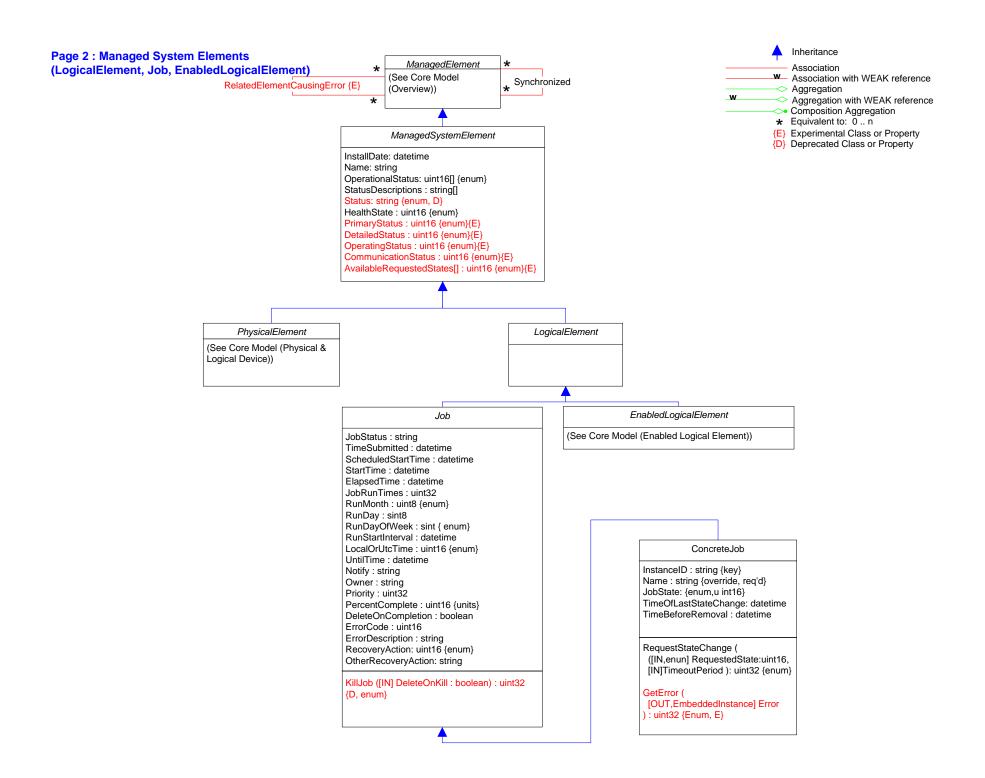
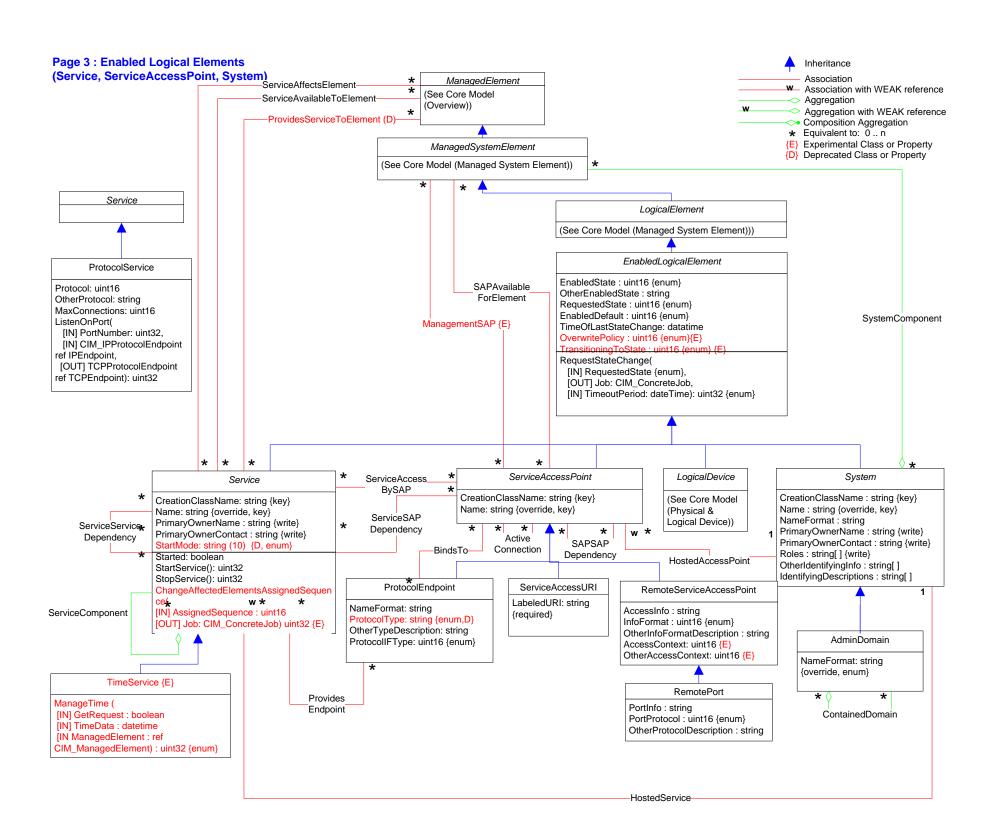
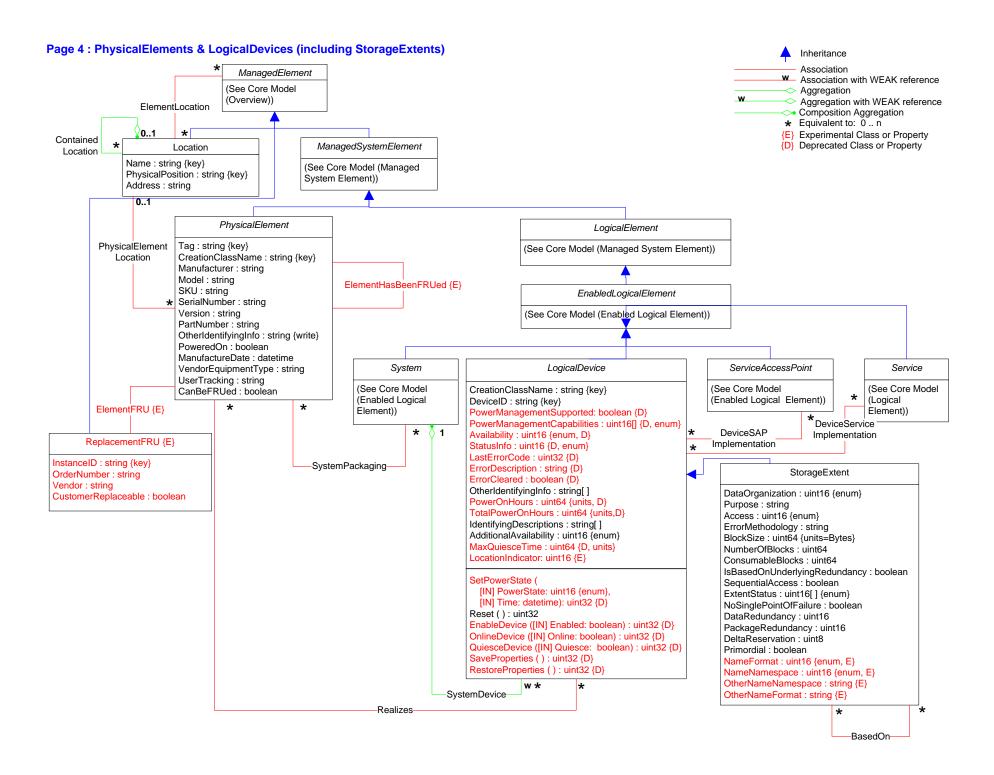
Title : Core Specification V2.16 Filename: CIM Core.vsd Author : DMTF SysDev-wg Inheritance : 03 August 2007 Date Association W Association with WEAK reference Aggregation Page 1: Overview Aggregation with WEAK reference Page 2: ManagedSystemElement Composition Aggregation Page 3: EnabledLogicalElement \* Equivalent to: 0 .. n Page 4: Physical Elements and Logical Devices (Including StorageExtents) (E) Experimental Class or Property (D) Deprecated Class or Property Page 5: Collections/RedundancySet Page 6: Redundany Groups Page 7: Product, FRU Page 8: SoftwareIdentity Page 9: Statistics Page 10 : SettingData, Profiles & Capabilities Page 11 : Power Management Concrete Page 12: Settings, Configurations & Method Parameters Identity Page 13: Virtualization Page 14: Resource Dependency Component ManagedElement Page 15: Grid Caption: string ConcreteDependency ConcreteComponent Page 16: Association Hierarchy \* Description : string 0..1 ★ ElementName : string Page 17: Association Hierarchy HostedDependency LogicalIdentity Page 18: Dependency Hierarchy Page 19: Aggregation Hierarchy Ordered Component **MethodParameters** StatisticalInformation Capabilities Configuration Location Setting SupportAccess (See Core Model (Physical & (Settings, (Product, FRU & (SettingData, (Settings, (Settings, (Statistics)) Logical Device)) Configurations & Configurations & Profiles, Cap., & Configurations & SoftwareID)) Power Mgmt)) Method Parms)) Method Parms)) Method Parms)) FRU Collection ManagedSystemElement Product SettingData StatisticalData (See Core Model (See Core Model (See Core Model (See Core Model (Managed (See Core Model (See Core Model (Collection & (Product, FRU & (Statistics)) (Product, FRU & System Element)) (SettingData, Redundancy SoftwareID)) SoftwareID)) Profiles, Cap., & Sets)) Power Mgmt)) PhysicalElement LogicalElement (See Core Model (See Core Model (Managed System (Physical & Logical Device)) Element)) Job SoftwareIdentity EnabledLogicalElement (See Core Model (See Core Model (See Core Model (Enabled (Product, FRU & (Managed System Logical Element)) Element)) SoftwareID))

