API Request Specification

**Preparation**

|  |  |  |
| --- | --- | --- |
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# API Request Specification

## Device Requests

### Retrieve Device Information Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/CAE669510044 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/json | application/json | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | rcn | 4 | Retrieve full information of device | |
| **OUTPUT** | {  "m2m:ae": {  "rn": "LAMP\_0",  "ty": 2,  "ri": "/mn-cse/CAE669510044",  "pi": "/mn-cse",  "ct": "20171221T140950",  "lt": "20171221T140950",  "acpi": [  "/mn-cse/acp-913546323"  ],  "et": "20181221T140950",  "api": "LAMP\_0",  "aei": "CAE669510044",  "poa": [  "sample"  ],  "rr": true,  "m2m:cnt": [  {  "rn": "DATA",  "ty": 3,  "ri": "/mn-cse/cnt-453501851",  "pi": "/mn-cse/CAE669510044",  "ct": "20171221T140951",  "lt": "20171221T140951",  "acpi": [  "/mn-cse/acp-913546323"  ],  "et": "20181221T140951",  "st": 43,  "mni": 10,  "mbs": 10000,  "mia": 0,  "cni": 10,  "cbs": 2640,  "m2m:cin": [  {  "rn": "cin\_843121030",  "ty": 4,  "ri": "/mn-cse/cin-843121030",  "pi": "/mn-cse/cnt-453501851",  "ct": "20171221T141412",  "lt": "20171221T141412",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"1\" name=\"state\"/>\n <int val=\"5\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_952494226",  "ty": 4,  "ri": "/mn-cse/cin-952494226",  "pi": "/mn-cse/cnt-453501851",  "ct": "20171221T143231",  "lt": "20171221T143231",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"24.9243788, 31.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"0\" name=\"state\"/>\n <int val=\"0\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_938080275",  "ty": 4,  "ri": "/mn-cse/cin-938080275",  "pi": "/mn-cse/cnt-453501851",  "ct": "20171222T114458",  "lt": "20171222T114458",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"1\" name=\"state\"/>\n <int val=\"5\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_814116168",  "ty": 4,  "ri": "/mn-cse/cin-814116168",  "pi": "/mn-cse/cnt-453501851",  "ct": "20171227T133940",  "lt": "20171227T133940",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"1\" name=\"state\"/>\n <int val=\"5\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_98936682",  "ty": 4,  "ri": "/mn-cse/cin-98936682",  "pi": "/mn-cse/cnt-453501851",  "ct": "20171227T133945",  "lt": "20171227T133945",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"1\" name=\"state\"/>\n <int val=\"5\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_931964077",  "ty": 4,  "ri": "/mn-cse/cin-931964077",  "pi": "/mn-cse/cnt-453501851",  "ct": "20180116T131651",  "lt": "20180116T131651",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"0\" name=\"state\"/>\n <int val=\"0\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_834074840",  "ty": 4,  "ri": "/mn-cse/cin-834074840",  "pi": "/mn-cse/cnt-453501851",  "ct": "20180117T112758",  "lt": "20180117T112758",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"1\" name=\"state\"/>\n <int val=\"5\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_97943352",  "ty": 4,  "ri": "/mn-cse/cin-97943352",  "pi": "/mn-cse/cnt-453501851",  "ct": "20180117T112854",  "lt": "20180117T112854",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"0\" name=\"state\"/>\n <int val=\"0\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_808487651",  "ty": 4,  "ri": "/mn-cse/cin-808487651",  "pi": "/mn-cse/cnt-453501851",  "ct": "20180117T115702",  "lt": "20180117T115702",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"1\" name=\"state\"/>\n <int val=\"5\" name=\"dimLevel\"/>\n</obj>\n"  },  {  "rn": "cin\_33575376",  "ty": 4,  "ri": "/mn-cse/cin-33575376",  "pi": "/mn-cse/cnt-453501851",  "ct": "20180117T115720",  "lt": "20180117T115720",  "st": 0,  "cnf": "application/obix:0",  "cs": 264,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"40.9243788, 29.3138737\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"lampId\"/>\n <int val=\"0\" name=\"state\"/>\n <int val=\"0\" name=\"dimLevel\"/>\n</obj>\n"  }  ],  "m2m:sub": [  {  "rn": "lamp0\_sub",  "ty": 23,  "ri": "/mn-cse/sub-486507948",  "pi": "/mn-cse/cnt-453501851",  "ct": "20180116T131050",  "lt": "20180116T131050",  "acpi": [  "/mn-cse/acp-913546323"  ],  "nu": [  "http://127.0.0.1:1400/monitor"  ],  "nct": 1  }  ],  "ol": "/mn-cse/mn-name/LAMP\_0/DATA/ol",  "la": "/mn-cse/mn-name/LAMP\_0/DATA/la"  },  {  "rn": "DESCRIPTOR",  "ty": 3,  "ri": "/mn-cse/cnt-660342052",  "pi": "/mn-cse/CAE669510044",  "ct": "20171221T140950",  "lt": "20171221T140950",  "acpi": [  "/mn-cse/acp-913546323"  ],  "et": "20181221T140950",  "st": 1,  "mni": 10,  "mbs": 10000,  "mia": 0,  "cni": 1,  "cbs": 870,  "m2m:cin": [  {  "rn": "cin\_856088700",  "ty": 4,  "ri": "/mn-cse/cin-856088700",  "pi": "/mn-cse/cnt-660342052",  "ct": "20171221T140951",  "lt": "20171221T140951",  "st": 0,  "cnf": "application/obix",  "cs": 870,  "con": "<?xml version=\"1.0\" encoding=\"UTF-8\" standalone=\"yes\"?>\n<obj>\n <str val=\"LAMP\" name=\"type\"/>\n <str val=\"Home\" name=\"location\"/>\n <str val=\"LAMP\_0\" name=\"appId\"/>\n <op href=\"/mn-cse/mn-name/LAMP\_0/DATA/la\" name=\"getState\" is=\"retrieve\"/>\n <op href=\"/mn-cse/mn-name/LAMP\_0?op=getStateDirect&amp;lampid=LAMP\_0\" name=\"getState(Direct)\" is=\"execute\"/>\n <op href=\"/mn-cse/mn-name/LAMP\_0?op=setOn&amp;lampid=LAMP\_0\" name=\"switchON\" is=\"execute\"/>\n <op href=\"/mn-cse/mn-name/LAMP\_0?op=setOff&amp;lampid=LAMP\_0\" name=\"switchOFF\" is=\"execute\"/>\n <op href=\"/mn-cse/mn-name/LAMP\_0?op=toggle3Times&amp;lampid=LAMP\_0\" name=\"toggle3Times\" is=\"execute\"/>\n <op href=\"/mn-cse/mn-name/LAMP\_0?op=setDimLevel&amp;lampid=LAMP\_0\" name=\"setDimLevel\" is=\"execute\"/>\n <op href=\"/mn-cse/mn-name/LAMP\_0?op=toggle&amp;lampid=LAMP\_0\" name=\"toggle\" is=\"execute\"/>\n</obj>\n"  }  ],  "ol": "/mn-cse/mn-name/LAMP\_0/DESCRIPTOR/ol",  "la": "/mn-cse/mn-name/LAMP\_0/DESCRIPTOR/la"  }  ],  "m2m:grp": [  {  "rn": "containers\_grp",  "ty": 9,  "ri": "/mn-cse/grp-27205444",  "pi": "/mn-cse/CAE669510044",  "ct": "20180119T144601",  "lt": "20180119T144601",  "acpi": [  "/mn-cse/acp-913546323"  ],  "et": "20190119T144601",  "mt": 3,  "cnm": 2,  "mnm": 10,  "mid": [  "/mn-cse/cnt-453501851",  "/mn-cse/cnt-824831203"  ],  "mtv": true,  "csy": 1,  "fopt": "/mn-cse/mn-name/LAMP\_0/containers\_grp/fopt"  }  ]  }  } |

