ManagedElement
(See Core Model)

OrganizationalEntity
(See User Model (Organization))

Collection
(See Core Model)

Role
(See User Model (Group and Roles))

Group
(See User Model (Group and Roles))

Organization
(See User Model (Organization))

OrgUnit
(See User Model (Organization))

UserEntity
(See User Model (Person))

UserContact
(See User Model (Person))

Person
(See User Model (Person))

OtherOrganizationInformation
(See User Model (Organization))

OtherOrgUnitInformation
(See User Model (Organization))

OtherPersonInformation
(See User Model (Organization))

OtherRoleInformation
(See User Model (Group and Roles))

OtherGroupInformation
(See User Model (Group and Roles))

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CIM_User.vsd:
Title : User Schema 2.48.0
Author : WBEM Infrastructure & Protocols WG
Date : 7 Oct 2016
Overview Services

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

SecurityService

AuthorizationService
(See User Model (Authorization Services))

PrivilegeManagementService
(See User Model (Authorization Services))

CredentialManagementService
(See User Model (Authentication Services))

CertificateAuthority
(See User Model (PublicKey))

Notary
(See User Model (Authentication Services))

KerberosKeyDistributionCenter
(See User Model (Kerberos))

LocalCredentialManagementService
(See User Model (Authentication Services))

SharedSecretService
(See User Model (SharedSecret))

PublicKeyManagementService
(See User Model (PublicKey))

AuthenticationService
(See User Model (Authentication Services))

VerificationService
(See User Model (Authentication Services))

IdentityManagementService
(See User Model (Authentication Services))

AccountManagementService
(See User Model (AccountManagementService))

ServiceAccessPoint
(See Core Model)

CredentialManagementSAP
(See User Model (Authentication Services))

KerberosKeyDistributionCenter
(See User Model (Kerberos))

IdentityManagementService
(See User Model (Identity))

OrgEntityManagementService {E}
CIM_User.vsd:
Title : User Schema 2.48.0
Author : WBEM Infrastructure & Protocols WG
Date : 7 Oct 2016

Group & Role

OtherRoleInformation
CreationClassName: string (key)
Name: string (key)
ObjectClass: String [ ]
BusinessCategory: string[ ]
CommonName: string [ ]
Descriptions: string[ ]
DestinationIndicator: string[ ]
FacsimileTelephoneNumber: string[ ]
InternationaliSDNNumber: string[ ]
OU: string[ ]
PhysicalDeliveryOfficeName: string[ ]
PostalAddress: string[ ]
PostalCode: string[ ]
PostalBox: string[ ]
PreferredDeliveryMethod: string
RegisteredAddress: string[ ]
SeeAlso: string[ ]
StateOrProvince: string[ ]
Street: string[ ]
TelephoneNumber: string[ ]
TeletexTerminalIdentifier: string[ ]
TelexNumber: string[ ]
X121Address: string[ ]

Collection
(See Core Model)

Role
CreationClassName: string (key)
Name: string (key)
BusinessCategory: string
CommonName: string (Req'd)
RoleCharacteristics: uint16 [ ] (enum)

RoleLimitedToTarget

SystemAdministratorRole

OtherGroupInformation
CreationClassName: string (key)
Name: string (key)
ObjectClass: String [ ]
BusinessCategory: string[ ]
CommonName: string [ ]
Descriptions: string[ ]
OrganizationName: string[ ]
OU: string[ ]
Owner: string[ ]
SeeAlso: string[ ]

OtherRoleInformation

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

System
(See Core Model)

SystemAdministratorGroup

ManagedElement
(See Core Model)
ManagedElement
(See Core Model)

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

System
(See Core Model)

ServiceAccessPoint
(See Core Model)

SecurityService
(See User Model (Overview Security))

ServiceUsesSecurityService

SecurityServiceForSystem

CredentialManagementSAP
URL: string

AuthenticationService

AccountManagementService
(See User Model (Account))

CertificateManagementService
(See User Model (PublicKey 2))

KeyBasedCredentialManagementService
(See User Model (PublicKey 2))