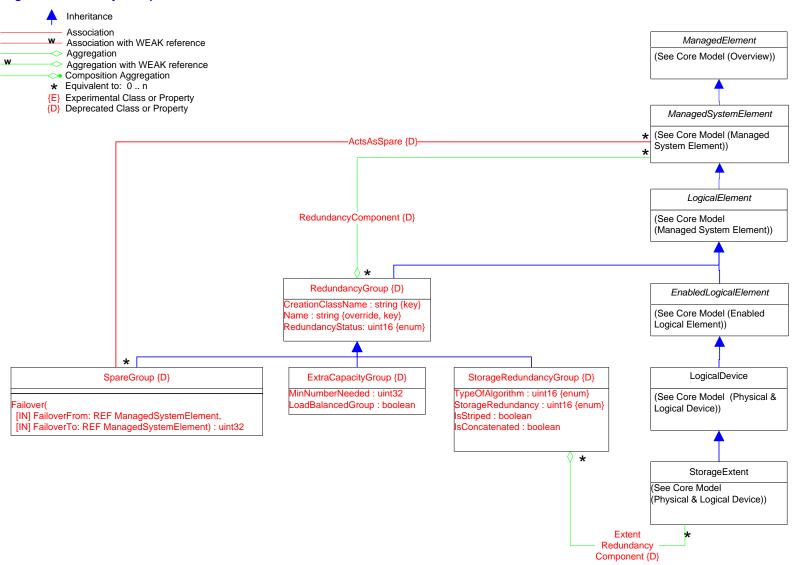


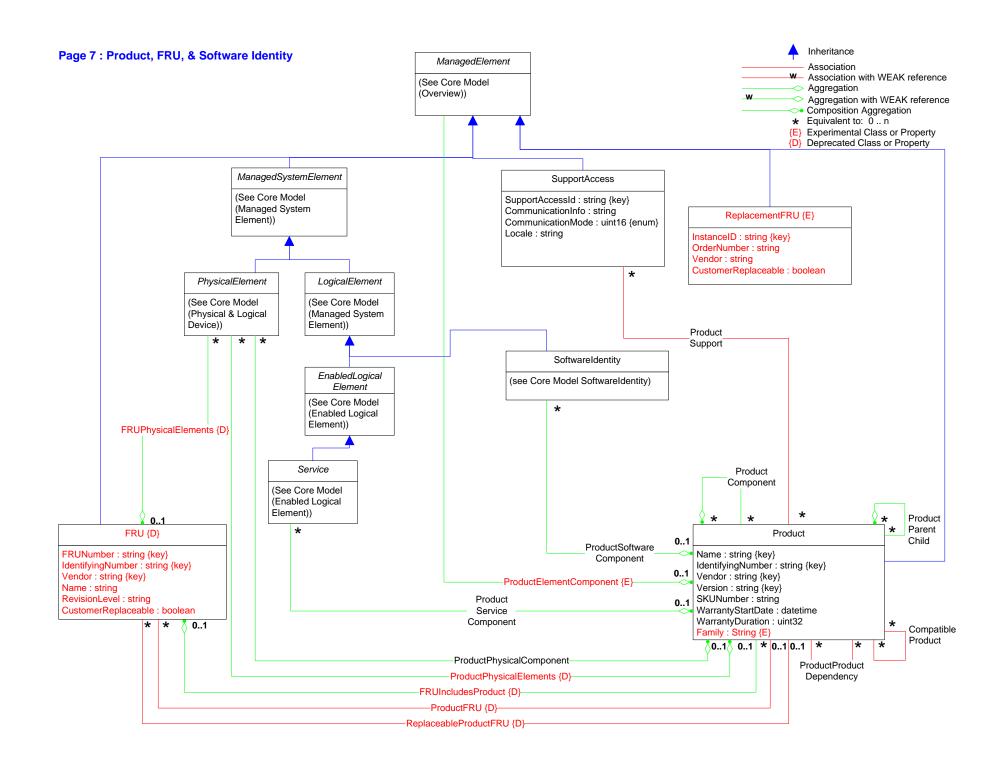




Page 5: Collections/RedundancySet isSpare Inheritance MemberOf Association StatusCollection {E} W Association with WEAK reference Aggregation ManagedElement Aggregation with WEAK reference Composition Aggregation Spared (See Core Model OrderedMember \* Equivalent to: 0 .. n (Overview)) OfCollection (E) Experimental Class or Property (D) Deprecated Class or Property MemberOf Owning Collection Collection Element (E) ManagedSystemElement Collection \* (See Core Model (Managed System Element)) Capabilities SettingData CollectedMSEs (See Core Model (See Core Model (SettingData, (SettingData, Profiles, Cap., & LogicalElement Profiles, Cap., & CollectionOfMSEs ConcreteCollection StatusCollection Power Mgmt)) Power Mgmt)) (See Core Model CollectionID: string InstanceID: string {key} InstanceID : string {key} (Managed System Element)) CollectionPrimaryStatus: uint16 {enum} CollectionName: string \* \*Collected RedundancySetCapabilities {E} EnabledLogicalElement SystemSpecificCollection Collections SupportedTypesOfSets[]: uint16 (See Core Model InstanceID: string {key} MaxNumberSupported: uint32 (Enabled Logical Element)) SupportedLoadBalanceAlgorithms[]: uint16 Hosted Collection System RedundancySetSettingData {E} (See Core Model TypeOfSet[]: uint16 {enum, write} RedundancySet (Enabled Logical Element)) MinNumberNeeded: uint32 {write} MaxNumberSupported : uint32 RedundancyStatus :uint16 {enum} LoadBalanceAlgorithm: uint16 {enum} TypeOfSet :uint16[] {enum} VendorldentifyingInfo: string {write} OtherTypeOfSet : string[] MinNumberNeeded: uint32 {minvalue(0)} StatisticsCollection MaxNumberSupported: uint32 VendorldentifyingInfo: string SampleInterval: datatime LoadBalanceAlgorithm: uint16 TimeLastSampled: datetime OtherLoadBalanceAlgorithm: string VendorldentifyingInfo: string Failover ( [IN] FailoverFrom : ref CIM\_ManagedElement, [IN] FailoverTo : ref CIM\_ManagedElement ): uint32 {Enum} StorageRedundancySet TypeOfAlgorithm : uint16 {enum) OtherAlgorithm: string

