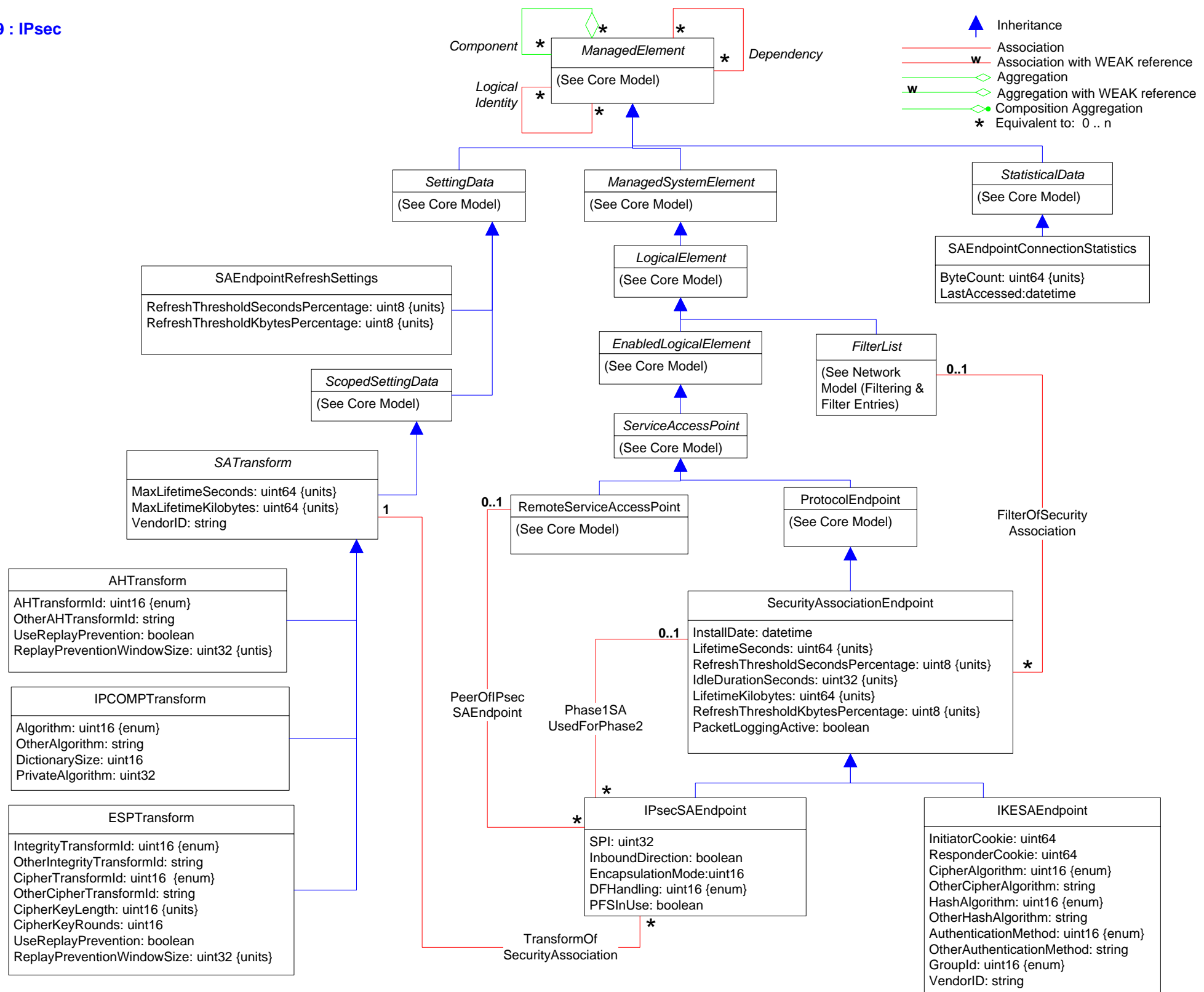
- ▲ Inheritance
- Association
- <sup>w</sup> Association with WEAK reference
- ◇ Aggregation
- ◇<sup>w</sup> Aggregation with WEAK reference
- ◇● Composition Aggregation
- \* Equivalent to: 0 .. n

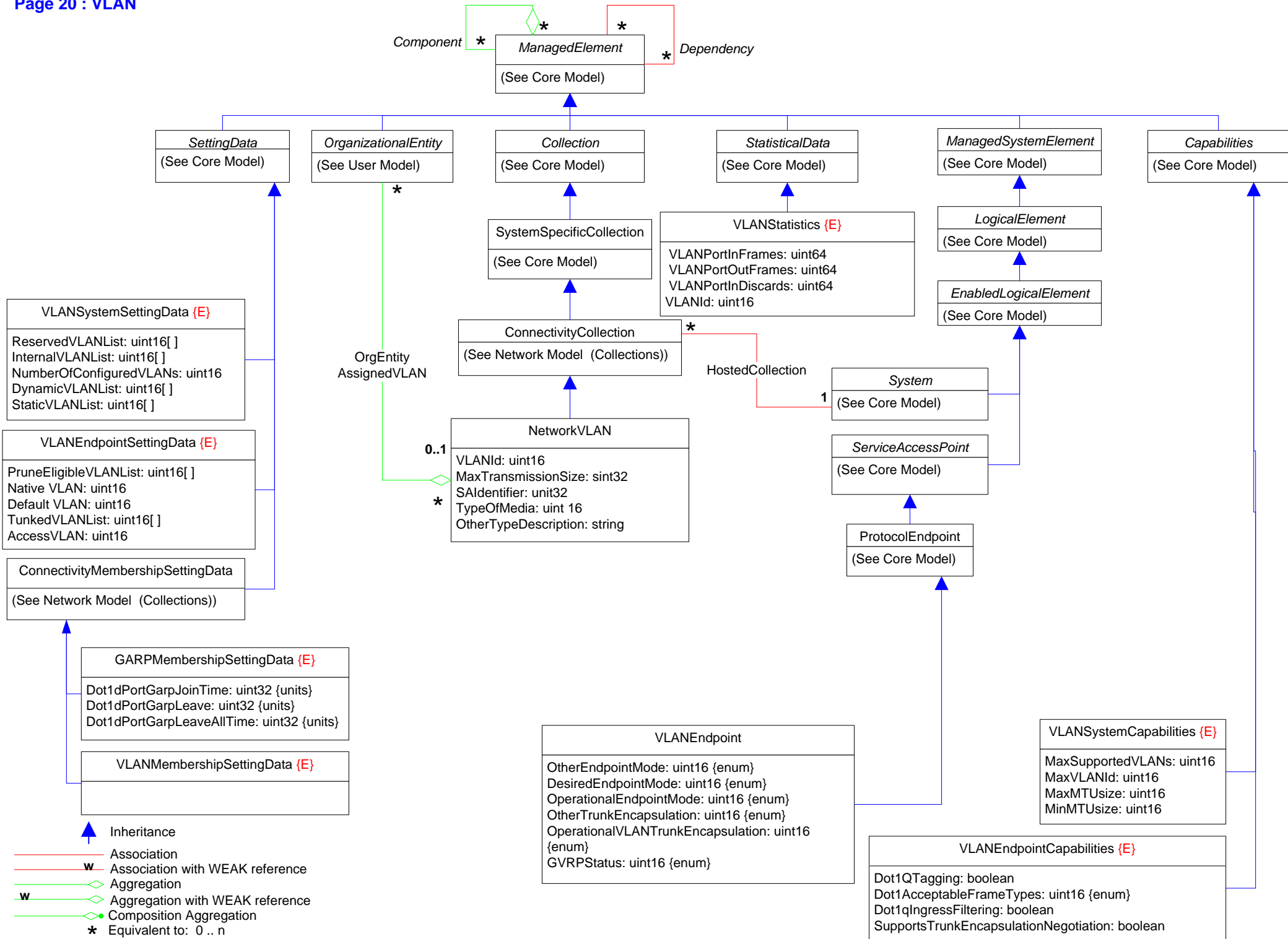









- ▲ Inheritance
- Association
- w Association with WEAK reference
- ◇ Aggregation
- w Aggregation with WEAK reference
- ◇ Composition Aggregation
- \* Equivalent to: 0..n