Notary

CertificateAuthority
(See User Model (PublicKey 1))

LocalCredentialManagementService
(See User Model (PublicKey 1))

PublickeyManagementService
(See User Model (PublicKey 2))

SharedSecretService
(See User Model (SharedSecret))

IdentityManagementService
(See User Model (Identity))

StorageHardwareIDManagementService
(See User Model (Identity))

VerificationService
(See Core Model)

CIM_User.vsd:
Title: User Schema 2.48
Author: WBEM Infrastructure & Protocols WG
Date: 7 Oct 2016
CreateAccount:
CreateUserContact:
getAccount:
getUserContact:
  [IN] UserID: string, [OUT] UserContact : ref UserContact; uint32 (enum)
CreateUserContactByIdentity:
  [IN] System: ref ComputerSystem (required), [IN] UserContactTemplate: string (required, embeddedinstance), [IN] UserContact : ref UserContact, [IN] Identity : ref Identity[]; uint32 (enum)
getAccounts:
getUserContacts:
  [IN] UserID: string, [OUT] UserContact : ref UserContact[]; uint32 (enum)
Authorization

CIM_User.vsd:
Title: User Schema 2.48.0
Author: WBEM Infrastructure & Protocols WG
Date: 7 Oct 2016

ManagedElement
(See Core Model)

ElementSecuritySensitivity

SecuritySensitivity
InstanceID: string {override, key}
SecurityLevel: string
SecurityCategories: string [ ] (E)
LabelExpiration: datetime {9991231115959.999999-720, E}

Privilege
InstanceID: string (key)
PrivilegeGranted: boolean (True)
Activities: uint16 [ ]
ActivityQualifiers: string [ ]
QualifierFormats: uint16 [ ]
RepresentsAuthorizationRights: boolean (False)

AuthorizedTarget
AuthorizedSubject

AuthorizedPrivilege
Identity

CIM_User.vsd:
Title: User Schema 2.48.0
Author: WBEM Infrastructure & Protocols WG
Date: 7 Oct 2016

ManagedElement
(See Core Model)

ManagedSystemElement
(See Core Model)

ManagedElement
(See Core Model)

Identity
InstanceID: string (key)
CurrentlyAuthenticated: boolean (False)

IdentityContext

ConcreteIdentity

EnabledLogicalElement
(See Core Model)

LogicalElement
(See Core Model)

Policy
(See Policy Model)

Collection
(See Core Model)

SystemSpecificCollection
(See Core Model)

PolicyRoleCollection
(See Policy Model)

PolicySet
(See Policy Model)

PolicySetInRoleCollection

PolicySetApplies
ToElement

PolicyRule
(See Policy Model)

AuthenticationRule
(See Policy Model)

AuthenticationService
(See Policy Model)

RemoteIdentity
NameFormat: uint16
Name: uint8[]
OtherNameFormat: string

IPNetworkIdentity
IdentityType: uint16 (required)
IdentityValue: string (required)

Account
(See User Model (Account))

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

SecurityService
(See User Model (Overview Security))
Identity

InstanceID: string (key)
CurrentlyAuthenticated: boolean (False)

AssignedIdentity 0..1

ManagedElement
(See Core Model)

AssignedIdentity

ElementSettingData

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

Account
(See User Model)
(Account)

SecurityService
(See User Model
(Overview Security))

GatewayPathID

GatewayID: string
GatewayIDType: uint16
GatewayOtherIDType: string

StorageHardwareID

StorageID: string
IDType: uint16 (enum)
OtherIDType: string

CreateStorageHardwareID( [IN] ElementName: string,
[IN] StorageID: string,
[IN] IDType: uint16 (enum),
[IN] OtherIDType: string,
[IN] Setting: ref StorageClientSettingData,
[OUT] HardwareID: ref StorageHardwareID) : uint32 (enum)

DeleteStorageHardwareID( [IN] HardwareID: ref StorageHardwareID) : uint32 (enum)