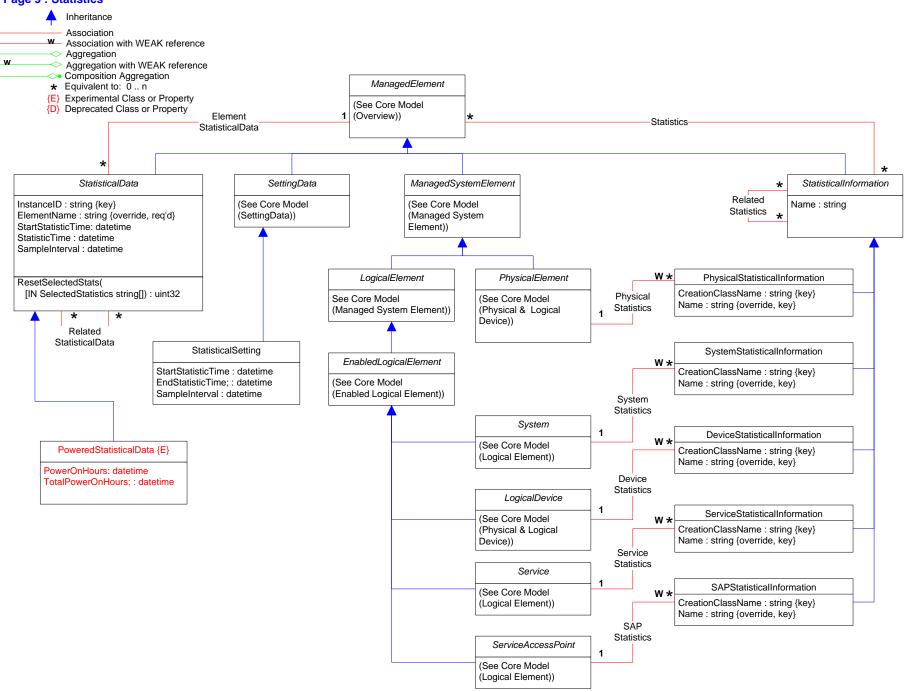
Page 6: Redundancy Group



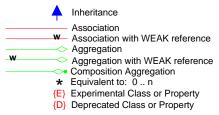


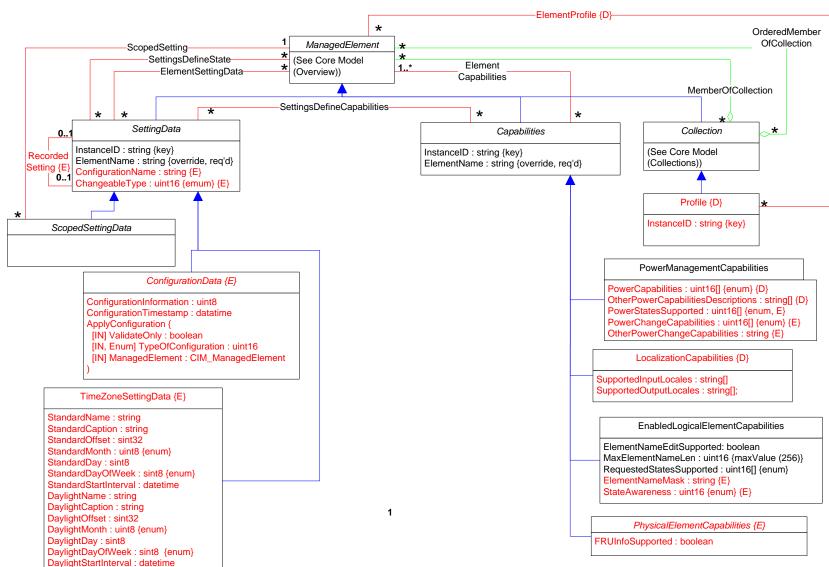
Inheritance Page 8 - SoftwareIdentity & Management Association W Association with WEAK reference Aggregation ManagedElement Aggregation with WEAK reference Composition Aggregation (See Core Model \* Equivalent to: 0 .. n (Overview)) (E) Experimental Class or Property (D) Deprecated Class or Property EnabledLogical Element (See Core Model (Logical Element)) ElementSoftware ManagedSystemElement Identity (See Core Model (Managed System Element)) System Service ServiceAccessPoint ServiceAvailable ToElement (See Core Model (See Core Model (See Core Model (Logical Element)) Logical Element)) (Enabled Logical Element)) **ElementCapabilities** LogicalElement (See Core Model (Logical Element)) SoftwareIdentityResource {E} InfoFormat: uint16; ResourceType : uint16 {enum}; InstalledSoftware ExtendedResourceType : uint16 {enum}; Identity OtherResourceType: string; SoftwareInstallationService {E} CheckSoftwareIdentity ( Capabilities [IN] Source : ref SoftwareIdentity [IN] Target: ref ManagedElement Instanceld: string [IN] Collection : ref Collection SoftwareIdentity CreateGoalSettings( [OUT] InstallationCharacteristics : uint8 {enum} [IN] TemplateGoalSettings[]: string. }: uint32 Collection InstanceID: string {key} [IN, OUT] SupportedGoalSettings[]: string): MajorVersion: uint16 uint32 {E} InstallFromSoftwareIdentity( MinorVersion: uint16 TemplateGoalSettings[]: string {E} [OUT] Job: ref ConcreteJob, RevisionNumber: uint16 SupportedGoalSettings[]: string {E} [IN] InstallOptions: uint16, BuildNumber: uint16 [IN] InstallOptionValues[]: