Overview User

CIM_User.vsd:
Title: User Schema 2.34.0
Author: WBEM Infrastructure & Protocols WG
Date: 27 July 2012

ManagedElement
(See Core Model)

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

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))
Overview Security

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ManagedElement
(See Core Model)

ManagedSystemElement
(See Core Model)

Collection
(See Core Model)

LogicalElement
(See Core Model)

AccountGroup (E)
InstanceID: string [key]

Account
(See User Model (Account))

Credential
(See User Model (Credential))

Privilege
(See User Model (Authorization))

Identity
(See User Model (Identity))

SecuritySensitivity
(See User Model (Authorization))

AuthorizedPrivilege
(See User Model (Authorization))

StorageHardwareID
(See User Model (Identity))

RemoteIdentity
(See User Model (Identity))

GatewayPathID
(See User Model (Identity))

SignedCredential (E)
(See User Model (PublicKey))

UnsignedCredential (E)
(See User Model (PublicKey))

SharedCredential (E)
(See User Model (SharedSecret))

KerberosCredential (E)
(See User Model (Kerberos))

NamedCredential (E)
(See User Model (SharedSecret))

(See User Model (Credential))

(See User Model (Authorization))

(See User Model (Identity))

(See User Model (Authorization))

(See User Model (Identity))

(See User Model (Identity))
Group & Role

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AccountManagementServices

ManagedElement
(See Core Model)

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

System
(See Core Model)

SecurityService

ServiceUsesSecurityService

SecurityServiceForSystem

AccountManagementService

CreateAccount(
  [IN] System: ref ComputerSystem (required),
  [IN] AccountTemplate: string {required, embeddedinstance},
  [OUT] Account: ref Account,
  [OUT] Identities: ref Identity[];
  uint32 (enum)
)

CreateUserContact(
  [IN] System: ref ComputerSystem (required),
  [IN] UserContactTemplate: string {required, embeddedinstance},
  [OUT] UserContact: ref UserContact,
  [OUT] Identities: ref Identity[];
  uint32 (enum)
)

getAccount(
  [OUT] Account : ref Account
  uint32 (enum)
)

getUserContact(
  [OUT] UserID: string,
  [OUT] UserContact : ref UserContact
  uint32 (enum)
)

AccountManagementCapabilities

OperationsSupported: uint16[]
OtherSupportedUserPasswordEncryptionAlgorithms: string []
SupportedUserPasswordEncryptionAlgorithms: uint16 []
UserPasswordEncryptionSalt: string
MaximumAccountsSupported: uint16 (E)
SupportedUserPasswordEncodings: uint16[] (E)

AccountSettingData (E)

PasswordHistoryDepth: uint16
MaximumPasswordExpiration: datetime
ComplexPasswordRulesEnforced: uint16[]
InactivityTimeout: datetime
MaximumSuccessiveLoginFailures uint16

SettingsDefineCapabilities
ElementSecuritySensitivity

SecuritySensitivity

| InstanceID: string {override, key} |
| SecurityLevel: string |
| SecurityCategories: string [ ] (E) |
| LabelExpiration: datetime {99991231115959.999999-720, E} |

Privilege

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

AuthorizedPrivilege

AuthorizedTarget

AuthorizedSubject

ManagedElement

(See Core Model)
Identity

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### ManagedElement
- **(See Core Model)**
- **0..1**
- **InstanceID:** string
- **CurrentlyAuthenticated:** boolean (False)

### LogicalElement
- **(See Core Model)**
- **Identity**
  - **IdentityContext**
  - **ConcreteIdentity**
  - **AssignedIdentity**

### ElementInRoleCollection
- **(See Core Model)**

### PolicySet
- **(See Policy Model)**

### PolicySetApplications
toElement
- **(See Policy Model)**

### PolicySetInRoleCollection
- **(See Policy Model)**

### SystemSpecificCollection
- **(See Core Model)**

### PolicyRoleCollection
- **(See Policy Model)**

### Policy
- **(See Policy Model)**

### Collection
- **(See Core Model)**

### ManagedSystemElement
- **(See Core Model)**

### Account
- **(See User Model (Account))**

### LogicalElement
- **(See Core Model)**

### RemoteIdentity (E)
- **IdentityType:** uint16 (required)
- **IdentityValue:** string (required)

### IPNetworkIdentity
- **IdentityType:** uint16 (required)
- **IdentityValue:** string (required)

### EnabledLogicalElement
- **(See Core Model)**

### Service
- **(See Core Model)**

### SecurityService
- **(See User Model (Overview Security))**

### AuthenticationService
- **(See Policy Model)**

### AuthenticationRule
- **(See Policy Model)**

### OtherNameFormat

### NameFormat
- **uint16**

### Name
- **uint8[]**

### OtherNameFormat
- **string**

### IPNetworkIdentity
- **IdentityType:** uint16 (required)
- **IdentityValue:** string (required)
IdentityContext

ManagedElement
(See Core Model)