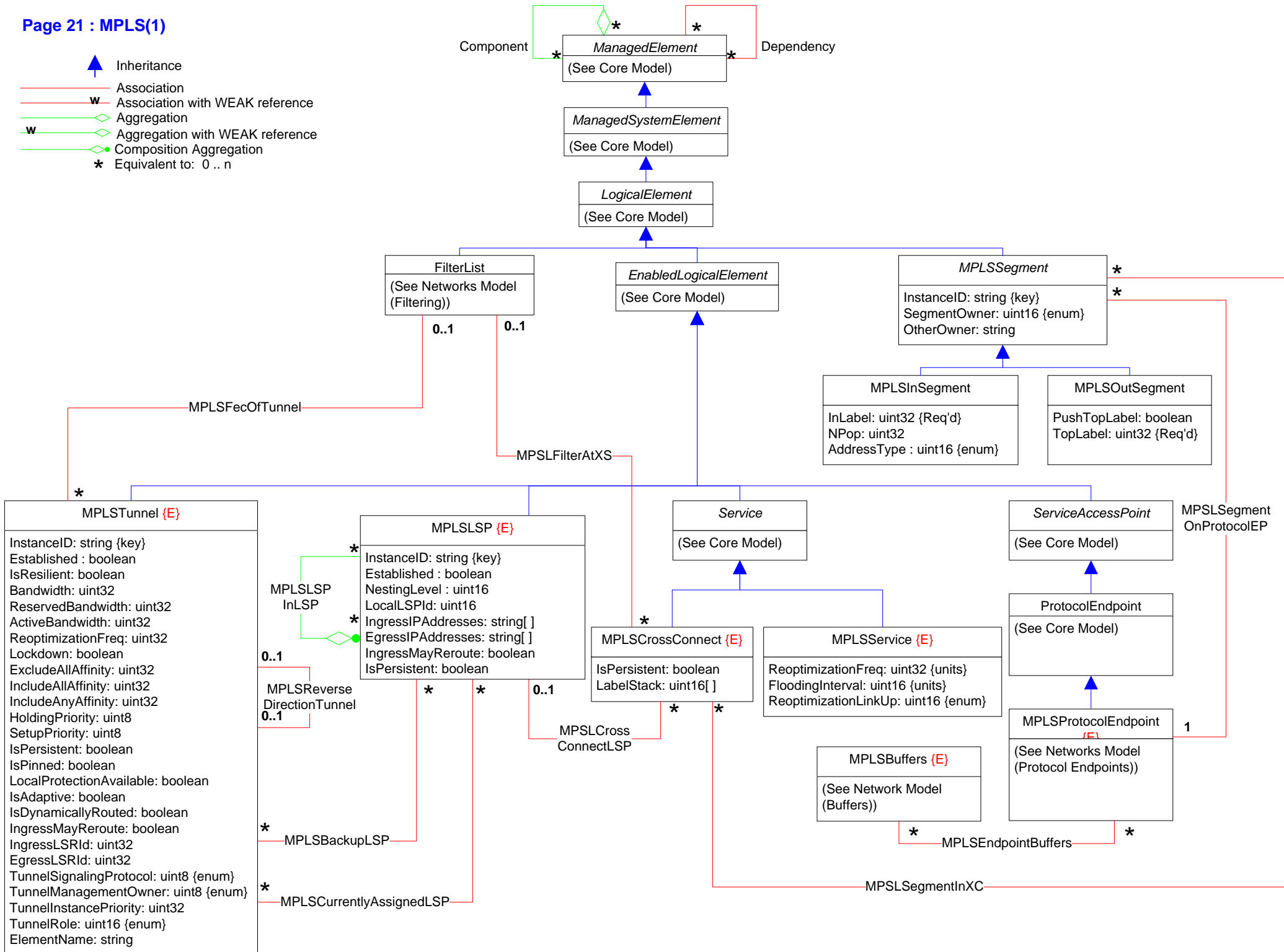




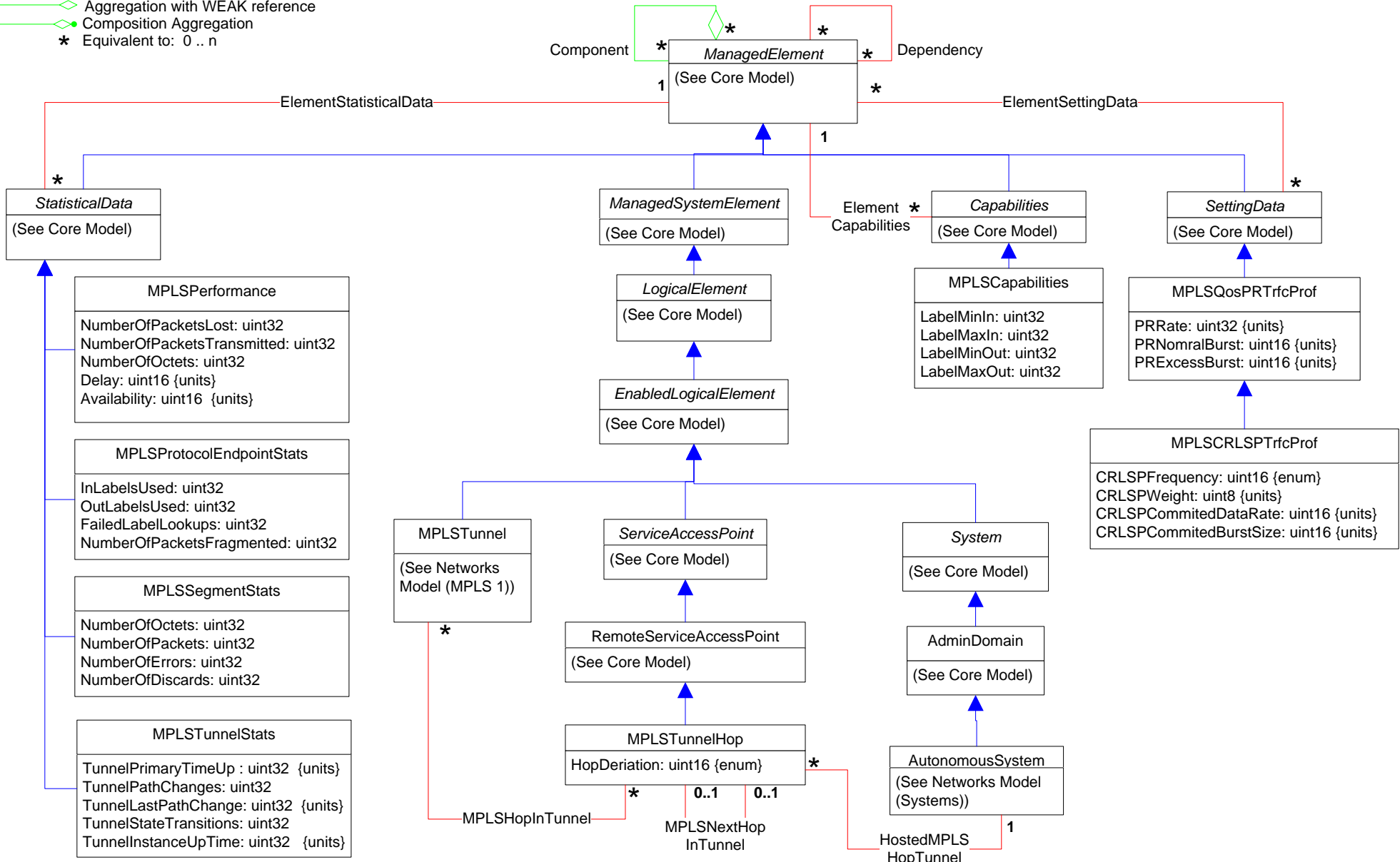
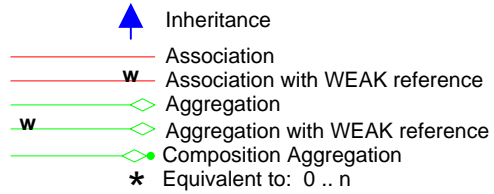




-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n




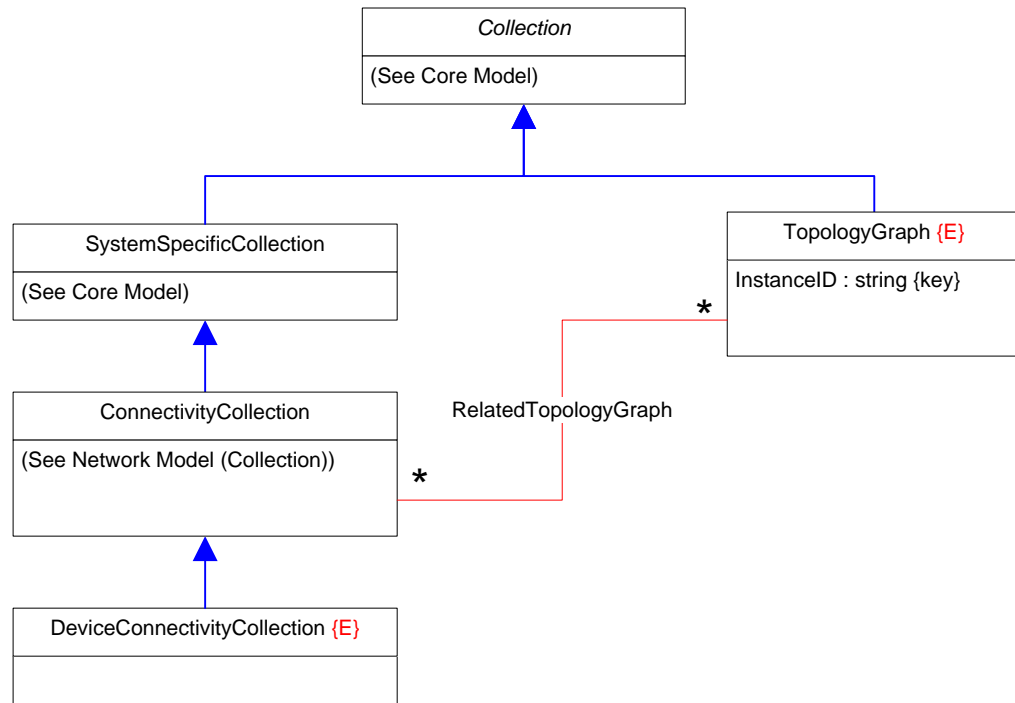
Page 22 : MPLS (2)  
Routes, Statistics, Settings, & Capabilities

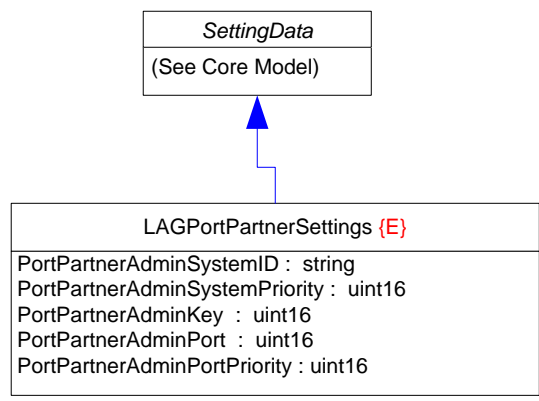
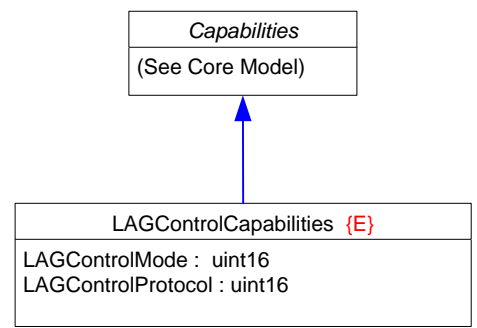
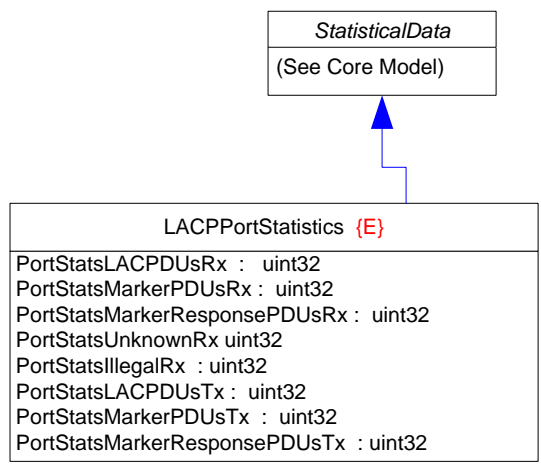
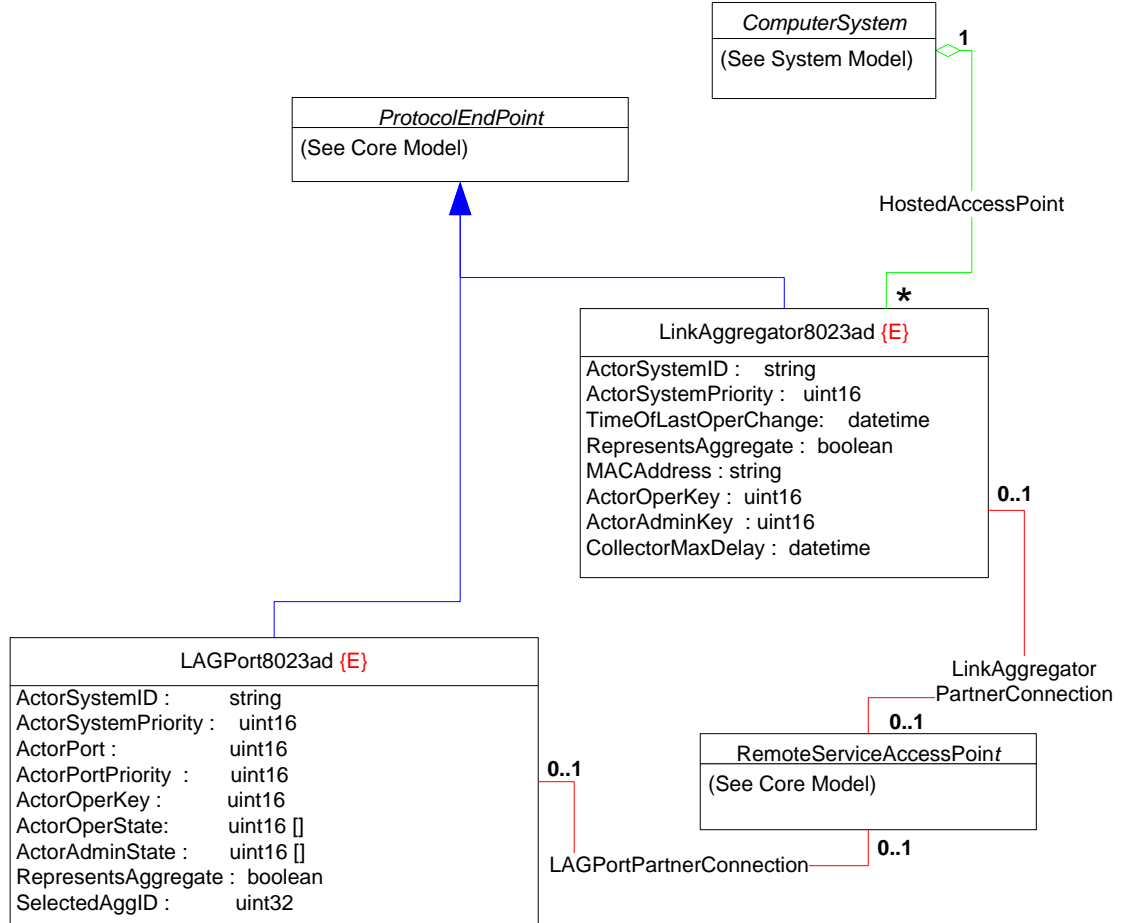
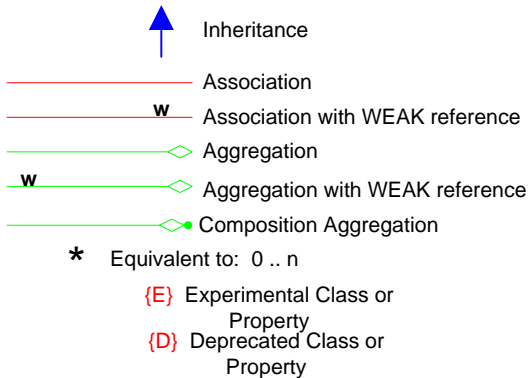