string, VersionString: string [IN] Source : ref SoftwareIdentity TargetOperatingSystems : string [] [IN] Target : ref ManagedElement SystemSpecificCollection Manufacturer: string [IN] Collection: ref Collection Languages : string[] ): uint32 Classifications : uint16[] {enum} ClassificationDescriptions: string[] nstallFromByteStream( TargetTypes[]: string {E} [OUT] Job: ref ConcreteJob TargetOSTypes[]: uint16 {enum} {E} SoftwareInstallationServiceCapabilities {E} [IN] Image: uint8[] ReleaseDate: datetime {E} [IN] Target: ref ManagedElement IdentityInfoValue: string {E} SupportedAsynchronousActions[]: uint16; [IN] InstallOptions: uint16, IdentityInfoType : string {E} SupportedSynchronousActions[]: uint16; [IN] InstallOptionValues[]: string. IsEntity: boolean {E} SupportedTargetTypes[]: string; ExtendedResourceType : uint16 {enum} {E} SupportedExtendedResourceTypes[] : uint16; InstallFromURI( OtherExtendedResourceTypeDescription: string {E} SupportedInstallOptions[] : uint16 {enum} [OUT] Job : ref ConcreteJob MinExtendedResourceTypeMajorVersion: uint16 {enum} {E} OtherSupportedExtendedResourceTypeDescriptions[]: string [IN] URI: string MinExtendedResourceTypeMinorVersion: uint16 {E} SupportedExtendedResourceTypesMajorVersions[]: uint16 [OUT] Target: ManagedElement MinExtendedResourceTypeRevisionNumber: uint16 {E} SupportedExtendedResourceTypesMinorVersions[]: uint16 [IN] InstallOptions : uint16. MinExtendedResourceTypeBuildNumber: uint16 {E} SupportedExtendedResourceTypesRevisionNumbers[]: uint16 [IN] InstallOptionValues[]: string, SupportedExtendedResourceTypesBuildNumbers[]: uint16 SoftwareIdentity SupportedURISchemes: uint16 {enum} Component (E)