## Group Requests

### Create A Group for retrieval of all latest light states Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/in-cse/~/mn-cse/mn-name/LAMP\_ALL |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/vnd.onem2m-res+xml;ty=9 | application/vnd.onem2m-res+xml;ty=9 | | X-M2M-RI | mncse/123456 | Request id (rid) | |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | rcn | 0 | create | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:grp xmlns:m2m="http://www.onem2m.org/xml/protocols" rn=”lights\_grp”>  <mt>3</mt>  <mid>/mn-cse/cnt-582759912/la /mn-cse/cnt-582769893/la</mid>  <mnm>10</mnm>  </m2m:grp> |
| **OUTPUT** | HTTP Response:  201 Created  X-M2M-RSC: 2001  X-M2M-RI: mncse/76905  Content-Location: /mn-cse/grp-977978327 |

### Retrieve all latest light states Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/in-cse/~/mn-cse/mn-name/lights\_grp/fopt |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Accept | application/xml | application/xml | | X-M2M-RI | mncse/123456 | Request id (rid) | |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | - | - | - | |
| **BODY** | - |
| **OUTPUT** | 200 OK X-M2M-RSC: 2000 X-M2M-RI: mncse/55667  <?xml version="1.0" encoding="UTF-8"?>  <m2m:agr  xmlns:m2m="http://www.onem2m.org/xml/protocols">  <m2m:rsp>  <rsc>2000</rsc>  <pc>  <m2m:cin rn="cin-394798749">  <ty>4</ty>  <ri>cin-394798749</ri>  <pi>cnt-181049109</pi>  <ct>20150925T045938</ct>  <lt>20150925T045938</lt>  <et>20151107T154802</et>  <st>0</st>  <cnf>text/plain:0</cnf>  <cs>3</cs>  <con>OFF</con>  </m2m:cin>  </pc>  <to>/in-cse/ae-CAE340304178</to>  <fr>/mn-cse/cnt-582759912/la</fr>  </m2m:rsp>  <m2m:rsp>  <rsc>2000</rsc>  <pc>  <m2m:cin rn="cin-256599578">  <ty>4</ty>  <ri>cin-256599578</ri>  <pi>cnt-790965889</pi>  <ct>20150925T050515</ct>  <lt>20150925T050515</lt>  <et>20151107T154802</et>  <st>0</st>  <cnf>text/plain:0</cnf>  <cs>3</cs>  <con>OFF</con>  </m2m:cin>  </pc>  <to>/in-cse/ae-CAE340304178</to>  <fr>/mn-cse/cnt-582769893/la</fr>  </m2m:rsp>  </m2m:agr> |

## Subscription Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/mn-name/LAMP\_0/DATA?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/vnd.onem2m-res+xml;ty=23 | ty=23 is “SUBSCRIPTION” | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:sub xmlns:m2m="http://www.onem2m.org/xml/protocols" rn="**CNT\_ID**\_**NOTIFICATION\_URI**">  <enc>  <net>3</net>  </enc>  <lbl>label\_field</lbl>  <nu>http://127.0.0.1:1400/monitor</nu>  <nct>1</nct>  </m2m:sub> |

## USER Requests

### Create User Request

|  |  |
| --- | --- |
| **URL** |  |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation |  |  | |
| **OUTPUT** |  |

### Update User Request

|  |  |
| --- | --- |
| **URL** |  |
| **TYPE** | PUT |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation |  |  | |
| **OUTPUT** |  |

### Get User Request

|  |  |
| --- | --- |
| **URL** |  |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation |  |  | |
| **OUTPUT** |  |

### Get User Details Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/in-cse?apiOperation=getUserDetails&userId=1 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: i<session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation | getUserDeails | Mandatory. | | ıserId | User entity id | Mandatory. Numeric value | |
| **OUTPUT** | {  "m2m:user": {  "user\_id": 1,  "user\_first\_name": "test",  "user\_last\_name": "test",  "user\_email": "test@test.com",  "is2fa": false,  "rllist": [  {  "rlid": 500,  "rlname": "ROLE\_SUPERADMIN",  "rldisplayname": "ROLE SUPERADMIN",  "prvlist": [  {  "prvid": 400,  "prvname": "READ\_PRIVILEGE",  "prvdisplayname": "READ PRIVILEGE"  },  {  "prvid": 401,  "prvname": "WRITE\_PRIVILEGE",  "prvdisplayname": "WRITE PRIVILEGE"  },  {  "prvid": 402,  "prvname": "CHANGE\_PASSWORD\_PRIVILEGE",  "prvdisplayname": "CHANGE PASSWORD PRIVILEGE"  },  {  "prvid": 403,  "prvname": "VIEW\_COMPANY\_LIST",  "prvdisplayname": "VIEW COMPANY LIST"  },  {  "prvid": 404,  "prvname": "CREATE\_COMPANY",  "prvdisplayname": "CREATE COMPANY"  },  {  "prvid": 405,  "prvname": "EDIT\_COMPANY",  "prvdisplayname": "EDIT COMPANY"  },  {  "prvid": 406,  "prvname": "VIEW\_CSESTATE\_LIST",  "prvdisplayname": "VIEW CSESTATE LIST"  },  {  "prvid": 407,  "prvname": "CREATE\_CSESTATE",  "prvdisplayname": "CREATE CSESTATE"  },  {  "prvid": 408,  "prvname": "EDIT\_CSESTATE",  "prvdisplayname": "EDIT CSESTATE"  },  {  "prvid": 409,  "prvname": "VIEW\_PRIVILEGE\_LIST",  "prvdisplayname": "VIEW PRIVILEGE LIST"  },  {  "prvid": 410,  "prvname": "CREATE\_PRIVILEGE",  "prvdisplayname": "CREATE PRIVILEGE"  },  {  "prvid": 411,  "prvname": "EDIT\_PRIVILEGE",  "prvdisplayname": "EDIT PRIVILEGE"  },  {  "prvid": 412,  "prvname": "VIEW\_ROLE\_LIST",  "prvdisplayname": "VIEW ROLE LIST"  },  {  "prvid": 413,  "prvname": "CREATE\_ROLE",  "prvdisplayname": "CREATE ROLE"  },  {  "prvid": 414,  "prvname": "EDIT\_ROLE",  "prvdisplayname": "EDIT ROLE"  },  {  "prvid": 415,  "prvname": "VIEW\_USER\_LIST",  "prvdisplayname": "VIEW USER LIST"  },  {  "prvid": 416,  "prvname": "CREATE\_USER",  "prvdisplayname": "CREATE USER"  },  {  "prvid": 417,  "prvname": "EDIT\_USER",  "prvdisplayname": "EDIT USER"  },  {  "prvid": 418,  "prvname": "VIEW\_GATEWAYGROUP\_LIST",  "prvdisplayname": "VIEW GATEWAYGROUP LIST"  },  {  "prvid": 419,  "prvname": "CREATE\_GATEWAYGROUP",  "prvdisplayname": "CREATE GATEWAYGROUP"  },  {  "prvid": 420,  "prvname": "EDIT\_GATEWAYGROUP",  "prvdisplayname": "EDIT GATEWAYGROUP"  },  {  "prvid": 421,  "prvname": "VIEW\_CONATACT\_LIST",  "prvdisplayname": "VIEW CONATACT LIST"  },  {  "prvid": 422,  "prvname": "CREATE\_CONATACT",  "prvdisplayname": "CREATE CONATACT"  },  {  "prvid": 423,  "prvname": "EDIT\_CONATACT",  "prvdisplayname": "EDIT CONATACT"  },  {  "prvid": 424,  "prvname": "VIEW\_DASHBOARD",  "prvdisplayname": "VIEW DASHBOARD"  }  ]  }  ],  "gwgs": [  {  "gwgid": 700,  "gwgname": "TRIOTE\_GWG\_1",  "gwgcseid": "/in-cse/csr-327193733",  "csi": "mn-cse",  "gwguids": "1",  "gwgpids": "425 426 427"  },  {  "gwgid": 701,  "gwgname": "TRIOTE\_GWG\_2",  "gwgcseid": "/in-cse/csr-327193733",  "csi": "mn-cse",  "gwguids": "1",  "gwgpids": "428 429 430"  }  ],  "companylist": [  {  "company\_id": 100,  "company\_code": "TRIOTE",  "company\_name": "TRIOTE",  "create\_date": "2017-10-09T14:11:05+03:00"  }  ]  }  } |