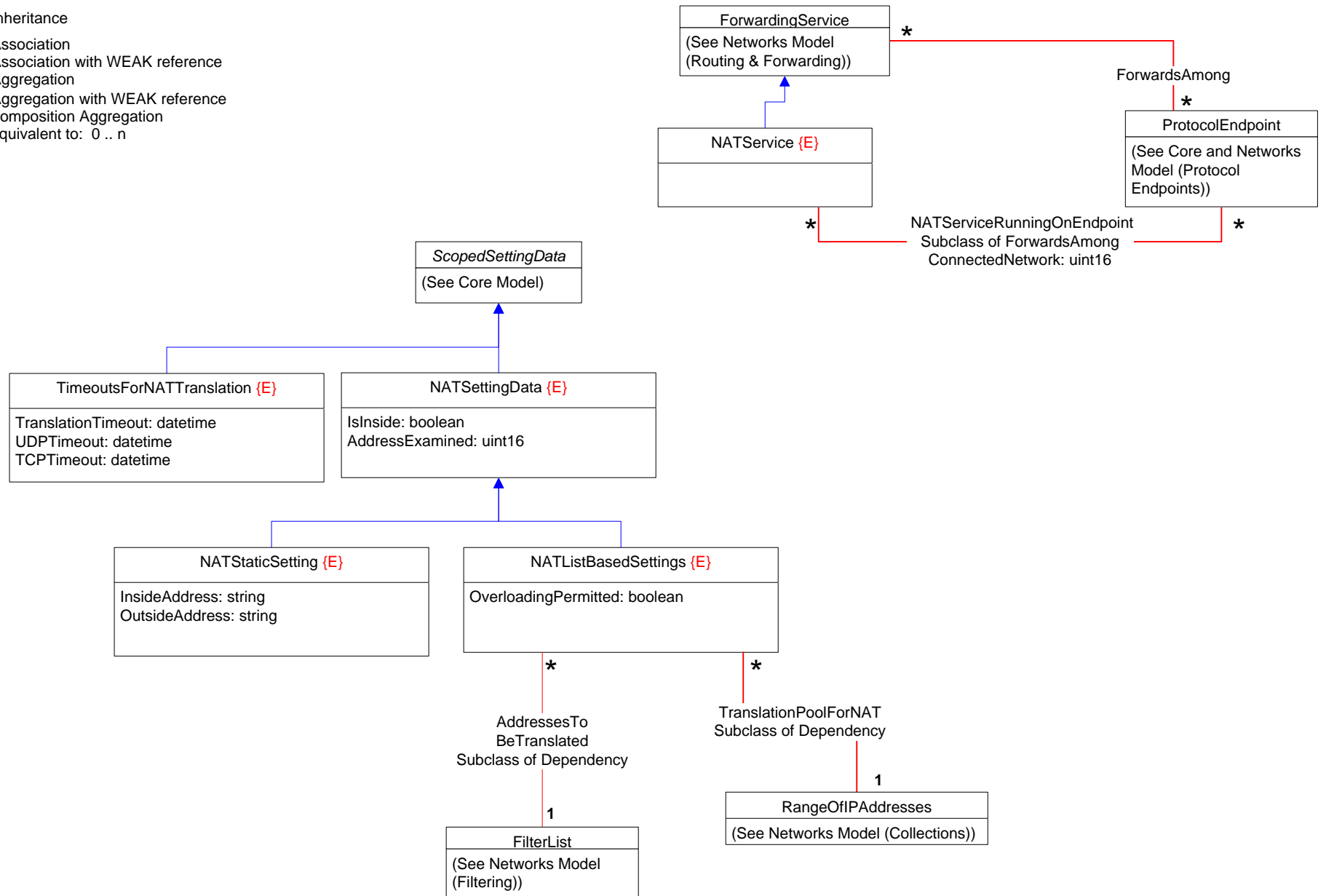
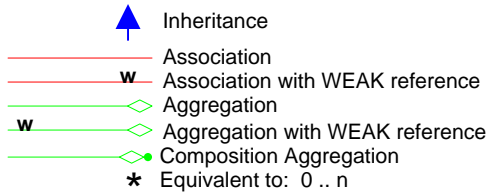
Page 23 : Topology

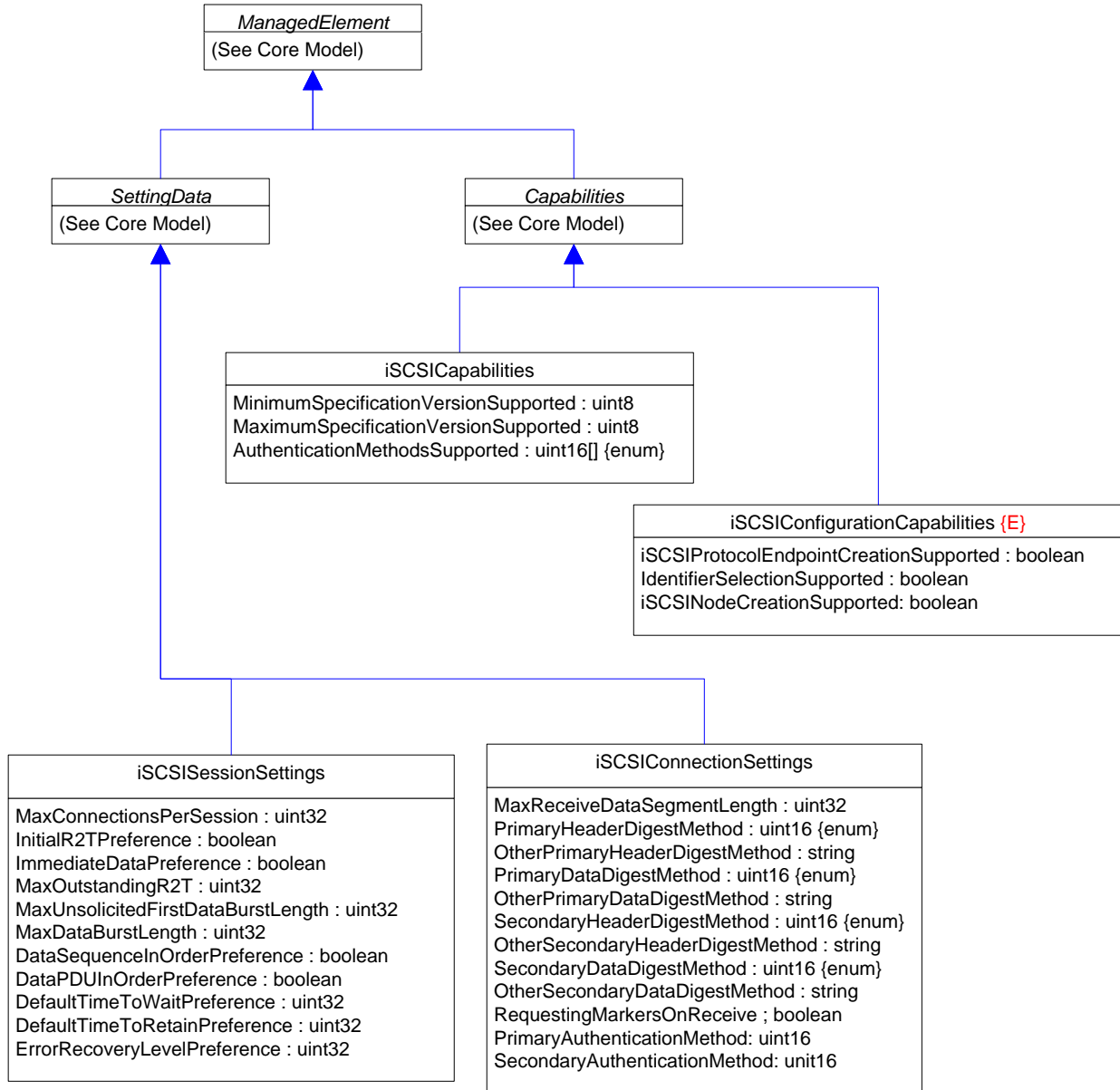
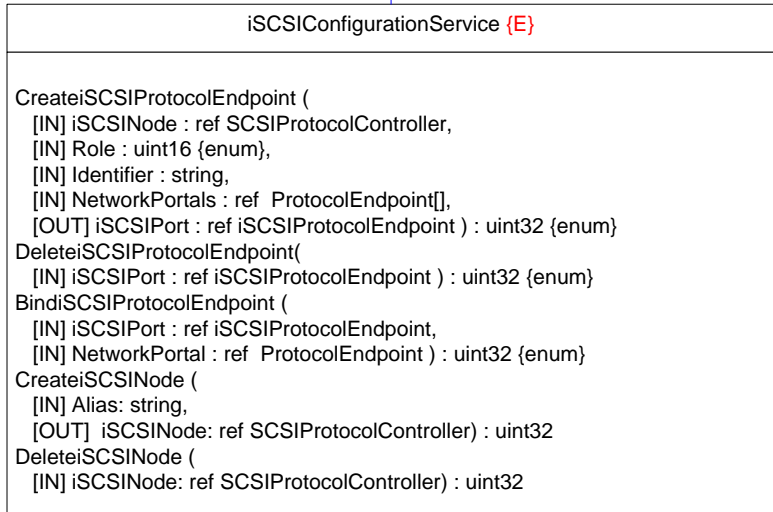
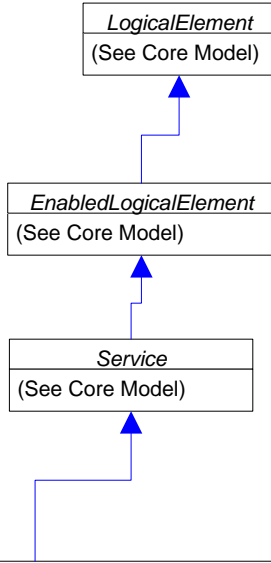
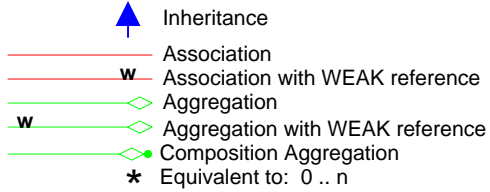
-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0..n