CreateGatewayPathID( [IN] ElementName: string,
[IN] StorageID: string
[IN] IDType: uint16 (enum),
[IN] OtherIDType: string,
[IN] GatewayID: string,
[IN] GatewayIDType: uint16 (enum),
[IN] OtherGatewayIDType: string
[OUT] NewGatewayPathID: ref GatewayPathID) : uint32 (enum)

CreateHardwareIDCollection( [IN] ElementName: string,
[IN] HardwareIDs: string[]
[OUT] Collection: ref SystemSpecificCollection) : uint32 (enum)

AddHardwareIDsToCollection( [IN] HardwareIDs: string[]
[IN] Collection: ref SystemSpecificCollection) : uint32 (enum)
Account

Title: User Schema 2.48.0
Author: WBEM Infrastructure & Protocols WG
Date: 7 Oct 2016

System
(See Core Model)

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

Service
(See User Model (Overview Security))

SecurityService
(See User Model (Overview Security))

IdentityManagementService

AccountManagementService

ConcreteIdentity

* * *

ManagedElement
(See Core Model)

Identity
(See User Model (Identity))

Account

SystemCreationClassName: string [key]
SystemName: string [key]
CreationClassName: string [key]
Name: string [key]
UserID: string
ObjectClass: String [ ]
Descriptions: string [ ]
Host: string [ ]
LocalityName: string [ ]
OrganizationName: string [ ]
OU: string [ ]
SeeAlso: string [ ]
UserCertificate: string [ ] (octetstring)
UserPassword: string [ ] (octetstring)
PasswordHistoryDepth: uint16
PasswordExpiration: datetime
ComplexPasswordRulesEnforced: uint16 [Enum]
InactivityTimeout: datetime
MaximumSuccessiveLoginFailures uint16
LastLogin: datetime
UserPasswordEncryptionAlgorithm: uint16 [Enum]
OtherUserPasswordEncryptionAlgorithm: string
UserPasswordEncoding: uint32 [Enum]

PasswordHistory: uint16
MaximumPasswordAge: datetime
DisableOnInactivity: boolean
ComplexPasswordRulesEnforced: uint16[]
InactivityTimeout: datetime
MaximumSuccessiveLoginFailures uint16
LastLogin: datetime
UserPasswordEncryptionAlgorithm: uint16 [Enum]
OtherUserPasswordEncryptionAlgorithm: string
UserPasswordEncoding: uint32 [Enum]

0..1

AccountCapabilities

SettingsDefineCapabilities

AccountCapabiliies (E)
Collection
(See Core Model)

CredentialStore
InstanceID: string
Usage: uint16 (enum)

Keystore
Usage: uint16 (enum)

Credential
* * * * *
Issued: datetime
Expires: datetime
ValidFrom: datetime (E)

FingerprintImage (E)
CapturingType: uint16 (enum)
DPI: uint32
Grayscale: uint32
ImageFormat: uint16 (enum)
InstanceID: string (override, key)
OtherImageFormat: string
Image: uint8[] (OctetString)

FingerprintTemplate (E)
InstanceID: string (override, key)
OtherTemplateFormat: string
TemplateFormat: uint16 (enum)
Template: uint8[] (OctetString)

ManagedElement
(See Core Model)

CredentialContext

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

SecurityService
(See User Model (Overview Security))

AuthenticationService
(See User Model (Authentication Services))

CredentialManagementService
(See User Model (Authentication Services))

CredentialManagementCapabilities
SupportedMethods: uint16 (Enum)
CumulativePrivilegeMethodology: uint16 (Enum)

Trust Hierarchy

ElementCapabilities
0..1

CIM_User.vsd:
Title: User Schema 2.48.0
Author: WBEM Infrastructure & Protocols WG
Date: 7 Oct 2016
CIM_User.vsd:
Title         : User Schema 2.48.0
Author        : WBEM Infrastructure & Protocols WG
Date          : 7 Oct 2016
CreateCertificateSigningRequest:
  [IN] Subject: string, [IN] AltSubject: string,
  [IN] PublicKeyAlgorithm: uint16 (enum), [IN] PublicKeySize: uint16 (enum),
  [IN] PublicKeyKeyPair: ref CIM_UnsignedCredential,
  [IN] ExtendedKeyUsageValue: string[], [IN] ExtendedKeyUsageType: string[] (enum),
  [IN] SignatureAlgorithm: uint16 (enum), [IN] OutputFormat: uint16 (enum),
  [OUT] Job: ref CIM_ConcreteJob, [OUT] CSR: string[]
  : uint32 (enum)