Page 9: Statistics

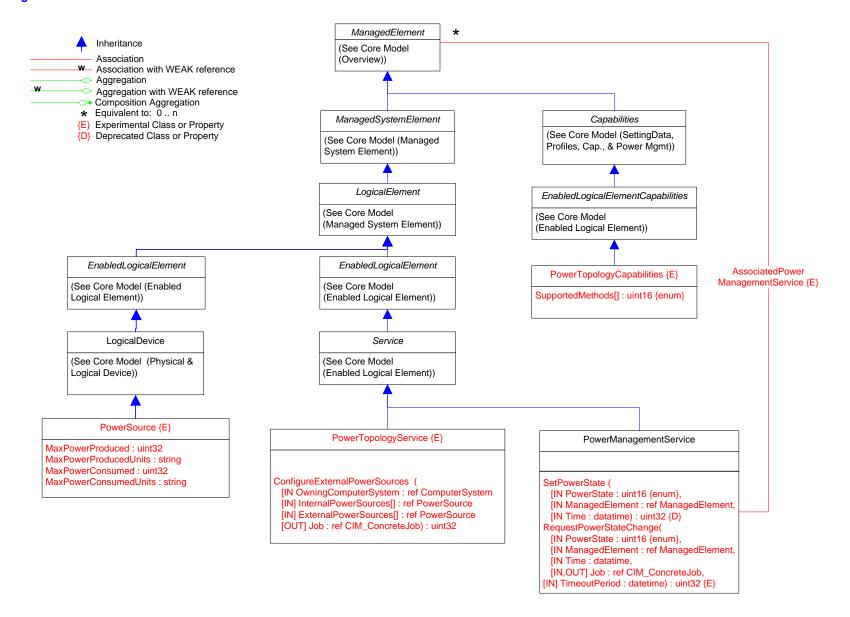


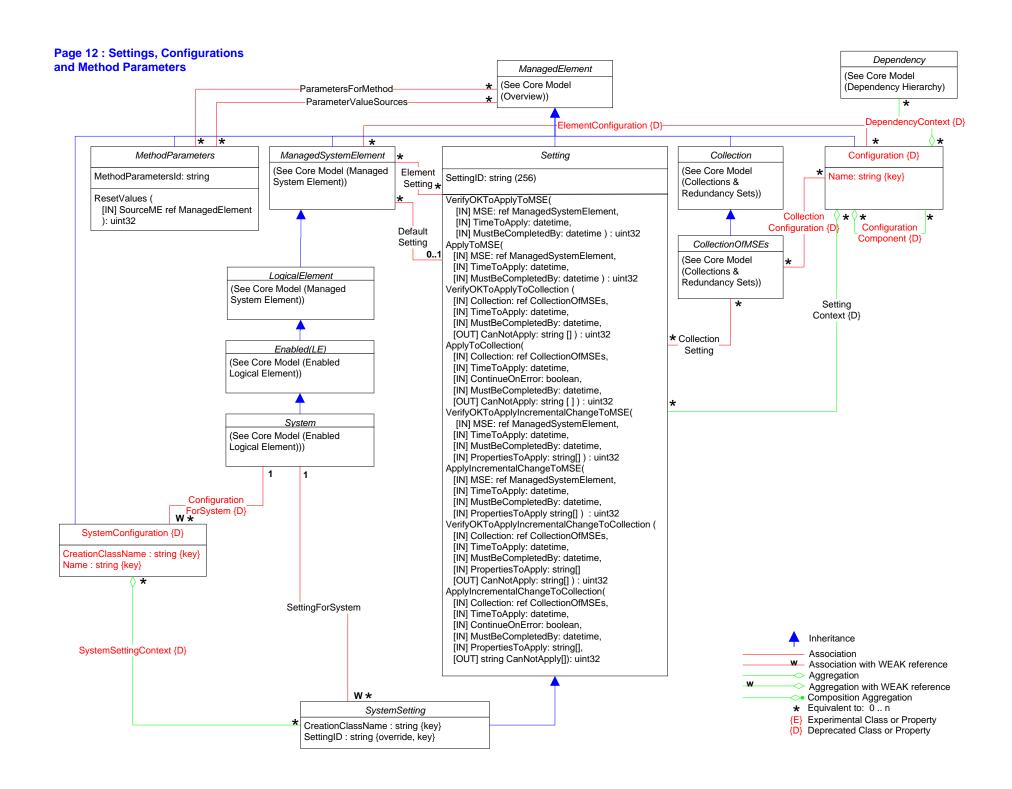
Page 10 : SettingData, Profiles & Capabilities





Page 11: Power





# Page 13: Virtualization

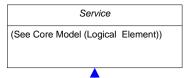
#### Capabilities

(See Core Model (SettingData, Profiles, Cap., & Power Mgmt))



#### VirtualSystemManagementCapabilities {E}

VirtualSystemTypesSupported: string[], SynchronousMethodsSupported: uint16 {enum, AsynchronousMethodsSupported: uint16 {enum} IndicationsSupported: uint16 {enum}



# VirtualSystemManagementService {E}

# AddResourceSettings (

AffectedConfiguration: ref CIM\_VirtualSystemSettingData,

AffectedConfiguration: string[],

[OUT] ResultingResourceSettings : ref CIM\_ResourceAllocationSettingData,

[OUT] Job : ref CIM\_ConcreteJob ) : uint16 {enum};

#### DefineSystem (

SystemSettings: string, ResourceSettings: string[],

ReferenceConfiguration: ref CIM\_VirtualSystemSettingData,

[OUT] ResultingSystem : ref CIM\_ComputerSystem, [OUT] Job : ref CIM\_ConcreteJob ) : uint16 {enum};