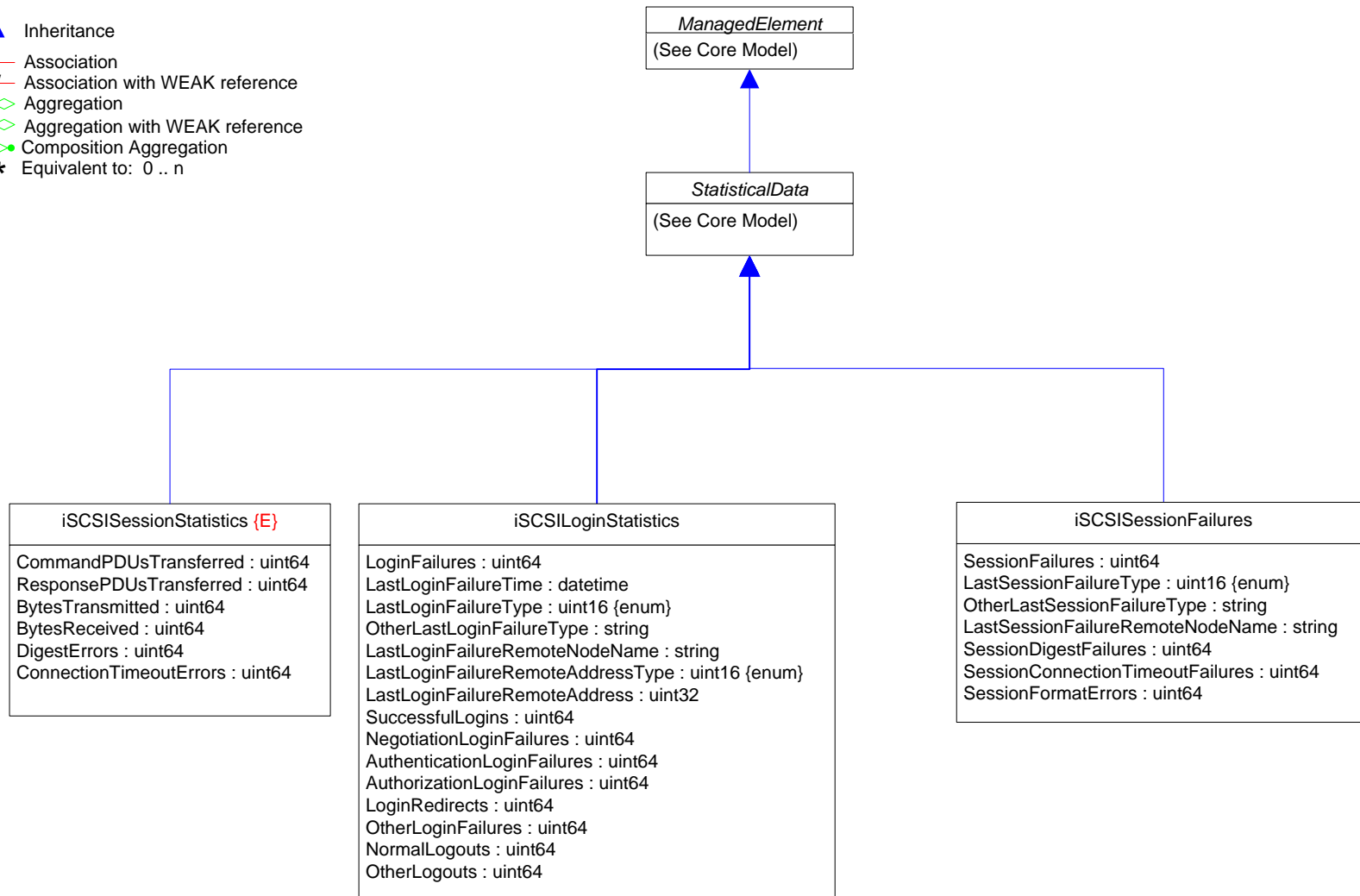
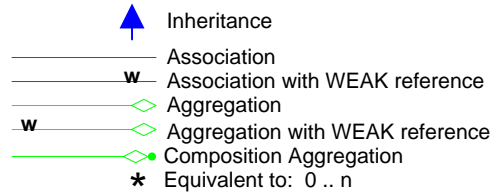