## CSE State Requests

### Generate CSE ID Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/in-cse?apiOperation=generateCSEStateEntity&companyId=100&count=2&state=1 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: i<session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation | generateCSEStateEntity | Mandatory. | | companyId | Company entity id | Mandatory. Numeric value | | state | Possible values:   * MANUFACTURE or 1 * TEST\_READY or 2 * TESTING or 3 * ACTIVATION\_READY or 4 * ACTIVE or 5 * SUSPENDED or 6 * DEACTIVE or 7 * ERROR or 8 | Mandatory. Numeric MANUFACTURE(1)  TEST\_READY(2)  TESTING(3)  ACTIVATION\_READY(4)ACTIVE(5),  SUSPENDED(6),  DEACTIVE(7),  ERROR(8) | | count | Number of cse id to create | Mandatory. Numeric | |

### Update CSE ID State Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/in-cse?apiOperation=updateCSEState&csi=TRIOTE\_oOj97OLsKm\_0&state=3 |
| **TYPE** | PUT |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: i<session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation | updateCSEState | Mandatory. | | csi | csi | Mandatory. | | state | Possible values:   * MANUFACTURE or 1 * TEST\_READY or 2 * TESTING or 3 * ACTIVATION\_READY or 4 * ACTIVE or 5 * SUSPENDED or 6 * DEACTIVE or 7 * ERROR or 8 | Mandatory. Numeric MANUFACTURE(1)  TEST\_READY(2)  TESTING(3)  ACTIVATION\_READY(4)ACTIVE(5),  SUSPENDED(6),  DEACTIVE(7),  ERROR(8) | |

### Get CSE ID State Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/in-cse?apiOperation=getCSEStateEntities |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: i<session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation | getCSEStateEntities | Mandatory. | |
| **OUTPUT** | {  "m2m:cseStates": {  "cseStateList": [  {  "si": 600,  "sn": "ACTIVE",  "csi": "in-cse",  "create\_date": "2017-10-08T18:12:40+03:00",  "createdBy": "1",  "cseshistlist": [  {  "si": 600,  "sn": "ACTIVE",  "csi": "in-cse",  "create\_date": "2017-10-08T18:12:40+03:00",  "createdBy": "1"  }  ]  },  {  "si": 601,  "sn": "ACTIVATION\_READY",  "csi": "mn-cse",  "create\_date": "2017-10-08T18:12:40+03:00",  "createdBy": "1",  "cseshistlist": [  {  "si": 601,  "sn": "ACTIVATION\_READY",  "csi": "mn-cse",  "create\_date": "2017-10-08T18:12:40+03:00",  "createdBy": "1"  }  ]  },  {  "si": 1000,  "sn": "DEACTIVE",  "csi": "TRIOTE\_N7oAlGnObJ\_0",  "create\_date": "2017-10-08T18:20:01+03:00",  "update\_date": "2017-10-08T18:30:05+03:00",  "createdBy": "1",  "updatedBy": "1",  "cseshistlist": [  {  "si": 1000,  "sn": "SUSPENDED",  "csi": "TRIOTE\_N7oAlGnObJ\_0",  "create\_date": "2017-10-08T18:20:01+03:00",  "createdBy": "1"  },  {  "si": 1001,  "sn": "DEACTIVE",  "csi": "TRIOTE\_N7oAlGnObJ\_0",  "create\_date": "2017-10-08T18:20:01+03:00",  "update\_date": "2017-10-08T18:30:05+03:00",  "createdBy": "1",  "updatedBy": "1"  }  ]  }  ]  }  } |

### Get CSE ID State with Company ID Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/in-cse?apiOperation=getCSEStateEntities&companyId=100 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: i<session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation | getCSEStateEntities | Mandatory. | | “ | Company entity id | Optional. Numeric value. If set then only cse(s) of that company will be returned | |
| **OUTPUT** | {  "m2m:cseStates": {  "cseStateList": [  {  "si": 600,  "sn": "ACTIVE",  "csi": "in-cse",  "create\_date": "2017-10-08T18:12:40+03:00",  "createdBy": "1",  "cseshistlist": [  {  "si": 600,  "sn": "ACTIVE",  "csi": "in-cse",  "create\_date": "2017-10-08T18:12:40+03:00",  "createdBy": "1"  }  ]  },  {  "si": 601,  "sn": "ACTIVATION\_READY",  "csi": "mn-cse",  "create\_date": "2017-10-08T18:12:40+03:00",  "createdBy": "1",  "cseshistlist": [  {  "si": 601,  "sn": "ACTIVATION\_READY",  "csi": "mn-cse",  "create\_date": "2017-10-08T18:12:40+03:00",  "createdBy": "1"  }  ]  },  {  "si": 1000,  "sn": "DEACTIVE",  "csi": "TRIOTE\_N7oAlGnObJ\_0",  "create\_date": "2017-10-08T18:20:01+03:00",  "update\_date": "2017-10-08T18:30:05+03:00",  "createdBy": "1",  "updatedBy": "1",  "cseshistlist": [  {  "si": 1000,  "sn": "SUSPENDED",  "csi": "TRIOTE\_N7oAlGnObJ\_0",  "create\_date": "2017-10-08T18:20:01+03:00",  "createdBy": "1"  },  {  "si": 1001,  "sn": "DEACTIVE",  "csi": "TRIOTE\_N7oAlGnObJ\_0",  "create\_date": "2017-10-08T18:20:01+03:00",  "update\_date": "2017-10-08T18:30:05+03:00",  "createdBy": "1",  "updatedBy": "1"  }  ]  }  ]  }  } |

## Report Requests

### Consumption Requests

#### DASHBOARD

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/in-cse/rprt?id=3&startDate=20171004T000000&endDate=20171004T235959 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: i<session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | id | 3 | Mandatory. Consumption | | type | Null:all,  1:gatewayGroup,  2:gateway,  3:device | Optioanal. İf null then return consumption of user’s groups gateways total consumption. If ‘1’ then find group gateways and return total consumptions of them. | | rid | İf type = ‘1’ 🡺 group ids  İf type = ‘2’ 🡺 gateway resource id  İf type = ‘3’ 🡺 device id(cin\_id) | Optioanal .rid for group and gateway may be multiple seperated by a comma(‘,’) | | startDate | Start date | Mandatory. Date format: yyyyMMddTHHmmss | | endDate | End date | Mandatory. Date format: yyyyMMddTHHmmss | |
| **OUTPUT** | mn-cse:915:2017-10-04 |

