

SNMP Contexts and the ENTITY-MIB

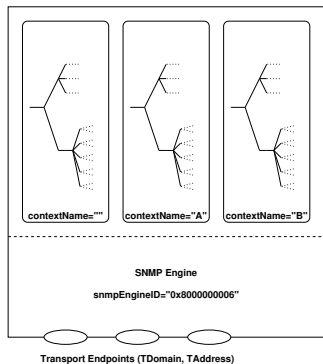
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Engines, Contexts, Object Types and Object Instances



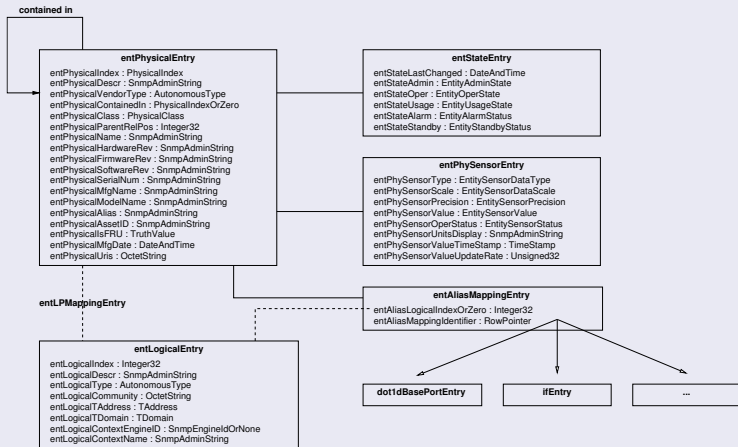
- An SNMP Engine can have multiple transport endpoints
- An SNMP Engine is identified by its `snmpEngineID`
- An SNMP Engine can provide access to multiple MIB trees
- A MIB tree is identified by a `contextName`
- An object type is identified by an object identifier
- An object instance is identified by its instance identifier

SNMP Naming

(`contextEngineID`, `contextName`, object-type, instance-identifier)

Entities (RFC 4133, RFC 3433, RFC 4268)

Model behind the MIB Modules



Physical Entities vs. Logical Entities

Physical Entities

- 1 A “physical entity” represents an identifiable physical resource within a managed system.
- 2 Each physical component may be modeled as 'contained' within another physical component.
- 3 Every physical entity is contained in at most one container.
- 4 A physical entity can map to exactly one object (e.g., a bridge port or an interface) in a given SNMP context via the “alias mapping table” (entAliasMappingTable)

Logical Entities

- 1 A “logical entity” represents an instantiation of a particular set of MIB objects.
- 2 The entLogicalTable provides all information needed to access an object in a different local (same engine) or remote context.

Putting Things Together

Scenario with remote and virtual servers