## Page 25 : Network Address Translation (NAT)

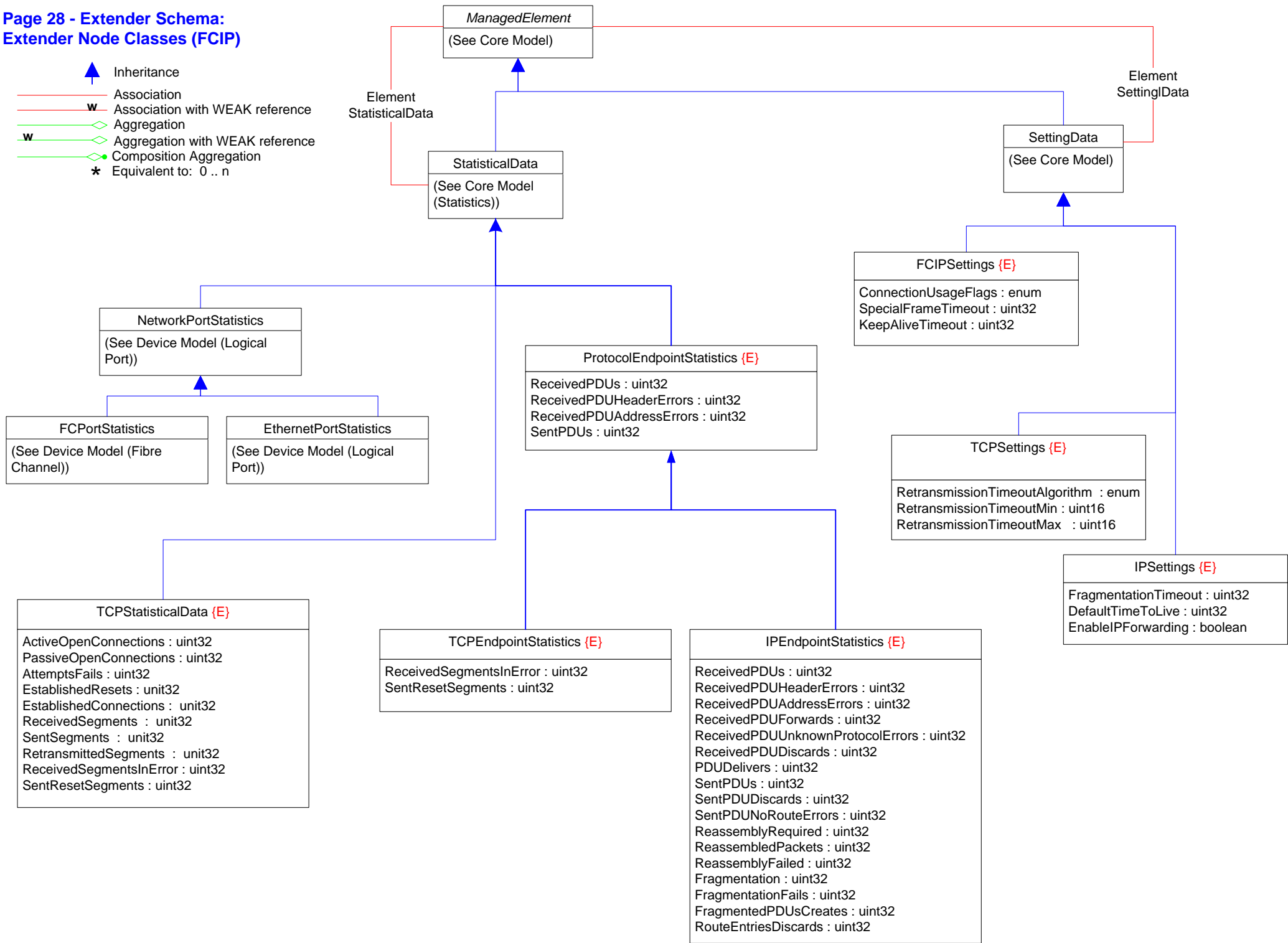


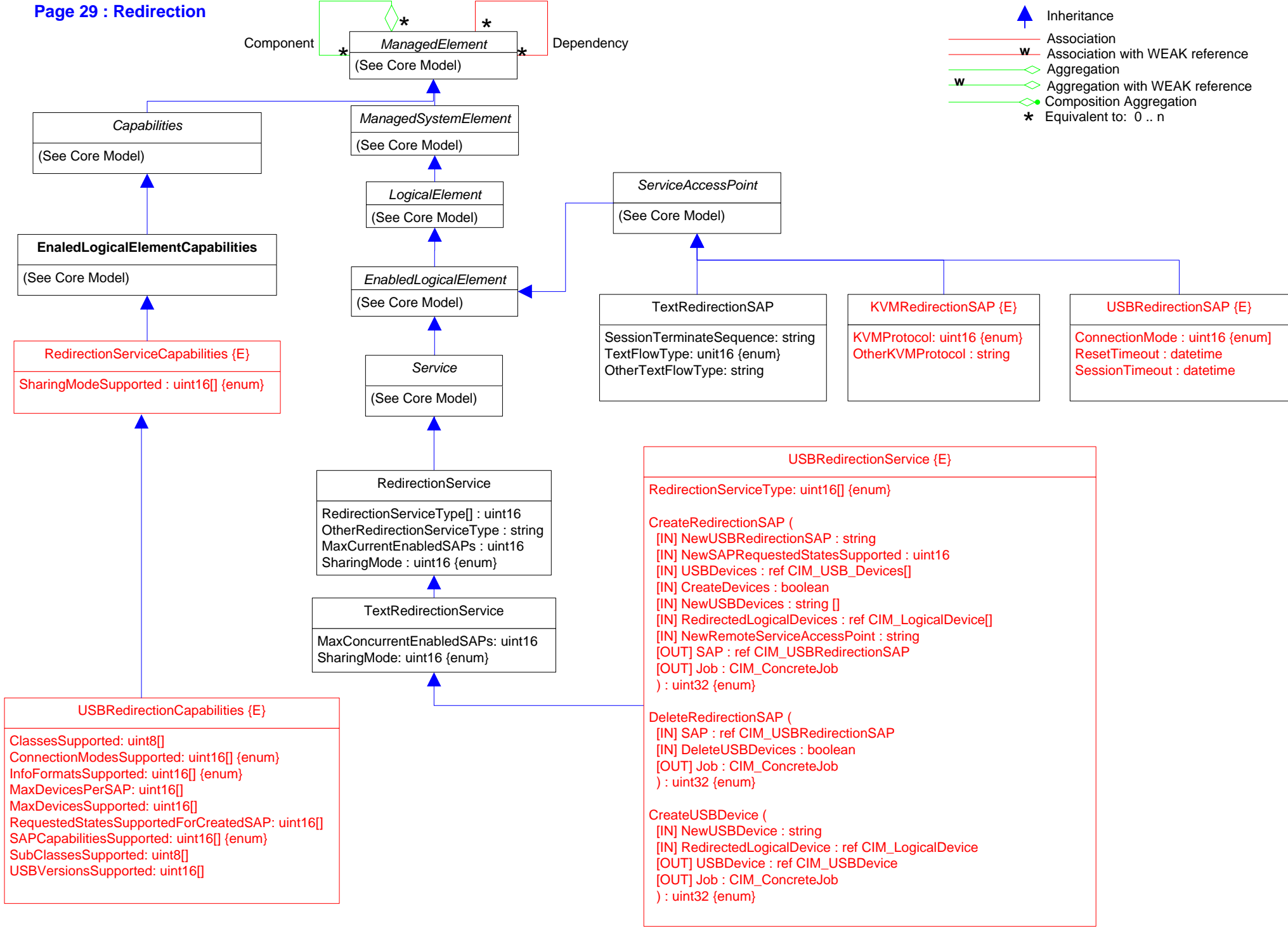




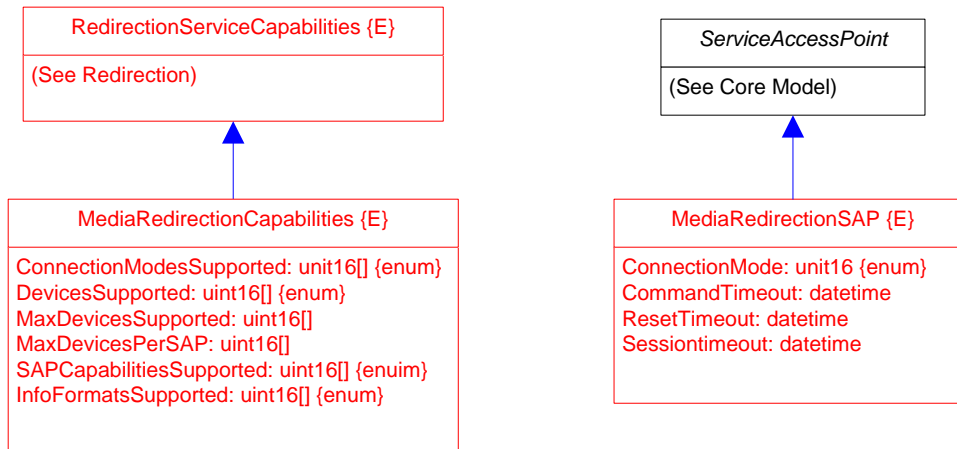
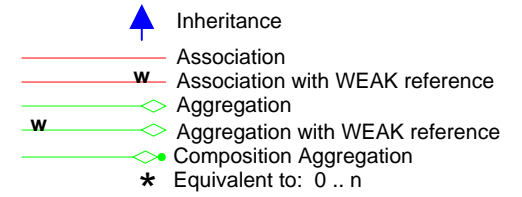
**Page 28 - Extender Schema:  
Extender Node Classes (FCIP)**








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

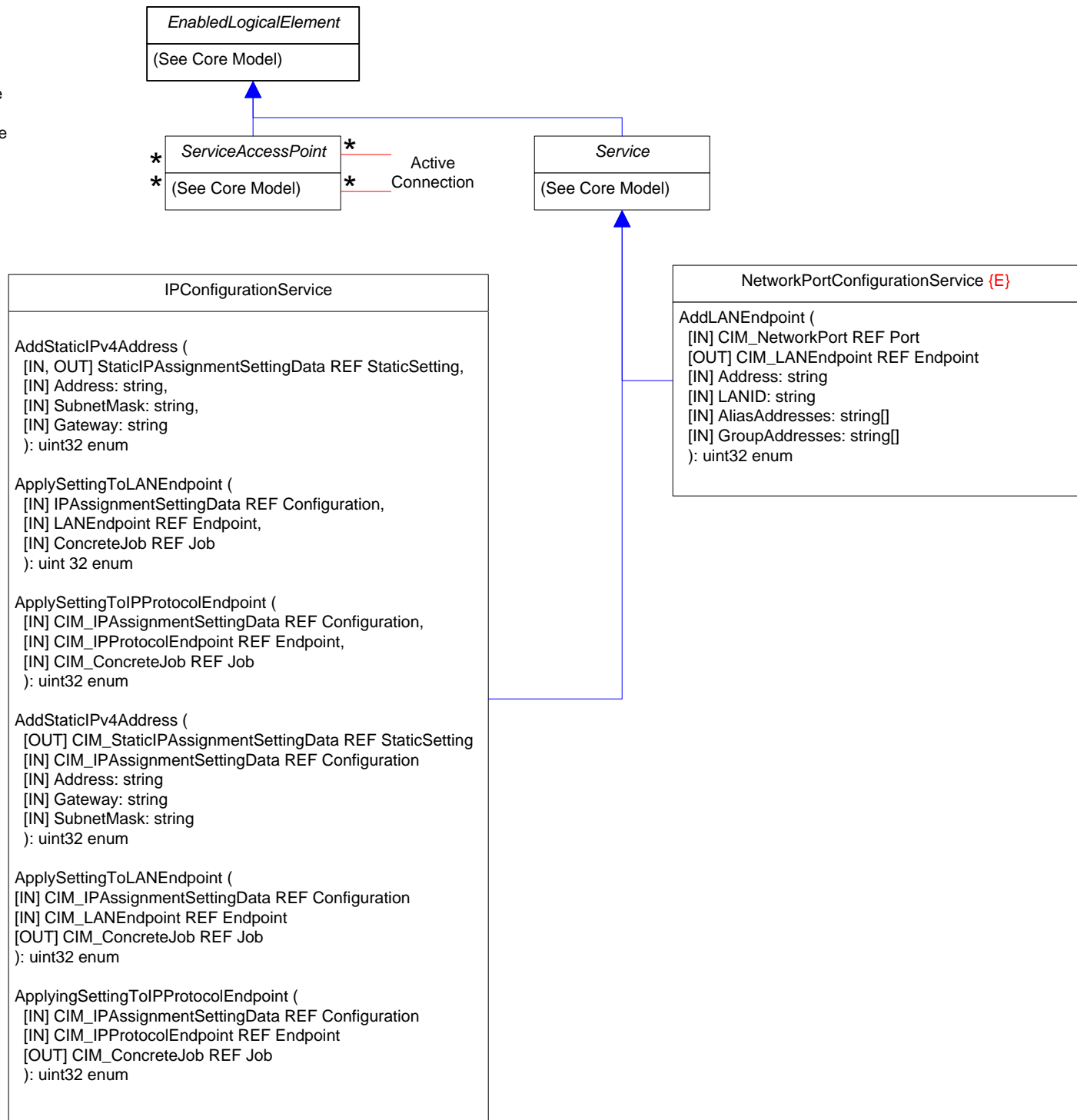


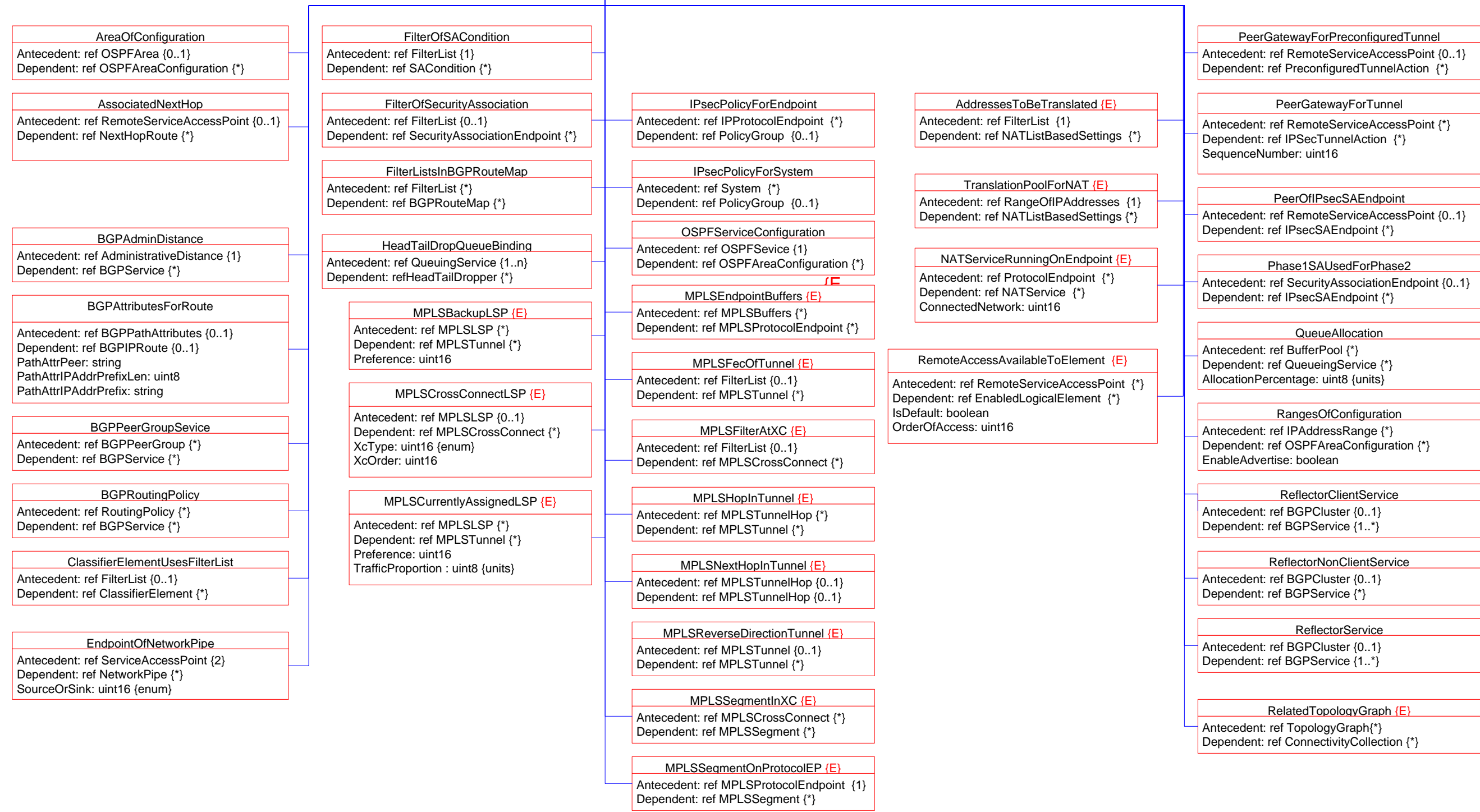
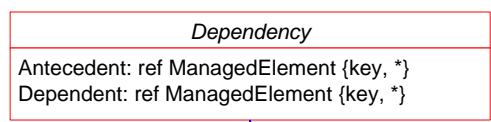


