Sample Mapping #	Mapping Type	Topics/Substitutions	API	Template-Source	Target-Payload	Expected Result

51	JSON	publishTopic: evt/outbound/#
		mappingTopicSample: evt/outbound/berlin_01
		filterMapping: bus_event
		NOTE: for outbound mappings no tt (template topic) is defined.
		check: Use external id
		
		sub:
		1.[_IDENTITY_.c8ySourceId -> _TOPIC_LEVEL_[2]]
		2.[type -> eventType]
		3.[$now() -> time]
		4.[bus_event -> bus_event]
		5.[_IDENTITY_.externalId -> deviceId]
			E	{
				  "type": c8y_BusEvent",
				  "text": "Bus was stopped",
				  "time": "2022-08-05T00:14:49.389+02:00",
				  "bus_event": "stop_event"
				
				}
					{
					  "deviceId": "909090",
					  "description": "This is a new test event.",
					  "time": "2022-08-05T00:14:49.389+02:00",
					  "eventType": "TestEvent",
					  "bus_event": "stop_event",
					  "_TOPIC_LEVEL_": [
					    "evt",
					    "outbound",
					    "berlin_01"
					  ]
					
					}
						Publish mqtt msg. with event on topic 'evt/outbound/berlin_01' Use following command to create sample event: c8y events create --device "YOUR_DEVICE_ID" --data 'bus_event="stop_event", text="Bus was stopped today!", type="c8y_BusEvent"'

52	JSON	publishTopic: opp/outbound/#
		mappingTopicSample: opp/outbound/berlin_01
		filterMapping: bus_opp
		check: Use external id
		
		NOTE: for outbound mappings no tt (template topic) is defined.
		
		sub:
		1. [_IDENTITY_.externalId -> _TOPIC_LEVEL_[2]]
		choose: Resolve to externalId
		2. [bus_opp -> decription]
		3. [* _IDENTITY_.c8ySourceId –> c8y_Id]
			O	{
				  "bus_opp": "New engine restart operation!"
				}
					{
					  "c8y_Id": "909090",
					  "decription": "dummy operation",
					  "type": "bus_operation",
					  "_TOPIC_LEVEL_": [
					    "opp",
					    "outbound",
					    "berlin_01"
					  ]
					
					}
						Publish mqtt msg. with operation on topic 'opp/outbound/berlin_01' Use following command to create sample event: c8y operations create --device "YOUR_DEVICE_ID" --data 'bus_opp="New engine restart operation!"' Note: The option "resolve2ExternalId = false" esures that the C8Y internal device id is used in substitution 3.

53	JSON	publishTopic: evt/outDeviceId/#
		mappingTopicSample: evt/outDeviceId/berlin_01
		filterMapping: bus_event
		NOTE: for outbound mappings no tt (template topic) is defined.
		check: Use external id
		
		sub:
		1.[_IDENTITY_.externalId -> _TOPIC_LEVEL_[2]]
		2.[type -> eventType]
		3.[$now() -> time]
		4.[bus_event -> bus_event]
		5.[_IDENTITY_.c8ySourceId –> c8y_Id]
		6. [text –> description]
			E	{
				  "type": "c8y_BusEvent",
				  "text": "Bus was stopped",
				  "time": "2022-08-05T00:14:49.389+02:00",
				  "bus_event": "stop_event"
				
				}
					{
					  "c8y_Id": "909090",
					  "description": "This is a new test event.",
					  "time": "2022-08-05T00:14:49.389+02:00",
					  "eventType": "TestEvent",
					  "bus_event": "stop_event",
					  "_TOPIC_LEVEL_": [
					    "evt",
					    "outbound",
					    "berlin_01"
					  ]
					
					}
						Publish mqtt msg. with event on topic 'evt/outbound/berlin_01' Use following command to create sample event: c8y events create --device "YOUR_DEVICE_ID" --data 'bus_event="stop_event", text="Bus was stopped today!", type="c8y_BusEvent"'

54	JSON	publishTopic: ednvcfnr-event
		mappingTopicSample: ednvcfnr-event
		filterMapping: bus_event
		NOTE: for outbound mappings no tt (template topic) is defined.
		check: Use external id
		check: Use message context
		
		sub:
		1. [_IDENTITY_.externalId -> _CONTEXT_DATA_.key]
		2. [type -> eventType]
		3. [$now() -> time]
		4. [bus_event -> bus_event]
		5. [_IDENTITY_.externalId -> deviceId]
			E	{
				  "type": "c8y_BusEvent",
				  "text": "Bus was stopped",
				  "time": "2022-08-05T00:14:49.389+02:00",
				  "bus_event": "stop_event"
				