CreateSelfSignedCertificate:
  [IN] Subject: string, [IN] AltSubject: string,
  [IN] PublicKeyAlgorithm: uint16 (enum), [IN] PublicKeySize: uint16, [IN]
  PublicKeyKeyPair: ref CIM_UnsignedCredential, [IN] Keystore: ref CIM_Keystore,
  [IN] CredentialContext: ref CIM_ManagedElement, [IN] Usage: uint16 (enum),
  [IN] SignatureAlgorithm: uint16 (enum),
  : uint32 (enum)

ImportEncodedCertificates:
  [IN] EncodedCertificates: string[], [IN] Format: uint16 (enum),
  [IN] Keystore: ref CIM_Keystore, [IN] CredentialContext: ref CIM_ManagedElement,
  [IN] Usage: uint16[] (enum), [OUT] Job: ref CIM_ConcreteJob,
  [OUT] NewCertificates: ref CIM_X509Certificate[]
  : uint32 (enum)

ImportCertificates:
  [IN] InputCertificates: string[], [IN] Keystore: ref CIM_Keystore,
  [IN] CredentialContext: ref CIM_ManagedElement, [IN] Usage: uint16[] (enum),
  [OUT] Job: ref CIM_ConcreteJob,
  [OUT] NewCertificates: ref CIM_X509Certificate[]
  : uint32 (enum)

ExportEncodedCertificates:
  [IN] CertificatesToExport: ref CIM_X509Certificate[], [IN] Format: uint16 (enum),
  [OUT] Job: ref CIM_ConcreteJob, [OUT] EncodedCertificates: string[]
  : uint32 (enum)

ApplyCRL:
  [IN] EncodedCRL: string[], [OUT] NewCertificate: ref CIM_X509CRL,
  [IN] Format: uint16 (enum), [IN] Keystore: ref CIM_Keystore,
  [IN] CredentialContext: ref CIM_ManagedElement,
  : uint32 (enum)

ApplyDecodedCRL:
  [IN] Issuer: string, [IN] SerialNumbers: string[], [IN] Keystore: ref CIM_Keystore,
  [IN] CredentialContext: ref CIM_ManagedElement,
  : uint32 (enum)
CIM_User.vsd:

Title: User Schema 2.48.0
Author: WBEM Infrastructure & Protocols WG
Date: 7 Oct 2016

ManagedElement
(See Core Model)

Credential
(See User Model (Credential))

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

SecurityService
(See User Model (Overview Security))

AuthenticationService
(See User Model (Authentication Services))

CredentialManagementService
(See User Model (Authentication Services))

LocalCredentialManagementService
(See User Model (Authentication Services))

SharedSecretService

Algorithm: string
Protocol: string

InstanceID: string (key)
RemoteID: string
Secret: string
Algorithm: string
Protocol: string

SharedCredential

NamedCredential
InstanceID: string (key)
LocalIdentity: string
LocalIdentityType: uint16
PeerIdentity: string
PeerIdentityType: uint16
SharedSecretName: string

ServiceAffectsElement

ServiceAffectsElement

* 0..1 Trust Hierarchy

*
Antecedent: ref ManagedElement (*)
Dependent: ref ManagedElement (*)

CAHasPublicCertificate
Antecedent: ref PublicKeyCertificate (*)
Dependent: ref CertificateAuthority (*)

TrustHierarchy
Antecedent: ref CredentialManagementService {0..1}
Dependent: ref CredentialManagementService (*)

CredentialContext
ElementInContext: ref Credential {key, *}
ElementProvidingContext: ref ManagedElement {key, *}
Usage: uint16
Title: User Schema 2.48.0
Author: WBEM Infrastructure & Protocols WG
Date: 7 Oct 2016