#### GATEWAY GROUP

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/in-cse/rprt?id=3&**type=1**&rid=1&startDate=20171004T000000&endDate=20171004T235959 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | id | 3 | Mandatory. Consumption | | type | Null:all,  1:gatewayGroup,  2:gateway,  3:device | Optioanal. İf null then return consumption of user’s groups gateways total consumption. If ‘1’ then find group gateways and return total consumptions of them. | | rid | İf type = ‘1’ 🡺 group ids  İf type = ‘2’ 🡺 gateway resource id  İf type = ‘3’ 🡺 device id(cin\_id) | Optioanal .rid for group and gateway may be multiple seperated by a comma(‘,’) | | startDate | Start date | Mandatory. Date format: yyyyMMddTHHmmss | | endDate | End date | Mandatory. Date format: yyyyMMddTHHmmss | |
| **OUTPUT** | mn-cse:915:2017-10-04 |

#### GATEWAY

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/in-cse/rprt?id=3&**type=2**&rid= /in-cse/csr-59682269&startDate=20171004T000000&endDate=20171004T235959 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | id | 3 | Mandatory. Consumption | | type | Null:all,  1:gatewayGroup,  2:gateway,  3:device | Optioanal. İf null then return consumption of user’s groups gateways total consumption. If ‘1’ then find group gateways and return total consumptions of them. | | rid | İf type = ‘1’ 🡺 group ids  İf type = ‘2’ 🡺 gateway resource id  İf type = ‘3’ 🡺 device id(cin\_id) | Optioanal .rid for group and gateway may be multiple seperated by a comma(‘,’) | | startDate | Start date | Mandatory. Date format: yyyyMMddTHHmmss | | endDate | End date | Mandatory. Date format: yyyyMMddTHHmmss | |
| **OUTPUT** | mn-cse:915:2017-10-04 |

#### DEVICE

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/in-cse/rprt?id=3&**type=3**&rid= /mn-cse/cnt-32999168&startDate=20171004T000000&endDate=20171004T235959 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | id | 3 | Mandatory. Consumption | | type | Null:all,  1:gatewayGroup,  2:gateway,  3:device | Optioanal. İf null then return consumption of user’s groups gateways total consumption. If ‘1’ then find group gateways and return total consumptions of them. | | rid | İf type = ‘1’ 🡺 group ids  İf type = ‘2’ 🡺 gateway resource id  İf type = ‘3’ 🡺 device id(cin\_id) | Optioanal .rid for group and gateway may be multiple seperated by a comma(‘,’) | | startDate | Start date | Mandatory. Date format: yyyyMMddTHHmmss | | endDate | End date | Mandatory. Date format: yyyyMMddTHHmmss | |
| **OUTPUT** | LAMP\_0:915:2017-10-04 |

### Dim Level Requests

#### DASHBOARD

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/in-cse/rprt?id=4&startDate=20171004T000000&endDate=20171004T235959 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | id | 3 | Mandatory. Consumption | | type | Null:all,  1:gatewayGroup,  2:gateway,  3:device | Optioanal. İf null then return consumption of user’s groups gateways total consumption. If ‘1’ then find group gateways and return total consumptions of them. | | rid | İf type = ‘1’ 🡺 group ids  İf type = ‘2’ 🡺 gateway resource id  İf type = ‘3’ 🡺 device id(cin\_id) | Optioanal .rid for group and gateway may be multiple seperated by a comma(‘,’) | | startDate | Start date | Mandatory. Date format: yyyyMMddTHHmmss | | endDate | End date | Mandatory. Date format: yyyyMMddTHHmmss | |
| **OUTPUT** | mn-cse:915:2017-10-04 |

## Gateway Group Requests

### Create Gateway Group Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/in-cse?apiOperation=createGatewayGroup&user=1&resources=/in-cse/csr-863424593&groupName=&displayName=&description=deneme&company=100 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation | createGatewayGroup | Mandatory. | | user | User entity id | Mandatory. Logged User id | | resources | Gateway id list | Mandatory .Gateway resource id list seperated by comma(,) | | gwgName | Gateway Group Name | Mandatory | | displayName | Gateway Group Display Name | Optional | | description | Gateway Group Description | Optional | | company | Logged company | Mandatory | |
| **OUTPUT** | Gateway Group object is created |

### Update Gateway Group Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/in-cse?apiOperation=updateGWGroup&userId=1&gateways=/in-cse/csr-99980383&gwgName=TRIOTE\_GWG\_1&displayName=TRIOTE\_GWG\_1&description= |
| **TYPE** | PUT |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation | updateGWGroup | Mandatory. | | userId | User entity id | Mandatory. Logged User id | | gateways | Gateway id list | Mandatory .Gateway resource id list seperated by comma(,) | | gwgName | Gateway Group Name | Mandatory | | displayName | Gateway Group Display Name | Optional | | description | Gateway Group Description | Optional | |
| **OUTPUT** | Gateway Group is updated |

### Get Gateway Group Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/in-cse?apiOperation=getGatewayGroups |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation | getGatewayGroups | Mandatory. | |
| **OUTPUT** | {  "m2m:gwgs": {  "gwg": [  {  "gwgid": 1050,  "gwgname": "deneme",  "gwgdispname": "deneme",  "gwgstatus": true,  "gwgcseid": "/in-cse/csr-863424593",  "csi": "mn-cse",  "gwguids": "1",  "gwgpids": "1050 1051 1052",  "create\_date": "2017-10-15T22:39:11+03:00",  "createdBy": "1"  },  {  "gwgid": 1102,  "gwgname": "TRIOTE\_1\_21",  "gwgdispname": "TRIOTE\_1\_21",  "gwgdesc": "deneme",  "gwgstatus": true,  "gwgcseid": "/in-cse/csr-863424593",  "csi": "mn-cse",  "gwguids": "1",  "gwgpids": "1106 1107 1108",  "create\_date": "2017-10-16T13:58:24+03:00",  "createdBy": "1"  }  ]  }  } |

## Company Requests

### Create Company Request

|  |  |
| --- | --- |
| **URL** |  |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation |  |  | |
| **OUTPUT** |  |

### Update Company Request

|  |  |
| --- | --- |
| **URL** |  |
| **TYPE** | PUT |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation |  |  | |
| **OUTPUT** |  |

### Get Company Request

|  |  |
| --- | --- |
| **URL** |  |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation |  |  | |
| **OUTPUT** |  |

## Log Management Requests

### Update Log Management Request

|  |  |
| --- | --- |
| **URL** |  |
| **TYPE** | PUT |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation |  |  | |
| **OUTPUT** |  |

### Get Log Management Request

|  |  |
| --- | --- |
| **URL** |  |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | X-M2M-SKEY | 8b02PF3XKePTCzoXGL5GMRhZkmgaLx:1 | Session key format is: <session\_key>:<user\_id> | |
| **BODY** | - |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | apiOperation |  |  | |
| **OUTPUT** |  |

## Group Management Requests

### OLD VERSION OF IPE

This section describes group management operations for old version of IPE ( **IPE SAMPLE** ).At initial installation by default, an AE resource named as “LAMP\_ALL” already exists. In case of creation of new AE (as LAMP\_ALL\_2), the request at table below can be used.