				}
					{
					  "deviceId": "909090",
					  "description": "This is a new test event.",
					  "time": "2022-08-05T00:14:49.389+02:00",
					  "eventType": "TestEvent",
					  "bus_event": "stop_event",
					  "_TOPIC_LEVEL_": [
					    "evt",
					    "outbound",
					    "berlin_01"
					  ]
					
					}
						Publish msg. to kafka with event on topic 'ednvcfnr-event' Use following command to create sample event: c8y events create --device "YOUR_DEVICE_ID" --data 'bus_event="stop_event", text="Bus was stopped today!", type="c8y_BusEvent"'. The Cumulocity device id is added as key (message context).

| 55 | JSON OUTBOUND check "Define substitutions as JavaScript" | publishTopic:        measurement/measurements<br>mappingTopicSample: measurement/measurements<br>filterMapping: c8y_TemperatureMeasurement.T.value > 10<br>filterInventory: type = "wika_PGW23"<br><br>sub are defined in the JavaScript code:<br><br>//Define temperature fragment mapping temperature -><br>c8y_Temperature.T.value/unit<br>const temperatureSV = new<br>SubstitutionValue(temperatureFragment, TYPE.OBJECT,<br>RepairStrategy.CREATE_IF_MISSING, false);<br>addSubstitution(result, 'c8y_TemperatureProcessed',<br>temperatureSV);<br><br>NOTE: the JavaScript code is included in the samples file<br>mappings-OUTBOUND.json | M | ```json
{
  "c8y_TemperatureMeasurement": {
    "T": {
      "value": 110,
      "unit": "C"
    }
  },
  "time": "2022-08-05T00:14:49.389+02:00",
  "type": "c8y_TemperatureMeasurement",
}
``` | ```json
{
  "Temperature": {
    "value": 110,
    "unit": "C"
  },
  "source": {
    "id": "878275"
  },
  "time": "2022-08-05T00:14:49.389+02:00",
  "type": "c8y_TemperatureProcessed",
  "_CONTEXT_DATA_": {
    "key": "key-sample",
    "method": "POST",
    "publishTopic": "measurement/measurements"
  },
  "_TOPIC_LEVEL_": [
    "measurement",
    "measurements"
  ]
}
``` | This outbound mapping listens to c8y_TemperatureMeasurement and creates a new measurement of type c8y_TemperatureProcessed |
| 56 | JSON OUTBOUND check "Define substitutions as JavaScript" | publishTopic:        inventory/managedObjects/#<br>mappingTopicSample: inventory/managedObjects/+<br>filterMapping: type = "c8y_Uplink"<br>filterInventory: type = "wika_PGW23"<br>check: Use message context<br><br>sub are defined in the JavaScript code:<br><br>//Define a new Measurement Value for Temperatures by assigning<br>from source<br>const w2a_configuration = {<br>    value: 'bsd_' + measurements[0]<br>};<br><br>// Substitution: String key, Object value,<br>MappingSubstitution.SubstituteValue.TYPE type, RepairStrategy<br>repairStrategy<br>const w2a_configuration_fragment = new<br>SubstitutionValue(w2a_configuration, TYPE.OBJECT,<br>RepairStrategy.CREATE_IF_MISSING, false);<br>addSubstitution(result, 'w2a_configuration',<br>w2a_configuration_fragment);<br><br>NOTE: the JavaScript code is included in the samples file<br>mappings-OUTBOUND.json | E | ```json
{
  "id": "74292",
  "time": "2025-04-01T23:06:58.794+02:00",
  "text": "`New uplink event: 2025-04-01T23:06:58.794+02:00",
  "source": {
    "name": "PDW23 - 102030",
    "id": "9375325"
  },
  "type": "c8y_Uplink",
  "bytes": [
    1,
    0,
    35,
    90,
    185,
    35,
    110
  ],
  "_IDENTITY_": {
    "c8ySourceId": "909090"
  }
}
``` | ```json
{
  "_TOPIC_LEVEL_": [
    "inventory",
    "managedObjects",
    "+"
  ],
  "_CONTEXT_DATA_": {
    "key": "key-sample",
    "method": "POST",
    "publishTopic": "inventory/managedObjects/#"
  }
}
``` | This outbound mapping listens to events of type "c8y_Uplink" and extracts data for the fragment w2a_configuration. The inventory of this device is updated. Additionally this update is a merge/ patch of the existing fragment w2a_configuration. |