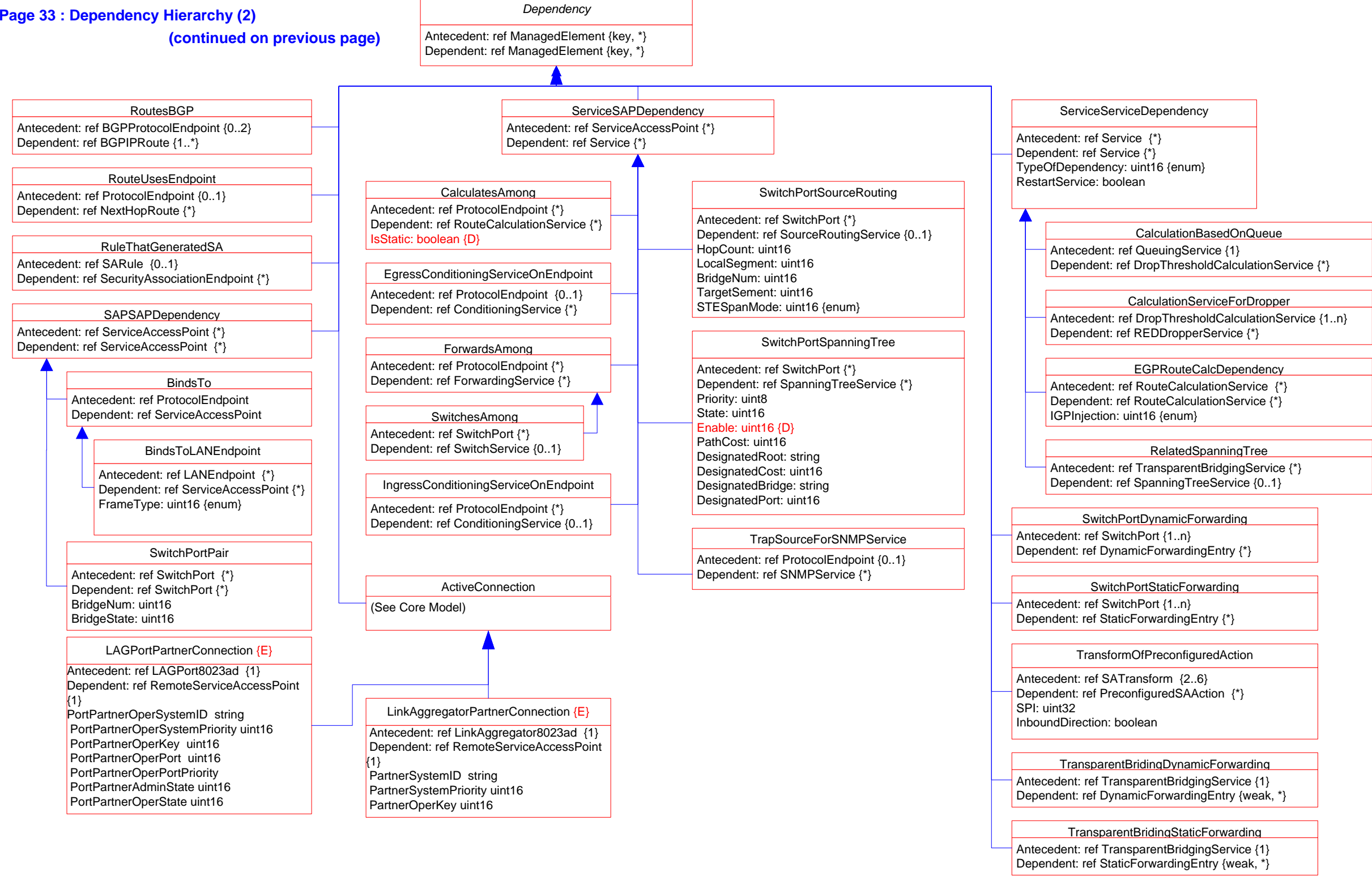




-  Inheritance
-  Association
-  Association with WEAK reference
-  Aggregation
-  Aggregation with WEAK reference
-  Composition Aggregation
-  Equivalent to: 0 .. n







*Dependency*  
 Antecedent: ref ManagedElement {key, \*}  
 Dependent: ref ManagedElement {key, \*}

**ServiceSAPDependency**  
 Antecedent: ref ServiceAccessPoint {\*}  
 Dependent: ref Service {\*}

**ServiceServiceDependency**  
 Antecedent: ref Service {\*}  
 Dependent: ref Service {\*}  
 TypeOfDependency: uint16 {enum}  
 RestartService: boolean

**RoutesBGP**  
 Antecedent: ref BGPProtocolEndpoint {0..2}  
 Dependent: ref BGPIPRoute {1..\*}

**RouteUsesEndpoint**  
 Antecedent: ref ProtocolEndpoint {0..1}  
 Dependent: ref NextHopRoute {\*}

**RuleThatGeneratedSA**  
 Antecedent: ref SARule {0..1}  
 Dependent: ref SecurityAssociationEndpoint {\*}

**SAPSAPDependency**  
 Antecedent: ref ServiceAccessPoint {\*}  
 Dependent: ref ServiceAccessPoint {\*}

**Bindsto**  
 Antecedent: ref ProtocolEndpoint  
 Dependent: ref ServiceAccessPoint

**BindstoLANEndpoint**  
 Antecedent: ref LANEndpoint {\*}  
 Dependent: ref ServiceAccessPoint {\*}  
 FrameType: uint16 {enum}

**SwitchPortPair**  
 Antecedent: ref SwitchPort {\*}  
 Dependent: ref SwitchPort {\*}  
 BridgeNum: uint16  
 BridgeState: uint16

**LAGPortPartnerConnection {E}**  
 Antecedent: ref LAGPort8023ad {1}  
 Dependent: ref RemoteServiceAccessPoint {1}  
 PortPartnerOperSystemID string  
 PortPartnerOperSystemPriority uint16  
 PortPartnerOperKey uint16  
 PortPartnerOperPort uint16  
 PortPartnerOperPortPriority  
 PortPartnerAdminState uint16  
 PortPartnerOperState uint16

**CalculatesAmong**  
 Antecedent: ref ProtocolEndpoint {\*}  
 Dependent: ref RouteCalculationService {\*}  
**IsStatic: boolean {D}**

**EgressConditioningServiceOnEndpoint**  
 Antecedent: ref ProtocolEndpoint {0..1}  
 Dependent: ref ConditioningService {\*}

**ForwardsAmong**  
 Antecedent: ref ProtocolEndpoint {\*}  
 Dependent: ref ForwardingService {\*}

**SwitchesAmong**  
 Antecedent: ref SwitchPort {\*}  
 Dependent: ref SwitchService {0..1}

**IngressConditioningServiceOnEndpoint**  
 Antecedent: ref ProtocolEndpoint {\*}  
 Dependent: ref ConditioningService {0..1}

**ActiveConnection**  
 (See Core Model)

**LinkAggregatorPartnerConnection {E}**  
 Antecedent: ref LinkAggregator8023ad {1}  
 Dependent: ref RemoteServiceAccessPoint {1}  
 PartnerSystemID string  
 PartnerSystemPriority uint16  
 PartnerOperKey uint16

**SwitchPortSourceRouting**  
 Antecedent: ref SwitchPort {\*}  
 Dependent: ref SourceRoutingService {0..1}  
 HopCount: uint16  
 LocalSegment: uint16  
 BridgeNum: uint16  
 TargetSement: uint16  
 STESpanMode: uint16 {enum}

**SwitchPortSpanningTree**  
 Antecedent: ref SwitchPort {\*}  
 Dependent: ref SpanningTreeService {\*}  
 Priority: uint8  
 State: uint16  
**Enable: uint16 {D}**  
 PathCost: uint16  
 DesignatedRoot: string  
 DesignatedCost: uint16  
 DesignatedBridge: string  
 DesignatedPort: uint16

**TrapSourceForSNMPService**  
 Antecedent: ref ProtocolEndpoint {0..1}  
 Dependent: ref SNMPService {\*}

**CalculationBasedOnQueue**  
 Antecedent: ref QueuingService {1}  
 Dependent: ref DropThresholdCalculationService {\*}

**CalculationServiceForDropper**  
 Antecedent: ref DropThresholdCalculationService {1..n}  
 Dependent: ref REDDropperService {\*}

**EGPRouteCalcDependency**  
 Antecedent: ref RouteCalculationService {\*}  
 Dependent: ref RouteCalculationService {\*}  
 IGPInjection: uint16 {enum}

