

alarmOccurrences

Returns alarm occurrences by the input parameters, user's assignments, subscriptions and notification preferences.

Arguments

- `appContext!`: the execution context.
- `skip` / `take`: `Int`s specifying pagination of the data.
- `hierarchyMode`: optional hierarchy mode to filter the returned data. Default value `PHYSICAL`.
- `enableNotificationPreferences`: an optional `Boolean` indicating whether to apply the user's notification preferences filter to the returned data. Default value `false`.

Behavior

- If user has no required permissions to view alarms, the response is an empty array.
- If the user has no required privileges to access the requested organization topology, the response is an empty array.
- If input parameter `enableNotificationPreferences` set to `true`, the result is filtered by the user's notification preferences. Otherwise, user's notification preferences are ignored.
- If input parameter `appContext` is `null` or an empty array and `enableNotificationPreferences` set to `true`, the response is `BAD_INPUT` error.

AlarmPriority Enum consideration and backward compatibility

AlarmPriority field has moved from alarmInstance to alarmOccurrence, and will be removed later (see Deprecation Section), same for value GREEN, YELLOW, RED. The behaviour is :

- AlarmInstance.AlarmPriority
 - NONE, LOW, GREEN are considered the same
 - YELLOW and MEDIUM are considered the same
 - RED and HIGH are considered the same
- AlarmOccurrence.AlarmPriority
 - NONE
 - LOW, GREEN are considered the same
 - YELLOW and MEDIUM are considered the same
 - RED and HIGH are considered the same

The enum values will differ depending on whether you are on the alarmInstance or alarmOccurrence object :

- alarmInstance : enum value will always be GREEN, YELLOW, RED
- alarmOccurrence : enum value will always be NONE, LOW, MEDIUM, HIGH

Example

The following GraphQL query returns alarm occurrences for the organization's communication hierarchy.

- *scoped* by user's assignments, subscriptions and notification preferences.
- *projects* alarm occurrence properties and their instances.
- *filters* to a one-day time-range.

- sorts in the descending order.

Query

GraphQL Query

```
query alarmOccurrences(
  $appContext: [EMCP_TopNodeContextInput!]!
  $hierarchyMode: EMCP_HierarchyMode
  $enableNotificationPreferences: Boolean
  $startTime: DateTime!
  $endTime: DateTime!
) {
  alarmOccurrences(
    appContext: $appContext
    hierarchyMode: $hierarchyMode
    enableNotificationPreferences: $enableNotificationPreferences
    where: {
      and: [
        { startTime: { gte: $startTime } },
        { endTime: { lte: $endTime } }
      ]
    }
    order: { lastUpdated: DESC }
  ) {
    totalCount
    items {
      id
      alarmState
      lastUpdated
      startTime
      endTime
      measures
      alarmPriority
      alarmOccurrencePValues {
        pfval
        psval
        pival
        ptsval
        property {
          name
          urn
          encodingType
        }
      }
      alarmInstance {
        id
        lastUpdated
        tsMath
        thingId
        alarmModel
        alarmState
        alarmPriority
        alarmFamily
        alarmControl
      }
    }
  }
}
```

Variables

Graphql variables

```
{
  "appContext": [
    {
      "id": 87293,
      "label": "Mindt Chocolates",
      "urn": "urn:edn-se:em:core:pr:tenant",
      "type": "TENANT"
    }
  ],
  "hierarchyMode": "COMMUNICATION",
  "enableNotificationPreferences": true,
  "startTime": "2022-01-01T00:00:00.000Z",
  "endTime": "2022-01-02T00:00:00.000Z"
}
```

Result

Graphql result

```
{
  "data": {
    "alarmOccurrences": {
      "totalCount": 59,
      "items": [
        {
          "id": 92896,
          "alarmState": "RTNAN",
          "lastUpdated": "2022-01-01T00:31:46.016Z",
          "startTime": "2022-01-01T00:31:05.264Z",
          "endTime": "2022-01-01T00:31:46.016Z",
          "measures": null,
          "alarmOccurrencePValues": [
            {
              "pfval": null,
              "psval": "61.5% Nominal Voltage",
              "pival": null,
              "ptsval": null,
              "property": {
                "name": "detail text",
                "urn": "urn:edn-se:em:core:pr:detail_text",
                "encodingType": "STRING"
              }
            },
            {
              "pfval": null,
              "psval": null,
              "pival": null,
              "ptsval": "2020-07-08T19:00:45.000Z",
              "property": {
                "name": "PQ end time",
                "urn": "urn:edn-se:em:core:pr:pq_end_time",
                "encodingType": "TIMESTAMP"
              }
            },
            {
              "pfval": null,
              "psval": "Voltage Sag",
              "pival": null,
              "ptsval": null,
              "property": {
                "name": "summary text",
                "urn": "urn:edn-se:em:core:pr:summary_text",
                "encodingType": "STRING"
              }
            },
            {
              "pfval": null,
              "psval": "SAG",
              "pival": null,
              "ptsval": null,
              "property": {
                "name": "PQ event type",
                "urn": "urn:edn-se:em:core:pr:pq_event_type",
                "encodingType": "STRING"
              }
            },
            {
              "pfval": null,
              "psval": null,
              "pival": null,
              "ptsval": "2020-07-08T19:00:45.000Z",
              "property": {
                "name": "PQ start time",
                "urn": "urn:edn-se:em:core:pr:pq_start_time",
                "encodingType": "TIMESTAMP"
              }
            },
            {
              "pfval": null,
              "psval": null,
              "pival": 2,
              "ptsval": null,
              "property": {
                "name": "PQ worst phase",
                "urn": "urn:edn-se:em:core:pr:pq_worst_phase",
                "encodingType": "INTEGER"
              }
            },
            {
              "pfval": 1.22,
              "psval": null,
              "pival": null,
              "ptsval": null,
              "property": {
                "name": "PQ worst duration",
                "urn": "urn:edn-se:em:core:pr:pq_worst_duration",
                "encodingType": "FLOAT"
              }
            },
            {
              "pfval": 61.5,
              "psval": null,
              "pival": null,
              "ptsval": null,
              "property": {
                "name": "PQ worst magnitude",
                "urn": "urn:edn-se:em:core:pr:pq_worst_magnitude",
                "encodingType": "FLOAT"
              }
            },
            {
              "pfval": null,
              "psval": null,
              "pival": 1,
              "ptsval": null,
              "property": {
                "name": "disturbance direction",

```

```
        "urn": "urn:edn-se:em:core:pr:disturbance_direction",
        "encodingType": "INTEGER"
    }
    "pIsVal": null,
    "property": {
        "name": "Disturbance Confidence",
        "urn": "urn:edn-se:em:core:pr:disturbance_confidence",
        "encodingType": "FLOAT"
    }
}
},
"alarmInstance": {
    "id": 14544,
    "lastUpdated": "2022-02-21T12:47:00.784Z",
    "tsMath": "INPUT_BASED",
    "thingId": 87386,
    "alarmModel": "ALM_WITH_ACK",
    "alarmState": "RTNUN",
    "alarmPriority": "GREEN",
    "alarmFamily": null,
    "alarmControl": "NA"
}
},
...
}
}
}
```