#### Application Entity (AE) Creation

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  X-M2M-RI  Authorization | application/vnd.onem2m-res+xml;ty=2  1234  Basic YWRtaW46YWRtaW4= |  | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:ae xmlns:m2m="http://www.onem2m.org/xml/protocols" rn="LAMP\_ALL\_2">  <api>my\_logical\_ae\_1</api>  <rr>TRUE</rr>  <acpi>/mn-cse/acp-733574239</acpi>  </m2m:ae> |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** |  |

#### Container Creation Under Lamp\_0 (And Lamp\_1)

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/LAMP\_0?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  X-M2M-RI  Authorization | application/vnd.onem2m-res+xml;ty=3  1234578  Basic YWRtaW46YWRtaW4= |  | |
| **BODY** | <m2m:cnt xmlns:m2m="http://www.onem2m.org/xml/protocols" rn="remoteCnt">  </m2m:cnt> |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** |  |

#### Create Group Request

##### a.Operational Group:

We are creating a group under LAMP\_ALL which will trigger remoteCnt containers of LAMP\_0 and LAMP\_1. This group is created for running or managing the operations for each member resource of group.

remoteCnt resouce Id of LAMP\_0: /mn-cse/cnt-823357566

remoteCnt resouce Id of LAMP\_1: /mn-cse/cnt-369089725

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/LAMP\_ALL?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  M2M-RI | application/vnd.onem2m-res+xml;ty=9 1234567 |  | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:grp xmlns:m2m="http://www.onem2m.org/xml/protocols" rn="remoteCnt\_2\_grp">  <mt>3</mt>  <mid>/mn-cse/cnt-823357566 /mn-cse/cnt-369089725</mid>  <mnm>10</mnm>  </m2m:grp> |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** |  |

##### b.Retrieval Group

This group is created for retrieve the last one contentInstance data of each member resource of a group. This group is also located under LAMP\_ALL.

remoteCnt resouce hierarchicalUri of LAMP\_0: /mn-cse/mn-name/LAMP\_0/DATA/la

remoteCnt resouce hierarchicalUri of LAMP\_1: /mn-cse/mn-name/LAMP\_1/DATA/la

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/LAMP\_ALL?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  M2M-RI | application/vnd.onem2m-res+xml;ty=9 123456789 |  | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:grp xmlns:m2m="http://www.onem2m.org/xml/protocols" rn="remoteCnt\_lastStates\_grp">  <mt>3</mt>  <mid>/mn-cse/mn-name/LAMP\_0/DATA/la /mn-cse/mn-name/LAMP\_1/DATA/la</mid>  <mnm>10</mnm>  </m2m:grp> |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** |  |

#### Subscription creation Under Lamp\_0’s “remoteCnt” Container

When a ContentInstance comes under remoteCnt of LAMP\_0, a subscription will notify LAMP\_0 for operation described in ContentInstance request.

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/LAMP\_0/remoteCnt?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  X-M2M-RI  Authorization | application/vnd.onem2m-res+xml;ty=23  1234578  Basic YWRtaW46YWRtaW4= |  | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:sub xmlns:m2m="http://www.onem2m.org/xml/protocols" rn="lamp\_1\_sub\_1\_for\_all">  <enc>  <net>3</net>  </enc>  <nu>http://localhost:8080/~/mn-cse/mn-name/LAMP\_1?lampid=LAMP\_1</nu>  <nct>1</nct>  </m2m:sub> |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** |  |

#### Create ContentInstance Request for LAMP\_ALL ‘s “remoteCnt\_2\_grp” for trigging child resources.

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/LAMP\_ALL/remoteCnt\_2\_grp/fopt?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  X-M2M-RI  Authorization | application/vnd.onem2m-res+xml;ty=4  12345789  Basic YWRtaW46YWRtaW4= |  | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:cin xmlns:m2m="http://www.onem2m.org/xml/protocols">  <cnf>text/plain:0</cnf>  <con>&lt;?xml version=&quot;1.0&quot; encoding=&quot;UTF-8&quot; standalone=&quot;yes&quot;?>  &lt;obj>  &lt;str val=&quot;toggle&quot; name=&quot;grpOp&quot;/>    &lt;/obj></con>  </m2m:cin> |
| **queryString** | |  |  |  |  | | --- | --- | --- | --- | | **KEY** |  | **VALUE** | **DESCRIPTION** | |  |  |  |  | |
| **OUTPUT** |  |

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/LAMP\_ALL/remoteCnt\_2\_grp/fopt?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  X-M2M-RI  Authorization | application/vnd.onem2m-res+xml;ty=4  12345789  Basic YWRtaW46YWRtaW4= |  | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:cin xmlns:m2m="http://www.onem2m.org/xml/protocols">  <cnf>text/plain:0</cnf>  <con>&lt;?xml version=&quot;1.0&quot; encoding=&quot;UTF-8&quot; standalone=&quot;yes&quot;?>  &lt;obj>  &lt;str val=&quot;setDimLevel&quot; name=&quot;grpOp&quot;/>  &lt;int val=&quot;2&quot; name=&quot;dimLevel&quot;/>    &lt;/obj></con>  </m2m:cin> |
| **queryString** | |  |  |  |  | | --- | --- | --- | --- | | **KEY** |  | **VALUE** | **DESCRIPTION** | |  |  |  |  | |
| **OUTPUT** |  |

### SDT VERSION OF IPE

This section describes group management operations for sdt version of IPE ( **Philips Hue IPE**).

#### Create Group Request

We are creating a group under SDT\_IPE application entity. This group is created for running or managing the operations for each member resource of group.

FlexContainer huri of LAMP\_1 device point:

/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1

FlexContainer huri of LAMP\_2 device point:

/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_2

Resource name of group: “GROUP\_org.onem2m.home.moduleclass\_SDT\_LAMP\_GRP”

NOTE: The group resourcename should be suit the pattern “’GROUP\_’cndOfModuleClass’\_userDefinedGroupName’” when it is created.

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/SDT\_IPE?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  M2M-RI | application/vnd.onem2m-res+xml;ty=9 1234567 |  | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:grp xmlns:m2m="http://www.onem2m.org/xml/protocols" rn=" GROUP\_org.onem2m.home.moduleclass\_SDT\_LAMP\_GRP">  <mt>28</mt>  <mid>/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1 /mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_2</mid>  <mnm>10</mnm>  </m2m:grp> |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** |  |

#### Update Group Request

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/SDT\_IPE/GROUP\_org.onem2m.home.moduleclass\_SDT\_LAMP\_GRP/fopt |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  M2M-RI | application/xml  1234567 |  | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <hd:colourHSV xmlns:m2m="http://www.onem2m.org/xml/protocols" xmlns:hd="http://www.onem2m.org/xml/protocols/homedomain" rn="group\_update">  <sat type="xs:integer">190</sat>  <hue type="xs:integer">40000</hue>  <brigs type="xs:integer">111</brigs>  </hd:colourHSV> |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** |  |

#### Retrieve Group Request

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/mn-cse/mn-name/SDT\_IPE/GROUP\_org.onem2m.home.moduleclass\_SDT\_LAMP\_GRP/fopt?rcn=4 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  M2M-RI | application/json  1234567 |  | |
| **BODY** |  |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** |  |