#### DestroySystem (

AffectedSystem: ref CIM\_ComputerSystem, [OUT] Job: ref CIM\_ConcreteJob): uint16 {enum};

#### ModifyResourceSettings (

ResourceSettings : string[],

[OUT] ResultingResourceSettings : ref CIM\_ResourceAllocationSettingData,

[OUT] Job : ref CIM\_ConcreteJob ) : uint16 {enum};

# ModifySystemSettings (

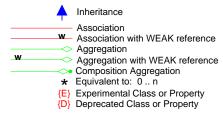
SystemSettings: string[],

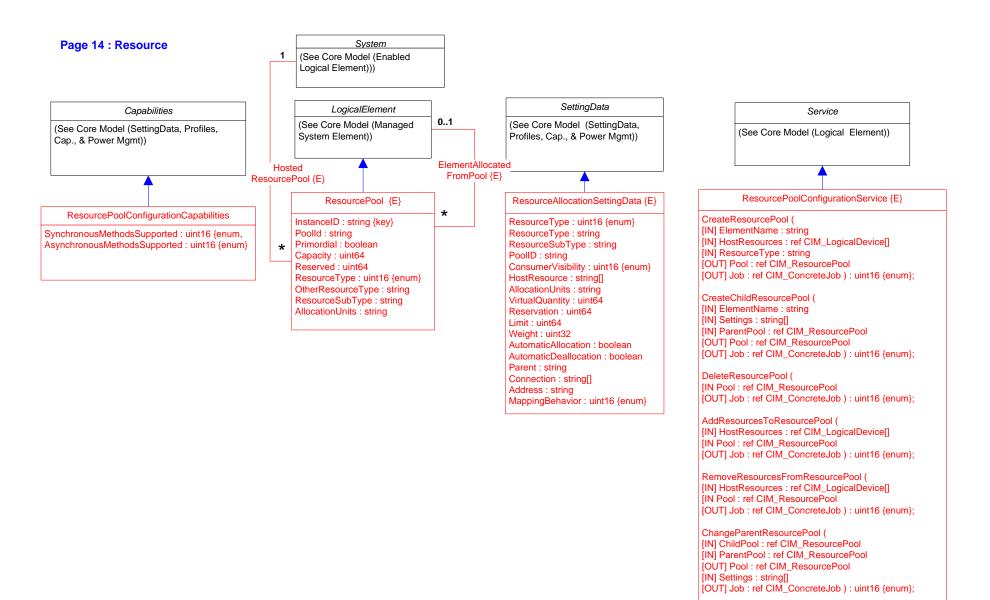
[OUT] Job : ref CIM\_ConcreteJob ) : uint16 {enum};

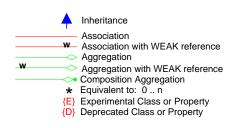
#### RemoveResourceSettings (

ResultingResourceSettings: ref CIM\_ResourceAllocationSettingData,

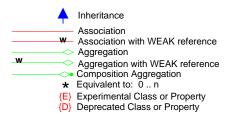
[OUT] Job : ref CIM\_ConcreteJob ) : uint16 {enum};

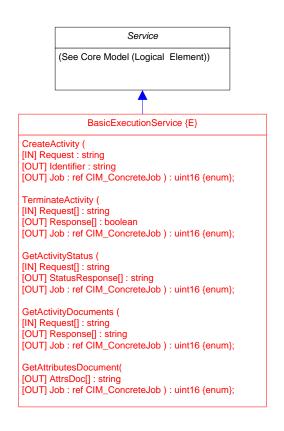






Page 15 : Grid





# Page 16: Association Hierarchy

#### ActsAsSpare (D)

Group: ref SpareGroup {key, \*}

Spare: ref ManagedSystemElement {key, \*}

HotStandby: boolean

#### CompatibleProduct

Product: ref Product {key, \*}

CompatibleProduct: ref Product {key, \*}

CompatibilityDescription: string

#### CollectionConfiguration (D)

Collection: ref CollectionOfMSEs {key, \*}
Configuration: ref Configuration {key, \*}

#### CollectionSetting

Collection: ref CollectionOfMSEs {key, \*} Setting: ref Setting {key, \*}

#### **ElementCapabilities**

ManagedElement: ref ManagedElement {key, 1} Capabilities: ref Capabilities {key, \*} Characteristics[] : uint16 {enum} {E}

#### ElementConfiguration (D)

Element: ref ManagedSystemElement {key, \*} Configuration: ref Configuration {key, \*}

#### ElementLocation

Element: ref ManagedElement {key, \*} PhysicalLocation: ref Location {key, \*}

#### PhysicalElementLocation

Element: ref PhysicalElement {\*} PhysicalLocation: ref Location {0..1}

#### ElementProfile {D}

ManagedElement: ref ManagedElement {key, 1} Profile: ref Profile {key, \*}

# ElementSetting

Element: ref ManagedSystemElement {key, \*} Setting: ref Setting {key, \*}

### DefaultSetting

Element: ref ManagedSystemElement {\*} Setting: ref Setting {0..1}

#### ElementSettingData

ManagedElement: ref ManagedElement {key, \*} SettingData: ref SettingData {key, \*}