Deprecation of Authentication

Authentication Requirement:
- CreationClassName: string (key)
- Name: string (key)
- SecurityClassification: string

Managed System Element
(See Core Model)

Logical Element
(See Core Model)

Managed Element
(See Core Model)

Service
(See Core Model)

System
(See Core Model)

Hosted Authentication Requirement
(See Core Model)

Authentication for Use
(See User Model (Authentication Services))

Requires Credentials From
(See User Model (Authentication Services))

Account Management Service
(See User Model (Account))

Manages Account On System
(See User Model (Overview Security))

Credential Management Service
(See User Model (Authentication Services))

Authentication Service
(See User Model (Authentication Services))
Deprecated UserAccess

CIM_User.vsd:
Title: User Schema 2.48.0
Author: WBEM Infrastructure & Protocols WG
Date: 7 Oct 2016
Credential

(See User Model (Credential))

SharedSecret (D)
RemoteID: string (key)
Secret: string
Algorithm: string
Protocol: string

NamedSharedIKESecret (D)
LocalIdentity: string (key)
LocalIdentityType: uint16 (key, enum)
PeerIdentity: string (key)
PeerIdentityType: uint16 (key)
SharedSecretName: string

UnsignedPublicKey (D)
PeerIdentity: string (key)
PeerIdentityType: uint16 (enum)
PublicIdentity: uint8[ ] (octetstring)

PublicKeyCertificate (D)
Subject: string (key)
AltSubject: string
PublicIdentity: uint8[ ] (octetstring)

KerberosTicket (D)
AccessesService: string (key)
RemoteID: string (key)
TicketType: uint16 (enum)

KerberosCredential
(See User Model (Kerberos))

CredentialManagementService
(See User Model (Authentication Services))

SharedSecretService
Algorithm: string
Protocol: string

LocalCredentialManagementService
(See User Model (Authentication Services))

SharedSecretsShared (D)

IKESecretsNamed (D)

LocallyManagedPublicKey (D)

CAHasPublicCertificate

CASignsPublicKeyCertificate (D)

PublicIdentity: string (key)

PeerIdentityType: uint16 (enum)

PublicKey: uint8[ ] (octetstring)

KerberosKeyDistributionCenter
Protocol: uint16 (enum)

CertificateAuthority
CAPolicyStatement: string
CRL: string[ ] (octetstring)
CRLDistributionPoint: string[ ]
CADistinguishedName: string
CRLRefreshFrequency: uint16
MaxChainLength: uint8

CAHasPublicCertificate

CASignsPublicKeyCertificate (D)

SignedPublicKey (D)

CAuntilManagedPublicKey (D)

RemoteID: string (key)

Secret: string

Algorithm: string

Protocol: string

KDCissuesKerberosTicket (D)

KerberosTicket (D)

AccessesService: string (key)
RemoteID: string (key)
TicketType: uint16 (enum)

KerberosCredential
(See User Model (Kerberos))
Antecedent: ref ManagedElement (*)
Dependent: ref ManagedElement (*)

ManagedCredential (D)
Antecedent: ref CredentialManagementService {0..1}
Dependent: ref Credential (*)

Dependency(from Core)
Antecedent: ref ManagedElement (*)
Dependent: ref ManagedElement (*)

CASignsPublicKeyCertificate (D)
Antecedent: ref CertificateAuthority {1}
Dependent: ref PublicKeyCertificate [W, *]
SerialNumber: string
Signature: uint8[ ] (octetstring)
Expires: datetime [D]
CRLDistributionPoint: string

IKESecretsIsNamed (D)
Antecedent: ref SharedSecretService {1}
Dependent: ref NamedSharedIKESecret [W, *]

KDCIssuesKerberosTicket (D)
Antecedent: ref KerberosKeyDistributionCenter {1}
Dependent: ref KerberosTicket [W, *]

LocallyManagedPublicKey (D)
Antecedent: ref PublicKeyManagementService {1}
Dependent: ref UnsignedPublicKey [W, *]

SharedSecretsIsShared (D)
Antecedent: ref SharedSecretService {1}
Dependent: ref SharedSecret [W, *]