**RelatedSpanningTree**  
 Antecedent: ref TransparentBridgingService {\*}  
 Dependent: ref SpanningTreeService {0..1}

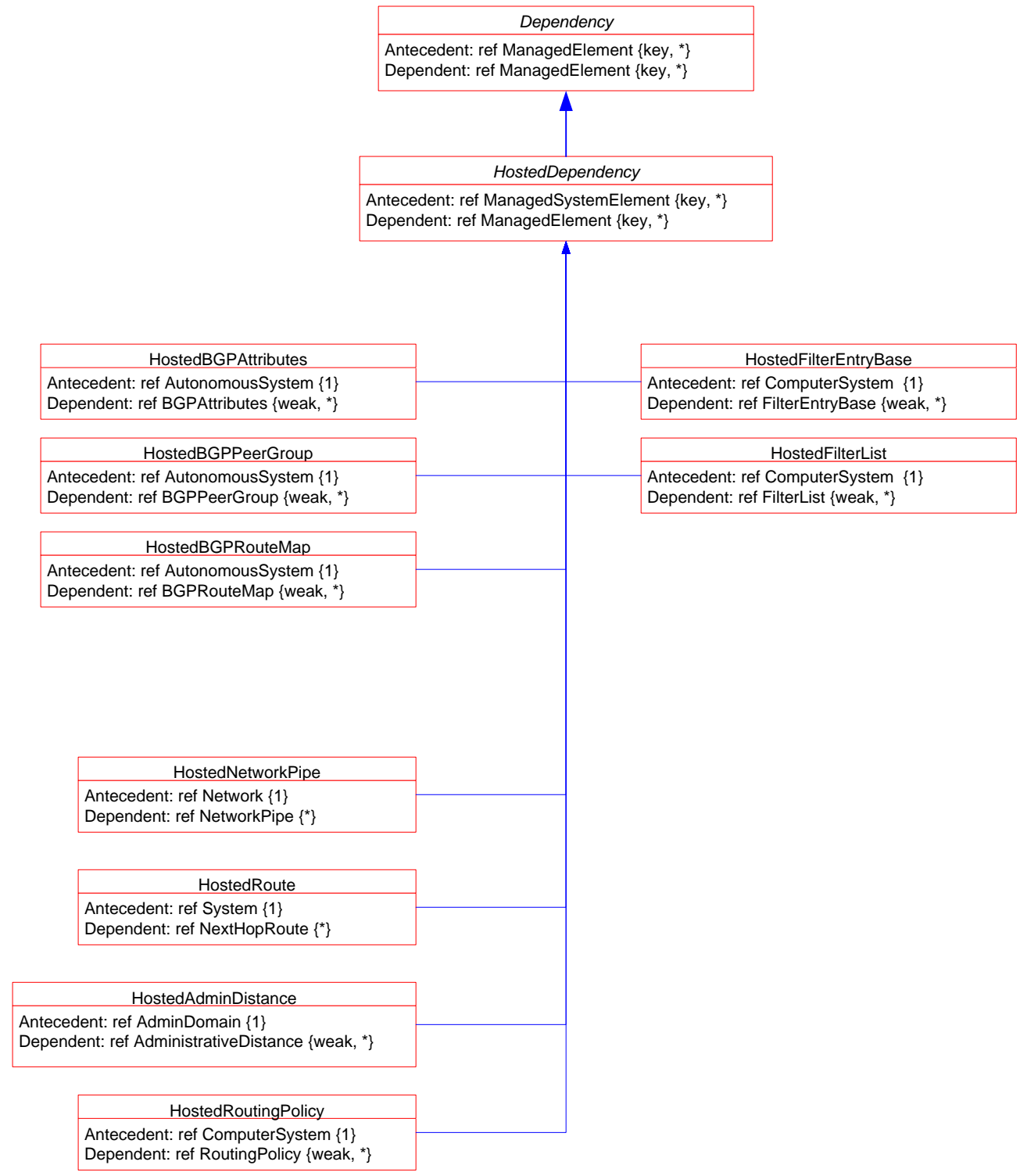
**SwitchPortDynamicForwarding**  
 Antecedent: ref SwitchPort {1..n}  
 Dependent: ref DynamicForwardingEntry {\*}

**SwitchPortStaticForwarding**  
 Antecedent: ref SwitchPort {1..n}  
 Dependent: ref StaticForwardingEntry {\*}

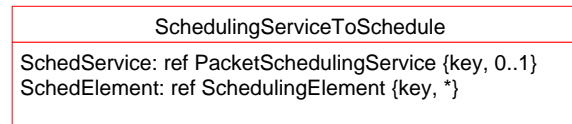
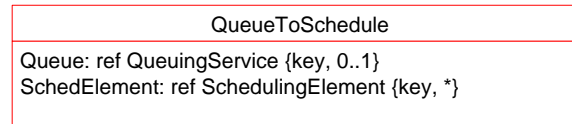
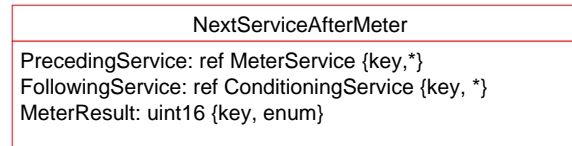
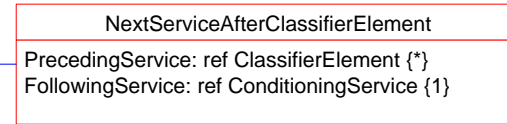
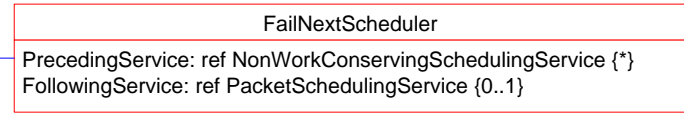
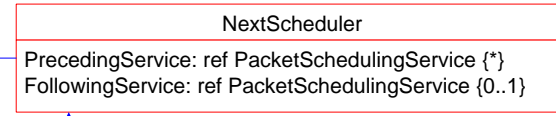
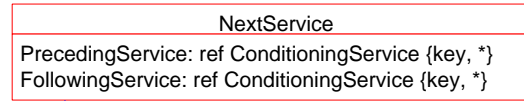
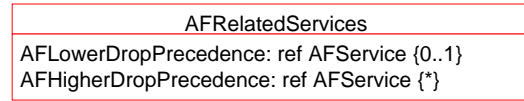
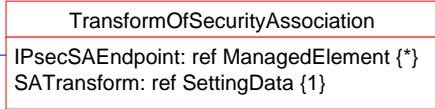
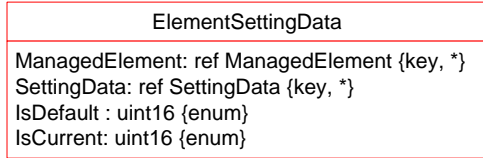
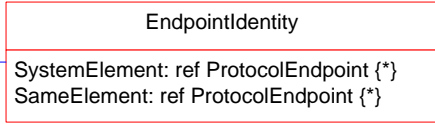
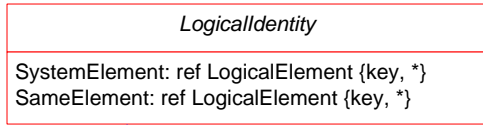
**TransformOfPreconfiguredAction**  
 Antecedent: ref SATransform {2..6}  
 Dependent: ref PreconfiguredSAAction {\*}  
 SPI: uint32  
 InboundDirection: boolean

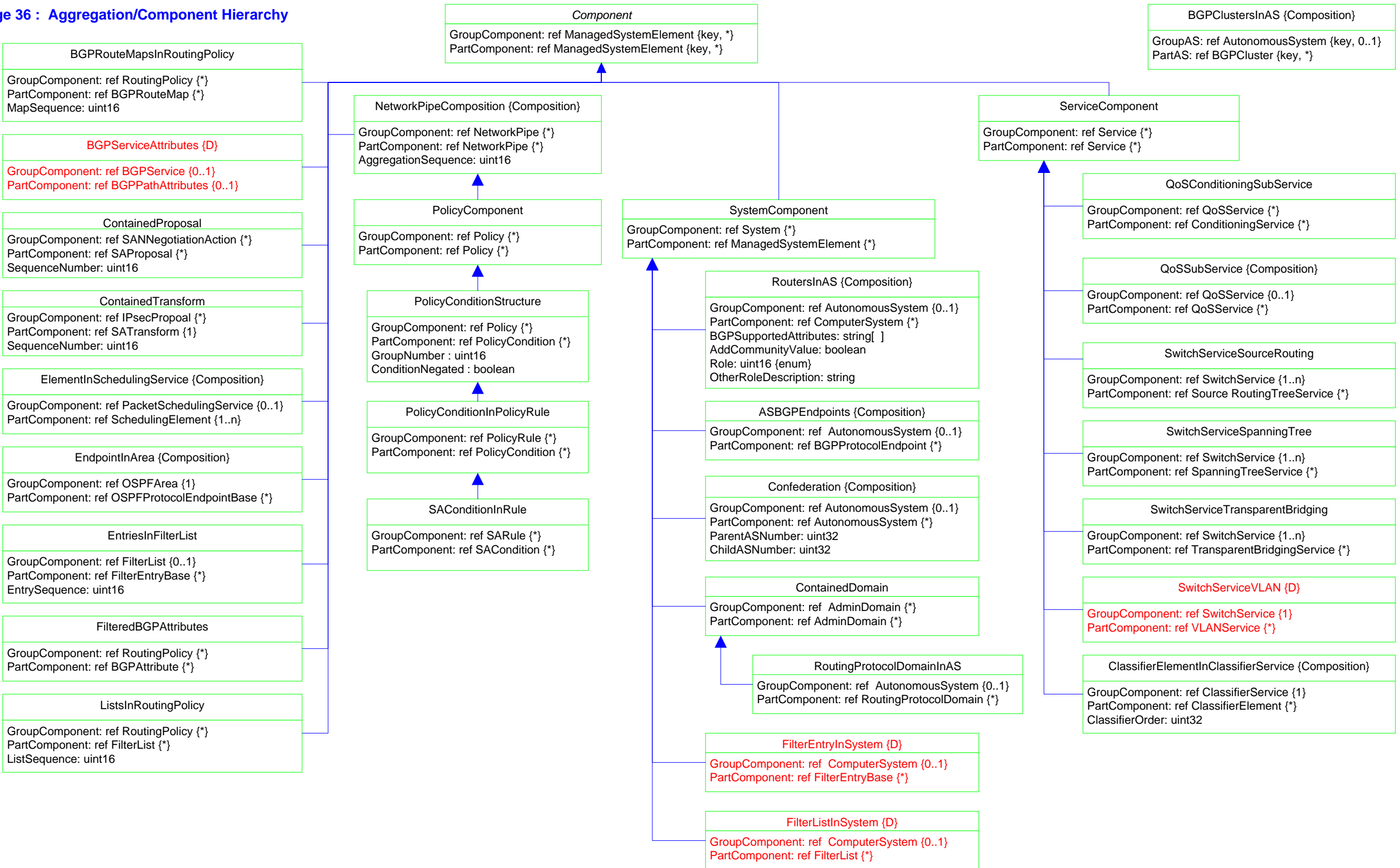
**TransparentBridingDynamicForwarding**  
 Antecedent: ref TransparentBridgingService {1}  
 Dependent: ref DynamicForwardingEntry {weak, \*}

**TransparentBridingStaticForwarding**  
 Antecedent: ref TransparentBridgingService {1}  
 Dependent: ref StaticForwardingEntry {weak, \*}



## Page 35 : Association (Non-Aggregation/Dependency) Hierarchy





*Component*

GroupComponent: ref ManagedSystemElement {key, \*}  
 PartComponent: ref ManagedSystemElement {key, \*}

BGPClustersInAS {Composition}

GroupAS: ref AutonomousSystem {key, 0..1}  
 PartAS: ref BGPCluster {key, \*}

BGPRouteMapsInRoutingPolicy

GroupComponent: ref RoutingPolicy {\*}  
 PartComponent: ref BGPRouteMap {\*}  
 MapSequence: uint16

**BGPServiceAttributes {D}**

GroupComponent: ref BGPService {0..1}  
 PartComponent: ref BGPPathAttributes {0..1}

ContainedProposal

GroupComponent: ref SANNegotiationAction {\*}  
 PartComponent: ref SAProposal {\*}  
 SequenceNumber: uint16

ContainedTransform

GroupComponent: ref IPsecPropoal {\*}  
 PartComponent: ref SATransform {1}  
 SequenceNumber: uint16

ElementInSchedulingService {Composition}

GroupComponent: ref PacketSchedulingService {0..1}  
 PartComponent: ref SchedulingElement {1..n}

EndpointInArea {Composition}

GroupComponent: ref OSPFArea {1}  
 PartComponent: ref OSPFProtocolEndpointBase {\*}

EntriesInFilterList

GroupComponent: ref FilterList {0..1}  
 PartComponent: ref FilterEntryBase {\*}  
 EntrySequence: uint16