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

Account
(See User Model (Account))

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

SecurityService
(See User Model (Overview Security))

AuthenticationService

IdentityManagementService

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

StorageHardwareID
StorageID: string
IDType: uint16
OtherIDType: string

GatewayPathID
GatewayID: string
GatewayIDType: uint16
GatewayOtherIDType: string

ConcreteIdentity

AssignedIdentity 0..1

ElementSettingData

SettingData
(See Core Model)

StorageClientSettingData
ClientTypes: uint16[] (enum)
OtherClientTypeDescriptions: string[]

StorageHardwareIDManagementService

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

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System
(See Core Model)

1

Service
(See User Model (Overview Security))

SecurityService
(See User Model (Overview Security))

IdentityManagementService

AccountManagementService

ConcreteIdentity

ManagedElement
(See Core Model)

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(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)

SettingsDefineCapabilities

AccountCapabilities

AccountSettingData

PasswordHistoryDepth: uint16
MaximumPasswordExpiration: datetime
ComplexPasswordRulesEnforced: uint16[]
InactivityTimeout: datetime
MaximumSuccessiveLoginFailures: uint16
Credential

Collection
(See Core Model)

CredentialStore
InstanceID: string
Usage: uint16 (enum)

Keystore
Usage: uint16 (enum)

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

CredentialContext

ManagedElement
(See Core Model)

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

SecurityService
(See User Model (Overview Security))

CredentialManagementService
(See User Model (Authentication Services))

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

Trust

Hierarchy

ElementCapabilities

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)

Credential
(See User Model
(Credential))

ManagedElement
(See Core Model)

ManagedSystemElement
(See Core Model)

LogicalElement
(See Core Model)

LogicalElement
(See Core Model)

EnabledLogicalElement
(See Core Model)

Service
(See Core Model)

Service
(See Core Model)

Service
(See Core Model)

SecurityService
(See User Model
(Overview Security))

AuthenticationService
(See User Model
(Authentication Services))

AuthenticationService
(See User Model
(Authentication Services))

CredentialManagementService
(See User Model
(Authentication Services))

KerberosKeyDistributionCenter
Protocol: uint16 (enum)

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

ServiceAffectsElement

0..1
Trust Hierarchy
CreateCertificateSigningRequest:
[IN] Subject: string, [IN] AltSubject: string,
[IN] PublicKeyAlgorithm: uint16 (enum), [IN] PublicKeySize: uint16 (enum),
[IN] PublicKeyPrivateKeyPair: 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)

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,
[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)
SharedSecret

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

MoreOrganizationInfo
Antecedent: ref Organization (1)
Dependent: ref OtherOrganizationInformation (0..1)

MoreOrgUnitInfo
Antecedent: ref OrgUnit (1)
Dependent: ref OtherOrgUnitInformation (0..1)

MorePersonInfo
Antecedent: ref Person (1)
Dependent: ref OtherPersonInformation (0..1)

MoreRoleInfo
Antecedent: ref Role (1)
Dependent: ref OtherRoleInformation (0..1)

SystemAdministrator
Antecedent: ref System (*)
Dependent: ref UserEntity (*)

SystemAdministratorGroup
Antecedent: ref System (*)
Dependent: ref Group (*)

SystemAdministratorRole
Antecedent: ref System (*)
Dependent: ref Role (*)
Credential Associations

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

Dependency(from Core)

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
CollectionInOrganization
Parent: ref OrganizationalEntity {0..1}
Child: ref Collection {'*'}

CollectionInSystem
Parent: ref System {0..1}
Child: ref Collection {'*'}

MemberOfCollection (from Core)
Collection: ref Collection {'*'}
Member: ref ManagedElement {'*'}

OrgStructure
Parent: ref OrganizationalEntity {0..1}
Child: ref OrganizationalEntity {'*'}

SystemComponent (from Core)
GroupComponent: ref System {'*'}
PartComponent: ref ManagedSystemElement {'*'}

AccountOnSystem
GroupComponent: ref System {1}
PartComponent: ref Account {weak, ' *'}
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**AccessControlInformation**

- **CreationClassName**: string (key)
- **Name**: string (key)
- **SecurityClassification**: string
- **AccessType**: string [ ]
- **AccessQualifier**: string [ ]
- **Permission**: string [ ]

**HostedACI**

**AuthorizedUse**

**System**

**Service**

**SecurityService**

**AuthorizationService**

**LogicalElement**

**EnabledLogicalElement**

**ManagedSystemElement**

**ManagedElement**

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

**Dependency (from Core)**

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

**CASignsPublicKeyCertificate (D)**

**Antecedent:** ref CertificateAuthority {1}
**Dependent:** ref PublicKeyCertificate {W, *}

**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, *}

**SharedSecretIsShared (D)**

**Antecedent:** ref SharedSecretService {1}
**Dependent:** ref SharedSecret {W, *}