Title : **Metrics Schema V2.15**
Filename : **CIM_Metrics.vsd**
Author : **Application Working Group**
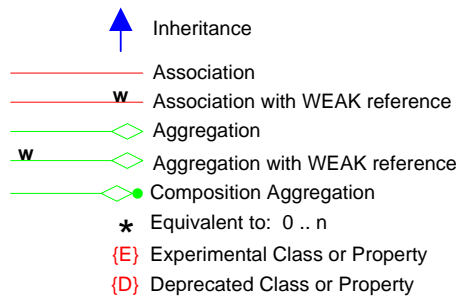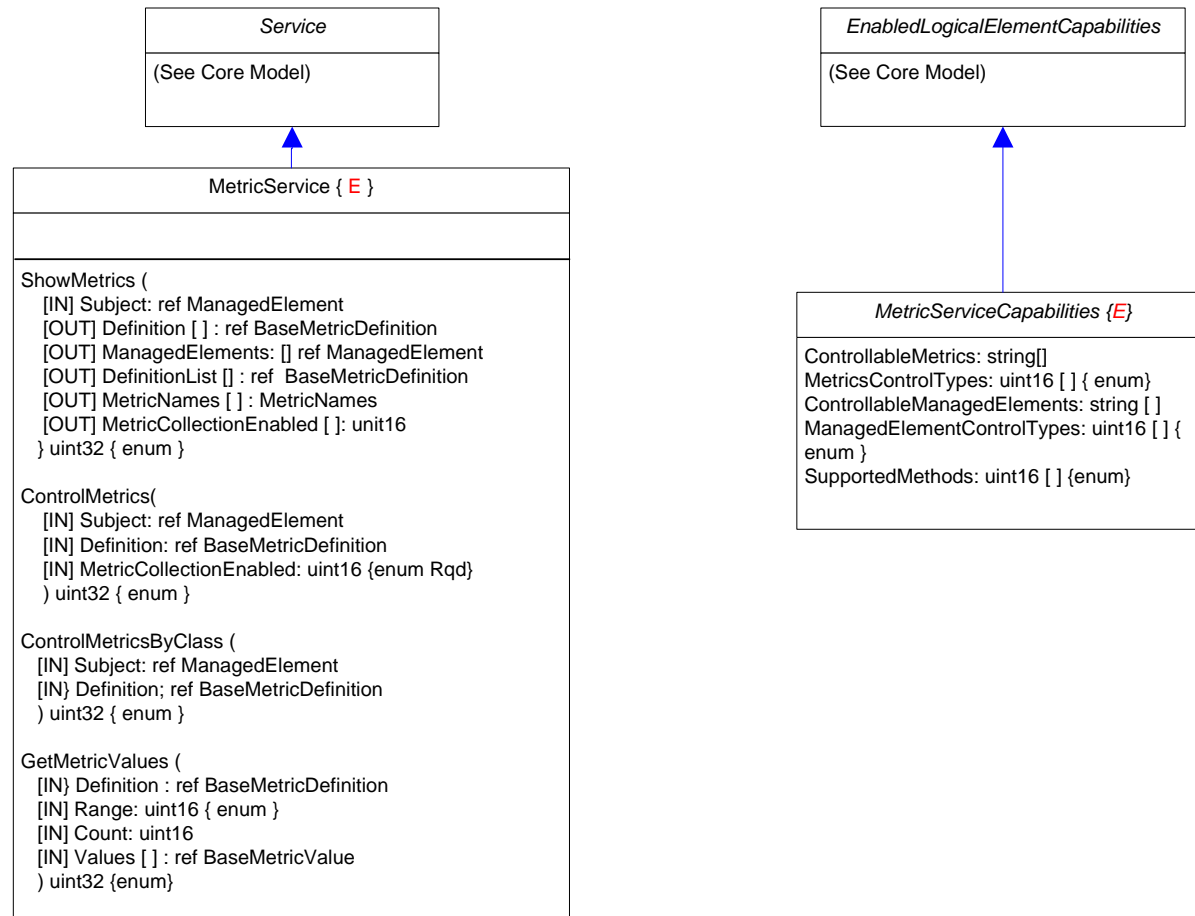**Date** : **26 March 2006**

Page 1 : Metrics and
UoW Classes
Page 2 : Metric Service Classes
Page 3 : Association
Hierarchy

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

ManagedElement

(See Core Model)

MetricDefForME   *

BaseMetricDefinition

Id : string {key}
Name: string
DataType: uint16 {enum}
Calculable: uint16 {enum}
Units: string{D}
ProgramaticUnits: string{E}
BreakdownDimensions: string[ ]
IsContinuous: boolean
ChangeType: uint16 {enum}
TimeScope: uint16 {enum,}
GatheringType: uint16 {enum,}
SampleInterval: datetime{ E }
Accuracy: uint32{ E }
AccuracyUnits: string{ E }

MetricForME

*

BaseMetricValue

InstanceId : string {key}
MetricDefinitionId: string {required}
MeasuredElementName: string
TimeStamp: datetime
Duration: datetime
MetricValue: string
BreakdownDimension: string
BreakdownValue: string
Volatile: boolean

*

1   *
MetricInstance

ManagedSystemElement

(See Core Model)