## SDT Device Light Requests

### Retrieve Device Huri Information from AE Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/CAE669510044?rcn=4 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/json | application/json | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | rcn | 4 | Retrieve full information of resource | |
| **OUTPUT** | {  "m2m:ae": {  "rn": "SDT\_IPE",  "ty": 2,  "ri": "/mn-cse/CAE85463856",  "pi": "/mn-cse",  "ct": "20180327T135717",  "lt": "20180327T135717",  "acpi": [  "/mn-cse/acp-235931984"  ],  "et": "20190327T135717",  "api": "SDT\_IPE",  "aei": "CAE85463856",  "poa": [  "sdt"  ],  "rr": true,  "hd:devLt": [  {  "rn": "DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "ty": 28,  "ri": "/mn-cse/fcnt-301380517",  "pi": "/mn-cse/CAE85463856",  "ct": "20180327T135736",  "lt": "20180327T135736",  "lbl": [  "cntDef/org.onem2m.home.device.deviceLight",  "id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "object.type/device",  "OTB.CATEGORY/Read",  "pid/org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_1"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135736",  "cnd": "org.onem2m.home.device.deviceLight",  "prDNe": "Hue color lamp 1",  "pDSMN": "Extended color light",  "prDTe": "4",  "proPl": "Zigbee Light Link",  "pDUId": "00:17:88:01:03:10:8d:9f-0b",  "proLn": "Office",  "pDSNm": "SERIAL\_LAMP\_1",  "pDMNe": "LCT015",  "prOVn": "1.29.0\_r21169",  "pDSCId": "3416C2DD",  "pDPId": "Philips-LCT015-1-A19ECLv5",  "prDMr": "Philips",  "hd:binSh": {  "rn": "org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1",  "ty": 28,  "ri": "/mn-cse/fcnt-841293548",  "pi": "/mn-cse/fcnt-301380517",  "ct": "20180327T135811",  "lt": "20180327T135811",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.binarySwitch",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_binarySwitch\_\_binarySwitch\_LAMP\_1"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135811",  "cnd": "org.onem2m.home.moduleclass.binarySwitch",  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_1",  "powSe": "true",  "hd:togge": {  "rn": "org.onem2m.home.moduleclass.binaryswitch.toggle\_\_toggle",  "ty": 28,  "ri": "/mn-cse/fcnt-919832221",  "pi": "/mn-cse/fcnt-841293548",  "ct": "20180327T135811",  "lt": "20180327T135811",  "lbl": [  "object.type/action",  "OTB.CATEGORY/Run",  "pid/org\_onem2m\_home\_moduleclass\_binarySwitch\_\_binarySwitch\_LAMP\_1"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135811",  "cnd": "org.onem2m.home.moduleclass.binaryswitch.toggle"  }  },  "hd:color": {  "rn": "org.onem2m.home.moduleclass.colour\_\_colour\_LAMP\_1",  "ty": 28,  "ri": "/mn-cse/fcnt-223759535",  "pi": "/mn-cse/fcnt-301380517",  "ct": "20180327T135810",  "lt": "20180327T135810",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.colour",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.moduleclass.colour\_\_colour\_LAMP\_1",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_colour\_\_colour\_LAMP\_1"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135810",  "cnd": "org.onem2m.home.moduleclass.colour",  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_1",  "red": "100",  "green": "100",  "blue": "15"  },  "hd:colSn": {  "rn": "org.onem2m.home.moduleclass.colourSaturation\_\_colourSaturation\_LAMP\_1",  "ty": 28,  "ri": "/mn-cse/fcnt-76863651",  "pi": "/mn-cse/fcnt-301380517",  "ct": "20180327T135810",  "lt": "20180327T135810",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.colourSaturation",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.moduleclass.colourSaturation\_\_colourSaturation\_LAMP\_1",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_colourSaturation\_\_colourSaturation\_LAMP\_1"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135810",  "cnd": "org.onem2m.home.moduleclass.colourSaturation",  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_1",  "colSn": "29"  }  },  {  "rn": "DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "ty": 28,  "ri": "/mn-cse/fcnt-72133775",  "pi": "/mn-cse/CAE85463856",  "ct": "20180327T135812",  "lt": "20180327T135812",  "lbl": [  "cntDef/org.onem2m.home.device.deviceLight",  "id/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "name/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "object.type/device",  "OTB.CATEGORY/Read",  "pid/org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_2"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135812",  "cnd": "org.onem2m.home.device.deviceLight",  "prDNe": "Hue color lamp 2",  "pDSMN": "Extended color light",  "prDTe": "4",  "proPl": "Zigbee Light Link",  "pDUId": "00:17:88:01:03:10:88:ef-0b",  "proLn": "Office",  "pDSNm": "SERIAL\_LAMP\_2",  "pDMNe": "LCT015",  "prOVn": "1.29.0\_r21169",  "pDSCId": "3416C2DD",  "pDPId": "Philips-LCT015-1-A19ECLv5",  "prDMr": "Philips",  "hd:binSh": {  "rn": "org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_2",  "ty": 28,  "ri": "/mn-cse/fcnt-212635790",  "pi": "/mn-cse/fcnt-72133775",  "ct": "20180327T135914",  "lt": "20180327T135914",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.binarySwitch",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "name/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_2",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_binarySwitch\_\_binarySwitch\_LAMP\_2"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135914",  "cnd": "org.onem2m.home.moduleclass.binarySwitch",  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_2",  "powSe": "true",  "hd:togge": {  "rn": "org.onem2m.home.moduleclass.binaryswitch.toggle\_\_toggle",  "ty": 28,  "ri": "/mn-cse/fcnt-260930092",  "pi": "/mn-cse/fcnt-212635790",  "ct": "20180327T135914",  "lt": "20180327T135914",  "lbl": [  "object.type/action",  "OTB.CATEGORY/Run",  "pid/org\_onem2m\_home\_moduleclass\_binarySwitch\_\_binarySwitch\_LAMP\_2"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135914",  "cnd": "org.onem2m.home.moduleclass.binaryswitch.toggle"  }  },  "hd:color": {  "rn": "org.onem2m.home.moduleclass.colour\_\_colour\_LAMP\_2",  "ty": 28,  "ri": "/mn-cse/fcnt-133570727",  "pi": "/mn-cse/fcnt-72133775",  "ct": "20180327T135913",  "lt": "20180327T135913",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.colour",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "name/org.onem2m.home.moduleclass.colour\_\_colour\_LAMP\_2",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_colour\_\_colour\_LAMP\_2"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135913",  "cnd": "org.onem2m.home.moduleclass.colour",  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_2",  "red": "100",  "green": "100",  "blue": "100"  },  "hd:colSn": {  "rn": "org.onem2m.home.moduleclass.colourSaturation\_\_colourSaturation\_LAMP\_2",  "ty": 28,  "ri": "/mn-cse/fcnt-563365385",  "pi": "/mn-cse/fcnt-72133775",  "ct": "20180327T135913",  "lt": "20180327T135913",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.colourSaturation",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "name/org.onem2m.home.moduleclass.colourSaturation\_\_colourSaturation\_LAMP\_2",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_colourSaturation\_\_colourSaturation\_LAMP\_2"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135913",  "cnd": "org.onem2m.home.moduleclass.colourSaturation",  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_2",  "colSn": "11"  }  }  ]  }  } |

### Retrieve Binary Switch Module Class Information Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/json | application/json | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | rcn | 4 | Retrieve full information of resource | |
| **OUTPUT** | {  "hd:binSh": {  "rn": "org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1",  "ty": 28,  "ri": "/mn-cse/fcnt-841293548",  "pi": "/mn-cse/fcnt-301380517",  "ct": "20180327T135811",  "lt": "20180327T135811",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.binarySwitch",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_binarySwitch\_\_binarySwitch\_LAMP\_1"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-2727805"  ],  "et": "20190327T135811",  "cnd": "org.onem2m.home.moduleclass.binarySwitch",  **"powSe": "true",**  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_1"  }  } |

### Update Binary Switch Module Class Information Request

|  |  |  |
| --- | --- | --- |
| **URL** |  | http://127.0.0.1:8080/~/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1 |
| **TYPE** |  | PUT |
| **HEADER** |  | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/json | application/json | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **BODY** |  | {  "hd:binSh": {  "rn": "org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1",  "powSe": true  }  } |
| **OUTPUT** |  | {  "hd:binSh": {  "lt": "20180328T084552",  "cnd": "org.onem2m.home.moduleclass.binarySwitch",  "powSe": "true"  }  } |

