# CRMS资源定义

## 1、资源

### Resource

CRMS\_Resource资源为所有资源的父类，定义了资源中所必须的属性。

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 简写 | 资源属性类型 | 资源属性描述 |
| resourceID | ri | String | 资源标识符 |
| parentID | pa | String | 父资源标识符 |
| resourceName | rn | String | 资源名称 |
| resourceType | ty | Integer | 资源类型 |
| createTime | ct | Date | 资源创建时间 |
| lastModifiedTime | lt | Date | 资源上次修改时间 |
| ontology | onto | String | 语义 |
| subscriptions | subs | List< Subscription> | 资源的订阅 |

### RootResource

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Resource | | | |
| children | children | List<ChildResourceRef> | 子资源 |

### ResourceObject

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Resource | | | |
| children | children | List<ChildResourceRef> | 子资源 |

### Attribute

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Resource | | | |
| name | nm | String | 资源名 |
| readOnly | ro | Boolean | 只读属性 |
| data | data | byte[] | 属性值 |

### Command

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Resource | | | |
| description | desc | String | 资源描述 |
| content | con | String |  |
| children | children | List<ChildResourceRef> | 子资源 |

### Node

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Resource | | | |
| description | desc | String | 资源描述 |
| parameters | params | Object | 执行参数 |
| needNotify | nno | String | 是否对操作进行订阅 |
| result | re | Object | 操作结果 |
| state | st | CRMS\_NodeExecutionState |  |

### DataTable

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Resource | | | |
| description | desc | String | 资源描述 |
| columns | columns | List<String> | 对应的表的列 |
| content | con | List<Map<String, Object>> | 对应表一行的数据 |
| count | count | Integer | 表中数据的总数 |

### ChildResourceRef

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| resourceId | v | String | 资源标识符 |
| resourceType | ty | Integer | 资源类型 |
| respurceName | rn | String | 资源名 |

### Group

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Resource | | | |
| MemberType | mt | MemberType |  |
| currentNumberOfMember | cnm | Integer |  |
| maxNumberOfMember | mnm | Integer |  |
| memberIdentifiers | mid | List<String> |  |
| memberTypeValidated | mtv | Boolean |  |
| consistencyStrategy | csy | ConsistencyStrategy |  |
| groupName | gn | String |  |
| creator | cr | String |  |

### Req

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| operation | op | Operation |  |
| to | to | String |  |
| from | fr | String |  |
| requestIdentifier | rqi | String |  |
| resourceType | ty | Integer |  |
| resourceName | rn | String |  |
| primitiveContent | pc | PrimitiveContentType |  |
| OriginatingTimestamp | ot | Date |  |
| RequestExpirationTimestamp | rqet | Date |  |
| ResultExpirationTimestamp | rset | Date |  |
| OperationExecutionTime | oet | Date |  |
| ResultContent | rcn | ResultContent |  |
| DeliveryAggregation | da | String |  |
| GroupRequestIdentifier | gid | String |  |
| FilterCriteria | fc | FilterCriteria |  |
| SubscriptionOperation | so | SubscriptionOperation |  |
| proxy | proxy | Boolean |  |

### Rsp

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| to | to | String |  |
| from | fr | String |  |
| requestIdentifier | rqi | String |  |
| primitiveContent | pc | CRMS\_PrimitiveContentType |  |
| OriginatingTimestamp | ot | Date |  |
| ResultExpirationTimestamp | rset | Date |  |
| ResponseStatusCode | rsc | CRMS\_ResonseStatusCodeType |  |

### PrimitiveContentType

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| value | value | Object |  |
| type | type | String | 指明value的类型 |

### RemoteResourceObject

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| ResourceObject | | | |
| remote | rm | Integer |  |
| realResourceID | rri | String |  |
| alive | alive | Boolean |  |
| proxy | proxy | Boolean |  |