LogicalElement

*

1
DiscreteMetric
ValueDependency

1
DiscreteMetric
DefinitionDependency

AggregateMetricValue{E}

AggregationTimeStamp: datetime
AggregationDuration datetime

DiscreteMetricValue{E}

DiscreteValue: uint16{enum}

*

LogicalElement
UnitOfWorkDef

*

TraceLevelType

InstanceId : string {key}
BaseType : uint16 {enum}
TraceValues: uint32[ ] {required}
ValueDescriptions: string[ ] {required}

0..1

UoWDefTraceLevelType

*

LogicalElement
PerformsUoW

*

DiscreteMetricDefinition{E}

DiscreteValues: uint16{enum}
BaseIndes:uint16
AnalogTriggerValues[]: string
AnalogResetValues[]: string

AggregationMetricDefinition{E}

ChangeType: uint16 {enum}
SimpleFunction: unit16 {enum}

MetricDefinition

Validity: uint16

*

*

UoWMetricDefinition

UnitOfWorkDefinition

Id : string {key}
Context : string
TraceLevelTypeId: string

*
*
SubUoWDef

1..n   **1**
StartedUoW

UoWMetric

.
.
.

UoWMetric

Value : string

*w

UnitOfWork

Id : sint64 {key}
UoWDefId: string {key, propagated}
UserName: string
StartTime: datetime
ElapsedTime: datetime
Status : uint16 {enum}
MutualContextId:string
TraceLevel: uint32

*

0..1   *
SubUoW

ElapsedTme holds
response time if
UnitOfWork has
completed

Service

(See Core Model)

EnabledLogicalElementCapabilities

(See Core Model)

MetricService { E }

ShowMetrics (
   [IN] Subject: ref ManagedElement
   [OUT] Definition [ ] : ref BaseMetricDefinition
   [OUT] ManagedElements: [] ref ManagedElement
   [OUT] DefinitionList [] : ref BaseMetricDefinition
   [OUT] MetricNames [ ] : MetricNames
   [OUT] MetricCollectionEnabled [ ]: unit16
  } uint32 { enum }

ControlMetrics(
   [IN] Subject: ref ManagedElement
   [IN] Definition: ref BaseMetricDefinition
   [IN] MetricCollectionEnabled: uint16 {enum Rqd}
) uint32 { enum }

ControlMetricsByClass (
   [IN] Subject: ref ManagedElement
   [IN} Definition; ref BaseMetricDefinition
) uint32 { enum }

GetMetricValues (
   [IN} Definition : ref BaseMetricDefinition
   [IN] Range: uint16 { enum }
   [IN] Count: uint16
   [IN] Values [ ] : ref BaseMetricValue
) uint32 {enum}

MetricServiceCapabilities {E}

ControllableMetrics: string[]
MetricsControlTypes: uint16 [ ] { enum}
ControllableManagedElements: string [ ]
ManagedElementControlTypes: uint16 [ ] {
enum }
SupportedMethods: uint16 [ ] {enum}

Inheritance

Association

W Association with WEAK reference

Aggregation

W Aggregation with WEAK reference

Composition Aggregation

* Equivalent to: 0 .. n

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Page 3 : Association Hierarchy

Dependency

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

UoWMetricDefinition

Antecedent: ref UnitOfWorkDefinition {1..n}
Dependent: ref MetricDefinition {*}

MetricDefForME

Antecedent: ref ManagedElement {*}
Dependent: ref BaseMetricDefinition {*}

UoWMetric

Antecedent: ref UnitOfWork {*}
Dependent: ref MetricDefinition {*}
Value: string

UoWDefTraceLevelType

TraceLevelType: ref TraceLevelType {0..1}
UoWDefn: ref UnitOfWorkDefinition {*}
MetricCollectionEnabled: uint16{E, enum}
RecordedSince: datetime { E }

MetricForME

Antecedent: ref ManagedElement {*}
Dependent: ref BaseMetricValue {*}

StartedUoW

Antecedent: ref UnitOfWorkDefinition {1..1}
Dependent: ref UnitOfWork {weak, *}

MetricInstance

Antecedent: ref BaseMetricDefinition (1..1)
Dependent: ref BaseMetricValue {*}

LogicalElementUnitOfWorkDef

Antecedent: ref LogicalElement {*}
Dependent: ref UnitOfWorkDefinition {*}

DiscreteMetricDefinitionDependency{E}

Antecedent: ref BaseMetricDefinition (1..1)
Dependent: ref DiscreteMetricDefinition {*}

SubUoWDef

Antecedent: ref UnitOfWorkDefinition {*}
Dependent: ref UnitOfWorkDefinition {*}

DiscreteMetricValueDependency{E}

Antecedent: ref BaseMetricValue (1..1)
Dependent: ref DiscreteMetricValue {*}

LogicalElementPerformsUoW

Antecedent: ref LogicalElement {*}
Dependent: ref UnitOfWork {*}

SubUoW

Antecedent: ref UnitOfWork {0..1}
Dependent: ref UnitOfWork {*}

Inheritance

Association

W Association with WEAK reference

Aggregation

W Aggregation with WEAK reference

Composition Aggregation

* Equivalent to: 0 .. n

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