IsDefault: uint16 {enum}
IsCurrent: uint16 {enum}
IsNext: uint16 {enum} {E}
IsMinimum: uint16 {enum} {E}
IsMaximum: uint16 {enum} {E}
IsPending: uint16 {enum} {E}

#### ElementStatisticalData

ManagedElement: ref ManagedElement {key, 1} Stats: ref StatisticalData {key, \*}

#### InstalledSoftwareIdentity

System: ref System {key, \*}

InstalledSoftware: ref SoftwareIdentity {key, \*}

#### LogicalIdentity

SystemElement: ref ManagedElement {key, \*} SameElement: ref ManagedElement {key, \*}

#### ConcreteIdentity

SystemElement: ref ManagedElement { \*} SameElement: ref ManagedElement { \*}

#### ParametersForMethod

Parameters ref MethodParameters {key, \*} TheMethod ref ManagedElement {key, \*} MethodName: string {key}

#### Parameter Value Sources

Parameters ref MethodParameters {key, \*} ValueSource ref ManagedElement {key,\*}

#### ProductFRU (D)

Product: ref Product {key, 0..1} FRU: ref FRU {key, \*}

#### ProductProductDependency

RequiredProduct: ref Product {key, \*} DependentProduct: ref Product {key, \*} TypeOfDependency: uint16 {enum}

#### ProductSupport

Product: ref Product {key, \*} Support: ref SupportAccess {key,\*}

# RelatedStatisticalData

Stats: ref StatisticalData {key, \*} RelatedStats: ref StatisticalData {key, \*}

Descripton: string

#### RelatedStatistics

Stats: ref StatisticalInformation {key, \*}
RelatedStats: ref StatisticalInformation {key, \*}

#### ReplaceableProductFRU (D)

Product: ref Product {key, 0..1} FRU: ref FRU {key, \*}

#### DependencyContext {D}

Context: ref CIM\_Configuration {key, \*}
Dependency: ref CIM\_Dependency {key, \*}

#### ServiceAffectsElement

AffectedElement: ref ManagedElement {key, \*}
AffectingElement: ref Service {key, \*}
ElementEffects: uint16[] {enum}
OtherElementEffectsDescriptions: string[]

AssignedSequence : uint16 {E}

#### ElementSettingData {E}

ManagedElement: ref ManagedElement {key, \*} SettingData: ref SettingData {key, \*}

## Synchronized

SystemElement: ref ManagedElement {key, \*} SyncedElement: ref ManagedElement {key, \*} WhenSynced: datetime SyncMaintained: boolean

#### OwningCollectionElement {E}

OwningElement: ref ManagedElement {key, 1} OwnedElement: ref CIM Collection {key, \*}

#### Statistics

Stats: ref StatisticalInformation {key, \*} Element: ref ManagedElement {key, \*}

## DeviceStatistics

Stats: ref DeviceStatisticalInformation {weak, \*} Element: ref LogicalDevice {1}

#### SystemStatistics

Stats: ref SystemStatisticalInformation {weak, \*} Element: ref System {1}

#### ServiceStatistics

Stats: ref ServiceStatisticalInformation {weak, \*} Element: ref Service {1}

# **SAPStatistics**

Stats: ref SAPStatisticalInformation {weak, \*} Element: ref ServiceAccessPoint {1}

### **PhysicalStatistics**

Stats: ref PhysicalStatisticalInformation {weak, \*} Element: ref PhysicalElement {1}

# Page 17: Association Hierarchy

# ElementFRU {E}

ReplaceableElement: ref CIM\_PhysicalElement {key, \*} ReplacementElement: ref CIM\_ReplacementFRU {key, \*}

# ElementHasBeenFRUed {E}

ReplacedElement: ref CIM\_PhysicalElement {key, \*}
ReplacementElement: ref CIM\_PhysicalElement {key, \*}

#### ServiceAvailableToElement

ServiceProvided: ref Service {key, \*}

UserOfService: ref ManagedElement {key, \*}

# AssociatedPowerManagementService

 $Service Provided: ref \ CIM\_PowerManagement Service \ \{key,\ ^*\}$ 

PowerState : uint16 {enum} OtherPowerState : string PowerOnTime : datetime RequestedPowerState : uint16 {E}

OtherRequestedPowerState : uint16 {E}

#### SAPAvailableForElement

AvailableSAP: ref ServiceAccessPoint {key, \*}
ManagedElement: ref ManagedElement {key, \*}

# 1

# ManagementSAP {E}

AvailableSAP: ref ServiceAccessPoint {key, \*} ManagedElement: ref ManagedElement {key, \*}