FilteredBGPAttributes

GroupComponent: ref RoutingPolicy {\*}  
 PartComponent: ref BGPAttribute {\*}

ListsInRoutingPolicy

GroupComponent: ref RoutingPolicy {\*}  
 PartComponent: ref FilterList {\*}  
 ListSequence: uint16

NetworkPipeComposition {Composition}

GroupComponent: ref NetworkPipe {\*}  
 PartComponent: ref NetworkPipe {\*}  
 AggregationSequence: uint16

PolicyComponent

GroupComponent: ref Policy {\*}  
 PartComponent: ref Policy {\*}

PolicyConditionStructure

GroupComponent: ref Policy {\*}  
 PartComponent: ref PolicyCondition {\*}  
 GroupNumber : uint16  
 ConditionNegated : boolean

PolicyConditionInPolicyRule

GroupComponent: ref PolicyRule {\*}  
 PartComponent: ref PolicyCondition {\*}

SACConditionInRule

GroupComponent: ref SARule {\*}  
 PartComponent: ref SACCondition {\*}

SystemComponent

GroupComponent: ref System {\*}  
 PartComponent: ref ManagedSystemElement {\*}

RoutersInAS {Composition}

GroupComponent: ref AutonomousSystem {0..1}  
 PartComponent: ref ComputerSystem {\*}  
 BGPSupportedAttributes: string[ ]  
 AddCommunityValue: boolean  
 Role: uint16 {enum}  
 OtherRoleDescription: string

ASBGPEndpoints {Composition}

GroupComponent: ref AutonomousSystem {0..1}  
 PartComponent: ref BGPProtocolEndpoint {\*}

Confederation {Composition}

GroupComponent: ref AutonomousSystem {0..1}  
 PartComponent: ref AutonomousSystem {\*}  
 ParentASNumber: uint32  
 ChildASNumber: uint32

ContainedDomain

GroupComponent: ref AdminDomain {\*}  
 PartComponent: ref AdminDomain {\*}

RoutingProtocolDomainInAS

GroupComponent: ref AutonomousSystem {0..1}  
 PartComponent: ref RoutingProtocolDomain {\*}

**FilterEntryInSystem {D}**

GroupComponent: ref ComputerSystem {0..1}  
 PartComponent: ref FilterEntryBase {\*}

**FilterListInSystem {D}**

GroupComponent: ref ComputerSystem {0..1}  
 PartComponent: ref FilterList {\*}

ServiceComponent

GroupComponent: ref Service {\*}  
 PartComponent: ref Service {\*}

QoSConditioningSubService

GroupComponent: ref QoSService {\*}  
 PartComponent: ref ConditioningService {\*}

QOSSubService {Composition}

GroupComponent: ref QoSService {0..1}  
 PartComponent: ref QoSService {\*}

SwitchServiceSourceRouting

GroupComponent: ref SwitchService {1..n}  
 PartComponent: ref SourceRoutingTreeService {\*}

SwitchServiceSpanningTree

GroupComponent: ref SwitchService {1..n}  
 PartComponent: ref SpanningTreeService {\*}

SwitchServiceTransparentBridging

GroupComponent: ref SwitchService {1..n}  
 PartComponent: ref TransparentBridgingService {\*}

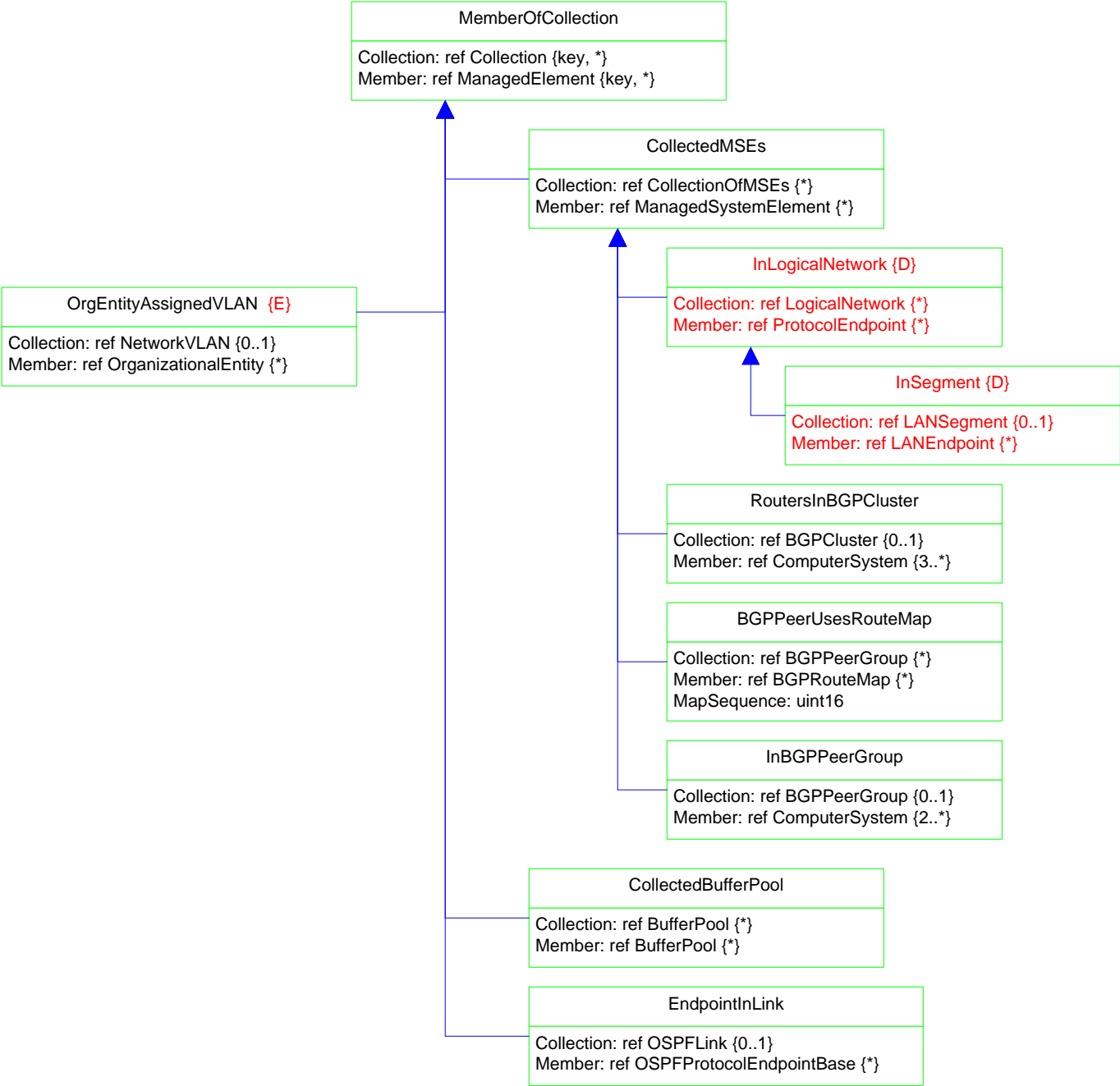
**SwitchServiceVLAN {D}**

GroupComponent: ref SwitchService {1}  
 PartComponent: ref VLANService {\*}


ClassifierElementInClassifierService {Composition}

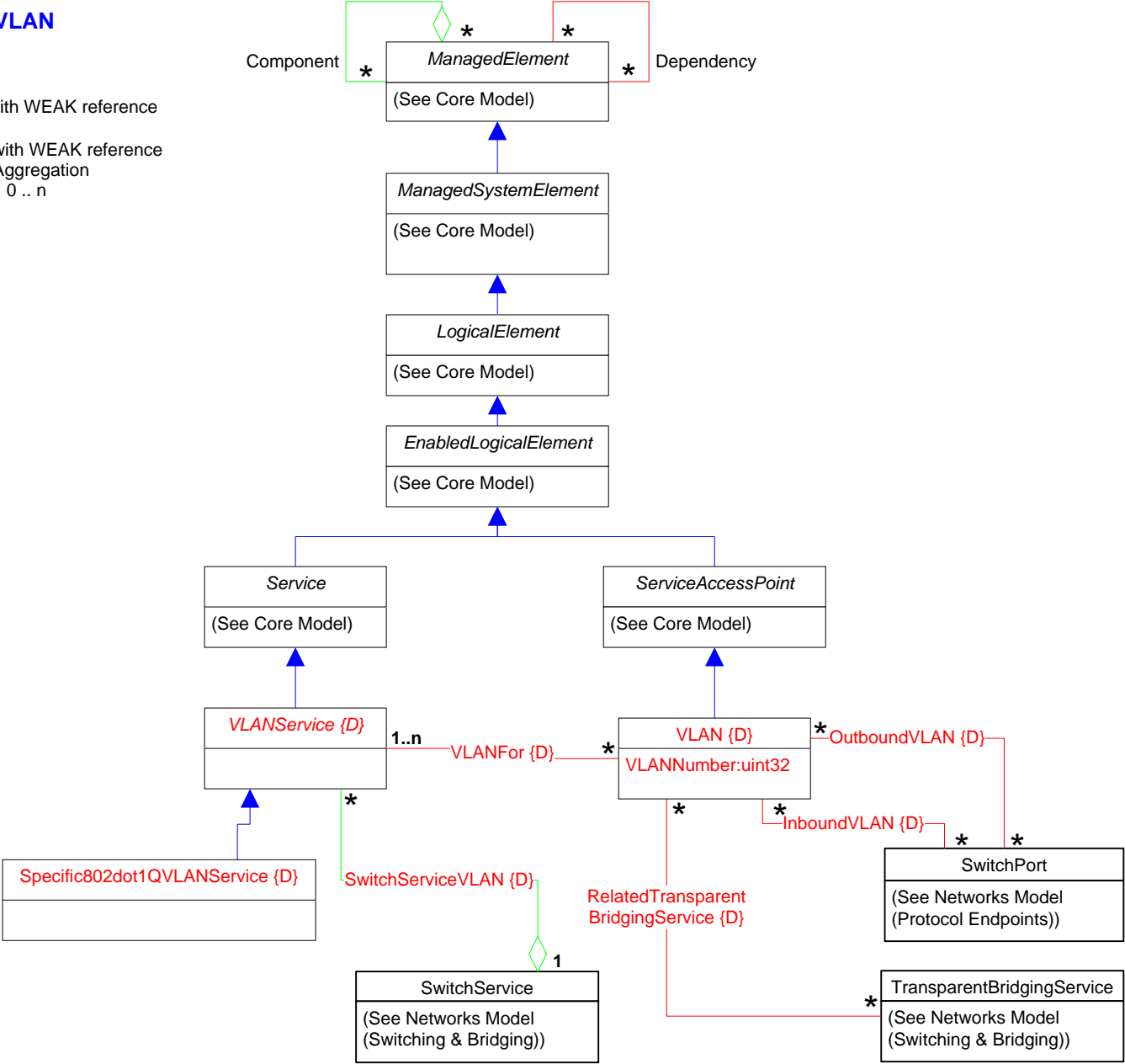
GroupComponent: ref ClassifierService {1}  
 PartComponent: ref ClassifierElement {\*}  
 ClassifierOrder: uint32





Page 38 : Deprecated VLAN

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



Page 39: Deprecated Associations