### Retrieve Color HSV Module Class Information Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1/org.onem2m.home.moduleclass.colourHSV\_\_colourHSV\_LAMP\_1 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/json | application/json | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | rcn | 4 | Retrieve full information of resource | |
| **OUTPUT** | {  "hd:colourHSV": {  "rn": "org.onem2m.home.moduleclass.colourHSV\_\_colourHSV\_LAMP\_1",  "ty": 28,  "ri": "/mn-cse/fcnt-244930585",  "pi": "/mn-cse/fcnt-388735295",  "ct": "20180329T203401",  "lt": "20180329T203401",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.colourHSV",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.moduleclass.colourHSV\_\_colourHSV\_LAMP\_1",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_colourHSV\_\_colourHSV\_LAMP\_1"  ],  "acpi": [  "/mn-cse/acp-301911279",  "/mn-cse/acp-683314266"  ],  "et": "20190329T203401",  "cnd": "org.onem2m.home.moduleclass.colourHSV",  "huri": "/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1/org.onem2m.home.moduleclass.colourHSV\_\_colourHSV\_LAMP\_1",  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_1",  "sat": "100",  "hue": "100",  "brigs": "100"  }  } |

### Update Color HSV Module Class Information Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1/org.onem2m.home.moduleclass.colourHSV\_\_colourHSV\_LAMP\_1 |
| **TYPE** | PUT |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/json | application/json | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **BODY** | {  "hd:colourHSV": {  "rn": "org.onem2m.home.moduleclass.colourHSV\_\_colourHSV\_LAMP\_1",  "sat": "100",  "hue": "10000",  "brigs": "100"  }  } |
| **OUTPUT** | {  "hd:color": {  "lt": "20180328T084953",  "cnd": "org.onem2m.home.moduleclass.colour",  "red": "200",  "green": "100",  "blue": "15"  }  } |

### Retrieve Brightness Module Class Information Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1/org.onem2m.home.moduleclass.brightness\_\_brightness\_LAMP\_1 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/json | application/json | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | rcn | 4 | Retrieve full information of resource | |
| **OUTPUT** | {  "hd:brigs": {  "rn": "org.onem2m.home.moduleclass.brightness\_\_brightness\_LAMP\_1",  "ty": 28,  "ri": "/mn-cse/fcnt-675478212",  "pi": "/mn-cse/fcnt-683985386",  "ct": "20180328T140250",  "lt": "20180328T140250",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.brightness",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.moduleclass.brightness\_\_brightness\_LAMP\_1",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_brightness\_\_brightness\_LAMP\_1"  ],  "acpi": [  "/mn-cse/acp-235931984",  "/mn-cse/acp-261776214"  ],  "et": "20190328T140250",  "cnd": "org.onem2m.home.moduleclass.brightness",  "owner": "org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_1",  "brigs": "100"  }  } |

### Update Brightness Module Class Information Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1/org.onem2m.home.moduleclass.brightness\_\_brightness\_LAMP\_1 |
| **TYPE** | PUT |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/json | application/json | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **BODY** | {  "hd:brigs": {  "rn": "org.onem2m.home.moduleclass.brightness\_\_brightness\_LAMP\_1",  "brigs": "50"  }  } |
| **OUTPUT** | {  "hd:brigs": {  "lt": "20180328T141156",  "cnd": "org.onem2m.home.moduleclass.brightness",  "brigs": "50"  }  } |

### Subscribe Binary Switch Module Class Request

|  |  |
| --- | --- |
| **URL** | http://127.0.0.1:8080/~/mn-cse/mn-name/SDT\_IPE/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/xml;ty=23 | application/xml and resource type subscription is needed | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **BODY** | <m2m:sub xmlns:m2m="http://www.onem2m.org/xml/protocols" rn="suc\_sdt\_binaryswitch\_lamp1\_1">  <nu>http://127.0.0.1:1400/monitor</nu>  <nct>1</nct>  </m2m:sub> |
| **OUTPUT** |  |

## Announcable Resources Group Management Requests

This section describes how to implement grouping functions of announcable SDT type resouces (ex: flexcontainer) of Middle Node(MN). We already have a grouping implementation for resources at MN, but it works locally on that node. Grouping resources and group resources after creation locate on MN, so we did not group different resources from seperate MNs. Grouping LAMP1 on MN1 and LAMP1 on MN2 was not possible. So, we need to group that resources on Infrastructure Node(IN). OneM2M provides us to group resources from different MN on IN with “Announcable” feature. This makes possible to make a group of MNs (gateways) in gatewaygroup architecture.

(At “sdt.ipe.properties” file in MN and IN projects both, “announcement.enabled false” property and the others must be “true”)

The request flow of group creation and update resource by group opeartion is showing below.

1. Retrieve resources by “in-cse” url
2. Create a group by “huri” attributes of retrieved resources
3. Send update request to generated group with “?rcn=7” added url

(rcn=7 : retargets the request to original resource.)

(group name must start with “GROUP\_org.onem2m.home.moduleclass\_”)