### RemoteAttribute

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Attribute | | | |
| remote | rm | Integer |  |
| realResourceID | rri | String |  |
| proxy | proxy | Boolean |  |

### RemoteCommand

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| Command | | | |
| remote | rm | Integer |  |
| realResourceID | rri | String |  |
| proxy | proxy | Boolean |  |

## 2、资源属性

### Subscription

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| resourceID | ri | String |  |
| id | id | Integer |  |
| createTime | ct | Date |  |
| eventType | ety | List<SubscriptionEventType> |  |
| expirationCounter | exc | Integer |  |
| notificationURI | nu | List<String> |  |
| notificationForwardURI | nfu | List<String> |  |
| groupID | gi | String |  |
| batchNotify | bn | BatchNotify | 成批次的接收订阅（eventcat） |
| latestNotify | ln | Boolean | 是否要最新通知， |
| notificationContentType | nct | NotificationContentType |  |
| creator | cr | String |  |
| subscriberURI | su | String |  |

### BatchNotify

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
| number | num | Integer |  |
| duration | dur | Duration |  |

### FilterCriteria

|  |  |  |  |
| --- | --- | --- | --- |
| 资源属性 | 资源属性简写 | 资源属性类型 | 资源属性描述 |
|  | crb | Date |  |
|  | cra | Date |  |
|  | ms | Date |  |
|  | us | Date |  |
|  | sts | Integer |  |
|  | stb | Integer |  |
|  | exb | Date |  |
|  | exa | Date |  |
|  | lbl | List<String> |  |
|  | rty | List<Integer> |  |
|  | sza | Integer |  |
|  | szb | Integer |  |
|  | cty | List<String> |  |
|  | lim | Integer |  |
|  | fu | String |  |

## 3、枚举

### ConsistencyStrategy

|  |  |
| --- | --- |
| 名称 | 值 |
| ABANDON\_MEMBER | 1 |
| ABANDON\_GROUP | 2 |
| MODIFY\_TYPE | 3 |

### MemberType

|  |  |
| --- | --- |
| 名称 | 值 |
| rootResource | 1 |
| resourceObject | 2 |
| attribute | 3 |
| command | 4 |
| node | 5 |
| dataTable | 6 |
| group | 7 |
| remoteResourceObject | 8 |
| remoteAttribute | 9 |
| remoteCommand | 10 |

### NodeExecutionState

|  |  |
| --- | --- |
| 名称 | 值 |
| RUN | 1 |
| PAUSE | 2 |
| RESTART | 3 |

### Operation

|  |  |
| --- | --- |
| 名称 | 值 |
| Create | 1 |
| Retrieve | 2 |
| Update | 3 |
| Delete | 4 |
| Notify | 5 |
| ForwardNotify | 6 |

### ResponseStatusCodeType

|  |  |
| --- | --- |
| 名称 | 值 |
| Success | 1 |
| Accepted | 2 |
| Unsupported\_resource | 3 |
| Unsupported\_attribute | 4 |
| Create\_error\_no\_privilege | 5 |
| Create\_error\_already\_exists | 6 |
| Create\_error\_missing\_mandatory\_parameter  Retrieve\_error\_no\_privilege | 7 |
| Retrieve\_error\_does\_not\_exist | 8 |
| Update\_error\_no\_privilege | 9 |
| Update\_error\_does\_not\_exist | 10 |
| Update\_error\_unacceptable\_contents | 11 |
| Delete\_error\_does\_not\_exist | 12 |
| Delete\_error\_no\_privilege | 13 |

### ResultContent

|  |  |
| --- | --- |
| 名称 | 值 |
| Nothing | 1 |
| Attributes | 2 |
| childResources | 3 |
| attribute\_childResources | 4 |
| originalResources | 5 |

### SubscriptionOperation

|  |  |
| --- | --- |
| 名称 | 值 |
| Create | 1 |
| Update | 2 |
| Delete | 3 |