### Retrieve huri of flexcontaner resources

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/in-cse?rcn=4 |
| **TYPE** | GET |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type  M2M-RI | application/json  123456789 |  | |
| **BODY** |  |
| **queryString** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | |  |  |  | |
| **OUTPUT** | {  "m2m:cb": {  "rn": "in-name",  "ty": 5,  "ri": "/in-cse",  "ct": "20180409T135018",  "lt": "20180409T135018",  "acpi": [  "/in-cse/acp-14099087"  ],  "cst": 1,  "csi": "in-cse",  "srt": [  1,  2,  3,  4,  5,  9,  14,  15,  16,  17,  23,  28  ],  "poa": [  "http://127.0.0.1:8080/"  ],  "m2m:acp": [  {  "rn": "acp\_admin",  "ty": 1,  "ri": "/in-cse/acp-14099087",  "pi": "/in-cse",  "ct": "20180409T135018",  "lt": "20180409T135018",  "pv": {  "acr": [  {  "acor": [  "admin:admin"  ],  "acop": 63  },  {  "acor": [  "guest:guest"  ],  "acop": 34  }  ]  },  "pvs": {  "acr": [  {  "acor": [  "admin:admin"  ],  "acop": 63  }  ]  }  }  ],  "m2m:csr": [  {  "rn": "mn-name",  "ty": 16,  "ri": "/in-cse/csr-128455767",  "pi": "/in-cse",  "ct": "20180409T135711",  "lt": "20180409T140611",  "acpi": [  "/in-cse/acp-14099087"  ],  "poa": [  "http://127.0.0.1:8282/"  ],  "cb": "//om2m.org/mn-cse",  "csi": "/mn-cse",  "rr": true,  "ver": "1.0",  "m2m:aeA": [  {  "rn": "SDT\_IPE\_Annc",  "ty": 10002,  "ri": "/in-cse/aeA-978611849",  "pi": "/in-cse/csr-128455767",  "ct": "20180409T140407",  "lt": "20180409T140407",  "acpi": [  "/in-cse/acp-14099087",  "/in-cse/acp-670257356"  ],  "lnk": "/mn-cse/CAE990042540",  "daci": "",  "api": "SDT\_IPE",  "aei": "aeA-978611849",  "hd:devLtAnnc": [  {  "rn": "DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1\_Annc",  "ty": 10028,  "ri": "/in-cse/fcnta-370118988",  "pi": "/in-cse/aeA-978611849",  "ct": "20180409T140414",  "lt": "20180409T140414",  "lbl": [  "cntDef/org.onem2m.home.device.deviceLight",  "id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "object.type/device",  "OTB.CATEGORY/Read",  "pid/org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_1"  ],  "acpi": [  "/in-cse/acp-14099087",  "/in-cse/acp-670257356"  ],  "lnk": "/mn-cse/fcnt-36413801",  "daci": "",  "cnd": "org.onem2m.home.device.deviceLight",  "huri": "/in-cse/in-name/mn-name/SDT\_IPE\_Annc/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1\_Annc",  "hd:binShAnnc": {  "rn": "org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1\_Annc",  "ty": 10028,  "ri": "/in-cse/fcnta-710522726",  "pi": "/in-cse/fcnta-370118988",  "ct": "20180409T140417",  "lt": "20180409T140417",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.binarySwitch",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_binarySwitch\_\_binarySwitch\_LAMP\_1"  ],  "acpi": [  "/in-cse/acp-14099087",  "/in-cse/acp-670257356"  ],  "lnk": "/mn-cse/fcnt-977754569",  "daci": "",  "cnd": "org.onem2m.home.moduleclass.binarySwitch",  "huri": "/in-cse/in-name/mn-name/SDT\_IPE\_Annc/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1\_Annc/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1\_Annc",  "hd:toggeAnnc": {  "rn": "org.onem2m.home.moduleclass.binaryswitch.toggle\_\_toggle\_Annc",  "ty": 10028,  "ri": "/in-cse/fcnta-656837466",  "pi": "/in-cse/fcnta-710522726",  "ct": "20180409T140418",  "lt": "20180409T140418",  "lbl": [  "object.type/action",  "OTB.CATEGORY/Run",  "pid/org\_onem2m\_home\_moduleclass\_binarySwitch\_\_binarySwitch\_LAMP\_1"  ],  "acpi": [  "/in-cse/acp-14099087",  "/in-cse/acp-670257356"  ],  "lnk": "/mn-cse/fcnt-527110183",  "daci": "",  "cnd": "org.onem2m.home.moduleclass.binaryswitch.toggle",  "huri": "/in-cse/in-name/mn-name/SDT\_IPE\_Annc/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1\_Annc/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_1\_Annc/org.onem2m.home.moduleclass.binaryswitch.toggle\_\_toggle\_Annc"  }  },  "hd:colSnAnnc": {  "rn": "org.onem2m.home.moduleclass.colourSaturation\_\_ColourSaturation\_LAMP\_1\_Annc",  "ty": 10028,  "ri": "/in-cse/fcnta-714522956",  "pi": "/in-cse/fcnta-370118988",  "ct": "20180409T140416",  "lt": "20180409T140416",  "lbl": [  "cntDef/org.onem2m.home.moduleclass.colourSaturation",  "device.id/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "device.name/org.onem2m.home.device.deviceLight\_\_LAMP\_1",  "name/org.onem2m.home.moduleclass.colourSaturation\_\_ColourSaturation\_LAMP\_1",  "object.type/module",  "OTB.CATEGORY/Notify",  "OTB.CATEGORY/Read",  "OTB.CATEGORY/Write",  "pid/org\_onem2m\_home\_moduleclass\_colourSaturation\_\_ColourSaturation\_LAMP\_1"  ],  "acpi": [  "/in-cse/acp-14099087",  "/in-cse/acp-670257356"  ],  "lnk": "/mn-cse/fcnt-358131106",  "daci": "",  "cnd": "org.onem2m.home.moduleclass.colourSaturation",  "huri": 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"huri": "/in-cse/in-name/mn-name/SDT\_IPE\_Annc/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1\_Annc/org.onem2m.home.moduleclass.brightness\_\_brightness\_LAMP\_1\_Annc"  }  },  {  "rn": "DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_2\_Annc",  "ty": 10028,  "ri": "/in-cse/fcnta-468924617",  "pi": "/in-cse/aeA-978611849",  "ct": "20180409T140418",  "lt": "20180409T140418",  "lbl": [  "cntDef/org.onem2m.home.device.deviceLight",  "id/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "name/org.onem2m.home.device.deviceLight\_\_LAMP\_2",  "object.type/device",  "OTB.CATEGORY/Read",  "pid/org\_onem2m\_home\_device\_deviceLight\_\_LAMP\_2"  ],  "acpi": [  "/in-cse/acp-14099087",  "/in-cse/acp-670257356"  ],  "lnk": "/mn-cse/fcnt-525241259",  "daci": "",  "cnd": "org.onem2m.home.device.deviceLight",  "huri": "/in-cse/in-name/mn-name/SDT\_IPE\_Annc/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_2\_Annc",  "hd:binShAnnc": {  "rn": 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"hd:toggeAnnc": {  "rn": "org.onem2m.home.moduleclass.binaryswitch.toggle\_\_toggle\_Annc",  "ty": 10028,  "ri": "/in-cse/fcnta-12852739",  "pi": "/in-cse/fcnta-741233847",  "ct": "20180409T140421",  "lt": "20180409T140421",  "lbl": [  "object.type/action",  "OTB.CATEGORY/Run",  "pid/org\_onem2m\_home\_moduleclass\_binarySwitch\_\_binarySwitch\_LAMP\_2"  ],  "acpi": [  "/in-cse/acp-14099087",  "/in-cse/acp-670257356"  ],  "lnk": "/mn-cse/fcnt-650070550",  "daci": "",  "cnd": "org.onem2m.home.moduleclass.binaryswitch.toggle",  "huri": "/in-cse/in-name/mn-name/SDT\_IPE\_Annc/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_2\_Annc/org.onem2m.home.moduleclass.binarySwitch\_\_binarySwitch\_LAMP\_2\_Annc/org.onem2m.home.moduleclass.binaryswitch.toggle\_\_toggle\_Annc"  }  },  "hd:colSnAnnc": {  "rn": "org.onem2m.home.moduleclass.colourSaturation\_\_ColourSaturation\_LAMP\_2\_Annc",  "ty": 10028,  "ri": "/in-cse/fcnta-72864290",  "pi": "/in-cse/fcnta-468924617",  "ct": "20180409T140420",  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"ct": "20180409T140407",  "lt": "20180409T140407",  "pv": {  "acr": [  {  "acor": [  "admin:admin"  ],  "acop": 63  }  ]  },  "pvs": {  "acr": [  {  "acor": [  "admin:admin"  ],  "acop": 63  }  ]  }  }  ]  }  ]  }  } |

### Create a group by “huri” attributes of retrieved resources

Note that the resources type is FLEXCONTAINER\_ANNC.So, use “<mt>10028</mt>”

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/in-cse/?rcn=0 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/vnd.onem2m-res+xml;ty=9 |  | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <m2m:grp xmlns:m2m="http://www.onem2m.org/xml/protocols" rn="annc\_grp\_1">  <mt>10028</mt>  <mid>/in-cse/in-name/mn-name/SDT\_IPE\_Annc/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_1\_Annc /in-cse/in-name/mn-name/SDT\_IPE\_Annc/DEVICE\_org.onem2m.home.device.deviceLight\_\_LAMP\_2\_Annc</mid>  <mnm>10</mnm>  </m2m:grp> |
| **OUTPUT** |  |

### Send update request to generated group

Resource name property in request body must start with “GROUP\_org.onem2m.home.moduleclass\_”. Also, module resource definition must not like announcable resource. (Ex: “hd:binShAnnc” does not correct, use just “hd:binSh” instead of it.)

|  |  |
| --- | --- |
| **URL** | http://localhost:8080/~/in-cse/in-name/annc\_grp\_1/fopt?rcn=7 |
| **TYPE** | POST |
| **HEADER** | |  |  |  | | --- | --- | --- | | **KEY** | **VALUE** | **DESCRIPTION** | | X-M2M-Origin | admin:admin | Originator | | Content-Type | application/xml |  | | X-M2M-RI | 1234567890123456789 | Request id (rid) | |
| **BODY** | <?xml version="1.0" encoding="UTF-8"?>  <hd:colourHSV xmlns:m2m="http://www.onem2m.org/xml/protocols" xmlns:hd="http://www.onem2m.org/xml/protocols/homedomain" rn="GROUP\_org.onem2m.home.moduleclass\_ANNC\_Res">  <sat type="xs:integer">190</sat>  <hue type="xs:integer">40000</hue>  <brigs type="xs:integer">21</brigs>  </hd:colourHSV> |
| **OUTPUT** |  |